



Malaysian Communications and Multimedia Commission

Review of Mandatory Standard on Access

Public Inquiry Report

7 September 2022

This Public Inquiry Report was prepared in fulfilment of sections 55, 61, 104 and 106 of the Communications and Multimedia Act 1998.

Malaysian Communications and Multimedia Commission
MCMC Tower 1
Jalan Impact
Cyber 6
63000 Cyberjaya
Selangor Darul Ehsan
Tel: +60 3 86 88 80 00 Fax: +60 3 86 88 10 00
www.mcmc.gov.my

Contents

Part A Background	1
1 Introduction.....	1
2 Structure of this PI Report.....	3
3 Legislative Context	4
Part B Operator Access Obligations.....	6
4 General Principles.....	6
5 Reference Access Offers.....	17
6 Reporting and Information Disclosure	21
7 Security, Insurance Requirements and Creditworthiness	25
8 Negotiation Obligations.....	27
9 Forecasting Obligations	34
10 Ordering and Provisioning Obligations.....	36
11 Point of Interface Procedures	50
12 Decommissioning Obligations	54
13 Network Change Obligations.....	57
14 Billing and Settlement Obligations	58
15 Operations and Maintenance Obligations	62
16 Technical Obligations	66
17 Term, Suspension and Termination Obligations	67
18 Churn Obligations.....	76
19 Legal Boilerplate Obligations.....	78
Part C Service Specific Obligations	81
20 Origination & Termination (O&T) Services.....	81
21 Interconnect Link Service	85
22 Access to Network Elements	87
23 HSBB Network Services	88
24 Transmission Services.....	122
25 Infrastructure Sharing	133
26 Network Co-Location Service	146
27 Domestic Connectivity to International Services	151
28 Duct and Manhole Access	151
29 Digital Terrestrial Broadcasting Multiplexing Service	166
30 MVNO Access	166

31	5G Services	172
32	IP Transit Service	213
33	Domestic Inter-Operator Roaming Service	215
	Part D Standard Administration, Compliance and Dispute Resolution	225
34	Standard Administration and Compliance	225
35	Dispute Resolution Procedures	225
36	Other Submissions.....	233
	Annexure 1 Detailed Maxis 5G submissions	237

ABBREVIATIONS AND GLOSSARY

ACCC	Australian Competition and Consumer Commission
Access List	Commission Determination on Access List, Determination No. 6 of 2021
API	Application Programming Interface
ASEAN	The Association of Southeast Asian Nations
ASP	Applications Service Provider
B2B	Business-to-Business
BFD	Bidirectional Forwarding Detections
BRT	Bus Rapid Transit
BSS	Business Support Systems
BTU	Broadband Termination Unit
CAS	Common Antenna System
CAT-M1	Category M1
CCA	Competition and Consumer Act 2010
CLI	Calling Line Identification
CMA	Communications and Multimedia Act 1998
CoS	Classes of Service
CSP	Customer Service Platform
CTT	Customer Trouble Ticket
DNB	Digital Nasional Berhad
DTT	Digital Terrestrial Television
eMBB	Enhanced Mobile Broadband
EPC	Evolved Packet Core
EOI	Equivalence of Input
EU	European Union
FCC	Federal Communications Commission
FNTS	Fixed Number Termination Service
FTTH	Fibre to the Home
FWA	Fixed Wireless Access
Gbps	Gigabit per Second
GSM	Global System for Mobile Communications
GSMA	GSM Association
GSP	Gaining Service Provider
HSBB	High Speed Broadband Network
IBC	In Building Coverage
IoT	Internet of Things
IP	Internet Protocol

ISG	Interconnect Steering Group
IWG	Inter-Party Working Group
IX	Internet Exchange
JBIX	Johor Bahru Internet Exchange
JENDELA	Jalanan Digital Negara
KPI	Key Performance Indicator
LACP	Link Aggregation Control Protocol
LBS	Location Based Service
LTBE	Long-Term Benefit of the End User
LTE	Long-Term Evolution
Mbps	Mega Bit Per Second
MCMC	Malaysian Communications and Multimedia Commission
MEC	Multi-Access Edge Computing
MEF	Metro Ethernet Forum
Metro-E	Metro Ethernet
MergeCo	The Merged Company of Celcom and Digi
MMTc	Massive Machine Type Communications
MNO	Mobile Network Operator
MOCN	Multi-Operator Core Network
MORAN	Multi Operator Radio Access Network
MNP	Mobile Number Portability
MNTS	Mobile Network Termination Service
MSA	Mandatory Standard on Access
MSAP	Mandatory Standard on Access Pricing
MSQoS	Mandatory Standard on Quality of Service
MVNO	Mobile Virtual Network Operator
NBN Co	NBN Co Limited
NFP	Network Facility Provider
NR	New Radio Network Architecture
NSA	Non Standalone Architecture
NSP	Network Service Provider
NSSF	Network Slice Selection Function
OLT	Optical Line Terminal
OSA	One-stop Agency
OSC	One-stop Centre
OSS	Operational Support System
PI Paper	Public Inquiry Paper on the Review of Mandatory Standard on Access
PDM	Poles, Ducts and Manholes

PIM	Passive Intermodulation Interface
POI	Point of Interconnection
POC	Proof of Concept
POP	Point of Presence
QoS	Quality of Service
RAN	Radio Access Network
RAO	Reference Access Offer
RCG	Rural Connectivity Group
RFS	Ready for service
RSP	Releasing Service Provider
SA	Standalone Architecture
SAO	Standard Access Obligation
SBC	State-Backed Company
SEAF	Security Anchor Function
SEPP	Security Edge Protection Proxy
SG	Service Gateway
SIDF	Subscription Identifier De-Concealing Function
SIM	Subscriber Identity Module
SLA	Service Level Agreement
SLG	Service Level Guarantee
SOP	Standard Operating Procedure
SWN	Single Wholesale Network
TE	Technical Expert
TM	Telekom Malaysia
TR	Transfer Request
UK	United Kingdom of Great Britain and Northern Ireland
URLLC	Ultra-Reliable Low Latency Communications
USP	Universal Service Provider
VDSL	Very High Bit Rate Digital Subscriber Line
VLAN	Virtual Local Area Network
VoLTE	Voice-over-LTE (Long-Term Evolution)
3G	Third Generation
3GPP	Third Generation Partnership Project
4G	Fourth Generation
5G	Fifth Generation

Part A Background

1 Introduction

Public Inquiry Process

- 1.1 In its Public Inquiry Paper on the Review of Mandatory Standard on Access (**PI Paper**) released on 13 June 2022, the MCMC detailed the approach and methodology it proposed to adopt in this Public Inquiry.
- 1.2 The purpose of this Public Inquiry has been to solicit views from industry participants, other interested parties and members of the public to assist the MCMC to determine whether:
- (a) the MCMC’s approach to regulating terms of access under the Mandatory Standard on Access (**MSA**), Determination No. 3 of 2016 remain appropriate and, therefore, whether and how the current MSA should be amended where appropriate; and
 - (b) the MCMC’s proposed terms of access under the Draft MSA to the PI Paper are appropriate or should be revised, in particular in relation to the following Facilities and Services which were included in the most recent Access List, Determination No. 6 of 2021:
 - (i) Domestic Inter-Operator Roaming Service;
 - (ii) 5G Standalone Access;
 - (iii) 4G Evolved Packet Core (**EPC**) with 5G Radio Access Network (**RAN**) Access; and
 - (iv) IP Transit Service.
- 1.3 The PI Paper sets out the MCMC’s preliminary views on these matters and invited comments on the MCMC’s preliminary views and specifically sought comment on the questions listed in Annexure 2 of the PI Paper.
- 1.4 The PI Paper explained:
- (a) the overview and historical development of the current MSA;
 - (b) the key themes underlining the changes the MCMC proposes in its review of the MSA; and
 - (c) the MCMC’s preliminary views and proposed changes to the MSA.

Consultation Process

- 1.5 The MCMC has consulted widely and openly with all interested stakeholders during this Public Inquiry, including:

- (a) the circulation of informal questionnaires and presentations to industry about the proposed Public Inquiry;
- (b) the consideration by the MCMC of submissions received by the industry in response to the informal questionnaire;
- (c) the publication of the PI Paper on 13 June 2022; and
- (d) the consideration of all submissions received by 12 noon, 8 August 2022 in response to the PI Paper.

Submissions Received

1.6 At the close of the Public Inquiry period at 12 noon, 8 August 2022, the MCMC had received written submissions from the following parties.

No.	Submitting party	Referred to in this PI Report as
1	Allo Technology Sdn Bhd	Allo
2	Measat Broadcast Network Systems Sdn Bhd	Astro
3	Celcom Axiata Berhad	Celcom
4	Digi Telecommunications Sdn Bhd	Digi
5	Digital Nasional Bhd	DNB
6	edotco Group Sdn Bhd and edotco Malaysia Sdn Bhd	Edotco
7	Fibrecomm Network (M) Sdn Bhd	Fibrecomm
8	Maxis Broadband Bhd	Maxis
9	MyTV Broadcasting Sdn Bhd (on behalf of itself, Altel Communications Sdn Bhd and Net2One Sdn Bhd)	MyTV, Altel and Net2One
10	Persatuan Penyedia Infrastruktur Telekomunikasi Malaysia	PPIT
11	REDtone Digital Bhd	REDtone
12	Sacofa Sdn Bhd	Sacofa
13	TT dotCom Bhd	TT dotCom
14	Telekom Malaysia Bhd	TM
15	U Mobile Sdn Bhd	U Mobile
16	YTL Communications Sdn Bhd	YTL

Scope of Public Inquiry

- 1.7 Through this Public Inquiry, the MCMC has:
- (a) applied a robust and transparent methodology for determining which new terms of access will be considered for inclusion in the MSA, and which existing terms of access should be removed or amended;
 - (b) considered the state of competition in the Malaysian communications and multimedia industry under the terms of the previous MSA, and assessed whether there are any potential access issues that can be addressed by amending the MSA;
 - (c) analysed likely market structures and outcomes arising from amended terms of access under the MSA, in particular whether amending the terms of access in the MSA would be consistent with the objects of the Communications and Multimedia Act 1998 (**CMA**); and
 - (d) amended the MSA to accommodate any changes (i.e. additions, amendments or removals) in the terms of access arising from this Public Inquiry.
- 1.8 The MCMC has considered:
- (a) feedback from industry during the information gathering phase described above;
 - (b) all submissions received in response to the PI Paper by 12 noon, 8 August 2022; and
 - (c) the work it carried out in its Access List Review before making the Determination on Access List, Determination No. 6 of 2021.
- 1.9 Matters outside the scope of this Public Inquiry include:
- (a) making determinations on Facilities and Services in the Access List;
 - (b) making determinations on pricing; and
 - (c) consideration of exemptions from the Standard Access Obligations (**SAO**), which are subject to the grant by the Minister.

2 Structure of this PI Report

- 2.1 This PI Report begins with the general introduction in this Part A.
- 2.2 The detailed changes to the MSA are described in:
- (a) Part B (Operator Access Obligations);
 - (b) Part C (Service Specific Obligations); and
 - (c) Part D (Standard Administration, Compliance and Dispute Resolution).
- 2.3 For each change, the PI Report sets out:

- (a) an introduction to the issues discussed in the PI Paper in relation to the change;
 - (b) a summary of the comments received;
 - (c) a discussion of any changes to the MCMC's preliminary views regarding the key theme, or the MCMC's rationale for maintaining its preliminary views (as applicable); and
 - (d) the MCMC's final view on whether and how that part of the previous MSA should be amended.
- 2.4 Note that the MCMC has considered all of the comments received. However, due to the volume of comments, the MCMC has not responded to each and every comment, particularly if those comments either confirm MCMC's proposed drafting or if the MCMC has considered the comment but decided not to accept the proposal. Therefore, the MCMC's discussion of changes in this PI Report principally only highlights the comments which have led to further changes in the final MSA and some more limited comments on why some changes proposed by submitters were not accepted.
- 2.5 Further note that references to the MSA in the introduction and summary of comments section are references to the draft MSA released with the PI Paper. References to the MSA in the MCMC discussion and final views sections are references to the final MSA to be released by the MCMC shortly. Some sections of the MSA have been moved so the section references are sometimes not consistent as between the draft MSA and the final MSA.
- 2.6 Note that the final MSA is not attached to this PI Report. It will be published separately as part of the MCMC's final determination.

3 Legislative Context

- 3.1 The CMA governs the communications and multimedia industry in Malaysia and establishes the regulatory and licensing framework applicable to the industry.
- 3.2 Chapter 10 of Part V of the CMA is concerned with the determination of Mandatory Standards. It contains processes for the MCMC to determine a Mandatory Standard which is consistent with the objects and terms of the CMA and any regulatory instruments issued under the CMA.
- 3.3 The relevant provisions of the CMA for the purposes of this Review of Mandatory Standard on Access are as follows:
- (a) section 55 – the general processes for the MCMC to follow in making a determination under the CMA, including the process for the MCMC to follow if an inquiry is carried out;
 - (b) section 56 – the general processes for the MCMC to follow in modifying, varying or revoking a determination under the CMA (which are the same as the processes that apply to the making of a determination under section 55);

- (c) section 58 – the discretion of the MCMC to hold a public inquiry on any matter which relates to the administration of the CMA, either in response to a written request from a person or on its own initiative if the MCMC is satisfied that the matter is of significant interest to the public or to the industry;
- (d) section 60 – the discretion for the MCMC to exercise any of its investigation and information-gathering powers in Chapters 4 and 5 of Part V of the CMA in conducting an inquiry, such as issuing directions to persons to produce any information or documents that are relevant to the performance of the MCMC’s powers and functions under the CMA;
- (e) section 61 – the requirement for the inquiry to be public and for the MCMC to invite and consider submissions from members of the public relating to the inquiry;
- (f) sections 62 to 64 – the discretion of the MCMC to conduct an inquiry (or parts of an inquiry) in private in certain cases, to direct that confidential material presented to the inquiry or lodged in submissions not be disclosed or that its disclosure be restricted;
- (g) section 65 – the requirement to publish a report into any inquiry undertaken under the previous sections of the CMA within 30 days of the conclusion of the inquiry;
- (h) section 104(2) – the MCMC must determine a mandatory standard if it is subject to a direction from the Minister to determine a mandatory standard in place of a voluntary industry code;
- (i) section 105 – a mandatory standard determined by the MCMC must be consistent with the objects of the CMA, any relevant instrument under the CMA or any relevant provisions of the CMA or its subsidiary legislation and the mandatory standard must specify the class of licensees who are subject to the mandatory standard; and
- (j) section 106 – the MCMC may modify, vary or revoke a mandatory standard if the MCMC is satisfied that the mandatory standard is no longer consistent with the matters listed in section 105(1).

3.4 In accordance with section 58(2), a public inquiry was held as part of this Review of Mandatory Standard on Access, as the review is of significant interest to the public or licensees. This process accords with international regulatory best practice.

Objects and national policy objectives

3.5 This Public Inquiry was conducted in accordance with the objects and national policy objectives of the CMA. The objects of the CMA are set out in section 3(1) as follows:

- (a) to promote national policy objectives for the communications and multimedia industry;

- (b) to establish a licensing and regulatory framework in support of national policy objectives for the communications and multimedia industry;
- (c) to establish the powers and functions for the Malaysian Communications and Multimedia Commission; and
- (d) to establish powers and procedures for the administration of the CMA.

3.6 The national policy objectives are set out in section 3(2) as follows:

- (a) to establish Malaysia as a major global centre and hub for communications and multimedia information and content services;
- (b) to promote a civil society where information-based services will provide the basis of continuing enhancements to quality of work and life;
- (c) to grow and nurture local information resources and cultural representation that facilitate the national identity and global diversity;
- (d) to regulate for the long-term benefit of the end user;
- (e) to promote a high level of consumer confidence in service delivery from the industry;
- (f) to ensure an equitable provision of affordable services over ubiquitous national infrastructure;
- (g) to create a robust applications environment for end users;
- (h) to facilitate the efficient allocation of resources such as skilled labour, capital, knowledge and national assets;
- (i) to promote the development of capabilities and skills within Malaysia's convergence industries; and
- (j) to ensure information security and network reliability and integrity.

Part B Operator Access Obligations

4 General Principles

Introduction

4.1 In the PI Paper, the MCMC proposed to:

- (a) amend the existing non-discrimination principle in the MSA by adding Churn and technical parameters to the examples of matters to which the non-discrimination obligations apply; and
- (b) bolster the equivalence of input (**EOI**) obligations through the service-specific EOI obligations in the MSA, rather than by amending the existing EOI obligation in subsection 4.1.6.

Question 1:	Do you agree with the MCMC's proposal to strengthen the EOI obligations in the current MSA by focusing on the application of the EOI principle under the Service Specific Obligations, rather than amending the General Principles? Why or why not?
Question 2:	Do you, or would you, notify the MCMC of third-party delays under section 4.5 of the MSA? If not, should section 4.5 of the MSA be removed?
Question 3:	Should the prohibition on the restriction of re-supply continue to apply to resale to both end users and downstream service providers, or should it apply only to end users?
Question 4:	Do you consider any change not discussed above is required to the General Principles in section 4 of the MSA? If so, please specify what change you consider is required and explain why.

Submissions Received

Proposal to strengthen the EOI obligations

- 4.2 Allo, Celcom, Digi, Fibrecomm, Maxis, MyTV, Altel, Net2One, REDtone, TM, U Mobile and YTL agreed with the MCMC's proposal to focus on the application of the EOI principle under the Service Specific Obligations, rather than amending the General Principles.
- 4.3 Astro submitted that while there can be specific EOI obligations in the MSA, it should be clear that the overarching EOI general principle continues to prevail even if the EOI is not referenced elsewhere. Astro prefers to ensure that the EOI applies across all facets of the Access Agreement rather than a narrow set of circumstances only.
- 4.4 Astro also commented that requiring operators to make reports by itself to MCMC will not increase compliance with the Access Regime unless MCMC takes enforcement action. The goal of transparency ought to be achieved by enforcing the principles of non-discrimination.
- 4.5 Further, Astro is of the opinion that to bolster Access Seekers' confidence, the MSA should require that Access Provider procure an annual audit and certification by an approved independent auditor that Access Provider is complying with its non-discrimination obligations. Access Seekers should be able to highlight any areas of concern to form part of this annual audit. This report should also be accompanied by a requirement for Access Provider to rectify any identified failings within a set timeframe.
- 4.6 Astro commented that in the recent approval given by MCMC to the Digi-Celcom Merger, MCMC required an approved independent auditor to provide a full report of the merging parties' compliance with the undertakings on a quarterly basis. It is important to note that the merging parties are required to implement the recommendations of the auditor within 10 Business Days. Therefore, this type of requirement is not unprecedented. As MCMC contemplates commencing

enforcement action, this would also help facilitate the issuance of directions by MCMC pursuant to Section 109 of the CMA.

- 4.7 Astro clarified that in the interest of transparency, the findings of the auditor should be made public. Only then would Access Seekers have the opportunity to action non-compliance with the law.
- 4.8 Celcom commented that stricter requirements of EOI obligations are crucial particularly for Access Providers who operate in the downstream market i.e. retail services.
- 4.9 Celcom is also of the view that it is unwarranted to consider further EOI regime for MVNO Access. Regulation on MVNO Access is rare because regulators have always preferred inter-platform competition to intra-platform competition. The inter-platform competition supports the development of innovation, network efficiencies and investment. Mobile access networks are constantly in need of investment, either for coverage, capacity or new technology. Celcom submitted that mandating EOI regime on MVNO Access would have a worrying impact on the market and investment and hence, it must be avoided for MVNO Access. In addition, there is no evidence of any market failure or bottlenecks observed in the thriving MVNO market in Malaysia. Therefore, over-regulations of MVNO access is strongly unnecessary.
- 4.10 Digi agreed that the General Principles are sufficient in governing fair access to the facilities and services in the Access List.
- 4.11 Digi clarified that the EOI concept has been effective in creating a level playing field between Access Seekers and Access Provider's own retail arm. However, Digi is of the view that it is also crucial to balance the merits of regulatory intervention against the need to ensure adequate incentives for operators to continue to invest to improve coverage and quality for the long-term benefit of end-user (**LTBE**). MCMC should be cognizant of the technical limitations of sharing limited resources, while at the same time fulfilling the demands of customers and meeting the quality of service requirements. The access regime must preserve the flexibility for parties to reach mutually beneficial arrangements based on the technical feasibility and business viability of the negotiating operators.
- 4.12 Digi further commented that non-discriminatory and EOI principles for 5G Services must be modified to ensure the highest possible level of transparency and to ensure that the terms and conditions are made equally and the same to all Access Seekers.
- 4.13 Edotco is not supportive of the proposals to strengthen EOI obligations in the current MSA, especially if the requirement is extended to Network Facility Provider (**NFP**). As a wholesale Access Provider not involved in retail services, EOI obligations will have little to no impact to NFP licensees, with no retail services to compare.
- 4.14 Edotco further explained that in tower services provided by Rural Connectivity Group (**RCG**), the EOI standard is not used as a test. Instead, there is a regulatory requirement that there are only no discrimination in relation to "Wholesale Tower

Co-location Services” and/or “Wholesale Backhaul Services”. Edotco recommended such approach to be applied in Malaysia.

- 4.15 Maxis is of the view that the concept of strengthening EOI cannot be applied generally across the different services because each service is operating in a market that has unique market characteristics.
- 4.16 PPIT commented that strengthening EOI obligations specifically in Service Specific Obligations is appropriate, as there are complaints on failure to comply with EOI for some of the services i.e. HSBB Network Services and MVNO Access. However, PPIT clarified that the application of EOI for Infrastructure Sharing is unnecessary.
- 4.17 TT dotCom commented that implementing EOI may not necessarily be suitable nor proportionate in the existing regulatory environment for the following reasons:
- (a) Areas where inputs are to be made equal are subject to regulatory control by various determinations issued by MCMC;
 - (b) Extending or expanding the scope of EOI would not be regulating for the LTBE; and
 - (c) EOI is always applied to a specified dominant operator and not generally practiced to all operators.
- 4.18 TT dotCom is of the view that MCMC could consider including steps to determine or identify existing issues which may warrant a more detailed service-specific non-discriminatory obligations to ensure that any action undertaken is done reasonably and will benefit all players in the industry.
- 4.19 U Mobile commented it is vital that the non-discrimination provisions in the MSA is manifested via the current EOI obligations in order to create more level playing field between Access Seeker and Access Provider’s own retail arm.
- 4.20 YTL proposed that as EOI is a general principle governing access, it should be explicitly stated that it also applies to facilities and services that are not in the Access List. YTL clarified that EOI relates to terms and conditions, including pricing and should not be equated to capacity sharing where every Access Seeker is required to take up similar capacity.

Third-party delays

- 4.21 Allo proposed to maintain subsection 4.5 but the MCMC need to be more specific on who would be considered as third party.
- 4.22 Astro agreed to retain subsection 4.5 of the MSA as the information provided under this subsection will assist the MCMC in addressing any issues of delays with the relevant state/local authorities.
- 4.23 Celcom agreed that MCMC should be notified on third-party delays, and subsection 4.5 of the MSA should be retained.
- 4.24 Celcom also highlighted that other than local authorities and landlord/building owners, the third party mentioned in section 4.5 of the MSA could also include

companies or government bodies who are the owners of the Facilities (the owner) but are not licensees. A licensee is appointed as the NFP to manage the said Facilities and act as the Access Provider. In this instance, the Access Provider is acting under the control or direction of the owner. There could be cases whereby a decision made by the owner causes a delay in the access arrangements, either at the point of access request, negotiation or other operational matters.

- 4.25 Digi commented that typically, third-party delays are resolved operationally. Digi clarified that section 4.5 of the draft MSA should be amended to remove the mandatory reporting to MCMC of the third-party delays due to the obligation under subsection 4.5.1 of the draft MSA is onerous and may complicate relationships between Access Providers and the third parties. Subsection 4.5 of the draft MSA should be retained to clarify that Access Providers have the option to raise concerns of any third-party delays to MCMC for resolution as and when the need arises.
- 4.26 Further, Digi reiterated that harmonisation of policies across State, Federal Government bodies, local authorities and Ministries is crucial to facilitate, encourage investment and expansion of services. The need for better coordination and streamlining administrative procedures will be more effective to ease access to public infrastructures which will in turn, be a more conducive solution to resolving third-party delays. Therefore, Digi recommended MCMC to lead initiatives to review required policy harmonisation, better coordination and streamlining planning approval processes that will help reduce administrative obstacles and red tape associated with planning and approval especially in deployment of infrastructures.
- 4.27 DNB commented to remove this obligation from section 4.5 of the draft MSA, as DNB neither reports nor keeps track of delivery caused by third parties.
- 4.28 Edotco clarified that Access Providers should not be responsible for delays caused by third-party as it is out of service provider's control. Edotco believes that sufficient consideration should be taken on the delays resulting from the action or lack of action by third party and any non-standardised service level agreement (**SLA**) process of approvals.
- 4.29 Edotco views that notifying MCMC on any delay would be administratively burdensome and impractical and hence, Edotco suggested MCMC to create a well-resourced group in its organization which assist licensees to secure relevant third party approvals. The focus should be placed on streamlining permit and approval of SLA processes including costs, fees and documentation checklist. This is in line with the Prime Minister's effort to streamline these requirements by establishing Special Committee on Standardisation of Costs and Fees for the Development of Communications Infrastructure at the state level.
- 4.30 Fibrecomm commented that subsection 4.5 of the draft MSA should be retained.
- 4.31 Maxis is of the view that subsection 4.5 of the MSA should not be removed. Maxis commented that escalation to MCMC should be optional or upon request by MCMC on a case-by-case basis, but notification to the Access Seeker should be mandatory as it may impact the service delivery or quality of service to the end

users. As such, Maxis proposed MCMC to take this clarification in amending subsection 4.5.1 of the draft MSA.

- 4.32 MyTV, Altel and Net2One agreed for the Access Provider to notify MCMC of any hindrance or third-party delay. It is important for the regulator to be informed about this delay so that it is not considered as non-compliance since it is caused by a third-party and it is beyond Access Provider's control. Notifying MCMC can avoid any misunderstanding between the parties.
- 4.33 PPIT commented that the provision of Infrastructure Service is dependent on third-parties, in which some are not bound by the MSA obligations, i.e. local authorities and landlords. However, PPIT clarified that they managed to resolve issues related to delays amicably with the third-parties and with the Access Seekers involved. Nevertheless, PPIT is agreeable to maintain subsection 4.5 of the draft MSA, as it provides avenue for reporting.
- 4.34 REDtone proposed MCMC to retain subsection 4.5 of the draft MSA without amendment as it will give a platform for operators and industry to address issues especially relating to third-party delay.
- 4.35 Sacofa submitted that they notify the MCMC of third-party delays under subsection 4.5 of the draft MSA.
- 4.36 TM submitted that they do notify the MCMC of third-party delays under subsection 4.5 of the draft MSA. As such, subsection 4.5 should be retained in the MSA. However, TM is of the view that the frequency of delays caused by third-parties may create an administrative burden for the MCMC and Access Providers. In order to streamline and ease the reporting process, TM proposed MCMC to provide a form or a portal to assist operators in the reporting process. This would also encourage operators to notify the MCMC of any delays caused by third-party involvement. Other than that, TM requested MCMC to assist in resolving potential challenges due to delays caused by third-parties.
- 4.37 U Mobile commented that it would notify MCMC of third-party delays under section 4.5 of the MSA. U Mobile proposed to maintain section 4.5 of the MSA as MCMC may use the information provided by the Access Provider to assist the operator and industry to address any issues with the relevant state, local or other authority, especially on network roll-out issues, i.e. permit approval processes, high one stop agency (**OSA**) and one stop centre (**OSC**) fees, etc.
- 4.38 YTL has no objection to notify MCMC on third-party delays under subsection 4.5 of the MSA. YTL agreed that this provision is relevant and proposed it to be maintained in the MSA. YTL added that third-party delays are usually caused by unavoidable circumstances and MCMC can use the information to assist service providers to escalate the issues to the relevant government authorities or to reach an efficient and amicable resolution.

Restriction of re-supply

- 4.39 Allo is on the view that it is applicable to user/customer under Access Agreement.

- 4.40 Astro submitted that the prohibition on the restriction of re-supply should remain, and it should be applicable to resale to both end users and downstream service providers.
- 4.41 In relation to the deliverables of Mandatory Standards of Quality of Service (**MSQoS**), Astro is of the view that the Access Provider is to ensure the MSQoS to the Access Seeker is achieved at all times. In the event that the Access Seeker resells the services to another downstream operator (i.e. licensee), Astro agreed with MCMC that the contractual obligation is limited to both the parties only.
- 4.42 Celcom agreed with subsection 4.4.1 of the draft MSA. Access Provider must not prevent an Access Seeker from acquiring the same or any other Facility and/or Service from another Operator. This principle promotes a level playing field.
- 4.43 Celcom also agreed with subsection 4.4.2 of the draft MSA, where Access Seeker shall not be prevented from re-supplying Facility and/or Service to other companies or authority.
- 4.44 Digi is of the view that the definition of "resale" needs to be further defined. The term "resale" is currently too broad, and the restriction of re-supply should be made specifically to facilities or services where the prohibition of re-supply is appropriate. Digi suggested that subsection 4.4.2 of the draft MSA should specifically establish that the prohibition of re-supply is applicable for type of services where re-supply is feasible, i.e. HSBB Network Services, Transmission Services, etc.
- 4.45 DNB supported the proposal to allow restrictions on the re-supply to a downstream service provider. This would afford greater commercial flexibility to ensure DNB can respond to future evolution of the downstream service provider market to support its business model.
- 4.46 Fibrecomm, MyTV, Altel and Net2One agreed that the prohibition on the restriction of re-supply should continue to apply to resale for downstream service providers and end users. However, Fibrecomm is of the view that there should be an exemption for the prohibition applicable to Duct and Manhole Access and Infrastructure Sharing as these facilities are highly exposed to security breach and should not allow to be re-sold to parties where the Access Provider does not have full control of the parties utilising the infrastructure.
- 4.47 Maxis agreed to maintain subsection 4.4 of the MSA within the General Principles for Facilities and/or Services other than 5G Services. Maxis commented that subsection 4.4 of the MSA is still applicable for 5G Services, however Maxis proposed some amendments under the Service Specific Obligations.
- 4.48 Maxis agreed to maintain subsection 4.4 of the MSA within the General Principles for Facilities and/or Services other than 5G Services. Maxis commented that subsection 4.4 of the MSA is still applicable for 5G Services, however Maxis proposed some amendments under the Service Specific Obligations. As DNB has a unique position as the single 5G wholesale provider, Maxis is of the view that an Access Provider shall not supply the 5G Services to the Access Seeker, if 25% or more of the 5G Services supplied, or to be supplied, by the Access Provider to

the Access Seeker in any year are or will be supplied for the Access Seeker's, which includes its related corporation's own use or consumption.

- 4.49 PPIT commented that the prohibition is inappropriate for them as a wholesale provider. They clarified that subsection 5.36 of the PI Paper has failed to consider the main issue of license fee involved and the loss to them as an Access Provider if an Access Seeker is allowed to sub-licence their space to other person or another Access Seeker. Hence, subsection 4.4.2 of the draft MSA is unfair to PPIT and they suggested to remove the said subsection from the MSA. PPIT however can agree with subsection 4.4.2 of the draft MSA if "Except for Access Provider who supply Infrastructure Sharing Service" is included in the said subsection.
- 4.50 REDtone commented that the prohibition should continue to apply to both end-users and downstream service providers with better clarity as follows:
- (a) MSA should define resale/re-supply as in our experience operators may have interpreted it differently;
 - (b) MSA should indicate the specific services where the prohibition on the restriction of resale is applicable i.e. due to technical infeasibility, network security or SLA obligations; and
 - (c) Person has already been defined in the MSA as a firm, body corporate, unincorporated association or an authority, hence should not exclude wholesalers or individuals which has been prohibited by some Access Provider.
- 4.51 TM is of the view that the prohibition on the restriction of re-supply should only continue to apply to end users. TM added that by enabling the re-supply or resale of access to passive infrastructure i.e. ducts, manholes, network co-location and telecommunication poles would increase risks to the safety and security of the Access Provider's network on top of the negative commercial impact on the Access Provider's returns.
- 4.52 TM further highlighted that there are various technical challenges associated with the simple resale of access services such as virtual local area network (**VLAN**) to end users. For VLAN, simple resale arrangements are not possible as the network operator will need to have control over the network service.
- 4.53 TT dotCom is of the view that the restriction on re-supplying should apply to all Access Seekers for HSBB Network Services, as this will give impact to:
- (a) The end-to-end network architecture which is configured between the Access Provider and Access Seeker, and not to a third-party Access Seeker. Therefore, the Access Provider is unable to manage additional configuration which involves a third-party Access Seeker;
 - (b) Operational activities i.e. truck roll coordination for activation & BTU configuration as the Access Provider has arrangement with its Access Seeker for the installation/activation/fulfilment and not with the third-party Access Seekers; and

- (c) Marketing and branding for Access Provider, which may be impacted due to involvement of third-party Access Seeker who resells the service of an Access Seeker without any direct arrangement with the Access Provider.
- 4.54 TT dotCom added that re-supplying of HSBB Network Services to more than one Access Seeker will involve more resources in provisioning the services to end users thus making it less efficient. TT dotCom emphasised that the more downstream service providers involved in the service provision, the more inefficient the allocation of resources.
- 4.55 U Mobile concurred that the Access Seeker should not be prevented from seeking the same facility/service from another operator. U Mobile further proposed to amend subsection 4.4.2 of the draft MSA to clarify that the single wholesale network provider must not supply the facility/service to the end user. This is to avoid distorting the dynamics of the industry.
- 4.56 YTL commented that there should be no prohibition on resale to both users and downstream service providers. YTL clarified that resale ensures efficient use of resources especially in situation where there is surplus. By allowing resale, Access Seekers can acquire larger quantities at lower prices. Such flexibility is necessary to support and promote competition and innovation in terms of downstream product and service differentiation.
- 4.57 Further, in response to TM's statement on paragraph 5.34(g)(iii) of the PI Paper that simple resale arrangements are not possible as the network operator will need to have control over the network service including the VLAN. An Operator commented that resale of HSBB Network Services can be available in multiple business models (i.e. the resale does not need to be confined to bandwidth) in which some business models do not require the need to change any VLAN configuration by the network operator.

Other changes to General Principles

- 4.58 Allo proposed to strengthen the terms in subsection 4.4 on the no exclusivity and no restriction on resale. Allo submitted that in some situations, the developer restricts the other service provider to enter the area. Noting that the developer is not under obligation of CMA 1998 and MSA, there must be a solution to uphold the non-exclusivity principle.
- 4.59 Insufficient capacity and space can usually be resolved with network upgrades. Hence, Astro submitted to include elements of either safety hazard or third-party authority disapproval as the pre-requisite for grounds of refusal which is beyond the Access Providers control, rather than only stating "insufficient capacity and space" in general in paragraph 5.4.11(d) of the draft MSA. This tightening of the terms is to ensure that the provision is not used loosely or abused by the Access Providers as grounds of refusal.
- 4.60 Celcom proposed to include additional terms in subsection 4.4.1 of the draft of MSA as follows:
- "4.1.1 SAO:** In accordance with the Act and subject to exemptions determined by the Minister, all network facilities providers and network services providers

shall provide access on reasonable terms and conditions, *and in accordance with the obligations in their licence conditions*, to the Facilities and/or Services listed in the Access List Determination to any other:".

- 4.61 This proposed amendment is to address Access Providers whose licences are limited to certain scope only, i.e., certain geographical areas or provision of Facilities and/or Services on wholesale basis only.
- 4.62 DNB clarified that it only supplies on a wholesale basis and has no incentive to discriminate in favour of one Access Seeker and against others. This situation creates an opportunity to modify the application of non-discrimination principle when applied to DNB through 5G Service Specific Obligations to create greater certainty for DNB and its Access Seekers.
- 4.63 DNB proposed MCMC to apply non-discrimination to DNB in a similar way to that adopted by ACCC in Australia when applying non-discrimination to NBN Co, which are:
- (a) a range of products are available at different price and quality of service points in NBN Co's reference offer;
 - (b) all Access Seekers must be free to choose between all these products; and
 - (c) a product development forum consultation procedure governs NBN Co or an Access Seeker wishing to propose a new product (or amendment to any price or non-price terms). Once settled this change must be made available by NBN Co to all access seekers on the same supply terms.
- 4.64 Maxis is of the view that there should be a general obligation relating to the prohibited use of customer information that has been applied in several Service Specific Obligations, i.e. MVNO Access, Domestic Inter-Operator Roaming Service, 5G Services. Therefore, Maxis proposed to include a new subsection in the General Principles as follows:

"4.3.3 Prohibited use of Customer information: *The Access Provider is expressly prohibited from using any Access Seeker's Customer information to market or offer to supply its goods or services to that or any other Customer, except where:*

- (a) *the Customer information is publicly available; or*
- (b) *the Customer information has been received or developed by the Access Provider from sources other than the Access Seeker,*

and, in either case, the information has not been collected or generated with reference to, or combined with or compared to, information provided in connection with the Access Provider's supply of the relevant services. This includes any use or intended use by the Access Provider to dissuade that Customer from entering into a contractual relationship with the Access Seeker for retail services that use the relevant services as an input or more generally."

- 4.65 Maxis also proposed similar subsection (with some amendments) to be included in Service Specific Obligations for HSBB Network Services.
- 4.66 TM supported the other changes made by the MCMC to the General Principles under section 4 of the draft MSA. However, in accordance with subsection 4.1.6 of the draft MSA, TM highlighted that Access Providers do not have control over the Access Seeker's actions and internal processes, including churn processes. Access Providers must provide network access to all Access Seekers under non-discriminatory conditions, and under the same terms as those applicable to their own retail arm.
- 4.67 U Mobile commented that the principle of non-discrimination should be further reinforced in a monopoly situation e.g. where the 5G single wholesale network is the sole provider of 5G services. Stringent tests on this aspect should be made by the MCMC on the Access Provider (DNB) to ensure that all MNOs are able to access the same services, at the same prices on the same terms.
- 4.68 YTL suggested that the non-discriminatory principle also applies to facilities and services provided to related service providers within the same group of companies.
- 4.69 An operator commented that a further reason to amend the general principles would be to cater for the introduction of DNB. The current provisions on EOI deal with a vertically integrated structure. DNB operates as a wholesale only model. The move away from a model of a vertically integrated wholesale supplier to a wholesale-only supplier can give rise to its own problems which require explicit regulatory or contractual safeguards.
- 4.70 The operator clarified that the non-discrimination obligation ought to have a broader scope. This is because downstream suppliers rely entirely on the monopoly in relation to product and technology changes in the works, any network changes, expansions, modifications etc. that are being planned, and the opportunities available for downstream suppliers to begin investing in new products (which would require time in its own product development cycle). Therefore, it is apt that the non-discrimination obligation should be broader in scope.

Discussion

- 4.71 Operators generally agreed with focussing on strengthening the EOI obligations under the Service Specific Obligations rather than the General Principles. Accordingly, the current position in relation to EOI obligations within the General Principles subsection will remain unchanged. The MCMC notes Astro's comment regarding the point that the overarching EOI obligations apply even if EOI is not referenced in the Service Specific Obligations. The MCMC agrees with this point made by Astro but does not believe this clarification is necessary in the MSA as it is self-evidently true.
- 4.72 The MCMC notes views from Allo and Celcom to maintain the notification mechanism for third party delays and acknowledges the concerns and suggestions raised in the submissions relating to third party delays. Operators such as DNB have also raised in other contexts the need for the MSA to account for third party

delays which contribute to a failure by an Access Provider to achieve timeframes stipulated under the MSA. With this in mind, the MCMC considers this obligation to remain appropriate to ensure compliance and for the purposes of transparency, particularly given the extent of third-party delays reported by Access Providers. As such, the MCMC will retain the notification mechanism in section 4.5 of the MSA.

- 4.73 In light of the support from stakeholders to retain the prohibition on the restriction of re-supply, no change to the existing provision is warranted (except for Duct and Manhole Access, as described in section 28 below).
- 4.74 The MCMC agrees with Maxis's proposal to include a general prohibition on the use of certain customer information and to remove the equivalent prohibition from the various Service Specific Obligations under which the prohibition appears in the draft MSA.
- 4.75 The MCMC accepts DNB's proposal that the non-discrimination obligation applicable to DNB should be modelled on that which applies to NBN Co under the Australian regulatory framework. The MCMC addresses this issue in further detail in section 31 in relation to 5G Services.
- 4.76 The MCMC does not agree with the need for an audit of compliance as suggested by Astro. This is likely to be costly and administratively burdensome to do so. The MCMC will remain vigilant around compliance and requests that any party approach the MCMC if it suspects another part is breaching the EOI obligations.

MCMC Views

- 4.77 The MCMC maintains its preliminary views on the General Principles, except that it will include a general prohibition on the use of certain customer information in the General Principles and remove equivalent prohibitions set out in various Service Specific Obligations in the draft MSA.

5 Reference Access Offers

Introduction

- 5.1 In the PI Paper, the MCMC recognised areas for improvement from an enforcement perspective, particularly ensuring Access Provider RAOs comply with the MSA.
- 5.2 The MCMC considered extending the RAO disclosure obligations to require Access Providers submit their RAOs to the MCMC before publication, to ensure compliance with the MSA. However, the MCMC's preliminary view was that formal approval by the MCMC of submitted RAOs would impose an unnecessary administrative burden on the MCMC and Access Providers alike.

Question 5: Should Access Providers be required to submit their RAOs to the MCMC before publication, to ensure compliance with the MSA?

Submissions Received

- 5.3 Allo, DNB, Edotco, Sacofa, TT dotCom and YTL agreed with the MCMC to require Access Providers to submit their RAOs to the MCMC before publication to ensure compliance with the MSA.
- 5.4 Astro is of the view that Access Providers should not be required to submit the RAO to the MCMC for a formal approval before the publication of the RAO. Having a formally approved RAO would discourage or prevent parties from attempting to negotiate terms that should be standard, which would be disadvantageous to an Access Seeker.
- 5.5 Astro highlighted that there are instances where Access Providers would deem a submission of the RAO to the MCMC as a formal "approval" of the RAO by the MCMC. Following from this, the Access Provider does not want to negotiate on the terms of the RAO.
- 5.6 Celcom agreed that Access Providers that are dominant and single network providers should be required to submit their RAOs to the MCMC for approval. This is to ensure the terms and conditions in the RAO are consistent with the MSA. The RAO will then be capable to be signed as Access Agreement or to be negotiated between Access Provider and Access Seeker. This will ensure that the negotiation will run smoothly and can be concluded within the specified timeframe.
- 5.7 Digi is of the view that approving RAOs before publication is unnecessary, except to the obligations enforced on the 5G wholesale network provider. This is to ensure the terms offered by DNB are equitable and non-discriminatory across all the Access Seekers.
- 5.8 Digi also commented that given the unconventional structure of 5G wholesale network provider, all terms related to 5G Services should be documented separately and thoroughly under the Service Specific Obligation. The terms of 5G Services should be transparent and fairly applied to all Access Seekers.
- 5.9 Edotco suggested that the RAO should not cover the same details as an Access Agreement, but should only stipulate general framework and principles to facilitate the negotiation process for the parties.
- 5.10 An Operator highlighted that there is a lack of clarity as to what a RAO should contain. As a starting point, the RAO must comply fully with the MSA, otherwise, the provisions of the MSA would be rendered redundant. It would fail to achieve the objective of ensuring fair and timely access. Currently, the RAO prepared by an Access Provider is not compliant with the MSA. This introduces considerable delay during negotiations as Access Seekers have to insist on compliance with the basic protections provided by the MSA before negotiating commercial terms. It would be appropriate for the MCMC to affirm on all areas of compliance with the MSA when the Access Provider submits the RAO to the MCMC. The MCMC can then require the Access Provider to amend the RAO to ensure that the RAO is fully compliant with the MSA before negotiations commence. The list of core issues that are critical to ensure compliance with the MSA are:
- (a) discrepancies on SLA/service assurance parameters vs MSQoS;

- (b) restriction on resale;
 - (c) EOI/parity of services; and
 - (d) any additional charges imposed by Access Providers and service portals.
- 5.11 The Operator proposed for the MCMC to clarify that an Access Seeker may raise any areas of non-compliance with the MCMC, in which case the MCMC may direct for specific terms to be included in the RAO to ensure compliance with the MSA. This will incentivise the Access Provider to ensure that the RAO complies with the MSA.
- 5.12 Fibrecomm commented that Access Provider should not be required to submit the RAO to the MCMC before publication as Access Provider may have to provide revisions to the RAO and to avoid unnecessary administration burden to the MCMC.
- 5.13 For 5G Services, Maxis is of the view that Access Provider should be required to submit their RAOs to the MCMC before publication to ensure compliance with the Access List, MSA and MSAP. There should be a consultation process between the Access Provider and Access Seeker on 5G Services prior to submission to the MCMC for approval. This is due to DNB's position as a single wholesale network, and additional scrutiny is required to ensure that DNB is engaging in fair competition.
- 5.14 Maxis further commented that for all other Facilities and/or Services, the Access Providers do not have to submit their RAOs to the MCMC prior publication as this may delay the process for Access Seekers to access the Facilities and/or Services. The compliance to the Access List, MSA and MSAP can be validated by the MCMC during the Access Agreement registration process.
- 5.15 Maxis also agreed with the MCMC's proposed amendments in paragraphs 5.3.3(e), 5.3.3(f) and 5.3.4(e)(ii) of the draft MSA. Maxis added that the existing RAO amendment process should be retained for all Facilities and/or Services except for 5G Services. The RAO amendment process for 5G Services should be defined in its Service Specific Obligations.
- 5.16 MyTV, Altel and Net2One are of the view that the RAOs are important for the Access Provider to provide access service information to the Access Seekers. As an Access Seeker, the RAO will serve as a vital document that specifies the prices, terms, and conditions for the Access Seeker to review the offer of that particular service. Therefore, MyTV, Altel and Net2One agreed that RAO should be submitted to the MCMC before publication to ensure compliance with any of the relevant mandatory standards by the MCMC.
- 5.17 PPIT commented that submission of RAOs to the MCMC before publication will add another burden to the Access Providers and the MCMC. This process will also add to the timeline of making the RAO available to the Access Seekers as it may involve amendments to be made.

- 5.18 REDtone agreed that Access Providers should be required to submit their RAO to the MCMC to allow immediate access under RAO, minimise negotiation time and would be more meaningful fast track execution for the Access Seeker.
- 5.19 TM submitted that Access Providers should not be required to submit their RAOs to the MCMC before publication as it would add significant burden on the MCMC by providing various revisions and variations of RAOs.
- 5.20 TT dotCom proposed that the submission and/or clarification of RAO to the MCMC to be completed, i.e. assessment and approval by the MCMC, prior any negotiation takes place.
- 5.21 U Mobile clarified that Access Providers may publish their RAO as soon as possible and the MCMC should continue to review and check for compliance at its convenience. However, the MCMC's prior approval should be required for DNB as the single wholesale network (**SWN**) 5G provider, and should be under a more stringent oversight for compliance to the MSA.
- 5.22 YTL commented that by virtue of such process, the negotiation of Access Agreements between Access Providers and Access Seekers can be more efficient and time saving, and any disputes can be escalated to the MCMC for clarification. YTL also suggested for facilities and services that are not in the Access List to be included in the RAO even though these may be subject to subsection 5.4 of the MSA.

Discussion

- 5.23 Operators generally agreed with the the MCMC's preliminary view that RAOs should be submitted to the MCMC as means of ensuring Access Provider RAO compliance with the MSA. The MCMC views this as an important compliance step for all Facilities and Services and rejects views from operators who expressed disagreement with this proposal.
- 5.24 There was also generally consensus amongst operators that it is unnecessary for the MCMC to impose a formal approval process in respect of RAOs prior to their publication. In addition to imposing an unnecessary administrative burden on the MCMC and on Access Providers, Access Seekers noted that some Access Providers may game or abuse such a process and ultimately lead to delays in the supply of Facilities and Services.
- 5.25 Notwithstanding the above, the MCMC notes that given the importance of DNB's 5G rollout to the achievement of Government policy objectives and for the Rakyat generally, and as an exception only, the MCMC has worked closely with DNB in the development and formal approval of its RAO for 5G Services. The MCMC will continue to monitor DNB's compliance with the RAO and assess opportunities for improvement to the RAO as 5G Services develop and mature over time.

MCMC Views

- 5.26 The MCMC confirms its preliminary view to amend the disclosure requirements to require RAOs to be submitted to the MCMC prior to publication, provided that there will be no requirement for formal the MCMC approval prior to the negotiation

and conclusion of Access Agreements under such RAOs, except in relation to DNB's RAO which will be subject to approval by the MCMC.

6 Reporting and Information Disclosure

Introduction

- 6.1 In the PI Paper, the MCMC noted the importance of implementing additional reporting and information disclosure obligations in the MSA to encourage compliance and transparency. As a result, the MCMC proposed changes to the MSA to clarify and update the current reporting and information disclosure requirements, including to:
- (a) require Access Providers to also provide proof of concept information, where such information is readily available;
 - (b) clarify that information provided under the reporting obligations must be in the form approved or notified by the MCMC from time to time and provided on an annual basis; and
 - (c) expand the reporting obligations to cover certain additional services.

Question 6: Do you have any comments on the proposed amendments to the reporting and information disclosure obligations in section 5.3 of the draft MSA?

Submissions Received

- 6.2 Allo, MyTV, Altel, Net2One and TT dotCom are agreeable with the proposed amendments to the reporting and information disclosure obligations.
- 6.3 Astro agreed with the MCMC's proposal to expand these requirements to ensure that the RAO complies with the applicable MSQoS. This will help to expedite negotiations as extra resources will not be required to be spent on further negotiating on this matter - some of the RAO/certain QoS in the AA are different from the MSQoS.
- 6.4 Astro notes that the proposed amendments in paragraph 5.3.5(iii) of the draft MSA clarifies the period within which an Access Seeker must dispute changes proposed to an RAO, i.e. 20 Business Days. Astro considers that this clarification is capable of giving rise to disputes, because although Access Providers are subject to formal notification requirements in respect of amendments proposed to be made to a RAO as per subsections 5.3.5 and 5.3.6 of the draft MSA, Access Providers may not always adhere to these formal notification requirements in practice. The Access Provider may not inform the Access Seeker of the change to the RAO within the timeframe of 20 Business Days and consequently the Access Seeker would not be able to dispute the change within such 20 Business Days.
- 6.5 Astro recommended that the timeframe of 20 Business Days only commences on the date when the Access Provider is able to demonstrate that the Access Seeker has been given written confirmation that they have been duly notified of the amendment.

- 6.6 Celcom, DNB, MyTV, Altel and Net2Oone supported the MCMC's proposal to reduce the reporting frequency to only once a year.
- 6.7 Celcom further accepted the technical information to be disclosed to Access Seeker, which includes proof of concept (**POC**) information where available.
- 6.8 Digi recommended that the reporting obligations to be imposed only on Facilities and/or Services that clearly suggests that compliance with the MSA is likely to be problematic. Digi also suggested the MCMC to consider removing Transmission Services and Network Co-Location Service from the reporting obligation.
- 6.9 DNB recommended to amend paragraphs 5.3.5(c) and (d) of the draft MSA to require consultation with all Access Seekers who recently have been provided or requested access and to obtain the MCMC's prior approval to publish the updated RAO. Further, DNB proposed to amend paragraph 5.3.5(iii) of the draft MSA to deem changes to the RAO into an Access Agreement with an Access Seeker if the Access Seeker does not respond within 20 Business Days.
- 6.10 DNB however did not agree to include 5G Services for the reporting obligations as it is irrelevant for DNB. Unlike other Access Providers, DNB is required to obtain the MCMC's approval for its RAO. Therefore, most of the reporting requirements in subsection 5.3.12 of the draft MSA have already been addressed in the MCMC's approval process of DNB's RAO. DNB clarified that information on the Access Agreements proposed by the MCMC can be obtained from the Access Agreements that will be registered.
- 6.11 Edotco strongly opposed this requirement. Edotco is of the view that Infrastructure Sharing will not benefit from the reporting and information disclosure obligations as it will increase additional cost and workforce to infrastructure service providers, which will be trickled down to the end users.
- 6.12 Edotco added that site information has already been frequently updated in the MCMC Communication Infrastructure Management System (**CIMS**) with the addition of quarterly report declaration and weekly reconciliation sites meeting with Access Seekers. There is also requirement for Access Providers to adhere to frequent meetings and audit exercises with the MCMC Geospatial Department. Edotco reiterated that any further changes to the reporting and information disclosure obligations is unnecessary in order to avoid duplication of information.
- 6.13 Maxis agreed with the MCMC's proposed amendments in subsections 5.3.7 and 5.3.12 of the draft MSA. For subsection 5.3.13 of the draft MSA, Maxis commented that DNB is in a unique position as a single 5G wholesale provider, and as such, only DNB has to abide by service reporting obligations for 5G Services. Therefore, Maxis proposed to include "For clarity, this shall only apply to 5G Services directly provided by DNB to Access Seekers" in paragraph 5.3.13(i) of the draft MSA.
- 6.14 MyTV, Altel and Net2One agreed that the POC should only be mandated for new subjects/topics where there are no references or references available are irrelevant to Malaysia market. They commented that any change to reporting format should be informed at least three months before implementation to facilitate industry's preparation for the reporting to the MCMC.

- 6.15 MyTV, Altel and Net2One commented that the inclusion of new facilities and/or services in subsection 5.3.13 of the draft MSA is good for better monitoring by the MCMC as these are new services included in the Access List and also popular services acquired by Access Seekers.
- 6.16 PPIT proposed to include “(only to the extent it relates to the provision of access to poles and street furniture)” in paragraph 5.3.13(c) of the draft MSA. PPIT clarified that it is appreciated if a sample of reporting format is provided by the MCMC for their comments. PPIT further requested the MCMC consideration to cover the new reporting obligations for Infrastructure Service under the CIMS, CIPM and Apparatus Assignment.
- 6.17 TM supported the proposed amendments to the Reporting and Information Disclosure obligations under subsection 5.3 of the draft MSA. However, TM would like the MCMC to clarify that the Access Provider is not responsible for non-compliance with MSQoS if such non-compliance is due to the Access Seeker or the downstream operator under paragraphs 5.3.3(e) and (f) of the draft MSA. TM reiterated that as an Access Provider, TM does not have direct control over the Access Seeker’s network and should not be responsible for the Access Seeker’s or downstream operators’ failure to comply with MSQoS.
- 6.18 Further, TM proposed amendments to subsection 5.3.5 of the draft MSA and inclusion of a new subsection as follows:

“5.3.5: Amendment:

- (c) *consult with all Access Seekers who are being provided with, or have in the preceding three (3) months requested access to, 5G Services under the existing RAO for a period of at least thirty (30) Business Days;*
- (d) *Upon obtaining mutual agreement between the Access Provider and the Access Seeker for any changes to the RAO following such consultation, provide to such Access Seekers 30 Business Days’ notice of any changes to the RAO; and*

[...]

For clarification:

[...]

- (iii) without prejudice to an Access Seeker’s right to dispute a change to a RAO, where the terms and conditions of an Access Agreement are identical to those in the existing RAO, an amendment to the RAO will be deemed to alter the relevant terms and conditions of that Access Agreement upon expiry of the ~~twenty (20)~~ *thirty (30)* Business Days referred to in subsection 5.3.5 of this Standard. However, if the Access Seeker disputes the change to the existing RAO within such ~~twenty (20)~~ *thirty (30)* Business Days, no amendments to the Access Agreement will be deemed to occur unless and until such dispute is resolved in favour of the Access Provider

(iv) Access Provider must execute a Supplemental Agreement to effect any changes to the Access Agreement."

- 6.19 U Mobile commented that in subsection 5.3.3 of the draft MSA, the Access Provider must provide terms and conditions that relate to any MSQoS. This is important for the 5G SWN provider to allow the MNOs to meet their MSQoS obligations. For subsection 5.3.5 of the draft MSA, U Mobile is of the view that it is necessary for 5G Access Provider to consult the Access Seekers and seek the MCMC's approval to amend its RAO. In paragraph 5.3.7(c) of the draft MSA, U Mobile suggested that the Access Provider must provide relevant POC information when required, whether it is readily available or not.
- 6.20 YTL supported the inclusion of new Facilities and/or Services in subsection 5.3.13 of the draft MSA. YTL also commented that reporting obligations are designed to improve the implementation of the MSA. The course of action that the MCMC is likely to take based on the reporting and corresponding timelines for the MCMC's report should be included in the MSA.
- 6.21 An Operator commented that they have experienced instances where the RAO of the Access Provider/services offered by the Access Provider are inconsistent with the MSQoS requirements, and have been informed by the Access Provider that complying to the MSQoS requirements will require network and manpower resources which are dynamic depending on situation (such as increase in number of faults reported, breakdown due to third party, weather conditions and other factors beyond Access Provider's control which may contribute to the performance). They were also informed that the Access Provider was also unable to commit to certain MSQoS requirements for their own retail arm. The net result is that, as the Operator requires the service, they are obliged to accept the offer presented as a 'fait accompli' despite knowing that this will expose the Operator to MSQoS non-compliance risk.

Discussion

- 6.22 Most operators agreed with the MCMC's preliminary views in respect of the reporting and information disclosure obligations.
- 6.23 The MCMC agrees with Astro's submission that, where an Access Seeker has not been notified by an Access Provider of proposed changes to an RAO, amendments should not be deemed in respect of associated Access Agreements until the Access Seeker has had 20 Business Days to dispute the proposed changes.
- 6.24 However, the MCMC does not consider that any amendments are required to the MSA to clarify this point. Rather, Access Seekers should notify the MCMC if they become aware of any non-compliance by Access Providers in this regard, noting that it would be inconsistent with the MSA for Access Providers to fail to provide 20 Business Days' notice of RAO changes in an effort to frustrate the dispute mechanism.
- 6.25 The MCMC notes Maxis' proposed amendments to paragraph 5.3.13(i) of the draft MSA to limit the reporting obligations under subsection 5.3.12 to "5G Services" directly provided by DNB to Access Seekers". For clarity, '5G Services' is defined in the draft MSA to comprise those services which will only be capable of supply

by DNB, so the MCMC considers this clarification unnecessary. Further, it would not be appropriate to limit a particular obligation to the supply of services by a particular Access Provider, as this would be inconsistent with Malaysia's regime of symmetric access regulation, and more generally, with the MCMC's preference to future-proof the MSA where practicable.

- 6.26 The MCMC agrees with TM's proposed changes to paragraphs 5.3.5(c) and 5.3.5(e)(iii) of the draft MSA, to clarify that the consultation period for changes to RAOs concerning 5G Services is "at least" 30 days, rather than a maximum of 30 days. However, the MCMC disagrees with TM's proposed changes to paragraphs 5.3.5(d) and 5.3.5(e)(iv). Changes to DNB's RAO are to be approved by the MCMC. The MCMC does not believe a "supplemental agreement" as proposed by TM is necessary or expedient.

MCMC Views

- 6.27 The MCMC confirms its preliminary views on its proposed amendments to the reporting and information disclosure provisions in the MSA. The MCMC will also adopt the changes proposed by TM in respect of paragraphs 5.3.5(c) and 5.3.5(e)(iii) of the MSA, to clarify that the consultation period for changes to RAOs concerning 5G Services is at least 30 days.

7 Security, Insurance Requirements and Creditworthiness

Introduction

- 7.1 In the PI Paper, the MCMC took the preliminary view that no changes were required to the security, insurance or creditworthiness provisions in the current MSA, given the relatively limited number of comments on these provisions.

Question 7: Do you consider that any changes are required to the security, insurance and creditworthiness provisions of the current MSA? Why or why not? If so, please specify what change you consider is required.
--

Submissions Received

- 7.2 Allo proposed to impose minimum insurance coverage. This is to ensure that the amount is sufficient and can be a minimum standard to all Access Seeker.
- 7.3 Astro, Celcom, Fibrecomm, MyTV, Altel and Net2One opined that there are no changes required to the security, insurance and creditworthiness requirements provisions of the MSA as the current provisions are sufficient.
- 7.4 Celcom clarified that security requirement is only imposed if there is a credit risk and the amount is based on a commercially reasonable estimate of the charges that will be incurred by the Access Seeker within the specified time period.
- 7.5 Digi agreed with the MCMC's proposal to retain existing security and creditworthiness provisions of the current MSA. However, this should only be limited to new Access Seekers where there are no existing wholesale relationships between Access Providers and Access Seekers. If there is existing wholesale relationship between the Access Provider and Access Seeker, the security and

creditworthiness may be waived by the Access provider depending on the Access Seeker's credit history.

- 7.6 Digi also suggested that subsection 5.3.10 of the draft MSA be amended to state that insurance requirement shall only be imposed to provision of facilities and services where access to Access Provider's network or infrastructure is required, and the insurance coverage shall be proportional to the value of risk associated in provision of the service and not to fix a capped amount.
- 7.7 DNB and Edotco agreed with the MCMC's proposal regarding security, insurance and creditworthiness requirements.
- 7.8 Maxis agreed with subsections 5.3.9 and 5.3.11 of the draft MSA. For subsection 5.3.10 of the draft MSA, Maxis proposed to include a new paragraph (c). Maxis explained that it is not commercially viable to individually name beneficiaries as insurance is bought at a group level. If Access Seekers were required to purchase individual insurance policies for each Access Provider, there will be multiple insurance policies to maintain which would ultimately result in higher cost to Access Seekers and subsequently to end-consumers, which is not ideal for the LTBE.
- 7.9 Maxis proposed the following:
- “5.3.10: Insurance:**
- (c) Access Provider shall not be permitted to require Access Seekers to specifically list the Access Provider's name as the beneficiary.”*
- 7.10 PPIT commented that the current provisions are adequate.
- 7.11 REDtone agreed with Maxis's comments to include additional clause in subsection 5.3.10 of the draft MSA, to prohibit the Access Provider from requiring the Access Provider be named as a beneficiary in the insurance policies. REDtone explained that ideally it should be up to negotiation. However, in REDtone's previous negotiation, without having it in the MSA, Access Seeker would face difficulty in negotiating with Access Provider.
- 7.12 TM proposed for the security requirements to be limited to six months of access to facilities and services under paragraph 5.3.9(b)(i) of the draft MSA. Without a cap on the security requirement, a long minimum access period would translate into a significant security requirement, which may act as a deterrent for Access Seekers to acquire the service. TM added that a maximum period of six months should suffice for the Access Provider to cover itself for any lapse in payment during a dispute process while ensuring the Access Seeker is not burdened by the security amount required.
- 7.13 U Mobile clarified that definition of credit risk in paragraph 5.3.9(a) of the draft MSA should be clear, such as by way of submitting recognised rating agency report or publicly available information from reliable sources.
- 7.14 YTL commented that creditworthiness information appears to be a mere formality and can be removed.

Discussion

- 7.15 Operators generally accepted the MCMC's preliminary view that this section of the MSA does not require substantial changes.
- 7.16 In response to submissions from some operators during the Public Inquiry, the MCMC proposes to make minor amendments to this section as follows:
- (a) amendments to reflect Maxis' proposed new paragraph 5.3.10(c), to expressly prohibit Access Providers from requiring Access Seekers to list the Access Provider's name as a beneficiary of insurance policies; and
 - (b) capping the estimate of charges for the purposes of security requirements to six months of access to facilities and services under paragraph 5.3.9(b)(i) of the draft MSA, given TM's submission (with which the MCMC agrees) that for services with a longer minimum access period, the security requirement may be too onerous and may deter Access Seekers from acquiring the service.

MCMC Views

- 7.17 The MCMC will adopt the changes proposed by Maxis and TM in respect of named beneficiaries and the duration of access to be used as the basis of security requirements, as outlined above.
- 7.18 The MCMC otherwise confirms its preliminary views not to make further amendments to the security, insurance and creditworthiness provisions of the MSA.

8 Negotiation Obligations

Introduction

- 8.1 In the PI Paper, the MCMC proposed limited changes to the negotiation obligations including:
- (a) setting an escalation mechanism for delays in negotiation to the MCMC;
 - (b) adding relevant licences to the list of information that an Access Request must contain;
 - (c) adding an obligation for the Access Provider to increase capacity on its 5G RAN if the Access Provider has refused an Access Request for 5G Services on the basis that the Access Provider's 5G RAN has insufficient capacity to accommodate the Access Seeker's Request; and
 - (d) clarifying that meetings may take place virtually or in person.

Question 8: Do you agree with the MCMC's proposed changes to the Negotiation Obligations set out at subsection 5.4 of the draft MSA? Why or why not? If not, please specify what change you consider is required and explain why.

Submissions Received

- 8.2 Allo is not agreeable to remove the extension for negotiation in paragraph 5.4.1(c). For each negotiation, some of the terms need to go through internal process and obtain approval from the management/board/parent company which may take time and is unavoidable.
- 8.3 Astro agreed with the MCMC's proposed changes where the MCMC require parties to refer all delays in negotiation to the MCMC within 10 Business Days after the expiry of four months negotiation period in order for the MCMC to assess whether the MCMC can facilitate the negotiation or should be resolved in accordance with the Dispute Resolution Procedures.
- 8.4 Astro also proposed the word "parties" in paragraph 5.4.1(c) of the draft MSA to be replaced with "any of the parties" to ensure that either party has the right to explicitly refer the matter to the MCMC without a joint-application.
- 8.5 Astro submitted that the negotiation obligations is helpful in concluding their recent Access Agreement. However, there have been several other unacceptable terms that Access Providers have insisted on.
- 8.6 Astro highlighted that information pertaining to average bandwidth per subscriber must be regarded as non-permitted information pursuant paragraph 5.4.16(h) of the draft MSA (i.e. any other commercially sensitive information of the Access Seeker which is not strictly required by the Access Provider to supply a requested Facility/and or Service). Further, Astro commented that the the information has intrinsic commercial value that enables decision-making around pricing, marketing strategy and even, projected sales volumes. This is not information which competing enterprises would ordinarily share. There is a possibility that an Access Provider would utilise such information to assist the Access Provider's own downstream activities. As such, an Access Seeker should not be required to provide this information to an Access Provider.
- 8.7 Astro also supported the inclusion of the requirement for meetings to take place either in person or virtually as more companies are adopting the hybrid working arrangements today. This will help to speed up the negotiation period for both parties given the convenience of virtual meetings.
- 8.8 Celcom agreed with the MCMC's proposed amendment to address negotiations that are not concluded within the timeframe in paragraph 5.4.1(c) of the draft MSA.
- 8.9 Celcom proposed to amend paragraph 5.4.6(c) of the draft MSA as follows:

"5.4.6(c) a list of the relevant licences held by Access Seeker *and information on any special licence condition, for example limitations on scope of licence.*"
- 8.10 Digi is of the view that the proposed paragraph 5.4.1(c) of the draft MSA may not be necessary. The complexity of an Access Agreement negotiation may vary depending on the terms, including the commercial terms being deliberated by the parties. Negotiating parties should not be required to report or seek the MCMC's consent to extend the duration of negotiation, as the timeframes stated in subsection 5.4.1 of the draft MSA is intended to be as a guide and not an absolute

obligation. Digi clarified that the MSA should consider that an aggrieved party has an avenue to notify the MCMC when there are clear unnecessary delays, where such aggrieved party has the option to request the MCMC to facilitate negotiations or to commence Dispute Resolution Procedures.

- 8.11 For 5G Services, Digi is of the view that all terms should be documented separately and thoroughly under the Service Specific Obligation for 5G Services. The new provisions relating to 5G Services proposed under subsection 5.4.18 of the draft MSA should be moved to Service Specific Obligations for 5G Services. As there will be no other alternative to access 5G services, it is critical that the terms to address capacity constraint defines a clear period of time for deployment and availability of additional capacity.
- 8.12 Digi added that where circumstances of capacity constraints cannot be resolved within the stipulated time, the MCMC's intervention is imperative to resolve the issue immediately including permitting mobile network operators (**MNO**) to use their current spectrum to provide 5G as an alternative to accelerate the roll-out of 5G networks and services.
- 8.13 Digi proposed to add the following obligations as a new subsection in the Service Specific Obligations for 5G Services of the MSA to substantiate the Access Provider's obligation to actively expand its 5G RAN and promote increased access to 5G Services:

"Capacity constraints: *If the Access Provider refuses an Access Request for 5G Services on the grounds that the Access Provider has insufficient capacity or space under subsection 5.4.11(d), the Access Provider shall notify the Commission in writing that it does not have sufficient capacity to meet an Access Request because the requisite capacity is:*

- (a) *already carrying traffic to full capacity or near full capacity; or*
- (b) *already reserved for future use by another Access Seeker, where such future use shall commence not later than six (6) months from the date of the Access Request. If the reserved capacity is not subsequently used by the reserving party within seven (7) months from the date of the Access Request.*

Notwithstanding the above, the Access Provider must, within 6 months of such refusal, and to the extent reasonably and commercially practicable, increase capacity on its 5G RAN or take such other measures that may be reasonably necessary to fulfil the Access Seeker's Access Request. The Access Provider must promptly inform the Access Seeker and, if required by the Access Seeker, reconsider the Access Request in accordance with the process set out in subsection 5.4 of this Standard.

If the Access Provider fails to increase the capacity on its 5G RAN within the timeframe stipulated above, the Access Provider must seek written approval from the Commission with sufficient proof. Commission will take all steps practicable to minimise disruptions and inconvenience to the Customers of the Access Seeker, including providing the Access Seeker with alternative arrangements."

- 8.14 DNB supported the MCMC's proposed amendments in subsection 5.4.1, paragraph 5.4.6(c) and subsection 5.4.22 of the draft MSA. DNB however has concerns with subsection 5.4.18 of the draft MSA. DNB's existing RAO requires DNB to work on an indicative lead time of six months to the extend reasonably and commercially practicable to uplift capacity to meet such request. DNB believes that there are situations where it would be unreasonable or impractical for DNB to offer additional capacity to a six-month deadline. Such circumstances might occur because of third-party delays. DNB sought the MCMC's consideration to modify subsection 5.4.18 of the draft MSA to take such circumstance into consideration. DNB is of the view that an indicative lead time of six months is more practical and realistic than setting a maximum of six months.
- 8.15 Edotco agreed with the MCMC's proposed amendments in subsections 5.4.1 and 5.4.22 of the draft MSA.
- 8.16 Fibrecomm and Maxis agreed with the MCMC's proposed changes to the Negotiation Obligations as the proposed changes strengthen the negotiation process.
- 8.17 Maxis proposed to amend paragraph 5.4.1 of the draft MSA to clearly specify that the period of four (4) months and three (3) months is a reference to Calendar Days and not Business Days. Maxis also suggested to amend paragraph 5.4.1(c) of the draft MSA to use the terms "either party" instead of "the parties". This will allow either party to directly escalate the matter to the MCMC should one party unnecessarily wants to delay the process, leading to more timely completion of negotiations.
- 8.18 Maxis further recommended to amend paragraph 5.4.1(d) of the draft MSA as follows:
- "5.4.1(d) if the matter is capable of resolution, the Commission may shall facilitate the negotiations including through mediation and decide on the issues within 30 Business Days, otherwise the Commission will direct the parties to initiate the Dispute Resolution Procedures (or any specific aspect of those Dispute Resolution Procedures)."*
- 8.19 Maxis added that the MCMC shall assist Access Providers and Access Seekers in finalising the terms of the negotiation that could not be resolved between parties after the negotiation timeframe of three to four months in paragraph 5.4.1(b) of the draft MSA. This is to prevent further delays in negotiating an access agreement, and to allow the conclusion of the negotiation process in a timely manner after escalation to the MCMC. It is unlikely that the negotiation will be resolved even if the MCMC directs the parties to the Dispute Resolution Procedures, since the parties have already been negotiating for three to four months unsuccessfully.
- 8.20 Maxis also agreed with subsection 5.4.11 of the draft MSA except in relation to 5G Services. As 5G Services are being provided under a single wholesale network provider scenario, the Access Provider shall not refuse an Access Request based on grounds stated in paragraphs 5.4.11(a), 5.4.11(c) and 5.4.11(d) of the draft MSA as there are no other options for the Access Seeker to purchase from. Maxis further recommended to include "For clarity, the Access Provider cannot refuse

an access request for 5G Services on the grounds of technical infeasibility” in subsection 5.4.17 of the draft MSA.

- 8.21 MyTV, Altel and Net2One agreed with the MCMC’s proposed changes in Negotiation Obligations. They commented that by providing a platform for a party (either the Access Seeker or the Access Provider) to report any negotiation delays to the MCMC, it may aid the affected parties in coming to a successful conclusion through the MCMC intervention. These amendments will facilitate effective negotiation between parties and avoid lengthy procedures and save time.
- 8.22 PPIT commented that the negotiation timeline is short as some negotiations take longer than few months stated in the draft MSA. PPIT clarified that Operators should be given the flexibility to decide on this matter commercially instead of it being mandated. PPIT also suggested to replace the word “must” to “may” in subsection 5.4.18 of the draft MSA, as the word “must” is onerous to them.
- 8.23 REDtone agreed with the proposed amendments to the Negotiation Obligations as well as with the MCMC’s rationale for the amendments.
- 8.24 TM proposed the MCMC to retain the current negotiation process. TM added that the MCMC may grant an extension for Access Providers and Access Seekers to resolve their issues amongst themselves instead of directly involving the MCMC.
- 8.25 TM further proposed to include the following amendments in subsection 5.4.1 of the draft MSA:
- “(d) if the Commission grants an extension of time under paragraph 5.4.1(c) of this Standard, it may do so subject to such conditions as it specifies (such as an ongoing requirement to provide updates on negotiations at specified intervals and the right to reduce or extend any extension).*
- “(e) if the matter remains unresolved post extension of time under paragraph 5.4.1(d) and is capable of resolution, the Commission may facilitate the negotiations including through mediation, otherwise the Commission will direct the parties to initiate the Dispute Resolution Procedures (or any specific aspect of those Dispute Resolution Procedures).”*
- 8.26 TM highlighted that there are Access Providers who are not compliant with subsection 5.4.7 of the MSA, and there are challenges in negotiating Access Agreement with other Access Providers which cause delay in concluding those Access Agreements.
- 8.27 TT dotCom is not agreeable with the proposed changes to the Negotiation Obligations due to:
- (a) new requirement that a disagreement between Access Seeker and Access Provider in the negotiation is referred to the Commission who shall mediate, is an intervention that is unnecessary because there has been no evidence that the existing process where disagreements at the Inter-Party Working Group (**IWG**) cannot be resolved at the ISG; and
 - (b) The MCMC should also consider that the RAO today contains the terms of the access agreement for an access service, and that it is the Access

Seeker's choice to accept and sign the terms and conditions or request for negotiation. Should a dispute arise, the Access Provider and Access Seeker should exhaust all avenues of the negotiation i.e. referring to the IWG and ISG, before escalating the matter to the MCMC.

- 8.28 U Mobile agreed that the timelines for negotiations are reasonable and have worked well in past, except where progress had been delayed due to third-party issues. U Mobile commented that in paragraph 5.4.1(c) of the draft MSA, any intervention by the MCMC should not result in an unfair advantage either from technical or commercial point of view to either party. U Mobile further agreed to the MCMC's proposal that access request contain information on relevant licences as stated in paragraph 5.4.6(c) of the draft MSA, as long as it is relevant to the scope of Facilities and/or Services requested under the Access Request and only privy to the related party (Access Provider and Access Seeker). However, U Mobile added that it would be superfluous for example, for a new provider to request such proof from long established Access Seekers such as incumbent MNOs and other established operators.
- 8.29 U Mobile commented that in subsection 5.4.18 of the draft MSA, the request should not be limited to only cover 5G RAN but all other services that are currently being commercially offered by Access Provider.
- 8.30 U Mobile agreed with the new subsection 5.4.22 of the draft MSA. U Mobile explained that timing for Access Agreement negotiation should not be limited to three to four months, as the negotiation may take longer. In cases where a revision is needed for existing Access Agreements, negotiations could be protracted or reach an impasse and/or remain unresolved. U Mobile then proposed to notify the MCMC if the negotiations have not progressed within three to four months.
- 8.31 YTL agreed with the proposed amendments in paragraph 5.4.1(c), paragraph 5.4.6(c), subsection 5.4.18 and subsection 5.4.22 of the draft MSA.

Discussion

- 8.32 Operators expressed a range of views regarding the negotiation obligations, indicating that there is scope for further improvements to be made to these provisions of the MSA.
- 8.33 The MCMC agrees with Astro that an Access Provider should not be permitted to use commercially sensitive information of Access Seekers to assist the Access Provider's own downstream activities. The MCMC notes that it will expand existing prohibitions on the use of Customer Information to apply across all Facilities and Services, which will address Astro's concern.
- 8.34 The MCMC does not agree with Celcom's proposal to amend paragraph 5.4.6(c) of the MSA to refer specifically to the provision by Access Seekers of information on any special licence conditions. The MCMC considers that the existing wording is sufficient and in any event, Access Providers may reasonably request further information from Access Seekers where required to provide access to the requested Facilities and Services, under subsection 5.4.6(m) of the MSA.

- 8.35 The MCMC accepts Digi's views that the complexity of an access agreement negotiation varies between deals, and the MCMC accordingly agrees to reinstate the original drafting in paragraphs 5.4.1(b) and 5.4.1(c) to preserve the parties' flexibility to agree extensions mutually while retaining a party's right to seek dispute resolution where required. This is also consistent with TT dotCom's submissions.
- 8.36 The MCMC acknowledges Digi's submission that the capacity constraint provisions relating to 5G Services should be moved to the Service Specific Obligations for 5G Services, however the MCMC considers it more appropriate to keep these provisions in the existing subsection 5.4.18 for simplicity, so that all the MSA obligations relating to capacity constraint issues are dealt with under subsection 5.4.
- 8.37 Digi also proposed changes to subsection 5.4.18 concerning 5G capacity constraints, requiring the Access Provider to actively expand its 5G RAN and promote increased access to 5G Services, including through a formal MCMC approval mechanism. The MCMC agrees that, where DNB fails to increase capacity on its 5G RAN within the stipulated timeframes in the MSA, DNB should be required to notify the MCMC in the interests of transparency and to ensure compliance.
- 8.38 However, the MCMC does not consider it appropriate to introduce a formal approval mechanism for failures by DNB to increase capacity, as proposed by Digi. Rather, the MCMC will require DNB to provide to the MCMC a statement of reasons for the delay in increasing capacity, including an estimated timeframe for completion of capacity augmentation.
- 8.39 The MCMC considers that this requirement will also respond to DNB's concerns with the proposed maximum timeframe of six months for capacity augmentation for 5G Services. Taken together with the obligation in subsection 4.5 for Access Providers to notify the MCMC of delays in meeting MSA timeframes caused by third parties, the proposed revisions to the MSA will address DNB's concerns with meeting the stipulated timeframes in circumstances where delays are beyond DNB's reasonable control.
- 8.40 The MCMC refers to Maxis' proposed amendment to paragraph 5.4.1(c) of the draft MSA to replace the reference in this provision to both parties to "either party" and notes its earlier comments that it will reinstate paragraphs 5.4.1(b) and (c) of the MSA as currently drafted.
- 8.41 PPIT submitted that the word "must" should be replaced with "may" in subsection 5.4.18 of the draft MSA, meaning Access Providers would not be obligated to address capacity constraints. The MCMC does not agree with this submission. The capacity augmentation obligation is an important obligation and should therefore not be framed in a manner which makes such augmentation optional.
- 8.42 The MCMC agrees with TM's proposal that, in granting an extension of time under paragraph 5.4.1(c), the MCMC should have the ability to specify conditions in respect of such an extension, and notes that it proposes to reinstate the original drafting which permitted this.

MCMC Views

- 8.43 As discussed above, the MCMC will amend the capacity constraints provisions to require the Access Provider to submit to the MCMC a statement of reasons for delay in increasing capacity on the 5G RAN within the stipulated timeframes, indicating an estimated time of completion. The MCMC will also clarify that, in granting an extension to negotiation timeframes, the MCMC may also specify such conditions as it sees fit.
- 8.44 The MCMC otherwise confirms its proposed amendments to the negotiation obligations as outlined in the PI Paper.

9 Forecasting Obligations

Introduction

- 9.1 In the PI Paper, the MCMC proposed amendments to the forecasting obligations to:
- (a) allow the parties to mutually agree to dispense with the obligations; and
 - (b) to clarify that an Access Provider may not recover costs from an Access Seeker in respect of any non-binding forecast period.

Question 9: What changes (if any) could be made to subsection 5.6 of the MSA in order to make the provision of forecasting information simpler (for Access Seekers) or more useful (for Access Providers)?

Submissions Received

- 9.2 Allo is agreeable for Access Seeker to provide forecast. The extension to three years is acceptable for initial stage of the agreement. However, the forecast must come with the minimum commitment per year basis.
- 9.3 Astro proposed to make changes to paragraph 5.6.13(a) of the draft MSA by replacing the word "relevant" with "compliant". The purpose of proposing the change is to have more clarity in respect of the Access Provider's timeframe to respond to a forecast (i.e. the timeframe for accepting or rejecting a forecast).
- 9.4 Astro submitted that the existing forecasting period for HSBB Network Services is already sufficient and that there is no necessity for the minimum forecast period for HSBB Network Services to be extended from one year to three years.
- 9.5 Astro also disagreed that the first 12 months of the forecast period should be made binding as proposed via amendments to subsection 6.6.3 of the draft MSA. Astro is in the view that the subsection 5.6.3 of the draft MSA is sufficient, where it provides that the Access Provider may request the Access Seeker to confirm the relevant forecast in the event that there is a significant cost incurred by Access Provider in providing access. Once confirmed, the forecast is deemed to be legally binding as an Order for the purposes of the MSA and that the Access Provider shall be able to recover any costs or expenses incurred due to the acceptance of the Order/Forecast.

- 9.6 Celcom commented that operators do not adopt process outlined in the MSA. The process is not applicable to most services. Celcom is in the view that subsection 5.6.4 of the draft MSA is sufficient for operators to choose to adopt a simpler forecast process.
- 9.7 Digi recommended to maintain the provisions for Access Seekers to provide forecasts, as the information is useful for Access Providers to ensure sufficient capacity is available to meet Access Seeker's demand. Forecast information would also enable Access Providers to design, plan and evaluate whether investment in network expansion or new technologies are needed. Digi further recommended for subsection 5.6.4 of the draft MSA to be retained without any amendments, as the subsection clearly provides flexibility to the parties to agree on an alternative forecasting procedure.
- 9.8 Digi also agreed with the standard forecasting and ordering procedure stipulated under Service Specific Obligations.
- 9.9 DNB supported the MCMC's proposal to amend subsection 5.6.4 of the MSA. DNB welcomes the flexibility for Access Providers and Access Seekers to agree on their own forecast requirements.
- 9.10 Edotco is of the view that receiving forecast information from Access Seekers is important to determine future orders and relevant plan which Access Provider is able to provide. Infrastructure providers are often making significant multi-year capital investments in tower and other digital infrastructure for Access Seekers in respect of which there is little mitigation when an Access Seeker pulls out late in the process, etc.
- 9.11 Fibrecomm is of the view to not propose any additional changes to subsection 5.6 of the MSA. Currently, Fibrecomm do not receive any forecast from Access Seeker nor provide forecast to Access Provider.
- 9.12 MyTV, Altel and Net2One agreed to the proposed amendments as it will facilitate for quick negotiation conclusion between involved parties.
- 9.13 PPIT also agreed on the amendments to subsection 5.6.4 of the draft MSA.
- 9.14 TM supported the changes made by the MCMC in subsection 5.6 of the draft MSA and is of the view that no further amendments are required as most access agreements are negotiated between the Access Provider and the Access Seeker.
- 9.15 TT dotCom proposed to retain subsection 5.6 of the current MSA to allow Access Provider and Access Seeker to mutually agree on an alternative forecasting and ordering procedure. TT dotCom added that when a Forecast is non-binding, the Access Provider will not be able to make necessary purchases of the BTU considering that BTUs are equipment which are technology-dependent and if left unused for a non-specific of time may become outdated.
- 9.16 U Mobile supported the proposed changes in subsection 5.6.4 of the draft MSA to allow the Access Provider and Access Seeker to agree on alternative forecasting and ordering procedure or to dispense with such procedure altogether. U Mobile further commented that in subsection 5.6.16 of the draft MSA, recovery for over-

forecasting should only be for confirmed Forecast as the Forecast is provided in good faith for the purpose of planning.

- 9.17 YTL agreed with the proposal for parties to mutually agree to dispense with forecasting. YTL explained that unless tied down to an agreement, forecasting should not be binding and should be viewed as part of the capacity planning process. YTL further proposed that Access Providers should not prescribe the minimum capacity that Access Seekers must procure or that the capacity procured should be similar to capacity procured by other Access Seekers.

Discussion

- 9.18 The MCMC notes that a majority of operators agreed with the MCMC's proposal to allow Access Seekers and Access Providers to mutually agree to dispense with forecasting. Operators also had limited comments on the forecasting obligations more generally, indicating that these obligations are generally acceptable to the industry.
- 9.19 Given the relatively limited submissions on these provisions, and noting the general consensus amongst operators regarding the MCMC's proposed changes in the draft MSA, the MCMC does not consider that any further changes are necessary to these provisions.

MCMC Views

- 9.20 The MCMC confirms its preliminary view in respect of the forecasting obligations, and will not make any further changes beyond those proposed in the draft MSA.

10 Ordering and Provisioning Obligations

Introduction

- 10.1 Given ordering and provisioning are central to an Access Seeker's ability to plan for and supply in a downstream market, in the PI Paper the MCMC proposed to make a number of amendments to the MSA to improve transparency and fairness in relation to the ordering and provisioning process.

Question 10: Have Access Seekers experienced any issues with an Access Provider rejecting an Order on the grounds that the Access Seeker had not obtained the necessary related agreements from the Access Provider (under paragraph 5.7.17(e) of the MSA)? Should this rejection right be removed from the MSA?

Question 11: Do Access Providers typically implement a POC or do Access Seekers face difficulty in obtaining this from Access Providers where required? Would any impediments be addressed by including a new requirement that the Access Provider must provide a POC on request?

Question 12: Do Access Providers typically pay late delivery rebates pursuant to subsection 5.7.33 of the MSA or are the consequences of any delays negotiated through commercial channels?

Question 13: Do you agree with the MCMC's proposed changes to the ordering and provisioning obligations set out at subsection 5.7 of the draft MSA? Why or why not? If not, please specify what change you consider is required and explain why.

Submissions Received

Rejection of orders

- 10.2 Allo, Astro, Fibrecomm and Sacofa commented that they do not have any experience of Orders being rejected by Access Provider due to not submitting the necessary related agreements to the Access Provider.
- 10.3 Astro is supportive of the removal of paragraph 5.7.17(e) of the MSA and agrees with Maxis that the paragraph can be misused by the Access Provider to the disadvantage of the Access Seeker.
- 10.4 Celcom and Digi submitted that there has been no rejection of an Order by their respective Access Providers and as such, Celcom has no objection on the removal of 5.7.17(e) of the MSA whilst Digi has no comment on the removal of the said paragraph. Fibrecomm prefers paragraph 5.7.17(e) to remain in the MSA.
- 10.5 Edotco submitted that they have not rejected any Order on grounds that the access seeker has not obtained the necessary related documents from the Access Seeker, thus, clauses related to rejection to be removed from MSA. Edotco added that communication via commercial negotiation takes place between parties before proceeding to the next step if there is lack of pertinent information prior to any site proposal.
- 10.6 Maxis agreed that paragraph 5.7.17(e) of the MSA should be removed as the rejection right can be misused by the Access Provider causing disadvantage to the Access Seeker.
- 10.7 MyTV, Altel and Net2One supported abolishing paragraph 5.7.17(e) on the grounds that it is not realistically applicable.
- 10.8 TM proposed to retain the right of refusal if the Access Seeker has not obtained the necessary agreements from the Access Provider under paragraph 5.7.17(e) of the MSA as some Facilities and Services in the Access List cannot be acquired on a standalone basis i.e. Network Co-location Service.
- 10.9 TT dotCom proposed to maintain paragraph 5.7.17(e) because by obtaining the necessary agreements from the Access Provider, the Access Seeker would have fulfilled certain requirements for the services to be executed including from the perspective of security and safety i.e. regarding access to a new Point of Interface.
- 10.10 TT dotCom added that the Access Seekers must exercise a choice to either accept the delay and be compensated or cancel the Order when a delay is caused by Access Providers or third parties. TT dotCom stated that Access Seekers should not be allowed to choose both i.e. accept the delay and be compensated and later on cancel the Order without giving any compensation to the Access Provider. To do otherwise is contrary to the principle of proportionality.

- 10.11 U Mobile agreed that the rejection right in paragraph 5.7.17(e) of the draft MSA should be removed from the MSA as there should not be additional impediments for the Access Seeker to gain access. U Mobile proposed to add another item under subsection 5.7.26 of MSA where the Access Seeker may cancel the Order without any penalty if the Access Provider or any third party imposes any “un-agreed” and unreasonable additional charges in which the groundwork has not been adopted by the operators.
- 10.12 U Mobile agrees with the MCMC to remove paragraph 5.7.17(e) in the draft MSA.
- 10.13 YTL commented that they have experienced situations where Access Providers have sought to reject access requests on the grounds that the facility or service has not been acquired in the past.
- 10.14 YTL submitted that the provision on rejection of Orders is very wide and can potentially be invoked by rejecting other related Facilities and Services required for access. For example, if the Access Seeker owns last mile fiber and proposes to acquire Trunk Transmission Service, the Access Provider can reject request for co-location or refuse Point of Interface. YTL is of the view that for such requests, the Access Provider should be required to also offer access to other related Facilities and Services necessary.
- 10.15 YTL agreed to the amendments of paragraph 5.7.17(e) as it can potentially be used for rejecting Orders. YTL proposes that the Access Providers provide other Facilities and Services related to the fulfilment of the Order and these should require separate approvals.

Implementation of POC

- 10.16 Although Allo recommended a POC to ensure end to end services are meeting the expectation, Allo is of the view that Access Seekers should bear some costs especially third party costs i.e. cross-connect charges.
- 10.17 Celcom and Digi stated that they have not faced difficulties or impediments in obtaining POC.
- 10.18 According to Celcom, the operators have a practice to perform testing for certain Facilities and Services. Therefore, Celcom is of the view that it is not appropriate to mandate POC since not all services require POC. Celcom, however, have no objection to include an obligation on the Access Provider to implement the POC.
- 10.19 DNB supports the MCMC’s proposal to require Access Providers to implement a POC if requested by Access Seeker and considers that the “Test Services” procedures in Section 8 of their existing RAO for 5G Services are already consistent with this requirement.
- 10.20 Digi is of the view that the POC implementation should be mutually agreed between parties as the arrangement may vary between one operator to another.
- 10.21 Edotco stated that they do not provide a POC but is willing to discuss this issue with their wholesale customers under commercial negotiation since no request for POC has been submitted by their Access Seekers, to date.

- 10.22 Fibrecomm submitted that POC will be considered before ordering process upon request by Access Seeker subject to availability of the service and any cost incurred should be borne by Access Seeker.
- 10.23 Maxis submitted that POCs are typically implemented by the Access Provider, as such, Maxis agrees with the MCMC's proposed amendments to draft MSA subsection 5.7.27 as it addresses the need for POC implementation especially for new Facilities and Services.
- 10.24 MyTV, Altel and Net2One supported the proposal by the MCMC on the implementation of POC if requested by Access Seeker, however, would like the POC to be implemented for a specific period which should be mutually agreed by both parties.
- 10.25 PPIT submitted that POC is not required for Infrastructure Sharing. With regard to late delivery rebate, PPIT reiterated their response to the MCMC's questionnaire that they have no intention to delay entry to their sites and if there are any such delays, it should be dealt via negotiations.
- 10.26 REDtone submitted that they had minimal POC and that the terms have been defined by Access Provider. REDtone is of the opinion that POC should be at zero or minimal cost to Access Seeker when the infrastructure or service to perform POC belongs to an Access Provider. REDtone, thus, proposes that POC be included under subsection 5.7.27.
- 10.27 Sacofa submitted that Access Providers do not typically implement a POC and did not provide further comments.
- 10.28 TM typically implements a POC before the Access Seeker submits an Order. At present, TM implements its POC before any Order request and upon successful completion of POC, TM enables the service availability to its Access Seekers. Therefore, this activity does not need to be repeated in subsequent stages.
- 10.29 As such, TM proposed to remove the requirement for Access Providers to develop a POC during the ordering and provisioning process as POC should have been conducted prior to submission of Order request. TM supports the development of a POC subject to cooperation from Access Seekers in relation to the testing and provisioning of ordered Facilities and/or Services. The POC can be included in the Service Specific Obligations where required.
- 10.30 U Mobile agreed with POC implementation in paragraph 5.7.27(a) if requested by Access Seeker.
- 10.31 U Mobile noted that the implementation of POC is important for new services like 5G to ensure smooth integration. U Mobile submitted that the implementation of a POC depends on mutual agreement between parties and normally, the POC is required when it involves a new technology/arrangement such as 5G/MOCN/MORAN/etc. U Mobile added that the POC may be carried out in the lab or in the active network, depending on the readiness of both Access Seeker and Access Provider.

- 10.32 As for requirement of POC, YTL would like the request to be structured in a way that facilitates the Order rather than disguised as finding ground for rejection.
- 10.33 In YTL's experience for IP Interconnect, YTL faced some challenges to require Access Provider to implement a POC for the IP Interconnect as their existing network design and test lab setup does not support. YTL submitted that they were only able to test the new service via the actual live environment, as such a POC is helpful. In addition to POC, YTL would like a requirement for testing to confirm the functionalities of the Facilities and Services that are being acquired.
- 10.34 An operator provided input that the Access Agreement between them and their Access Provider requires the completion of a successful POC in respect of Layer 3 HSBB Network Service and as such, the licensee did not face any difficulties and was able to work well together on the POC with the Access Provider. Nevertheless, the licensee agrees with the MCMC's proposal to include the requirement to implement a POC to safeguard against situations with an unwilling or non-collaborative Access Provider.

Late delivery rebates

- 10.35 Digi is of the view that the provisions for payment of rebate for late delivery proposed by the MCMC under draft MSA is acceptable and noted that operationally, the methodology and unit rates for calculating such rebate is commercially negotiated.
- 10.36 DNB supported the MCMC's proposals regarding late delivery rebates in subsection 5.7.33 of the draft MSA on the assumption that rebates and service credits are equivalent. Whilst DNB's existing RAO does not currently regard late delivery rebate, any specific terms and conditions including delivery timeframes and consequences, would be agreed by the parties at the time of entering into the Access Agreement or any addendum to an existing Access Agreement, as appropriate.
- 10.37 With regards to late delivery rebates, Edotco has not been charged late delivery penalty. This is in line with Edotco's existing Access Agreement which has site readiness period excluding period of approval process from local counsel.
- 10.38 Edotco considers that the optimal approach is to discuss with its Access Seekers on the issues faced in relation to a possible late delivery. In the event the delays are caused by 3rd party and out of Edotco's control, terms under commercial arrangements will prevail.
- 10.39 Edotco continues to support the position that an Access Seeker should be required to pay all the associated costs incurred to cancel the Order at the time the cancellation is made. The option is more favourable than limiting the late delivery rebates based on the sum of charges that is considered payable by the Access Seeker in the 6 months following the cancellation of Order.
- 10.40 Edotco added that Access Providers would have expanded the entire cost for the site which will not be sufficiently recovered via 6 months' charges only if the cancellation is made near to the completion of delivery of a site.

- 10.41 Whilst the MCMC may not agree with Edotco's approach on cancellation requirement, Edotco would like to suggest for an inclusion of a clause to address the above issue so that any risk associated will be minimized with the approval from the MCMC.
- 10.42 With regards to late delivery rebates, Fibrecomm stated that Access Seeker never submit claim on late delivery rebate as the revised ready for service (**RFS**) date is mutually agreed by both parties.
- 10.43 Maxis stated that Access Providers typically pay late delivery rebates and as such, Maxis agrees with the MCMC's proposed amendments for subsections 5.7.33 and 5.7.34 in the Draft MSA.
- 10.44 MyTV, Altel and Net2One do not have any experience with regard to the payment pertaining late delivery rebates since all service deliveries were completed within the timeframe.
- 10.45 REDtone has not charged Access Providers for late delivery either at access or commercial level.
- 10.46 Sacofa submitted that Access Providers typically pay late delivery rebate but did not provide further comments.
- 10.47 TM highlighted that late delivery rebates are already specified in its RAO.
- 10.48 As Access Providers are required to provide rebates to Access Seekers based on the MCMC's proposed amendments in subsection 5.7.33, TT dotCom commented that the same treatment should be applied for Access Providers by way of compensation on the delay caused by Access Seekers.
- 10.49 Whilst the proposed amendments are practical, U Mobile would like to stress that the Access Provider must have the burden to demonstrate that it has done all things necessary to minimise such failure – as stipulated in paragraph 5.7.33(b) in draft MSA.
- 10.50 YTL submitted that the acceptance of an Order creates contractual obligation that need to be fulfilled. As such, the requirement for the methodology and costing of delays should be retained and reflected in the RAO so that the requirement can be discussed between parties.
- 10.51 An operator stated that they have only experienced late delivery which is confined to Layer 3 HSBB Access Services where all delays are treated as unlimited returned Order pursuant to the specific terms set out in the Supplemental Agreement with their Access Provider.

Comments on MCMC's Proposed Changes to Subsection 5.7

- 10.52 Allo and Celcom proposed to conduct negotiations through commercial channels instead of the MCMC's regulated ordering and provisioning obligations through the MSA.
- 10.53 Astro submitted that they do not have any comments on the proposed amendments/new provision for subsections 5.7.33 and 5.7.34 of the draft MSA.

Astro also welcomes the proposed changes to the ordering and provisioning obligations set out in subsection 5.7 of the draft MSA which is in line with greater transparency and disclosure.

- 10.54 Astro agreed with the proposed amendments in paragraph 5.7.13(c) of the draft MSA clarifying on the charges to be specified in an Access Provider's notice of acceptance to the Access Seeker's Order as this will help reduce the time spent by parties in negotiations.
- 10.55 Astro also agrees with the MCMC's preliminary views to not remove the queuing policy requirements in subsections 5.7.29 and 5.7.30 of the draft MSA to ensure that the non-discriminatory principles are being adhered to.
- 10.56 In terms of paragraph 5.7.28(b) of the draft MSA on resource charge, Astro pointed out that although some of the Access Providers do not disclose the methodology and unit costs, the charges can be benchmarked with the current industry rate. However, Astro stated that the issues are not about disclosure of the methodology but whether the unit cost or rate appropriately corresponds to the nature of job.
- 10.57 Astro agreed with Maxis's submission that charges should be computed based on direct costs incurred and disclosed upfront in the Access Agreement by the Access Provider and that there should be a right of audit and recourse by an Access Seeker in the event that the charges being levied seem excessive compared to market rates.
- 10.58 Celcom accepted the proposed changes by the MCMC to the ordering and provisioning obligations since the changes are to notify the Access Seeker of the available capacity after pre-Order Service Qualification instead of at the point of receipt of an Order.
- 10.59 Digi stated that no penalties will be imposed for delays caused by a third party including where delays are caused by local authority and landowners. Overall, Digi is agreeable to the proposed changes by the MCMC for MSA subsection 5.7.
- 10.60 DNB supported the MCMC's proposal to move notification of insufficient capacity from the Notice of Receipt to the Service Qualification step.
- 10.61 Edotco and Fibrecomm supported the MCMC's proposed changes to the ordering and provisioning obligations. Fibrecomm added that the proposed changes are necessary to address the needs and protection required by Access Seeker and Access Provider.
- 10.62 Maxis agreed with the MCMC's proposed changes to move the provision that was previously under paragraphs 5.7.6(c) to 5.7.9(b) as this would provide greater clarity and agrees that Access Provider must advise the Access Seeker of the grounds of rejection for greater transparency.
- 10.63 Maxis also agreed with the MCMC's suggestion to add additional clarity on what charges may be applicable to fulfil an Order, including without limitation of additional works such as internal wiring, right of way, land rental, local authority permits and third-party deposits.

- 10.64 Maxis concurred with the MCMC's proposed changes on delayed delivery dates and resource charges. Maxis added that the proposed changes on resource charge will provide greater clarity, transparency and fairness to Access Seekers on potential charges by the Access Provider.
- 10.65 MyTV, Altel and Net2One supported the MCMC's recommendation on the provisioning and ordering requirements outlined in subsection 5.7 of draft MSA as it is protecting the rights of both the Access Provider and Access Seeker.
- 10.66 PPIT commented that the changes being proposed by the MCMC are reasonable.
- 10.67 Overall, REDtone agreed with the MCMC's proposed changes to the ordering and provisioning obligations set out at subsection 5.7 of the draft MSA.
- 10.68 TM added that if an Access Seeker wants access to two Facilities and Services, the Access Seeker would have to subscribe to both in the Access Agreement. TM also submitted that the Access Provider should have the right to refuse access and direct the Access Seeker to subscribe to the required Facility and/or Service. TM is of the view that subsection 5.7.33 is acceptable. Operationally, the methodology and unit rates for calculation of rebate is commercially negotiated at present.
- 10.69 TM's proposed deletion to paragraph 5.7.27(a) of the Draft MSA as follows:
- (a) "shall co-operate with the Access Seeker in relation to testing and provisioning of ordered Facilities and/or Services, ~~including, but not limited to, by implementing a proof of concept if requested by the Access Seeker; and...~~"
- 10.70 TM proposed the following amendments to subsection 5.7 of the MSA:
- (a) *apply queuing policy only where practical and reasonable subject to change in circumstances (subsections 5.7.4, 5.7.6 and 5.7.29 of the MSA)*
- 10.71 TM commented that establishing a queue system for Infrastructure Sharing is challenging as TM has limited information on this type of services and there is no inventory management system available. For instance, where a joint survey may be required for towers, TM is unable to determine the condition of the infrastructure or if there is available capacity on the towers. As such, TM find it challenging to update Access Seekers on their position in the queue. TM however submitted that TM is able to provide Access Seekers with an indicative timeline for when the service would be available once TM completes the joint survey on the requested tower by Access Seekers.
- 10.72 Additionally, based on industry practice, Access Seekers are handled by individual account managers who monitor the Orders and Orders are also submitted manually. Since TM serves many Access Seekers with multiple Orders across different geographical regions, TM finds it significantly challenging for its account managers to tally Orders to establish a single queue system. TM proposes that the MCMC account for the volume of Orders TM deal with daily along with lack of information and lack of an inventory system, for some Facilities and Services. TM

noted that TM would establish a single queue system where applicable and where information and infrastructure is available.

10.73 TM proposed minor amendments for MSA subsection 5.7.4 as follows:

(a) "An Access Provider shall, *where practical and reasonable:...*"

10.74 TM proposed minor amendments to paragraph 5.7.6(d) as follows:

(a) "the position of the Order in the Access Provider's queue, *where practical and reasonable.*"

10.75 TM proposed minor amendments to subsection 5.7.29 as follows:

(a) "...and maintain a queuing policy for each Facility and/or Service, *where practical and reasonable, which:.....*";

(i) *amend Service Qualifications to include a condition that requires Access Provider to provide Access Seeker with any associated costs which will be incurred to perform the post-Order Service Qualification (subsection 5.7.8 of the MSA) where the associated cost may include permit cost and cost for civil works.*

(ii) *add an additional clause to allow the extension of the Service Qualification timeframe due to third party delay (subsection 5.7.9 of the MSA). TM proposed the following wordings to include this amendment between paragraphs 5.7.9(a) and 5.7.9(b) in the Draft MSA:*

10.76 TM proposed the following to be included between paragraphs 5.7.9(a) and 5.7.9(b) of the Draft MSA:

(b) "Where there is delay in the commencement and/or completion of the Service Qualification, and the delay is caused by either the Access Seeker or by a third party that is not acting under the Access Provider's direction or control:

(i) *the Access Provider shall notify the Access Seeker of the delay to the delivery date as soon as practicable after the Access Provider becomes aware of it;*

(ii) *the Access Provider and Access Seeker must work together to minimise the delay; and*

(iii) *the delivery date shall be extended for a further period as reasonably necessary, and the Access Provider shall promptly notify the Access Seeker of the revised completion date."*

10.77 TM proposed to add a clause to recover the cost of withdrawing an Order following a Service Qualification (subsection 5.7.10 of the MSA). The cost incurred by the Access Provider in performing a Service Qualification may include permit application fees. TM as an Access Provider should not bear the cost of conducting Service Qualification as the Order request comes from the Access Seeker. TM proposed minor amendments as follows to address this issue:

“5.7.10 Withdrawal of Order following Service Qualifications: An Access Provider shall permit an Access Seeker to withdraw its Order without penalty *but would be allowed to recover the cost of Service Qualification undertaken* (irrespective of whether the Access Provider has accepted the Order or not) before the earlier of:”

- 10.78 TM proposed to amend and add a separate clause on delays caused by third parties and impose penalties for delays caused by Access Seekers in the event that the delay is caused by either the Access Seeker or a third party (subsection 5.7.24 of the MSA). TM is of the view that this delay unduly penalises the Access Provider and since the ultimate aim is to not penalise the Access Provider for delays caused by a third party, the Access Seeker should not be allowed to cancel its Order without a penalty in the event of such delays.
- 10.79 TM therefore, proposed that any delays by third parties to be treated separately and in such cases, TM proposes that the Access Provider should notify the Access Seeker of the delay and extend the delivery date.
- 10.80 As for delays caused by Access Seeker, TM proposes that compensation be imposed and that the amount should be based on a mutual agreement between parties, on a case-by-case basis so as to compensate the Access Provider for any resources that the Access Provider has reserved for the deployment.
- 10.81 TM’s proposed amendments to subsection 5.7.24 of the MSA is as follows:

“5.7.24 Delayed delivery dates: Where there is a delay in the delivery of an Order, and:

- (a) the delay is caused by ~~either the Access Provider and third party under the Access Provider’s direction or control or by a third party, that is not acting under the Access Provider’s direction or control:~~
- (i) the Access Provider shall notify the Access Seeker of the delay to the delivery date, together with the reasons for the delay, as soon as practicable after the Access Provider becomes aware of the possible delay;
 - (ii) the Access Provider shall permit the Access Seeker to cancel the Order without penalty if the delay is longer than the equivalent time period for delivery of the Facility and/or Service; and
 - (iii) the delivery date shall be extended for a further period as reasonably necessary, and the Access Provider shall promptly notify the Access Seeker of the revised delivery date; or
- (b) *where the delay is caused by a third party that is not acting under any party’s direction or control (e.g. authority and landlord):*
- (i) *the Access Provider shall notify the Access Seeker of the delay to the delivery date as soon as practicable after the Access Provider becomes aware of it;*

- (ii) *the delivery date shall be extended for a further period as reasonably necessary, and the Access Provider shall promptly notify the Access Seeker of the revised delivery date.*
- (c) ~~(b)~~ where the delay is caused by the Access Seeker *and third party under the Access Seeker's direction and control*:
- (i) the Access Provider shall notify the Access Seeker of the delay to the delivery date as soon as practicable after the Access Provider becomes aware of it;
 - (ii) the Access Provider and Access Seeker must work together to minimise the delay; and
 - (iii) the delivery date shall be extended for a further period as reasonably necessary, and the Access Provider shall promptly notify the Access Seeker of the revised delivery date; *and*
 - (iv) *the Access Seeker should pay a compensation to the Access Provider, which will be mutually agreed on a case-by-case basis."*

10.82 TM proposed to remove the term "reasonable satisfaction" and the requirement for Access Providers to justify costs to Access Seekers and to provide clarification on standard rates for resource charges provided in RAOs (subsection 5.7.28 of the MSA). TM is of the view that the need to justify one-off fees to the Access Seekers' reasonable satisfaction is not practical. There is a conflict of interest as Access Seekers would want to contend the one-off cost from the Access Provider in an attempt to lower its fees. Thus, the term "reasonable satisfaction" may result in dispute between the parties.

10.83 TM noted that the standard one-off fees are included in its RAO and agrees with the need to specify and provide a breakdown of the methodology and unit rates. Examples of non-standard rates include transportation on foot by porter for refuelling of generator set at a tower site in Mount Kinabalu where the geographical location is challenging, terrain wise.

10.84 Whilst TM is supportive to release details of commercial rates and the methodology used to derive the one-off resource charges during negotiations, TM submitted that it may not be able to release internal cost information to Access Seekers as they are direct competitors and such cost information is sensitive. Operators also have different cost structures resulting in different unit costs for the same resource. TM finally commented that TM would only be able to release the actual cost information to the MCMC on a confidential basis during dispute resolution process.

10.85 Based on the above, TM proposed to amend the word "costs" and use the word "rates" instead, to avoid any confusion. TM's proposed amendments to subsection 5.7.28 are provided as follows:

"5.7.28 Resource charge: An Access Provider:

- (a) is justified by the Access Provider, to the Access Seeker ~~Seeker's reasonable satisfaction~~, as necessary for the Access Provider to provide the requested Facilities and/or Services; and
- (b) must specify the methodology and unit ~~costs~~ rates (including any potential or contingent unit ~~costs~~ rates) for calculating any fees under paragraph 5.7.28(a) above, and in its RAO. An Access Provider may reasonably require that information under this paragraph 5.7.28(b) be subject to a confidentiality agreement in accordance with subsection 5.3.8 of this Standard.
- (c) *must specify the methodology and unit rates (including any potential or contingent unit rates) for calculating any fees under paragraph 5.7.28(a) above that have not been included in its RAO. An Access Provider may reasonably require that information under this paragraph 5.7.28(b) be subject to a confidentiality agreement in accordance with subsection 5.3.8 of this Standard."*

10.86 TM proposed to introduce penalties for late delivery caused by Access Seekers (subsection 5.7.33 of the MSA) as Access Seekers should be held to the same standards. Late delivery caused by Access Seekers results in losses for the Access Provider due to Access Provider's inability to utilise the resources booked for delivery of the Access Seeker's Order. The inclusion of a penalty would serve as an incentive for Access Seekers to be more efficient.

10.87 As such, TM proposed the following amendments for subsection 5.7.33:

"...acting under the Access Provider's direction or control, the Access Provider shall have the burden of demonstrating:

- (a) that allegation; and
- (b) that the Access Provider has done all things reasonably practicable to minimise or avoid such failure.

If the delay is caused by the Access Seeker, then the Access Seeker shall be liable to pay a compensation to the Access Provider, which will be mutually agreed between the Access Seeker and the Access Provider."

10.88 With regards to the proposed revision to paragraph 5.7.28(a) of the draft MSA, TT dotCom would like to suggest that the MCMC's proposed revision in the draft MSA to be revised from "Seeker's reasonable satisfaction" to "to be mutually agreed by both parties".

10.89 TT dotCom is not agreeable to the proposed revision in subsection 5.7.9 of draft MSA as it will be challenging to provide the required information i.e. available capacity and timeframe for the fulfilment of the Order based on the given timeline i.e. one Business Day for HSBB.

- 10.90 TT dotCom is also not agreeable with the proposed revision in subsection 5.7.13 of draft MSA as it is not possible to determine charges which are imposed by third parties as these charges can only be determined at a later stage i.e. upon completion of the related works.
- 10.91 TT dotCom is not agreeable to the MCMC's proposed changes in subsection 5.7.24 of draft MSA and subsection 5.7.33 of draft MSA as it is contrary to the principle of proportionality.
- 10.92 As it is not possible to determine charges which are indirect and unforeseeable and/or imposed by third parties, TT dotCom is not agreeable with the proposed revision of "*including any potential or contingent unit costs*" as it is not possible to determine charges which are indirect and unforeseeable and/or imposed by third parties. Additionally, these charges can only be determined at a later stage i.e. upon completion of the related works.
- 10.93 U Mobile generally agreed with the MCMC's proposed changes aimed at improving the ordering/provisioning process. However, U Mobile disagreed with the MCMC's proposed amendment in paragraph 5.7.13(c) of the draft MSA as the Access Provider would more likely pass through all costs which should have been borne by them to the Access Seekers instead. This would invariably increase the cost of access and delay rollout.
- 10.94 U Mobile agreed to the MCMC's amendments in paragraphs 5.7.6(c) and 5.7.9(b) of the draft MSA and commented that Access Provider is responsible to notify Access Seekers on the available capacity.
- 10.95 U Mobile also agreed with subsection 5.7.12 of draft MSA and added that Access Providers should provide such transparency to Access Seekers during the ordering process.
- 10.96 As for the amendments proposed by the MCMC in paragraph 5.7.13(c), U Mobile would like changes in the Notice of Acceptance to be applicable only if Access Seeker bear the costs such as internal wiring, right of way etc. Costs that Access Provider need to bear should not be included in the MSA.
- 10.97 Apart from above, U Mobile's comments on the ordering and provisioning obligations are as follows:
- (a) U Mobile agreed with delay caused by third party highlighted by the MCMC in paragraph 5.7.24(a);
 - (b) U Mobile agreed with the MCMC's new insertion of paragraph 5.7.27(c) and subsection 5.7.34 in the draft MSA;
 - (c) U Mobile proposed that the resource charge amount shall be mutually agreed between parties for paragraph 5.7.28(a). As for paragraph 5.7.28(b), U Mobile agrees on the specific methodology and unit cost for calculation of fee but subject to mutual agreement between parties for paragraph 5.7.28(a) of the draft MSA; and
 - (d) U Mobile agreed with the MCMC's insertion of third party cause for late delivery in MSA subsection 5.7.33.

- 10.98 YTL agreed with the MCMC that resource charge must be justified and discussed with Access the Access Seeker. YTL also agrees with the MCMC's proposed changes in subsection 5.7.33 and inclusion of new provision in subsection 5.7.34 in the draft MSA.
- 10.99 YTL agreed with the insertion of paragraph 5.7.9(b) proposed by the MCMC but would like paragraph 5.7.6(c) to be retained. YTL added that the subsection 5.7.6 is about the Notice of Receipt whilst subsection 5.7.9 is about action taken subsequent to the issuance of the Notice of Receipt, therefore, both should be kept separate.
- 10.100 YTL agreed on the proposal to amend subsection 5.7.12 to include grounds for the rejection if an Order is rejected. As for paragraph 5.7.13(c) to include one-time charges, YTL objected to the requirement to pay the charges in full unless there is an exclusive use of the Facilities and Services.
- 10.101 An operator made reference to TM's submission in paragraph 12.37 of the PI Paper where TM proposed for the single queue system to be removed and preferred the practicality of "first come, first served" basis since TM and most Operators do not have a queue system in place.
- 10.102 Whilst the operator submitted that TM's "first come, first served" basis is sufficient as a queuing policy/system, the Operator stated that it just needs to be translated to logic and sequence. The Operator pointed out the necessity for the queuing policy/system to remain because the Operator anticipates that there would be a lot of scope for discrimination to occur otherwise.
- 10.103 The operator also made remarks about subsection 5.7.28 on resource charge where it pointed out that an Access Provider discloses the methodology and unit costs but the unit charge is based on engineer rates which are higher as compared to technician rates. The operator also submitted that the jobs related to the resource charge are all technical in nature which only requires technicians.

Discussion

- 10.104 Generally, operators agreed with the MCMC's proposed changes to the ordering and provisioning obligations. In particular, operators nearly unanimously agreed with the MCMC's proposal to require Access Providers to provide a POC on request, with some limited comments on resource charges and delayed delivery dates. However some operators proposed more extensive additional amendments, which are discussed below.
- 10.105 Beginning with TM's proposals:
- (a) the MCMC does not agree that a queuing policy should only be applied where practicable and reasonable, and subject to a change in circumstances. Queuing obligations are crucial to upholding the principles of non-discrimination and equivalence of inputs, and it would be inappropriate to limit their application;
 - (b) the MCMC accepts TM's proposal to allow an extension to the Service Qualification timeframe in the event of delays by third parties not acting under the Access Provider's direction or control. The MCMC also accepts the

addition of a clause to recover cost of withdrawing an Order following the performance of a Service Qualification;

- (c) the MCMC does not agree with the amendment proposed to subsection 5.7.24 which attempts to set different obligations for different circumstances of delay. The MCMC considers the process should be the same irrespective of the cause for delay;
- (d) the MCMC acknowledges TM's concerns relating to the justification of resource charges and accepts the suggested amendments to paragraph 5.7.28(a), with some additional variations. Instead of justifying costs to the Access Seeker's reasonable satisfaction, the MCMC will simplify this formulation by requiring the Access Provider to "reasonably justify" the one-off fee. This will provide an objective basis on which the one-off fee is assessed, and also aligns more closely with TT dotCom's proposal in this regard. Apart from this change, the MCMC will amend the MSA as proposed by the TM; and
- (e) the MCMC does not agree with TM's submission to introduce penalties for late delay caused by the Access Seeker. There is also a risk that this provision could put TM in breach of its equivalence of inputs obligations by not imposing the same penalties internally within TM.

10.106 TT dotCom disagreed with a number of the MCMC's proposed changes to these provisions. The MCMC acknowledges TT dotCom's submissions, but considers that the changes are in the LTBE in that they are designed to proactively address access issues at the crucial ordering and provisioning stage, which has been expressed as an area of concern for Access Seekers (and accordingly end users). Further, most operators agreed with the proposed amendments, so there is no compelling justification for the MCMC to reverse its preliminary view.

10.107 The MCMC acknowledges the proposed changes to the MSA by U Mobile, however does not consider mutual agreement of the resource charge amount necessary given the existing objective approach to calculating and determining the costs and rates applicable to one-off fees.

MCMC Views

10.108 The MCMC will make targeted amendments to adopt the changes proposed by TM in respect of extensions to the Service Qualification timeframe, and justification of resource charges.

11 Point of Interface Procedures

Introduction

11.1 In the PI Paper, the MCMC proposed to retain the POI procedure requirements but requested to receive submissions on whether any alternative models are preferred in a Next-generation Network environment.

Question 14: Have Access Seekers experienced any difficulties in obtaining POI access at the prescribed locations published by Access Providers? In addition, do Access Providers typically publish POI locations that are in compliance
--

with subsection 5.8.6 of the MSA? Please comment on whether you would report such non-compliance to the MSA (as an Access Seeker) or the reason you may not offer POIs at the prescribed locations (as an Access Provider).

Submissions Received

- 11.2 Astro and Digi submitted that they did not face any difficulties in acquiring and obtaining Point of Interface access at the prescribed locations published by the Access Providers.
- 11.3 Nevertheless, Astro submitted that they face certain issues with the definition of particular terms used i.e. definition of Service Gateway (**SG**) as an optical line terminal (**OLT**). This would result in Access Seeker being required to pay huge amount of SG activation charges.
- 11.4 From a technical perspective, Astro submitted that if an Access Seeker is to interconnect with individual Access Provider's OLTs nationwide, the Access Seeker will need to maintain regional networks for the interconnection, which is prohibitive on cost grounds. Additionally, if an Access Seeker is required to interconnect with the individual Access Provider's OLTs, this will result in bandwidth inefficiency as the bandwidth will not be aggregated before reaching Point of Interface. The OLT itself will not have so many ports to permit interconnection with all Access Seeker especially in a dual-homing setup. In contrast, if the SG is correctly defined as the Point of Interface at the Access Provider's aggregation network, then the Access Seeker only needs to have a handful of interconnection points.
- 11.5 Astro concluded that the requirement for Access Seeker to implement a network equivalent to the Access Provider is cost prohibitive and renders the construct of Access Seeker / Access Provider redundant.
- 11.6 Astro proposed that the MCMC clearly define SG, which is equivalent to the Point of Interface between both parties' network and not the OLTs. Astro further commented that a greyish SG definition will result in the Access Seeker being burdened to pay for all OLTs and continue paying for new OLTs when the number of customers grow. Moreover, this may lead to operational complexity as Access Seeker may need to monitor specific OLT which is not visible to Access Seeker for the purpose of upgrade from time to time. Ultimately, Astro submitted that the Access Seeker may be hindered from acquiring the service which is not in line with the objectives of the Access List and MSA.
- 11.7 Celcom commented that there are Access Providers who do not comply with the requirement to publish Point of Interface locations on their website. Additionally, there is a lack of option to connect to a non-central Point of Interface i.e. regional, state or local. Celcom highlights the need for greater certainty on Access Provider's Point of Interface locations and allow Access Seekers to build in-span interconnection instead of allowing Access Providers to mandate full span interconnection.
- 11.8 Celcom proposed amendments to subsection 5.8.3 of MSA by requesting that Access Provider allows Access Seeker to interconnect at any point specified in

subsection 5.8.2 of MSA as well as reasonably consider request by Access Seekers to interconnect at alternative Point of Interfaces.

- 11.9 Digi concurred with the MCMC's view that the MSA has sufficiently prescribed that Access Providers are required to offer Point of Interfaces as requested by the Access Seeker. Digi is agreeable to the MCMC's proposed amendments to paragraph 6.9.13(c) and is agreeable to the MCMC's observation that the provisions under subsection 6.9 of the current MSA are generally acceptable without major amendments.
- 11.10 DNB does not publish all "technically feasible" points at which an Access Seeker could interconnect or co-locate with DNB's 5G network as doing so would significantly raise costs and is not in the long term benefit of the end users.
- 11.11 Fibrecomm commented that they have not experienced any difficulty in obtaining Point of Interface access at the prescribed locations published by Access Provider since most Access Providers have published their Point of Interface locations. Fibrecomm also stated that they may consider notifying such non-compliance if an Access Provider fails to publish the Point of Interface locations.
- 11.12 Maxis believe that the Access Provider should offer and only require the Access Seeker to interconnect at either the state or regional level instead of requiring Access Seeker to interconnect at each of the district/local/OLT level. Maxis is of the view that this requirement increases barrier to entry as it would be technically and economically infeasible for the Access Seeker to connect to the Access Provider's Point of Interface at each district/local area/OLT level.
- 11.13 Maxis pointed out that additional transmission charges are imposed by some operators if the Access Seeker does not have the Point of Interface in each district/local/OLT area even though the Access Seeker has already established a Point of Interface in the particular Region/State to access the Layer 2 HSBB Network Services provided by the Access Provider.
- 11.14 Therefore, Maxis proposed amendments to subsection 5.8.6 of the draft MSA by submitting that "Access Provider shall offer (but shall not require)" interconnection, co-location and physical co-location for paragraphs (b) and (c) in subsection 5.8.6 of the MSA. Maxis also submitted that "Access Provider may additionally offer (but shall not require) other forms of co-location.....if requested by the Access Seeker;" for amendments in paragraph (c) of subsection 5.8.6 of the MSA.
- 11.15 MyTV, Altel and Net2One do not have any experience with regards to difficulties in obtaining Point of Interface access at the prescribed locations published by Access Providers. Since the provision is important to Access Seekers as far as Point of Interface availability is concerned and thus, needs to be maintained.
- 11.16 REDtone submitted that they only have one Point of Interface currently and as such, would always oblige to Access Provider's request.
- 11.17 TM proposed that the reference to "Closed Number Area throughout Malaysia" should be removed in subsection 5.8.6 of the MSA as it is no longer applicable for

voice services given the transition to IP-based interconnection, including single rates nationwide and centralised handover.

11.18 TM proposed amendments to paragraphs 5.8.6(a) and 5.8.6(c) of the MSA as follows:

“(a) the Access Provider shall offer (but shall not require) Point of Interface and colocation *at technical feasible point as defined and for every Closed Number Area throughout Malaysia* where the Access Provider has network facilities;” and

“(c) the Access Provider shall offer physical co-location in at least one Point of Interface location at technical feasible point as defined and ~~for every Closed Number Area throughout Malaysia~~ where the Access Provider has network facilities, but may additionally offer other forms of co-location in relation to a particular location (e.g. virtual co-location)”.

11.19 U Mobile agreed to maintain the current provision with reference to Closed Number Areas in the absence of a better alternative. U Mobile submitted that Access Providers should consider Access Seeker’s request to interconnect at a specified location as stated in subsection 5.8.3 of MSA. U Mobile reiterated that the Access Provider must publish on its website the list of general locations and technically feasible points as per paragraph 5.8.2(a).

11.20 U Mobile stated that to date, it has not faced any major hurdles in obtaining Point of Interface access, however, often, the Access Seeker has no choice but to comply with technical solution imposed by the Access Provider. U Mobile highlighted that Access Providers should allow Access Seekers to select any Point of Interface locations listed by Access Provider without any conditions. The Access Seeker should be free to decide whether to meet the Access Provider at State/Region level or centralize to one Point of Interface location only, as long as the location pursuant to paragraph 5.8.2(a).

11.21 U Mobile agrees that the Access Provider must provide all necessary utilities and ancillary services to Access Seeker’s assets as stated in subsection 6.9.24 of MSA and opines that reports of non-compliance to the MCMC is usually made as a last resort after exhausting all forms of discussions and negotiations between Access Provider and Access Seeker.

11.22 YTL stated that there have been instances where YTL had problems in acquiring the information on Point of Interface or at times, not all Point of Interfaces are published on the website. Other challenges YTL face pertaining Point of Interface is the difficulty in convincing the Access Providers on the other locations that are technically feasible. YTL has faced situations where additional Point of Interface may be required due to the distance and high cost to access the published Point of Interface.

11.23 Another Operator submitted that in their Access Provider’s own network, OLTs are connected to their transport aggregation routers before going back to their core network in Klang Valley. As such, the Operator is of the view that the Access Seeker should be permitted to adopt the same architecture.

Discussion

- 11.24 In response to Astro’s comments regarding technical issues with the definition of Service Gateway, the MCMC considers these issues can be resolved commercially between the Access Seeker and Access Provider, and therefore does not warrant any change to the current definition. This is also supported by the absence of submissions from other operators on this issue during the PI.
- 11.25 In response to Celcom’s complaint that some Access Providers do not comply with the requirement to publish POI locations, the MCMC does not agree that greater certainty in the MSA is required, given there are already obligations to publish POI locations in the MSA. This is an enforcement issue and operators should inform the MCMC in the event of any non-compliance with the MSA.
- 11.26 In response to Maxis’s proposition that the Access Provider should offer and only require the Access Seeker to interconnect at either the state or regional, the MCMC notes that the MSA is sufficient to address this concern. This is because the MSA requirement that POIs be offered for every Closed Number Area in which the Access Provider has network facilities and at each other “technically feasible point”.
- 11.27 The MCMC accepts Maxis’s proposed amendments to subsection 5.8.6 of the draft MSA to clarify that the Access Provider should offer (but not require) interconnection, co-location and physical co-location. The same amendment proposed by Maxis in respect of additional offers of other forms of co-location is also accepted by the MCMC.
- 11.28 The change proposed by Maxis would also sufficiently address U Mobile’s submission that the Access Seeker should be free to decide whether to meet the Access Provider at State/Regional level or centralise at one Point of Interface location only, so long as the POI is offered in the Closed Number Area in accordance with subsection 5.8.6(a).
- 11.29 The MCMC does not agree with TM’s proposed amendments that require the Access Provider to offer at technical feasible points (instead of for every Closed Number Area throughout Malaysia), noting that on balance, the current provision with reference to Closed Number Areas is a better alternative to that proposed by TM. This is also consistent with U Mobile’s submissions.

MCMC Views

- 11.30 The MCMC will amend subsection 5.8.6 to clarify that the Access Seeker is not required to interconnect or co-locate at specific POIs offered by the Access Provider.

12 Decommissioning Obligations

Introduction

- 12.1 In the PI Paper, the MCMC stated that it does not propose to make any change to the decommissioning obligations.

Question 15: Do you agree with the MCMC’s preliminary view that the current decommissioning obligations in the MSA continue to operate well and do
--

not require any substantive changes or updates? If not, please specify what change you consider is required and explain why.

Submissions Received

- 12.2 Allo and Celcom are agreeable with the MCMC's preliminary view that the current decommissioning obligations in the MSA continue to operate well and are still relevant and, as such, do not require any substantive changes or updates.
- 12.3 Digi has not faced any difficulty with regard to decommissioning obligations and as such, has no comments on this matter.
- 12.4 Edotco considered that the period to notify Access Seekers prior to decommissioning Facilities should be aligned with the period granted by the property owner or local council which on some occasions could be less than six months.
- 12.5 Edotco is agreeable to the six months' timeframes where it immediately notifies the Access Seeker when any decommissioning events occur after taking the necessary steps with the local authority or landowner, in line with subsection 5.9.1 of the MSA which states "as much notice as possible".
- 12.6 Fibrecomm reiterated preference to notice period under paragraph 5.9.1(a) of the MSA to be reduced from one year to six months and the period in paragraph 5.9.1(b) of the MSA to be reduced from six months to three months as the current notice period i.e. one year and six months are too long.
- 12.7 Fibrecomm also opined that Access Seeker should bear costs of moving or re-arranging Access Seeker's equipment from the decommissioned Facilities to alternative Facilities under subsection 5.9.5 since the activities might require certain technical skills related to Access Seeker's equipment.
- 12.8 Maxis submitted that they are largely agreeable to the MCMC's preliminary view that the current decommissioning obligations continue to operate well, however, Maxis proposes minor amendments to subsection 5.9.4 of the draft MSA. Maxis explained that the POI mentioned in paragraph 5.9.4(c) is not only applicable to voice/messaging but to also other Facilities/Services such as HSBB Network Service, Wholesale Local Leased Circuit, Domestic Connectivity to International Service, etc. Therefore, Maxis would like paragraph 5.9.4(c) to include "including data traffic" to provide greater clarity to the current subsection.
- 12.9 MyTV, Altel and Net2One concurred with the MCMC's decision to not make any modifications at subsection 5.9 of the MSA since the current obligations in the MSA are operating well.
- 12.10 PPIT submitted that subsection 5.9.5 of the MSA is unfair to them. PPIT commented that if they have complied with paragraph 5.9.3(b) of the MSA and prior to that, given "as much notice as possible" under MSA subsection 5.9.1, then PPIT should not be held responsible under MSA subsection 5.9.5.

- 12.11 PPIT has no reason to decommission any of their sites and if such event occurs, it is not within PPIT's control and that MSA subsection 5.9.5 continues to penalize PPIT for it.
- 12.12 PPIT proposed the following amendment to MSA subsection 5.9.5:
"Except where decommissioning is caused by Force Majeure or issues relating to third parties which are not within the Access Provider's control or otherwise agreed commercially between the Operators, an Access Provider shall pay the Access Seeker's reasonable costs, necessarily incurred in:"
- 12.13 Sacofa submitted that it may be impossible to give one year notice under paragraph 5.9.1(a) of the MSA where landlords issue a shorter notice period and proposed that the MSA allow flexibility for decommissioning notice periods to be agreed flexibly on a case-by-case basis, rather than set out in the MSA.
- 12.14 TM agreed with the MCMC's preliminary view that the current decommissioning obligations do not require any substantial changes or updates, however, TM proposed minor changes to include the timeframe of the substitution of the Point of Interface in paragraph 5.9.4(c) of the MSA as follows:
"(c)...not less than three (3) years from the date of commissioning. The substitution of the Point of Interface may be earlier than three (3) years depending on the readiness of the substitution of the Point of Interface or the date of readiness of the new facility and/or service (whichever is earlier)."
- 12.15 U Mobile concurred with Maxis on the inclusion of the cost of carriage of data incurred as compensation following a decommissioning of a Point of Interface by the Access Provider. U Mobile agrees that Access Providers should provide 6 months to 1 year decommissioning notice for subsection 5.9.1 of the MSA to allow Access Seekers ample time to plan for service migration. U Mobile also agrees that the decommissioned compensation should be paid by the Access Provider based on actual cost or by mutual agreement for the Access Seeker to migrate their service to other locations.
- 12.16 YTL proposed that the notice period of six months in paragraph 5.9.1(b) of the MSA be revised to one year to allocate more time for an Access Seeker to seek for alternative solution, testing and network reengineering.

Discussion

- 12.17 The main issues arising from the submissions are as follows:
- (a) whether the periods of notice required to be given by Access Providers to Access Seekers under subsection 5.9.1 of the MSA are appropriate. A number of submitting parties took the view that one or both of the periods under that subsection should be shortened;
 - (b) whether the burden imposed on Access Providers under subsection 5.9.5 is too onerous. Subsection 5.9.5 requires an Access Provider to pay for the Access Seeker's reasonable and necessary costs of moving the Access Seeker's Equipment from decommissioned Facilities to alternative Facilities,

or of re-arranging Equipment to connect to alternative Services, offered in accordance with paragraph 5.9.3(b) of the MSA; and

- (c) whether paragraph 5.9.4(c) of the MSA should be amended to clarify that compensation to be paid by an Access Provider under that paragraph covers the Access Seeker's reasonable and necessary costs in the carriage of "data traffic" (the current wording refers to "carriage of traffic").

12.18 The MCMC has carefully considered these proposals, but notes on the other hand that many operators have expressed the view that the current obligations continue to work well.

12.19 On balance, the MCMC is not persuaded that any change to the current obligations is required.

MCMC Views

12.20 The MCMC determines that subsection 5.9 will be retained in its current wording.

13 Network Change Obligations

Introduction

13.1 In the PI Paper, the MCMC proposed a small number of amendments to the network change obligations under subsection 5.10 of the MSA. The proposed amendments seek to:

- (a) expand the provision defining OSS Change to include a change to "portals for service fulfilment, service assurance and network and home pass information";
- (b) insert a statement to the effect that applicable notice period can be as agreed between the Notifying Operator and Recipient Operator in an Access Agreement; and
- (c) clarify that a Notifying Operator's obligation to cooperate with a Recipient Operator to develop procedures for testing the impact of the Relevant Changes can include, where required, implementation of a POC.

Question 16: Do you have any comments on the MCMC's proposed amendments to subsection 5.10 of the draft MSA?

Submissions Received

13.2 Astro agreed with the MCMC's proposed inclusion of portals for service fulfilment, service assurance and network and home pass information within the scope of Operations Support System (**OSS**) changes as this will assist the Access Seeker to integrate smoothly.

13.3 Celcom agreed with the addition of "portals for service fulfilment, service assurance and network and home pass information" as part of changes under Operational Support Systems used in inter-carrier processes.

- 13.4 Digi and Maxis are agreeable to the amendments proposed by the MCMC to subsection 5.10 of the draft MSA.
- 13.5 MyTV, Altel and Net2One concurred with the proposed changes made by the MCMC on paragraph 5.10.2(d) and subsection 5.10.5 of MSA. As for the addition to subsection 5.10.3 of MSA, the provision provides flexibility for a shorter notice period which ought to be mutually agreed by both parties.
- 13.6 REDtone submitted that they agree with the MCMC's amendments in implementing a POC only where required.
- 13.7 TM agreed with the MCMC's proposed amendments to subsection 5.10 of the draft MSA and has no further comments.
- 13.8 U Mobile is agreeable to the MCMC's proposed amendments in paragraph 5.10.2(d)(ii) relating to the inclusion of portals for service fulfilment, subsection 5.10.3 of draft MSA on notice periods and subsection 5.10.5 of draft MSA relating to POC.

Discussion

- 13.9 Comments received in respect of the amendments proposed by the MCMC are positive.

MCMC Views

- 13.10 The MCMC determines that subsection 5.10 will be amended as proposed in the PI Paper.

14 Billing and Settlement Obligations

Introduction

- 14.1 Billing and settlement obligations are set out in subsection 5.11 of the MSA. The MCMC proposed to retain the current billing and settlement obligations, subject to a minor amendment which acknowledges that traffic data may not always be relevant in or to a billing dispute.

- Question 17: Do you agree with the MCMC's proposed changes to the billing and settlement obligations set out at subsection 5.11 of the MSA? Why or why not? If not, please specify what change you consider is required and explain why.
- Question 18: Are billing cycles typically commercially negotiated, or do you follow the billing cycles set out in the MSA? Please provide details, including the particular Services and Facilities for which the MSA billing cycles are not used.

Submissions Received

Comments on the MCMC's proposed changes to subsection 5.11

- 14.2 Astro agreed with Maxis' submission in paragraph 16.5(b) of the PI Paper that the withholding of payments for disputed amounts in subsection 5.11.11 of the draft MSA should only be allowed if the dispute is not resolved within three months

from the date of the notice of dispute as this is an industry practice which Access Provider's adopt in the Access Agreement.

- 14.3 Astro is of the view that the amendment to this paragraph would provide further clarity. Astro also submitted that the current MSA already contains a provision providing for flexibility towards parties wishing to have a longer period for withholding of payments.
- 14.4 Astro sought more clarity to whether the 15 day period in the paragraph 5.11.11(a) of draft MSA runs concurrently with the 30-day period in paragraph 5.11.12(c). Astro stated that the 30 day period referred in paragraph 5.11.12(c) is redundant since there is already a 15 day period in paragraph 5.11.11(a).
- 14.5 Astro is also of the view that an Access Seeker withholding payment of disputed amount would likely also dispute the amount in an invoice and as such, both draft MSA subsections ought to be streamlined to a 30-day period.
- 14.6 Additionally, Astro wishes to clarify if the Access Seeker is required to submit one or two separate notifications to the Access Provider if both actions i.e. withholding of dispute amount and billing disputes, are taken at the same time.
- 14.7 Celcom submitted that the minor change by the MCMC from "the relevant traffic data" with "any relevant traffic data" is to account for circumstances in which traffic data may not be relevant to the settlement of a disputed invoice, and accordingly should not be required by Access Providers in such circumstances. As such, Celcom is agreeable to the MCMC's proposed amendments.
- 14.8 Celcom further highlighted that in practice, some Access Providers refuse to comply with subsection 5.11.11 of MSA. The Access Providers tend to adopt the agreed process applicable to interconnect traffic whereby for interconnect traffic, all operators have agreed that withholding of disputed amount shall not be applicable to interconnect traffic settlement. Celcom added that it takes longer time to resolve the issue due to the large amount of data involved notwithstanding the time it takes for both parties to extract and download the data from their respective billing systems.
- 14.9 Celcom, however, proposed that withholding of disputed amounts be allowed for other Facilities and Services.
- 14.10 Digi notified that withholding of disputed amounts are not practically applied and clarified that it has been an industry practice to allow withholding only when parties are not able to resolve a dispute within three months from the date of dispute.
- 14.11 Digi explained that administratively, it is more efficient for operators to pay the amount stated in an invoice in full even if the operator disputes the amount as the operators can reimburse the amount after dispute settlement by issuing either a credit or debit note.
- 14.12 Digi recommended amendments to the MCMC's subsection 5.11.11 of draft MSA where Digi proposes deletion of the notification to Access Provider within 15 Business Days to replace it with three months from the Billing Dispute notification

issued in accordance with subsection 5.11.12 (unless otherwise agreed by the Access Provider and Access Seeker. Digi also proposes to maintain paragraph (b) of the current MSA.

- 14.13 DNB submitted that there is no material distinction between requiring “the” relevant traffic data or “any” relevant traffic data from the Access Seeker submitting a billing dispute application.
- 14.14 Whilst Edotco is broadly supportive of the MCMC’s proposed changes to the billing and settlement obligations set out at subsection 5.11 of the MSA, Edotco is of the view that further amendments are necessary to cater to limitation of billing system and external issues. For example, the backbilling provision limits Access Provider’s ability to issue invoices for services rendered within three months but failed to consider other affecting elements.
- 14.15 Based on Edotco’s historical reports, it was also discovered previously that Access Seekers have installed equipment on towers without informing Edotco. This action caused financial leakages and operational disruption to Edotco through additional electricity usage, ad-hoc space allocation with extensive disruption to infrastructure plans, ad-hoc reporting and documentation process and additional operation and maintenance work.
- 14.16 As a consequence, Edotco was only able to issue an invoice from the date of discovery and not on the date of installation of the unauthorised equipment. In such circumstances, Edotco is of the view that Access Seekers should not benefit financially since there has been a failure on its part to advise Edotco on the installation of equipment. Edotco ultimately desires an outcome that is fair and equitable transaction, with the changes proposed by the MCMC to subsection 5.11 of MSA. Edotco would also like all parties to be given the right to negotiate the back billing period commercially as this would provide optimal approach to addressing Edotco’s issue.
- 14.17 Fibrecomm agrees with the MCMC’s proposed changes to the billing and settlement obligations set out at subsection 5.11 of MSA since Fibrecomm is implementing the standard billing process as per MSA.
- 14.18 Maxis agreed with the MCMC’s proposed minor changes to the billing and settlement obligations set out in paragraph 5.11.13(d) of MSA.
- 14.19 MyTV, Altel and Net2One concurred with the MCMC’s preliminary views to modify the term on paragraph 5.11.13(d) as the change provides broader coverage and encompasses all Facilities and services in the MSA.
- 14.20 PPIT submitted that the only amendment to subsection 5.11 is at paragraph 5.11.13(d) of the draft MSA which seems reasonable.
- 14.21 REDtone agreed with the MCMC’s proposed amendments to the billing and settlement obligations except for withholding of disputed amounts.
- 14.22 Sacofa commented that billing and settlement obligations can be commercially negotiated.

- 14.23 TM proposed that the MCMC clarify subsection 5.11.11 of the MSA to give flexibility to the Access Provider to invoice Access Seekers either in advance or in arrears. TM submitted that TM would invoice its Access Seekers either in advance or in arrears.
- 14.24 For Facilities or Services which have a fixed amount for every billing cycle i.e. rental of space, TM invoices Access Seekers in advance. However, for services dependent on usage such as fixed network termination service, TM would invoice Access Seekers in arrears. Thus, TM proposed that the MCMC gives Access Providers flexibility to invoice Access Seekers either in advance or in arrears under subsection 5.11.1 of the MSA to reflect industry practice.
- 14.25 TM proposed the following amendments to subsection 5.11.1 as follows:
- "...in electronic form (as requested by the Access Seeker), based on the Billing Cycle in accordance with subsection 5.11.3 of this Standard, whether in advance or in arrears, as mutually agreed by both parties, for amounts due in respect of the supply of Facilities and/Services during the relevant Billing Period."*
- 14.26 In addition, TM proposes flexibility to the Access Provider to withhold payment of any amount disputed by the Access Seeker based on the negotiations since majority of the Access Agreements signed with its Access Seekers has established the condition to be mutually agreed between parties. Hence, TM's proposed amendments to subsection 5.11.11 are as follows:
- "An Access Provider shall allow an Access Seeker to withhold payment of any amount disputed in good faith by the Access Seeker, unless otherwise agreed between the Access Provider and Access Seeker, if:"*
- 14.27 U Mobile believes that the proposed changes in paragraph 5.11.13(d) to replace existing wordings with "any relevant traffic data" is apt to account for other relevant traffic data of a disputed invoice. At the same time, U Mobile suggested the MCMC to consider removing the word "traffic" since it does not reflect all services in the Access List i.e. Infrastructure Sharing.

Billing Cycles

- 14.28 Celcom does not have any issues with billing cycles set out in the MSA as the provision also provides for flexibility for parties to agree to a different billing cycle, if needed whilst Digi commented that they follow the current billing cycles specified in the MSA.
- 14.29 Edotco and Sacofa submitted that their billing cycles are commercially negotiated. Sacofa negotiates the billing commercially for End-to-end Transmission Service whilst Edotco practices monthly billing as agreed with their Access Seekers.
- 14.30 Fibrecomm submitted that most of its billing cycles are commercially negotiated and mutually agreed with Access Seeker for its Transmission and Network Co-location services.
- 14.31 Maxis submitted that in norm, Maxis follows the billing cycles set out in the MSA which is in line with industry practice, however, Maxis wished to propose some

amendments for billing cycle under the Service Specific Obligations to be in line with the current industry practices.

- 14.32 MyTV, Altel and Net2One submitted that their billing cycles are commercially negotiated and always adhere to the conditions outlined in the MSA.
- 14.33 Similar to Edotco, Fibrecomm and Sacofa, PPIT have been commercially negotiating billing cycles with Access Seekers and this seems to be working fine all these while. PPIT commented that they have to pay rent for the site to their respective landlords by the seventh of each month and as such, the licence fees payable by Access Seeker too need to be settled by the same date and all Access Seekers PPIT have dealt with are acceptable to the arrangements.
- 14.34 REDtone stated that their billing cycle is standardized and agreed with operators.
- 14.35 TM submitted that their billing cycles are typically negotiated between the parties on a commercial basis.
- 14.36 U Mobile submitted that billing cycles set out in the MSA provide a guide to licensees and that generally, parties agree on monthly billing cycles for most services.

Discussion

- 14.37 The MCMC acknowledges the feedback of submitting parties, including as to whether their billing cycles are commercially negotiated or in accordance with the MSA.
- 14.38 Comments on the amendment proposed by the MCMC are generally favourable. Whilst a number of issues or concerns were raised regarding other respects of the billing and settlement obligations, including in relation to withholding of payment in the event of a billing dispute, the MCMC is not persuaded that the section fails to balance appropriately the competing interests of Access Providers and Access Seekers. The MCMC also considers that subsection 5.11, as a source of obligations, is clear in its purport and effect and that there is no obvious gap that needs to be addressed presently.

MCMC Views

- 14.39 The MCMC determines to amend subsection 5.11 as proposed.

15 Operations and Maintenance Obligations

Introduction

- 15.1 In the PI Paper, the MCMC proposed to expand paragraph 6.6.17© to require Access Providers to allow API integration with Access Provider OSS.

Question 19: Should Access Providers be required to allow integration with their OSS where requested by an Access Seeker? As an Access Seeker, please comment on whether this would be beneficial to you. As an Access Provider, please describe any impacts of such a requirement.

Submissions Received

- 15.2 With regards to Access Seeker's request to integrate with Access Provider's OSS, Allo proposes that Access Seeker minimizes resources for troubleshooting / rectifying issues at site. Allo would like Access Seeker to bear troubleshooting costs caused by the Access Seeker's own fault or the Access Seeker's customer for better customer experience.
- 15.3 Allo commented that depending on the CPE being provided and the first level troubleshooting by Access Seeker, it would be troublesome for Allo when Access Seekers fail at the troubleshooting at their end. Access Seeker would focus on the Access Provider instead if this occurs, whose role is mainly to provide connectivity in good condition.
- 15.4 Astro commented that Access Provider allowing application programming interface (**API**) integration with the Access Seeker's OSS when requested by an Access Seeker would definitely be beneficial for the Access Seeker as it is critical for an Access Seeker to have real time information, specifically on unplanned downtime notification. This is to ensure that the Access Seeker is also able to meet the MSQoS requirements set by the MCMC.
- 15.5 According to Astro, the integration with the Access Provider is important for an Access Seeker to obtain information pertaining to the network congestion for the purpose of customer issue management and vital to eliminate manual order management as the risk of human errors between the OSS and customer relationship management systems will be removed i.e. in instances where this is done manually at present.
- 15.6 Astro also added that the human error or lag time would be amplified by the number of Access Providers that they have subscribed to for HSBB Access Network Services without the integration between the Access Provider's API and the Access Seeker's OSS.
- 15.7 As such, Astro is supportive of the proposed changes to paragraph 6.6.17(c) in the draft MSA and would like the changes to be implemented across all Facilities and Services.
- 15.8 Celcom submitted that integration with Access Provider's OSS is crucial to ensure service fulfilment, service assurance and network and home passed information. The integration will be beneficial to Access Seekers especially in resolving missing addresses in the portal. At present, the addresses are made available only after Access Seekers highlight the issue to Access Provider via customer demand list.
- 15.9 Digi was supportive of enabling OSS integration where necessary as a secure integration is essential to enable effective interaction between parties' differing processes and systems. From Digi's perspective, an OSS integration will also enable a more effective operation from ordering to activation of service.
- 15.10 Edotco acknowledged the MCMC's position in the PI Paper but did not have further comments.
- 15.11 Fibrecomm was of the view that Access Providers may allow integration of their OSS at certain level so long as confidentiality and security of Access Providers'

data is not compromised. Fibrecomm added that it would be beneficial for Access Seekers to leverage the existing available OSS from Access Providers although the potential impact on Access Providers would be to exercise additional efforts to manage and protect their data confidentiality and security.

- 15.12 Fibrecomm proposed that Access Providers be allowed to charge Access Seeker a fee for development and maintenance of OSS integration.
- 15.13 Maxis was of the view that Access Providers should allow OSS integration where requested by the Access Seeker as this would minimise manual processes, human errors, reduce complexity and information mismatch that currently exists in the industry. Maxis also added that the integration would increase overall efficiency of processes and deliver a superior end customer experience aligned with the LTBE.
- 15.14 MyTV, Altel and Net2One concurred with the MCMC's proposed amendment on OSS integration as it enables function that is required by the Access Seeker for their network's effective operation and maintenance. However, it should be restricted to certain Facilities/functions which should be mutually agreed between parties with the associated cost as stipulated at subsection 5.12.9 of MSA
- 15.15 PPIT submitted that some of its members have developed their own OSS for their data. PPIT is of the view that integration of different OSS should not be mandated as proposed and should be left to commercial negotiations. As such, PPIT disagree on the amendment to paragraph 6.6.17(c) of the draft MSA.
- 15.16 PPIT also added that there is no commercial value for PPIT to delay entry to its sites and it has no intention to do so.
- 15.17 REDtone supported the MCMC's proposed amendments in the Draft MSA on OSS integration as it provides clarity and transparency on information from Access Provider especially on the network performance. REDtone stated that this would simplify processes and procedures. For example, for MVNO Access, REDtone noted that the Access Provider should allow OSS integration in a secured manner without limiting to Subscriber Identity Module (**SIM**) replacement, SIM registration, port in or port out, process management, top up and passes subscription.
- 15.18 TM supported the inclusion of a requirement for integration of OSS between Access Providers and Access Seekers and proposes that the the MCMC limits the integration of OSS for HSBB Network Service only. However, TM submitted that OSS integration with multiple databases and systems takes time to implement and requires significant investment, as such, TM highlighted that its OSS implementation will be in phases and not all features will be available within a short timeframe.
- 15.19 TM also requested the MCMC to allow Access Providers to charge Access Seekers a fee to recover the costs of enabling OSS integration as an incentive towards Access Providers to innovate and expedite the development of the OSS integration.
- 15.20 In addition, TM proposed that the target times set out in subsection 5.12.12 of the MSA should be applicable only for services that make use of the Access

Provider's active equipment as the timeframes and fault types specified in the table therein are not applicable to passive infrastructure access services. TM provided the following input to justify its position:

- (a) the fault type listed in the table involve switching, routing and signalling equipment which are for active services;
- (b) route blocking, congestion, cross line, silent calls, mobile number portability refer to voice services which is also active services; and
- (c) the fault type listed is inconsistent with fault types typically experienced for passive services such as infrastructure collapsed, fire and access route blocked.

15.21 Based on the above, TM proposed the following amendments:

"5.12.12: Target times: Each Operator shall respond to rectify faults with the lesser of:

- (a) timeframes set out in relevant Service Specific Obligations or, if there is no such timeframe, the response timeframes, progress update frequencies and rectification timeframes set out in the table below, limited to Access Provider's active services only;"

15.22 TT dotCom was not agreeable with the MCMC's proposal to allow integration with Access Provider's OSS because the Access Providers will need to redesign and rebuild its existing system which is very costly and time consuming. Similarly, a typical system design and implementation takes approximately three years. There is a high risk of data leakage due to accessibility into an internal system by external parties.

15.23 With regards to paragraph 6.6.17(c), U Mobile agreed that the Access Provider should allow API integration to its OSS, when requested by Access Seeker as it would remove a layer of communication/SLAs/tracking when serving end consumers. This would enable Access Seekers to take prompt action and provide feedback to variety of consumer requests, also provides the Access Seekers with a better avenue to better manage consumer suspension and more importantly, consumer reactivation.

15.24 An operator submitted that some Access Providers like Allo have a self-serve portal for the Access Seeker with various functions i.e. checking serviceability area, addresses, port availability status, order management and scheduling. The operator however, was made to understand from its negotiations with an Access Provider who has a larger footprint than Allo that no self-serve portal will be available to the Access Seeker and that the Access Provider has not committed for any timeline to develop accessibility to the portal for its Access Seekers.

Discussion

15.25 The MCMC has considered operators' submissions from both Access Provider and Access Seeker perspectives. The MCMC noted most submitters were supportive about the integration of OSS systems between operators.

- 15.26 The MCMC acknowledges that there is a degree of resistance by some Access Providers to the proposed changes. In particular, TM submitted that Access Providers be permitted to charge a fee for OSS integration, while TT dotCom disagreed with integration altogether, citing costs as a barrier to enabling such integration.
- 15.27 However, the MCMC considers that the significant benefits to Access Seekers of OSS integration - as supported by the weight of submissions by Access Seekers - outweigh the detriment to Access Providers of enabling integration, and accordingly on balance the MCMC has determined to retain the proposed amendments to this section as set out in the draft MSA.

MCMC Views

- 15.28 The MCMC will retain the proposed amendments to paragraph 6.6.17(c) as set out in the draft MSA.

16 Technical Obligations

Introduction

- 16.1 In accordance with the PI Paper, the MCMC proposed to retain the technical obligations in subsection 5.13 without any amendments. The MCMC sought operator feedback regarding any required amendments.

Question 20: Do you agree with the MCMC's proposal to retain the technical obligations in subsection 5.13 of the MSA without any amendments? If not, please provide details of any required changes.
--

Submissions Received

- 16.2 Most of the operators are agreeable with the MCMC's proposal to retain the technical obligations in subsection 5.13 of the MSA without amendments.
- 16.3 DNB did not specifically propose changes to subsection 5.13 of the MSA but highlighted that DNB's existing RAO imposes further technical obligations such as each party must not give rise to an "Adverse Network Impact", each party must maintain a network alarm management system, DNB will co-operate with and provide assistance to the access seeker (at its cost) to enable the access to comply with any mandatory standards established by the MCMC and DNB retains the right to disconnect any equipment that adversely affects or unlawfully interferes with the operation of DNB's 5G network or its services.
- 16.4 Edotco and TT dotCom do not have comment on the MCMC's proposal.
- 16.5 U Mobile agreed with the MCMC's proposal to retain the technical obligations. U Mobile viewed that the specific technical parameters should be discussed and mutually agreed between parties because each Access Seeker and Access Provider has its own requirements and capabilities. U Mobile requested for all parties to adhere to the 2 Business Days ruling to allow customers to port into the Gaining Service Provider (**GSP**). If the Releasing Service Provider (**RSP**) is also the Access Provider for the GSP, the RSP must ensure that the same port remains available for the GSP to provide the service to the same customer. U Mobile considered that

the MCMC should consider developing relevant regulations, which are similar to regulations to guide implementation of mobile number portability (**MNP**), to ensure that subscribers are able to port out effectively without being subject to delays designed to prevent churn.

- 16.6 YTL considered that subsection 5.13 of the MSA should be retained as it ensures the performance and delivery of services to meet consumer requirement.

Discussion

- 16.7 The MCMC has considered the operators' submissions and is not of the view any amendments are required to subsection 5.13.

MCMC Views

- 16.8 The MCMC proposes the technical obligations in the draft MSA remain unchanged.

17 Term, Suspension and Termination Obligations

Introduction

- 17.1 The MCMC sought feedback from operators on the term, suspension and termination obligations under subsection 5.14 of the MSA, considering the technical, functional and marketplace changes which are currently taking place or foreseeable in the future. In particular, the MCMC sought feedback on its proposed changes to:

- (a) allow Access Providers to prescribe a minimum 24 month term;
- (b) clarify an Access Provider may partially terminate or suspend an access agreement; and
- (c) remove an Access Provider's right to terminate in certain circumstances following a change of law.

- 17.2 The MCMC is conscious of the importance of these terms and the role they play in the relationship between Access Providers and Access Seekers.

Question 21: Do you agree with the MCMC's proposed changes to the term, suspension and termination obligations set out at section 5.14 of the draft MSA to allow partial termination or suspension of Access Agreements? Why or why not? If not, please specify what change you consider is required and explain why.

Submissions Received

- 17.3 Allo is agreeable to allow partial termination or suspension of service to ensure the continuity of the business when only certain part of the service is terminated or suspended.
- 17.4 Astro commented that the proposed amendments to subsection 5.14.3 of the draft MSA on partial termination/suspension of AA appear fair. Astro is agreeable to remove the last sentence of subsection 5.14.4 of the draft MSA pertaining to the change in law. Astro viewed that both parties should assess and review the new

circumstances and what can be achieved. Astro viewed that access seekers should be given the opportunity to ensure minimal disruption to the end-customers.

- 17.5 Celcom disagreed with the amendment which allows Access Provider to terminate or suspend an access agreement whether in whole or in part such as in relation to a particular facility or service, or at a particular site. Celcom viewed that in the event where particular site is terminated, there is no need to partially terminate or suspend the agreement. Any issue should be handled in accordance with the remedies specified in the MSA. Celcom proposed that no amendment be made to subsections 5.14.3 and 5.14.5 of the MSA.
- 17.6 Referring to the amendments under subsection 5.14.2 of the draft MSA, Celcom proposed to include:
- "For the avoidance of doubt, "Network Facilities Access" refers to access to any network element or combination of elements of physical infrastructure used principally for, or in connection with, the provision of network services, but does not include customer equipment. It is not intended to be limited to Facilities and Services in the Access List."*
- 17.7 Celcom highlighted concerns on some terms proposed by several Access Providers which allows termination of Access Agreement by a third party without prior consent from the MCMC, for instance, where the third party owns the facilities but is not a party to the Access Agreement. This scenario is applicable where an Access Provider is the nominated facilities provider of the said third party. Celcom further highlighted that the access seeker is also required to bear all costs resulting from the termination while the access provider will use its reasonable endeavours to offer the Access Seeker other suitable network facilities and/or services subject to availability.
- 17.8 Celcom is supportive of requiring consent from the MCMC for termination, suspension or seeking to materially vary an access agreement as Celcom viewed that MCMC will consider the impact of termination to consumers and advise appropriate remedies which are in the LTBE.
- 17.9 Digi raised concern on the MCMC's proposal to remove the last sentence of subsection 5.14.4 of the draft MSA. Digi viewed that eliminating an access provider's right to terminate where parties cannot agree to the provision of access on different terms due to a change in law implies that the MCMC is allowing access providers to continue providing service on terms which contravenes the relevant amended law or regulations. Digi highlighted that the proposed deletion may expose access providers to the non-compliance risk as access providers are forced to continue providing service on terms which is deemed unlawful.
- 17.10 Digi commented that alternatively, if the parties are unable to conclude on the new terms and conditions, a dispute to the access agreement can be raised and referred to the MCMC, and then the MCMC can allow the access provider to continue providing such services until the dispute is resolved.
- 17.11 Referring to subsection 5.14.2 of the draft MSA, DNB commented that the MCMC's proposal allows access providers for transmission services to set minimum terms

of either 12 or 24 months. As an access seeker, DNB prefers the minimum period to remain at 12 months to retain maximum commercial flexibility.

- 17.12 Referring to subsection 5.14.4 of the draft MSA, DNB viewed that removal of this ground means that the access provider cannot terminate the service in the event where the parties cannot agree to the amendments to an Access Agreement where a change in law renders the operation of the Access Agreement or the provision of a particular service is unlawful. DNB viewed it necessary to retain this termination ground as it is a key leverage point to ensure the Access Seekers and Access Providers agree to necessary changes to an Access Agreement or alternative arrangement in the event of a change in law. Otherwise, this could leave an Access Provider contractually bound to operate an Access Agreement or provide a service that is in breach of law but without a contractual right to terminate the access agreement or the particular service to avoid the breach of law.
- 17.13 Edotco viewed that the minimum term for network facilities access should be 10 years, especially for Infrastructure Sharing. The minimum term for Infrastructure Sharing, especially in the context of build to suit is 10 years, given its long payback period, which is longer than the minimum prescribed time of three years. Edotco viewed it important that Malaysia's access regime supports the investment period in the sector.
- 17.14 Edotco commented that it had been negotiating the longer term with the Access Seeker and explaining how it works to the access seeker's benefits. This has proved to work over the past few years and has become an industry practice. There are no complaints from the access seeker on the minimum commitment period. Edotco submitted that in the event of dispute, the parties can seek guidance from the MCMC for resolution of the dispute.
- 17.15 Edotco also requested the MCMC to consider its proposal to address paragraph 5.14.6(a) of the MSA. Edotco requested the MCMC to provide flexibility for access provider to only notify the MCMC when the access provider decides to terminate services due to a dispute. Edotco highlighted the lengthy mediation process for suspension and termination of service which caused Edotco to experience financial leakage prior to the conclusion of the action. Edotco suggested to amend paragraph 5.14.6(a) to only require notification to the MCMC to give effect to proposed termination, suspension or material variation without requiring the MCMC's consent.
- 17.16 Fibrecomm is agreeable to the proposed changes in subsection 5.14 except on the deletion of the last sentence of subsection 5.14.4. Fibrecomm preferred to retain the last sentence to protect Access Provider from any implications that may result from the change in law that ultimately causes access provider to terminate.
- 17.17 Maxis proposed a minor amendment to increase the term of three years to five years in subsection 5.14.1 of the draft MSA. Maxis highlighted that after the issuance of the new Access List, MSA and MSAP, Access Seeker and Access Provider will negotiate and execute the new Access Agreement according to the new determinations. The Access Agreement will be used until the next determinations issued by the MCMC which usually takes approximately five years.

17.18 Maxis generally agreed with the proposed changes in subsection 5.14.2 except that for Transmission Services, Maxis proposed that the minimum term is to be mutually agreed instead of at the access provider's discretion. This is to ensure fairness. Further, Maxis proposed the minimum term for HSBB Network Services to be 24 months instead of 12 months. Maxis commented that this is a standard industry practice which helps the access provider to recover its upfront cost.

17.19 Maxis also proposed to expand subsection 5.14.2 as follows:

"Upon completion of the minimum term, an Access Seeker can terminate Facilities and/or Services at any time without any penalty for early termination, provided that the Access Seeker provides three (3) months advance notice to the Access Provider."

17.20 Maxis highlighted that from past experience, Access Providers require auto renewal of another minimum term which is unfair to the Access Seeker. Some Access Providers also require the Access Seeker to commit to longer minimum terms such as 10 or 20 years.

17.21 Maxis generally agreed with the MCMC's position for the Access Provider, but proposed to include termination circumstances for the Access Seeker as well. Therefore, Maxis proposed to restructure subsection 5.14.3 as follows:

"5.14.3 Termination Circumstances:

(a) Subject to subsection 5.14.6 of this Standard, an Access Provider may only terminate an Access Agreement whether in whole or in part (for example, only to the extent relating to a particular Facility or Service, or at a particular site), if any of the circumstances referred to in paragraphs 5.14.3(a)(i), 5.14.3~~(b)~~(a)(ii) or 5.14.3~~(c)~~(a)(iii) of this Standard apply, and the Access Provider has notified the Access Seeker that it will terminate where:

- (i) ~~(a)~~ the Access Seeker has materially breached the Access Agreement, the Access Provider has given the Access Seeker notice to remedy its breach within thirty (30) days and if the Access Seeker has failed to remedy its breach in accordance with such notification, the Access Provider may terminate by giving no less than thirty (30) days' notice to the Access Seeker;
- (ii) ~~(b)~~ the Access Seeker has become subject to a winding up order (whether compulsorily or voluntarily) or ceases to trade in the normal course of business or becomes insolvent or a receiving order is made against it or has entered into any agreement or composition with or assignment for the benefit of its creditors or the Access Seeker's assets are subject of any form of distress or execution or any analogous insolvency event related to the Access Seeker has occurred in any jurisdiction; or
- (iii) ~~(c)~~ a Force Majeure has continued for a period of more than three (3) months.

The Access Provider shall forward to the Commission a copy of the notice of termination at the same time as providing the notice of termination to the Access Seeker. For clarification, a notice to be given under this subsection 5.14.3 is in addition to the notice required under subsection 5.14.6 of this Standard.

(b) Access Seeker may terminate an Access Agreement without any liability, whether in whole or in part (for example, only to the extent relating to a particular Facility or Service, or at a particular site), if any of the circumstances referred to in paragraphs 5.14.3(b)(i), 5.14.3(b)(ii) or 5.14.3(b)(iii) of this Standard apply, and the Access Seeker has notified the Access Provider that it will terminate where:

- (i) the Access Provider has materially breached the Access Agreement, the Access Seeker has given the Access Provider notice to remedy its breach within thirty (30) days and if the Access Provider has failed to remedy its breach in accordance with such notification, the Access Seeker may terminate by giving no less than thirty (30) days notice to the Access Provider;*
- (ii) the Access Provider has become subject to a winding up order (whether compulsorily or voluntarily) or ceases to trade in the normal course of business or becomes insolvent or a receiving order is made against it or has entered into any agreement or composition with or assignment for the benefit of its creditors or the Access Provider's assets are subject of any form of distress or execution or any analogous insolvency event related to the Access Provider has occurred in any jurisdiction; or*
- (iii) a Force Majeure has continued for a period of more than three (3) months."*

17.22 MyTV, Altel and Net2One concurred to the proposed option on the minimum term for transmission services. This provides opportunity for the access provider to sufficiently recoup their investment in a timely manner. MyTV, Altel and Net2One is supportive of the proposed amendment in subsection 5.14.3 as it provides an option to suspend or terminate the access agreement either in whole or in part. Altel agreed with the amendment in subsection 5.14.4 since it protects access seeker's right for a continued service.

17.23 PPIT acknowledged instances stated by Edotco and Sacofa that there may be sites which may have to be terminated for one reason or another (force majeure, expiry of tenancy with landlord and non-renewal, etc.) but not affecting other sites under the access agreement. PPIT appreciates the MCMC's amendments to subsection 5.14 as reflected in the draft MSA.

17.24 However, PPIT proposed an amendment to subsection 5.14.8 as follows:

"5.14.8 Post-termination fees: *Unless otherwise agreed between the Access Provider and the Access Seeker, aAn Access Provider shall not recover any additional charges, costs or expenses on termination or suspension of an Access Agreement or access to any Facilities and/or Services provided under it except:"*

- 17.25 This proposal is to capture instances where parties have commercially agreed on the penalty for termination. Such scenario arises for long term licensees at PPIT's sites where PPIT agrees on a reduction of the licence fees to continue taking licences at PPIT's sites after the initial 10 year period if they agree on another long term for the licence. Being that the same is commercially negotiated with the access seeker, PPIT suggested the same is adopted too in the MSA.
- 17.26 REDtone agreed with the MCMC's proposed changes to subsection 5.14 of the draft MSA to allow partial termination or suspension of Access Agreements. However, REDtone is concerned on the amended minimum terms of 24 months. REDtone viewed that access provider should allow access seeker to choose the minimum period and not land on 24 months on the first instance. REDtone proposed to amend "at the Access Provider's discretion" to "as mutually agreed".
- 17.27 Sacofa is agreeable to the MCMC's proposed changes.
- 17.28 Referring to subsection 5.14.3 of the draft MSA, TM proposed to amend the circumstances in which an Access Provider may terminate an access agreement in part, by including a number of additional reasons that may lead to contract termination by adding a new paragraph (d) as follows:
- "(d) the Access Seeker breaches of any laws, regulations, rules or standards, which has a material adverse effect on the Access Provider or terms of the Access Agreement or the provision of Facilities and/or Services and in the case where such breach is capable of remedy, the Access Seeker fails to remedy such breach (which is capable of remedy), within thirty (30) days of receiving a notice of breach from the Access Provider."*
- 17.29 For subsection 5.14.5 of the draft MSA, TM proposed to introduce a 30-day remedy period for the access seeker to pay any overdue invoices before an access provider may suspend access to any Facilities and/or Services in the event that the access seeker fails to pay invoices. TM proposed replacing the existing subsection 5.14.5(d) with the following subsection:
- "5.14.5(d) Suspension:** The Access Seeker breaches a material obligation under this Agreement (including the failure to pay Invoices in accordance with the Access Agreement) and in the case where such breach is capable of remedy, the Access Seeker fails to remedy such breach (which is capable of remedy), *within thirty (30) days of receiving a notice of breach from the Access Provider.*"
- 17.30 For subsection 5.14.6 of the draft MSA, TM proposed to remove the access provider's requirement to notify the Commission of any variation to an access agreement as the access provider and access seeker usually negotiate and execute a supplemental agreement for the revised terms which is submitted to the MCMC for registration. Further, TM commented that the timeline for the Commission to respond to the access provider's notice should be limited to a maximum of 30 calendar days to safeguard against further financial losses when the access seeker continues to use the services and default on payment.
- 17.31 TM also viewed that while it takes reasonable steps to minimise disruptions to the access seeker's customers, TM should not be held liable for the service provision to the access seeker's customers. TM highlighted other best practice market such

as Singapore where the access providers are only required to take reasonable measures to minimise disruptions to the requesting licensee's operations that may result from the termination of a licence.

17.32 TM proposed amendments to subsection 5.14.6 as follows:

"5.14.6 Notice: Prior to terminating, suspending, or seeking to materially vary an Access Agreement (including any part thereof) or access to any Facilities and/or Services provided under it, an Access Provider must notify the Commission in writing of the action the Access Provider proposes to take and the reasons why it considers such action is appropriate. The Commission may invite any affected Access Seeker to make submissions to the Commission regarding the proposed termination *or* suspension ~~or material variation~~. The Access Provider:

- (a) shall only give effect to the proposed termination and suspension ~~or material variation~~ with the Commission's written consent and subject to any time delay or conditions which the Commission may specify (if any). The Commission will endeavour to respond to the Access Provider's notice within ten (10) Business Days or such other period that the Commission considers is reasonable, *up to a maximum of 30 calendar days*;
- (b) must not give effect to the proposed termination *and* suspension ~~or material variation~~ unless the Access Provider has received written consent from the Commission to such termination *and* suspension or material variation; and
- (c) shall take ~~all~~ *reasonable* steps practicable to minimise disruptions ~~and inconvenience~~ to the Customers of the Access Seeker, including providing the Access Seeker with a reasonable period to make alternative arrangements prior to the suspension or termination of the Access Agreement, or access to Facilities and/or Services provided under it."

17.33 TT dotCom was agreeable to the proposed amendments by the MCMC.

17.34 U Mobile viewed that partial termination or suspension of the access agreement due to legitimate reasons (as stated in subsection 5.14.3 of the draft MSA) should be allowed to enable continuity of business operations of the access seeker. U Mobile commented that more importantly subsection 5.14.3 should also allow the access seeker to initiate partial termination e.g. partial termination may apply to sites or polygons (in the case of DNB) due to force majeure (paragraph 5.14.3(c) of the draft MSA).

17.35 U Mobile was agreeable to amend the minimum terms from 12 months to 24 months but both parties should mutually agree on the term. U Mobile proposed to change the termination notice from one month to three months in the event that the Access Seeker breaches the Access Agreement and has not remedied its breach by the end of notice period. This is to allow the access seeker time to remedy its breach accordingly.

17.36 Referring to subsection 5.14.4 of the draft MSA, U Mobile proposed to change the meeting between Access Seeker and Access Provider from within five Business Days to 10 Business Days of becoming aware of the relevant change in law. In

addition, U Mobile highlighted the need for some indications if the matter cannot be resolved, the Access Provider and Access Seekers should escalate the matter to the MCMC.

- 17.37 U Mobile noted that the MCMC is not agreeable to U Mobile's recommendation for the MCMC to respond to a proposed termination or suspension within 10 business days. U Mobile requested the MCMC to reconsider as prolonged exposure can lead to commercial impact.
- 17.38 YTL submitted that access to Transmission Services in most cases is for the long term, hence the extension of the term to 24 months may offer certainty to both the Access Seeker and Access Provider. However, this should not preclude the term of one year if both the Access Seeker and Access Provider agree to that. YTL also commented that any suspension, whether partial or full, should be subject to subsections 5.14.5 and 5.14.6. YTL is agreeable to remove the right to terminate the agreement to provide access if the parties cannot agree to the different terms consequent to a change of law.

Discussion

- 17.39 The MCMC has considered the operators' submissions and noted that many operators agreed with the MCMC's proposal to allow partial termination or suspension of Access Agreements..
- 17.40 In relation to Celcom's comments that some Access Agreements are terminable by third parties, the MCMC notes that this is squarely inconsistent with the doctrine of privity of contract and any such termination would be unenforceable as a matter of law. However, in circumstances where the third party is the owner of relevant facilities or sites used to provide services under the Access Agreement, the MCMC considers it reasonable that the Access Provider be permitted to partially terminate the Access Agreement to the extent relating to those sites. This issue is already dealt with in the MSA under subsection 5.9.1 (to the extent relating to third party landlord's notices) and Force Majeure Events generally, and in each case would be subject to the MCMC consent in accordance with subsection 5.14.6.
- 17.41 In response to Digi, DNB and Fibrecomm's comments regarding the proposed deletion of the last sentence of subsection 5.14.4, the MCMC clarifies that it is not intending to suggest that Access Providers may under any circumstances continue providing services on terms which contravene amended law or regulation. Rather, the MCMC expects that this change will give both parties sufficient incentives to reach agreement, in contrast with the earlier provision which could have been misused by Access Providers.
- 17.42 The MCMC agrees with submissions by operators including Digi and U Mobile that if the parties are unable to reach agreement, they may approach the MCMC for resolution, and the MCMC will make amendments to clarify the availability of this avenue. In the event that a termination is the most appropriate outcome - which the MCMC considers an unlikely scenario - that option will also be considered by the MCMC as part of such dispute resolution at an Access Provider's request.

- 17.43 The MCMC does not agree to a minimum term for Access to Network Facilities Access of 10 years, as proposed by Edotco. While the MCMC appreciates that for some types of network facilities, Access Providers may prefer a longer term, the MCMC notes that "network facilities" covers a broad range of network facilities, including facilities for which a longer minimum term would be inappropriate and may increase barriers to entry for operators.
- 17.44 In any event, Access Providers and Access Seekers are free under subsection 5.14.2 of the MSA to agree to a different minimum term. Given Edotco's comments (and PPIT's earlier comments) that they have experienced no issues in negotiating a longer minimum term on a commercial basis with Access Seekers - with the potential for dispute resolution with the MCMC where required - the MCMC considers that the draft MSA position is appropriate.
- 17.45 The MCMC agrees with Maxis's following proposals:
- (a) increasing the minimum term of Access Agreements from 3 years to 5 years to more neatly align with the MCMC's usual cadence for Access List and MSA determinations;
 - (b) increasing the permitted minimum term of HSBB Network Services to 24 months instead of 12 months;
 - (c) including an express right for Access Seekers to terminate Access Agreements on 3 months' notice, after expiry of the relevant minimum term; and
 - (d) including mutual termination rights for Access Seekers equivalent to those currently set out in subsection 5.14.3. The MCMC notes that these termination rights reflect basic termination rights that Access Seekers would ordinarily have as a matter of standard industry practice.
- 17.46 The MCMC does not consider PPIT's proposed changes to subsection 5.14.8 are necessary. Parties are already free to commercially agree a departure to the standard MSA position on post-termination fees.
- 17.47 The MCMC does not agree with TM's proposals to:
- (a) include further termination circumstances in a new paragraph 5.14.3(d) of the MSA. If an Access Seeker breaches a law or regulation that has a material adverse effect on the Access Provider, the MCMC expects that this would comprise a material breach by the Access Seeker and would accordingly be subject to the existing right of termination set out in paragraph 5.14.3(a); or
 - (b) remove the requirement for material variations to Access Agreements to be subject to the MCMC consent. It is important that the MCMC have the opportunity to consider material variations.
- 17.48 However, the MCMC agrees with TM to clarify a 30 day remedy period prior to suspension in the case of material breaches by Access Seeker.

MCMC Views

- 17.49 The MCMC will make the following changes to the term, suspension and termination obligations in the draft MSA:
- (a) clarifying that parties may approach the MCMC for dispute resolution if they are unable to agree amendments to an Access Agreement required in response to a legislative change;
 - (b) increasing the minimum term for Access Agreements from 3 years to 5 years;
 - (c) increasing the minimum term for HSBB Network Services from 12 months to 24 months;
 - (d) including an express termination right for Access Seekers after expiry of the minimum term;
 - (e) including mutual termination rights for Access Seekers; and
 - (f) specifying a 30 day remedy period prior to suspension, for material breaches by Access Seeker.

18 Churn Obligations

Introduction

- 18.1 The PI Paper set out the MCMC's preliminary view that the churn obligations under subsection 5.15 in the draft MSA remain applicable for services other than HSBB Network Services and does not propose to amend this section.
- 18.2 The MCMC sought operators' feedback as to whether any changes should be made to those churn obligations.
- 18.3 The MCMC notes that the proposed subsection 6.6 of the draft MSA, which includes churn obligations specifically applicable to HSBB Network Services, are summarised from paragraph 23 below.

Question 22: Do you agree that the churn obligations under subsection 5.15 of the MSA are still appropriate for non-HSBB services? Please comment on any proposed changes.
--

Submissions Received

- 18.4 Allo is agreeable to the churn obligations and to follow service provider churn process.
- 18.5 Astro submitted that churn obligations are only applicable to services which are serviced at retail such as HSBB Access Network Services and MVNO. Hence, Astro commented that the MVNO's service specific obligations should have similar churn obligations as per HSBB services service specific obligations.

- 18.6 Celcom and Digi submitted that churn obligations are also applicable to services other than HSBB. Maxis commented that subsection 5.15 of the MSA should be maintained.
- 18.7 Fibrecomm submitted that the churn obligations under subsection 5.15 of the MSA are not appropriate for non-HSBB Services and should be removed.
- 18.8 Maxis agreed that churn obligations under subsection 5.15 of the MSA are still appropriate for non-HSBB services and should be maintained.
- 18.9 MyTV, Altel and Net2One viewed that the present clauses under subsection 5.15 of the MSA are still pertinent and acceptable for non-HSBB services. Therefore, Altel viewed that subsection 5.15 is still appropriate for non-HSBB service.
- 18.10 TM proposed to remove the Churn Obligations under subsection 5.15 of the MSA as they are not appropriate for non-HSBB services. With the shift of Churn Obligations to Service Specific Obligations for HSBB Network Services and the removal of Access to Network Elements including Wholesale Leased-Line Rental, there are no other non-HSBB services that would be applicable in this subsection. As such, TM proposed to remove subsection 5.15 of the MSA. If the MCMC retains the Churn Obligations for non-HSBB services, the MCMC should provide clarification on the exact Facilities and Services to which the churn obligations under subsection 5.15 would apply.
- 18.11 U Mobile submitted that subsection 5.15 does not seem to apply to any other services other than the ones affecting the end user e.g. MNP and HSBB. With MNP having been removed from the Access List and the provisions for HSBB detailed in 6.6.19, U Mobile commented that the MCMC should consider if subsection 5.15 should also be removed. U Mobile agreed that the churn obligations are still applicable for non-HSBB Network Services.
- 18.12 YTL submitted that churn process is mainly applicable to HSBB and the facilities tied with services to end-users. The same may not apply to other services.

Discussion

- 18.13 Operators expressed mixed views regarding whether the churn obligations should be retained or removed.
- 18.14 The MCMC has considered the operators' submissions and considers that on balance, no amendments should be made to subsection 5.15. The MCMC does not agree with TM's proposal to remove Churn Obligations from this section and believes they should remain in for all services.

MCMC Views

- 18.15 The MCMC confirms its preliminary view to retain the churn obligations in the draft MSA with no further amendments.

19 Legal Boilerplate Obligations

Introduction

- 19.1 The PI Paper set out the MCMC's proposed changes to the Legal Boilerplate Obligations under subsection 5.16 in the draft MSA, including:
- (a) amendments to clarify operators' obligations to specify charges, costs and expenses in an access agreement; and
 - (b) the prohibition on requiring an Access Seeker to acquire any Facilities or Services in any minimum or maximum quantity.
- 19.2 The MCMC sought operators' feedback as to whether any changes should be made to those Legal Boilerplate Obligations.

Question 23: Do operators have any comments on the MCMC's proposed changes to the legal boilerplate obligations in subsection 5.16 of the draft MSA? Please provide details of any suggested amendments.

Submissions Received

- 19.3 Astro agreed with the proposed changes in subsection 5.16.6 of the draft MSA to replace the word "Operator" with "Access Provider". Astro proposed further amendments to subsection 5.16.10 of the draft MSA as follows:
- "An Operator shall specify in an Access Agreement prepared by it that such Access Agreement is subject to good faith and shall be reviewed within reasonable timeframes:"
- 19.4 As the current MSA does not specify the force majeure process (e.g. number of days of continuous disruption to be considered as a force majeure and what is required from parties), Astro proposed to include the aforementioned to subsection 5.16 of the draft MSA. Astro also viewed that other usual boilerplates such as provisions relating to the entire agreement (to ensure non-discrimination), variation, waiver, allocation of stamp duty obligations and electronic signature, may be included in the MSA.
- 19.5 Celcom agreed that subsection 5.16.5 is applicable to Access Provider than Access Seeker. This is specifically consistent with subsection 5.7.28 on Resource Charge charged by access provider which shall be reasonable to access seeker. Celcom also supported amendment to paragraph 5.16.14(b) whereby access provider shall not require access seeker to subscribe to any minimum or maximum quantity or ratio i.e. any minimum bandwidth, except for 5G wholesale service whereby the single wholesale network model requires minimum service commitment to ensure cost recovery.
- 19.6 Digi submitted that subsection 5.16.14 should specify that prohibition of conditional supply does not relinquish the right of an Access Provider to prescribe a reasonable minimum term commitment for the supply of Facilities and/or Services. Referring to paragraph 19.10 and 19.11 of the PI Paper, Digi commented that setting a minimum term will incentivise investment to upgrade and expand networks. In addition to this, a minimum term of supply will safeguard the Access Provider's investments for network deployment.

- 19.7 DNB commented that the MCMC's proposal for subsection 5.16.14 of the draft MSA is that DNB as the Access Provider must provide 5G services on a modular and unbundled basis so that an Access Seeker does not need to acquire any network components, facilities or service that are not required for the provisioning of 5G services. However, DNB's position as the Access Provider of 5G services is that all Access Seekers must subscribe to the base National 5G Wholesale Network Product as a necessary component of any other 5G service offered by DNB. DNB submitted that the main Access Seekers are strongly supportive of this position. DNB also highlighted that this position is included in DNB's RAO. DNB clarified that technically, all 5G services (e.g. network slices for Fixed Wireless Access (**FWA**) and services such as ultra-reliable low latency communication (**uRLLC**) will need to use the basic national wholesale 5G network product for them to work. With this consideration in mind, DNB will provide 5G services to any licensed Access Seeker, providing it makes the appropriate contribution to the recovery of DNB's costs as stipulated in the RAO.
- 19.8 DNB submitted that more clarification is needed so that it and its Access Seekers are clear, on an ex-ante basis, as to: (1) what constitutes unbundled products that should be sold separately; and (2) which products need to be bought in combination so that they work. DNB proposed that the MCMC consider introducing the process used in Australia, which has been approved by the ACCC to define legitimate bundling. In Australia, NBN Co and its Access Seekers specify in advance which products need to be bundled to work effectively. This specification is then subject to consultation and regulatory approval. DNB commented that if the objective of bundling is to enable DNB to attract the main Access Seekers to commit to a minimum offtake and to a minimum term during this nascent stage of 5G development in Malaysia, which will spur the growth of 5G take up to meet the Government's digital economy aspirations, then the bundling should be legitimate.
- 19.9 Edotco supported its earlier view to either removed subsection 5.16.14 of the MSA or made it non-mandatory. Edotco clarified that sometimes commercial offers can have bundled services and/or be subject to volume requirements for Edotco to accommodate the access seeker's needs, especially in terms of add-on services or commercials. Edotco viewed the removal of this clause will also benefit the Access Seeker in terms of retaining equal bargaining power, ensuring lower price in a form of multiple product and service options, providing multiple options that promote valued bundles and allowing flexibility on commercial arrangement. Edotco believes that Access Seekers should be able, to their benefit, to acquire such optional bundled services.
- 19.10 Fibrecomm did not have any comments or amendments on the MCMC's proposed changes to the legal boilerplate obligations as Fibrecomm viewed that the MCMC's proposed changes merely clarified the position and do not alter the obligations.
- 19.11 Maxis generally agreed with the Legal Boilerplate Obligations under subsection 5.16 of the MSA but propose to amend subsection 5.16.14 as follows:
- "5.16.14 Conditional Supply:** An Access Provider shall not require an Access Seeker to acquire:

- (a) other facilities and/or services from the Access Provider as a condition of providing access to Facilities and/or Services under this Standard (for example, an Access Provider shall not make access to Facilities conditional on the acquisition of Services, such as Transmission Services, or other services, such as maintenance services); and
 - (b) any Facilities and/or Services, or any elements thereof (for example, ports or lines) in any minimum or maximum quantity or ratio, including for example any minimum bandwidth. *For clarity, 5.16.14(b) shall not apply to 5G related services.*"
- 19.12 MyTV, Altel and Net2One agreed to the proposed amendment that all the charges in the access agreement are determined by the access provider. Therefore, the changes provide clarity of whom to specify all the charges in the AA. Referring to paragraph 5.16.14(b), MyTV, Altel and Net2One agreed with the MCMC's suggestion to make it clearer with some examples.
- 19.13 TM proposed that the conditional supply clause should provide exclusion in scenarios where a minimum quantity or ratio is required to fulfil the service quality or technical requirement requested by the access seeker. TM proposed amendments to paragraph 5.16.14(b) of the MSA as follows:
- "(b) any Facilities and/or Services, or any elements thereof (for example, ports or lines) in any minimum or maximum quantity or ratio, including for example any minimum bandwidth, save where certain minimum quantity or ratio (including minimum bandwidth) is required to fulfil the service quality or technical requirement requested by the Access Seeker."*
- 19.14 U Mobile submitted no further comment on subsection 5.16 except to reiterate that the principle of reciprocity should be upheld. According to U Mobile, usually larger access providers such as TM and even a new dominant player such as DNB (as indicated in DNB's RAO) exerts their market power in seeking certain terms which places onerous obligations on the access seeker. These obligations could range from matters relating to financial security payments to network security.
- 19.15 YTL agreed with the proposed changes. As for subsection 5.15.14, YTL commented that this is a fundamental principle as it will prevent capacity sharing conditions that can be imposed by service providers. YTL viewed that it could lead to Access Seekers being made to bear the cost of decision on capacity undertaken by Access Providers or Access Seekers made to bear the costs of capacity off-loaded by the withdrawal of other Access Seekers.

Discussion

- 19.16 Operators generally agreed with the MCMC's proposed amendments to the legal boilerplate provisions in the draft MSA.
- 19.17 The MCMC does not agree that subsection 5.16.14 should clarify that Access Providers can prescribe a reasonable minimum term commitment. The MCMC does not consider that the current drafting would preclude Access Providers from setting a minimum period for those Facilities and Services specified in subsection 5.14.2. The MCMC also does not consider that a broader minimum term right is necessary or appropriate.

- 19.18 The MCMC agrees with DNB's submission to permit a degree of bundling in respect of 5G Services, such that Access Seekers must subscribe to a base National 5G Wholesale Network Product, given all 5G services will need to use this product in order to operate functionally. This is also consistent with Maxis's proposal regarding this issue.
- 19.19 However, the MCMC is concerned to ensure that bundling by DNB is not forced on Access Seekers, consistent with the broader objectives and principles set out in the draft MSA. Accordingly, while the MCMC will make amendments to the MSA to permit DNB to bundle its basic National 5G Wholesale Network Product with other products and services, acquisition of any bundles shall be solely at the Access Seeker's election. DNB will be prohibited from requiring an Access Seeker to acquire any such bundle.
- 19.20 The MCMC does not agree with TM's suggestion to permit Access Providers to impose a minimum quantity or ratio of a particular service to be acquired. All Access List services may be acquired on an individual basis in accordance with the CMA and there is no exception in the CMA (or the Access List itself) in relation to minimum quantities, so this submission is rejected.

MCMC Views

- 19.21 The MCMC proposes the Legal Boilerplate Obligations in the draft MSA remain unchanged except to reflect that a degree of bundling is permitted (but not mandatory) for 5G Services, as proposed by DNB and Maxis.

Part C Service Specific Obligations

20 Origination & Termination (O&T) Services

Introduction

- 20.1 Service Specific Obligations in respect of O&T Services are set out in subsection 6.1 of the MSA. The MCMC proposed several amendments to the section, specifically, deletion of the following:
- (a) subsection 6.1.12 in relation to Inter-Closed Number Area service;
 - (b) subsection 6.1.14 in relation to handover principles (Near End Handover Basis and Far End Handover Basis); and
 - (c) the reference to "transit Networks" in subsection 6.1.16 concerning the translation or alteration of numbers, the use of dummy numbers or dummy calling line identification (**CLI**).

Question 24: Do you have any comments on the MCMC's proposed removal of subsection 6.1.14 of the MSA regarding handover principles in light of the transition to IP-based interconnection?

Question 25: Do you agree that subsection 6.1.12 of the MSA (Inter-Closed Number Area service) and the reference to "transit Networks" in subsection 6.1.16 of the MSA be removed from the MSA? If not, please comment on why these provisions are required.

Submissions Received

Removal of subsection 6.1.14 of the MSA

- 20.2 Celcom agreed with the proposed removal of subsection 6.1.14 of the MSA which is consistent with Celcom's earlier comments where in IP interconnection, operators will have single POI only as compared to POIs in each region. Thus, Celcom viewed that handover principles are no longer relevant. In addition, the origination and termination charges are now at a flat rate, with no differentiation of local and national rates.
- 20.3 Digi is also agreeable to the removal of subsection 6.1.14 of the MSA and submitted that the handover principles are no longer relevant in view of the adoption of single rate nationwide and centralised handovers selected by interconnecting parties. However, Digi observed that there is an increasing occurrence of local fixed numbers originating from international gateway. Digi urged the MCMC to require all operators to block traffic with a local fixed number coming through the international gateway to curb fraud and scam calls.
- 20.4 Maxis agreed with the MCMC's proposal to remove subsection 6.1.14 of the MSA regarding handover principles which are no longer used and relevant considering the transition to IP-based interconnection. In addition, Maxis proposed a new clause 6.1.18 that an operator should perform the requirement to route calls to a ported number, for both fixed and mobile. The proposed clause is as follows:
- "6.1.18 Support for fixed and mobile number portability:**
- An Operator providing an O&T service shall:*
- (a) do all acts necessary to prepare and/or facilitate the implementation of Fixed Number Portability and Mobile Number Portability; and*
 - (b) ensure that all calls and data be delivered to the appropriate recipient network."*
- 20.5 REDtone agreed with the MCMC's proposal to remove subsection 6.1.14 of the MSA on handover principles.
- 20.6 U Mobile is agreeable to the proposed removal of subsection 6.1.14 of the MSA regarding handover principles in light of the transition to IP-based interconnection.
- 20.7 YTL is agreeable to the removal of subsection 6.1.14 as traffic for IP interconnect will be handed over to the centralised POI agreed by both ends. As for the technical parameters proposed by YTL, YTL viewed that the proposed technical inquiry should be held as soon as possible as IP interconnect is adopted by more service providers.

Removal of 6.1.12 and 6.1.16

- 20.8 Celcom also viewed that provision on inter-closed number area service can be removed. Celcom viewed that "transit networks" refers to third party Point of Interface as per subsection 5.8.5 of the MSA whereby access seeker may nominate a Point of Interface of another operator for the purpose of

interconnection. Since subsection 5.8.5 is applicable, Celcom viewed it not appropriate to remove the reference to "transit networks" in subsection 6.1.16 of the MSA.

- 20.9 Digi is also agreeable to the proposed removal of subsection 6.1.12 and reference to "transit networks" in subsection 6.1.16 as these provisions are no longer relevant.
- 20.10 Maxis is agreeable to the MCMC's proposal to remove subsection 6.1.12 of the MSA and delete the reference to "transit network" under subsection 6.1.16. Maxis submitted that Inter-Closed Number Area and transit network are not used in origination and termination Services between Access Providers and Access Seekers.
- 20.11 REDtone also agreed that subsection 6.1.12 of the MSA (Inter-Closed Number Area service) and the reference to "Transit Networks" in subsection 6.1.16 are no longer relevant and are to be removed from the MSA.
- 20.12 TM proposed that subsection 6.1.12 (Inter-Closed Number Area Service) of the MSA should be retained as fixed operators are still using the Closed Number Area Service despite having migrated to IP interconnection. As such, TM viewed that IP interconnection should still allow calls to be transmitted across Closed Number Area boundaries, irrespective of where handover of calls takes place or the POI locations.
- 20.13 For subsection 6.1.16, TM proposed for the retention of "Transit Networks" as some operators are providing transit termination services for both domestic and international operators where the traffic is terminated to other interconnected operators' network. TM clarified that for example, Transit Networks would still apply for international voice service termination, in line with the MCMC's decision to retain international calls and messages termination in the definition of Fixed Network Termination Service (**FNTS**) and Mobile Network Termination Service (**MNTS**) in the Access List. For international voice service termination, the access seeker of FNTS and/or MNTS is providing a "transit network" service on behalf of the international operator as an A-party call does not originate from the access seeker's own subscribers.
- 20.14 TM proposed the following amendments to subsection 6.1.16 of the MSA:
- "6.1.16 Dummy CLIs:** An Operator must route a Customer's original CLI and must not translate numbers, use dummy numbers or dummy CLI, or use any means to alter numbers which may confuse or have the tendency to confuse the other Operator's Network (*including transit networks*) or billing systems. Where technical problems for routing or billing so demand, then the use of dummy numbers shall only be permitted as agreed between the Operators."
- 20.15 TM also proposed to provide CLI in accordance with the provisions set out in subsection 6.16 of the MSA, and to include other use cases (subsection 6.1.15). TM clarified that as billing reconciliation and call charge verification happen between two directly interconnecting operators, operators must provide their own network CLIs and another network CLIs (where transit traffic is concerned). This is consistent with the provisions set out in subsection 6.1.16 of the MSA, where

operators must route a customer's original CLI for billing reconciliation and call charge verification. TM also proposed to include other use cases such as prevention and investigation of spam and fraud, display to customers, emergency services and malicious call.

20.16 TM's proposed amendments to subsection 6.1.15 of the MSA are as follows:

"For the purpose of billing reconciliation~~and~~, call charge verification and other use cases, Operators will provide CLI to each other from its own Network including CLI from another Network with which its Network is interconnected subject to CLI being forwarded to it~~from another Network with which its Network is interconnected~~. Other use cases include prevention and investigation of spam and fraud, display to Customers, emergency services and malicious call tracing."

20.17 Further, TM proposed to remove call abandon cases from the network quality threshold as it is not considered as a successful call i.e., $\geq 94\%$ of successful calls (subsection 6.1.17 of the MSA). This is in line with the ITU-T definition of an abandoned call, which is not categorised as a successful call. As such, abandoned calls should not contribute to the network quality threshold for successful calls.

20.18 U Mobile also agreed with the MCMC that subsections 6.1.12 and 6.1.16 are no longer relevant and can be removed from the MSA.

20.19 YTL agreed to the removal of subsection 6.1.12. However, YTL is not agreeable to remove "transit networks" in subsection 6.1.16 as YTL opined that the operators must not mask the original CLI/use Dummy CLI even if it is a transit call. According to YTL, this will impact the billing and charging verification and also fraud investigation.

Discussion

20.20 All parties who commented on the proposed deletion of subsection 6.1.14 (in relation to handover principles) are in support of the deletion.

20.21 Next, for the reasons given by TM, the MCMC proposes to:

- (a) retain Inter-Closed Number Areas (subsection 6.1.12) as a means of providing termination services and to re-include the reference to "transit Networks" in subsection 6.1.16, the latter of which is also consistent with YTL's submissions;
- (b) amend section 6.1.15 of the MSA to clarify obligations relating to the provision of CLI and use cases for the same; and
- (c) remove instances of abandoned calls from the network quality threshold, in line with the ITU-T definition of an abandoned call.

MCMC Views

20.22 The MCMC determines to make the changes proposed by TM (and YTL) as outlined in the preceding paragraphs. The MCMC otherwise confirms its preliminary changes as set out in the draft MSA.

21 Interconnect Link Service

Introduction

- 21.1 The PI Paper set out the MCMC’s preliminary view that the terms of access to the Interconnect Link Service in subsection 6.3 of the current MSA should be retained with minor amendments.
- 21.2 The MCMC sought operators’ feedback as to whether any further changes should be made to those amended terms in the draft MSA.

Question 26: Should any amendments be made to the Service Specific Obligations for Interconnect Link Service, including for IP-based interconnection? Please detail any proposed addition, deletion or amendment to the terms currently set out in the MSA, including any particular technical parameters required in light of the transition to IP-based interconnection.

Question 27: Do you have any comments on the technical parameters proposed by YTL for the Interconnect Link Service, as set out in paragraph 24.9 of the PI Paper?

Submissions Received

Amendments to the Service Specific Obligations for Interconnect Link Service

- 21.3 Celcom viewed that subsection 6.3 of the MSA does not require amendments because the operational process remains the same. Celcom submitted that IP-based interconnection is already included in the scope of Interconnect Link Service on the Access List. Celcom agreed with the MCMC that the technical parameters for Interconnect Link Service are more appropriately dealt with in a separate technical inquiry.
- 21.4 Digi viewed that the terms currently set out in subsection 6.3 of the MSA remains relevant and no amendments are required. Digi further submitted that the Access List has defined the interface type and capacity or bandwidth. Standardised bandwidth and technical parameters are required for in-span arrangement and should be mutually agreed between two operators establishing the interconnection.
- 21.5 Maxis is of the view that no amendments are required to be made to Service Specific Obligations for Interconnect Link Service, including for IP-based interconnection.
- 21.6 REDtone highlighted that the concern is on the readiness of IP Interconnect with some operators. REDtone clarified that there was delay due to unreadiness and proposed for timeline for Access Provider to transition to IP Interconnect.
- 21.7 TM considered the Service Specific Obligations for the Interconnect Link Service, including IP-based interconnection, should remain unchanged as the Service Specific Obligations for the Interconnect Link Service are still applicable. TM further clarified that those operators that have already migrated to IP interconnection with TM i.e. REDtone, Maxis, Celcom and TM Unifi, have not faced

any issues, while other operators are currently in the process of migrating to IP interconnection (in the POC phase). As such, no further amendments to the Interconnect Link Service are required in the MSA.

- 21.8 Referring to subsection 6.3.2 of the MSA, U Mobile commented that any forecast provided under subsection 5.6.6 of the MSA should not be commercially binding and be used only for planning purpose by the access provider to provide the necessary space/network capacity required by the Access Seeker. U Mobile also proposed to have geo-redundancy link for IP Interconnect and the access provider/seekers should allow third-party POI or own POI to serve this link.
- 21.9 YTL proposed to add IP interconnect SLA into the Interconnect Link Service by adopting the transmission SLA in paragraph 24.9 of the PI Paper.

Technical parameters proposed by YTL

- 21.10 Digi opined that technical parameters should be mutually agreed between interconnecting parties. Therefore, the MSA should not prescribe the technical parameters as the requirement varies for each operator.
- 21.11 Maxis disagreed with the technical parameters proposed by YTL for the Interconnect Link Service. Maxis commented that there is no need to specify in detail the technical parameters for ILS in the MSA and the current requirements set out in MSA subsection 6.3 are sufficient.
- 21.12 TM submitted that a number of operators i.e. REDtone, Maxis, Celcom and TM Unifi, have already migrated to IP based interconnection provided by TM. Since these operators have not faced any issues from transitioning to IP-based interconnection, there is no requirement to include the technical parameters proposed by YTL for the Interconnect Link Service in the MSA.
- 21.13 TT dotCom is of the view that the technical parameters for Interconnect Link Service should be reflective of an international standard and not to be individually listed out as proposed by YTL. An example for this is based on the comprehensive Metro Ethernet Forum CE 2.0 standard.
- 21.14 As for technical parameters for Interconnect Link Service, U Mobile proposed additional parameters for subparagraph 24.9(f) of the PI Paper in relation to latency as follows:
- (a) 10ms for site distance <250km
 - (b) 10-20ms for site distance >250km
 - (c) 40ms for traffic EM to Central Region
- 21.15 YTL also requested the MCMC to refer to the proposed technical specifications in paragraph 24.9 of the PI Paper and include the same in Origination and Termination services.

Discussion

- 21.16 The majority of operators agreed with the MCMC's preliminary view that no amendments are required to the Service Specific Obligations for Interconnect Link Service.
- 21.17 In relation to U Mobile and YTL's proposals to specify additional technical parameters for the Interconnect Link Service (including SLAs for IP interconnect), the MCMC notes that the Interconnect Link Service is for the mutual benefit of parties, and accordingly it is not necessary to include these further details in the MSA. Further, the weight of operator submissions was in favour of making no amendments to this section.

MCMC Views

- 21.18 The MCMC confirms its preliminary view that the Interconnect Link Service obligations in the MSA should remain unchanged.

22 Access to Network Elements

Introduction

- 22.1 The PI Paper set out the MCMC's preliminary view that the Service Specific Obligations for Access to Network Elements in subsection 6.4 should be removed.

Question 28: Do operators have any views on the MCMC's proposal to delete the Service Specific Obligations for Access to Network Elements in subsection 6.4 of the draft MSA, together with other consequential amendments throughout the draft MSA? Please detail any proposed addition, deletion or amendment to the terms currently proposed by the MCMC.

Submissions Received

- 22.2 Digi is agreeable to the removal of subsection 6.4 of the draft MSA as services categorised under Access to Network Elements have been withdrawn from the Access List, therefore the provisions of the MSA is no longer applicable.
- 22.3 Edotco does not have any specific comments on this question but supported the removal of legacy services from the Access List and MSA, etc. Edotco commented that Malaysia's access regime should be future focused.
- 22.4 Maxis is agreeable with the MCMC's proposal to delete the Service Specific Obligations for Access to Network Elements as the Access Network Elements is not included in the Access List. For the avoidance of doubt and dispute between the Access Seeker and the Access Provider, Maxis proposed to include in the MSA that this removal or deletion of Access to Network Element from the Access List and MSA does not include copper elements used in conjunction with a HSBB service.
- 22.5 TM agreed with the MCMC's proposal to remove Service Specific Obligations for Access to Network Elements from subsection 6.4 of the MSA, in line with the removal of copper-based local access services from the Access List.
- 22.6 U Mobile noted that copper-based local access services are subject to limited demand, in view of a continuing trend towards fibre-based HSBB services but U

Mobile proposed to maintain subsection 6.4 as copper-based services are still being provided by the access provider and would still require governance if access seekers acquire this service.

Discussion

22.7 There were very limited comments from operators on the Service Specific Obligations for Access to Network Elements. Of the submissions from operators who provided responses, operators overwhelmingly agreed that these obligations should be removed.

MCMC Views

22.8 The MCMC determines in accordance with the draft MSA that the Service Specific Obligations for Access to Network Elements in subsection 6.4 be removed.

23 HSBB Network Services

Introduction

23.1 In the PI Paper, the MCMC proposed several changes to the draft MSA in relation to the HSBB Network Services, including:

- (a) an increase to the maximum period of time that can be covered by Forecasts under paragraph 6.6.3(a);
- (b) amendments to sections 6.6.7, 6.6.9, 6.6.10, and 6.6.13 related to activation and service fulfilment timeframes particularly for the activation of HSBB Network Services and SG configuration;
- (c) introducing new reporting obligations relating to network utilisation and performance;
- (d) introducing new churn obligations specific to HSBB Network Services; and
- (e) introducing new obligations on Access Providers to resolve Customer Demand List issues.

23.2 The MCMC received a number of detailed submissions from Access Providers and Access Seekers in relation to these proposals and the Service Specific Obligations for HSBB Network Services more generally.

Question 29: Do you have any comments on the MCMC's proposed amendments to the Service Specific Obligations for HSBB Network Services in subsection 6.6 of the draft MSA? Please provide details of any amendments with which you disagree, and any other amendments you propose to the MCMC's current draft.

Question 30: Do you have any comments on the MCMC's amendments to the activation and service fulfilment timeframes? If not, please specify and substantiate and proposed changes or amendment.

Question 31: Should the MCMC include an option for Access Seekers to request a single truck roll for service fulfilment and assurance single truck roll

requests? If so, please provide details of how this would be operationalised.

Question 32: Should the MSA set out any service level rebates or other commercial matters which have typically been left to commercial negotiation?

Question 33: Having regard to JENDELA targets, are the indicative delivery timeframes in subsection 6.6.7 still appropriate or do they require amendment? Please provide details of any specific changes required.

Submissions Received

Proposed amendments to the HSBB Network Services and timeframes

- 23.3 Astro supported the MCMC's proposals in respect of including additional quarterly reporting obligations relating to monthly network utilisation and performance. Astro suggested for the reports to be made available via the extended Access Provider portals from APs.
- 23.4 Astro further reiterated its view that the MSA ought to contain a network diagram or table of comparison setting out the difference between Layer 2 and Layer 3 HSBB. This would clarify the differences between these services and would allow the RAO to follow the same structure.
- 23.5 Digi welcomed the MCMC's proposed amendments to the Service Specific Obligations for HSBB Network Services in subsection 6.6 of the draft MSA. Digi also recommended additional amendments.
- 23.6 Digi submitted that subsection 6.6.7 should indicate that the 14 Business Day timeline includes the complete service installation. The indicative delivery timeline of 14 Business Days should commence from the date a customer submits their application for the fibre service and end at the successful installation date. The 14 Business Day time period should include any return orders resulting from errors discovered during installation day as well as activation of services raised via a customer demand list. Digi stated it has difficulties in obtaining a commitment from the Access Provider to expedite installation processes in order to shorten the long wait times for customers.
- 23.7 Digi's proposed amendments to paragraph 6.6.7(b) of the draft MSA are as follows:
- "otherwise, up to ~~twenty~~ *fourteen* (20 14) Business Days including the date of the *successful BTU installation* ~~appointment~~."
- 23.8 Digi submitted that in order to ensure the enforceability of paragraph 6.6.17(c), the network utilisation and performance reporting obligations proposed under subsection 6.6.14 should include all the parameters that would demonstrate the Access Provider systems provided to the Access Seeker are of the same reliability and quality as those of the Access Provider's own retail arm. These parameters would include:
- (a) Service availability information. This information should include the specifications of the services the Access Provider supplies its retail arm (i.e.

product, speed tiers, price, timeframe, etc.) and all information relating to HSBB Network Services. This would increase the transparency for the Access Seeker to confirm that the optical ports available in the Access Provider's retail portal are the same as those listed on the Access Provider's wholesale portal provided to Access Seekers.

- (b) A record of the number of complaints made about the Access Provider offering services to the customer whose order had to be rejected by Access Seeker. This increased transparency would reduce sales "hijacking" and discrepancies between serviceability information provided to the Access Seeker versus the Access Provider's retail portal. Digi submitted there must be a record of zero complaints made about the Access Provider to indicate improvements of the system.
- (c) Portal stability. Access Providers should assure a monthly 99.9% service uptime including 8am to 10pm, seven days a week of the wholesale HSBB portal offered to Access Seeker. The portal stability should include all backend databases and systems. Digi emphasises the portal stability is crucial to ensuring that a customer's application is processed efficiently. Digi also highlighted that a hypothetical customer who may experience difficulty in acquiring a service from an Access Seeker due to a wholesale HSBB portal service interruption will be able to procure the same service from the Access Provider's retail outlet. Digi submits that in order to promote competition, the Access Provider should be required to guarantee the portal uptime at all times, beyond office hours and should be required to compensate Access Seekers for failures to resolve portal service downtime as reported by Access Seekers.

23.9 Digi recommended the churn obligations in proposed subsection 6.6.19 be expanded to include the following operational situations:

- (a) Reservation of the BTU port for the requesting customer. For clarity, paragraph 6.6.19(b)(ii) should be further refined by indicating that the BTU port for the Gaining Service Provider is reserved specifically for the customer requesting the transfer.
- (b) Adjustment of installation cost. Digi highlights that presently the installation cost for new installation and porting (transfer request) are the same. However, Access Seekers should not be charged the same amount of installation charges in a transfer request situation as the fibre optical cable and fibre ports are already in place to facilitate a transfer request and do not require an Access Provider to perform any rewiring work. The churn obligations should specify that installation cost for transfer request circumstances should be adjusted according to the type of request. Digi also submits that for a transfer request, Access Providers should replace faulty equipment including BTU and cabling free of charge.
- (c) Special arrangements for customer relocation requests. Digi recommends the churn obligations specify that a customer service being transferred from one location to another should not be treated as a new contract for those services at the new address. The Access Provider should also not treat a

customer's residential relocation as a new installation process at their new location so the customer avoids unnecessary costs.

- 23.10 Digi recommended the Customer Demand List obligations in proposed subsection 6.6.20 be strengthened. Presently, Digi submits a Customer Demand List daily. Providing that an Access Seeker may submit Customer Demand Lists less than daily will result in longer wait times for service fulfilment.
- 23.11 Digi's proposed amendments to subsection 6.6.20 of the draft MSA are as follows:
"The Access Provider must permit (but must not require) the Access Seeker to submit Customer Demand Lists on ~~at least~~ a ~~monthly~~ *daily* basis."
- 23.12 Digi recommended that the Access Provider be required to disclose the Customer Demand List to all Access Seekers. The Customer Demand List must include information of the Access Seeker who submitted the Customer Demand List (i.e. the creator/requestor) and the date and time of creation. This is to enable Access Seekers to validate the Customer Demand List that has been created upon request by a customer. Currently the Access Provider's system automatically rejects submission of Customer Demand List with a duplicated customer address. As such, information on the creator/requestor and the date and time of creation of the Customer Demand List will aid Access Seekers to identify any affected customers and address the error.
- 23.13 Digi further submitted that Access Providers should be prohibited from imposing a penalty to Access Seekers for any changes to the Customer Demand List to ensure that customers retain the right to cancel the Customer Demand List application at any time. Additionally, the Access Provider must be required to provide full assistance to release the customer who expresses the intention to cancel the Customer Demand List application.
- 23.14 Digi submitted that similar requirements as set out in the draft MSA subsection 6.6.19 should apply for the Customer Demand List obligations including but not limited to the following:
- (a) The Customer Demand List creator/requestor and Access Provider must not object to, impose any conditions on any party, or take any other steps, that have the effect of delaying or impeding, the request to cancel a Customer Demand List by a customer;
 - (b) The Access Provider must provide full assistance to ensure that the customer's official request to cancel a Customer Demand List is fulfilled.
 - (c) Each party (i.e. the Access Provider and the creator/requestor) shall ensure that the cancellation of a Customer Demand List by a customer is implemented promptly and without delay upon request.
- 23.15 Digi submitted that as illustrated in Figure 1 below, the stability of a home fibre internet traffic is ultimately dependant on the quality of the Access Provider's network. Specifically, for HSBB Network Service, Digi submits that Access Providers' failure to provide the required support for an Access Seeker to comply with the relevant MSQoS will result in the Access Seeker to bearing the MSQoS

compliance risk. Consequently, Digi considers that Access Providers should be obligated to proportionately reimburse the amount of any MSQoS non-compliance penalty imposed on Access Seekers.

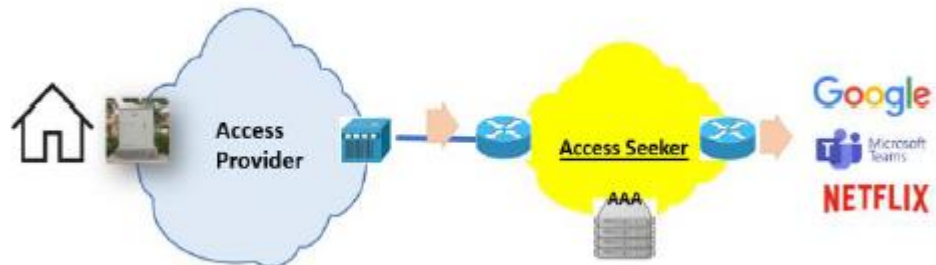


Figure 1: End to End Home Fibre Internet Traffic Flow

- 23.16 Digi submitted Access Providers must adhere to the requirements of the MSQoS including the relevant service uptime SLAs and Mean Time To Restore principles. Under the MSQoS, such principles are calculated from the time the customer lodges a complaint to when the service is recovered. Presently, Access Providers deviate and apply a different formula in calculation the MTTR than what is prescribed in the MSQoS.
- 23.17 Celcom was agreeable to the proposed amendments to the HSBB Service Specific Obligations. These amendments address issues which Celcom has previously highlighted to the MCMC when negotiations with the incumbent regarding HSBB Network Services have proved ineffective. Ineffective negotiations particularly on the operational scope, impacts Celcom’s plans to accelerate customers’ subscriptions.
- 23.18 Celcom submitted additional proposed amendments in respect of the HSBB Service Specific Obligations.
- 23.19 Celcom submitted in respect of paragraph 6.6.9(f) that the rebate amount of RM44.75 should be revised to RM70.00. The 2016 Public Inquiry Report on Review of Mandatory Standards on Access mentioned that the amount of RM44.75 was based on approximates of Access Seeker’s marketing and sales costs. Celcom submitted this amount is insufficient in particular as it does not compensate Access Seekers for the costs incurred as a result of incorrect information. In Celcom’s experience, the Access Provider’s portal may state a port is available at the customer’s location which Celcom later discovers is inaccurate upon visiting the site. Once the port is available at a later date, installer needs to revisit the location which incurs additional costs. Celcom’s proposed amount of RM70.00 would at least compensate for this.
- 23.20 Celcom agreed with the inclusion of API integration in subsection 6.6.17 particularly to ensure Access Seekers obtains accurate information. Celcom has noted there are incomplete addresses in Access Providers’ portals where the addresses are up to street level only.

- 23.21 Celcom, U Mobile, and Astro supported the MCMC's proposal to include churn obligations for HSBB Network Services in subsection 6.6.19.
- 23.22 In line with Celcom's previous comments from the Informal Questionnaire in 2020, Celcom prefers that a churn process specifically for HSBB Network Services be included as part of a Service Specific Obligation under HSBB Network Service. Celcom submitted the churn process proposed by Maxis is acceptable. Celcom emphasised the cruciality of a port being reserved for the Gaining Service Provider once there is a transfer request. This is to avoid the port being "hijacked" by the Access Provider as part of its own retail service.
- 23.23 Celcom proposed amendments to paragraph 6.6.20(a) of the draft MSA are as follows:
- "(a) The Access Provider must permit (but must not require) the Access Seeker to submit Customer Demand Lists *as and when there are relevant issues on at least a monthly basis.*"
- 23.24 Celcom made the following additional comments in respect of the HSBB Network Service:
- (a) Access Providers' obligations to allow for each BTU to be accessible by more than one operator and should not be limited to one end-user. In Celcom's experience, Access Providers impose a condition whereby each BTU is limited to one end-user. Celcom proposed that each BTU be made accessible for multiple operators instead of only one end-user. This means that end-users in a particular premise using a single BTU would have the ability to subscribe to fixed broadband services from more than one operator. This allows for more effective competition among fixed broadband operators and promotes the LTBE; and
 - (b) Celcom proposed an additional obligation be included in section 6.6 of the draft MSA requiring the Access Provider to allow for each BTU to be accessible by more than one Access Seeker.
- 23.25 Celcom submitted Access Seekers are unable to comply with MSQoS (Customer Service) on service restoration fulfilment for fixed broadband access services. An Access Seeker's ability to comply with the quality of services standard for service restoration is fully dependent on the Access Providers' appointment slots for on-site troubleshooting. In most cases, the Access Seeker is unable to comply with the quality of service standard due to delays by Access Provider in confirming appointments. One of the reasons is due to existing process where the appointment slots are shared across all Access Seekers, and the appointment slots can be fully taken up for days. Therefore, Celcom considered the Access Provider must establish better processes and allocate sufficient resources to resolve these issues.
- 23.26 Celcom submitted that service configuration is not readily available in areas where an Access Seeker is yet to provide a service. In such a case, the Access Seeker's first customer in a particular area must wait for the Access Provider to complete configuration. Celcom considered the Access Provider must ensure that all serviceable areas are made readily available for Access Seekers.

- 23.27 Celcom submitted there have been delays and failures in fixed broadband services due to unreasonable conditions imposed by Access Providers. For example, when the Access Provider requires end-users from one address to provide supporting documents, these end-users require fixed broadband service subscriptions from multiple service providers.
- 23.28 Maxis generally agreed to the proposed amendments in the Service Specific Obligations for HSBB Network Services in subsection 6.6. Maxis proposed a number of additional amendments and subsections as discussed below.
- 23.29 Maxis considered the MCMC's focus on overcoming port full challenges is a step in the right direction to ensure the industry can meet its JENDELA targets.
- 23.30 Maxis proposed amendments to subsection 6.6.2 of the draft MSA as follows:

"6.6.2 Forms of HSBB Network Services:

There are two (2) forms of HSBB Network Services:

- (a) Layer 2 HSBB Network Services with QoS; and
- (b) Layer 3 Network Service.

The Access Provider shall clarify in their Reference Access Offer ("RAO") whether the Access Provider offers the Layer 2 HSBB Network Service with QoS and/or the Layer 3 HSBB Network Service in respect of the premises, street, exchange area or part thereof."

- 23.31 Maxis proposed that the maximum period of forecast for HSBB should be one year and non-binding to the Access Seeker unless made in accordance with the MSA subsections 5.6.3, 5.6.5 and 5.6.16. Consequently, Maxis recommended that paragraph 6.6.3(a) of the draft MSA to be maintained without the MCMC's proposed changes.
- 23.32 However, Maxis noted it does not have a strong objection to extending the maximum forecast period for HSBB to be 3 years on the condition that this should also be non-binding to the Access Seeker unless made in accordance with the draft MSA subsections 5.6.3, 5.6.5 and 5.6.16. The MCMC's proposed amendment to paragraph 6.6.3(a) implies that the Access Provider can take the position that the 1st year of forecasts are binding to the Access Seeker. If the MCMC proceeds with its position to extend the maximum period of forecast for HSBB to be three years, Maxis proposed amendments to paragraph 6.6.3(a) of the draft MSA as follows:
- (a) "the maximum period of time covered by Forecasts regarding HSBB Network Services is *three (3) years* ~~provided that any period of time that is greater than one (1) year shall be a Non-Binding Forecast Period;~~"

Maxis views on MSA subsection 6.6.9 Portal information

- 23.33 Maxis submitted with regard to the draft MSA paragraphs 6.6.9(b), (d) and (f) that information about the type of HSBB Network Services, the premises at which Access Seekers may establish a POI, and the total number of BTU ports on a

premises is already made known to the Access Seeker by other means. Consequently, Maxis considered that such information should be provided outside of the portal.

23.34 Maxis proposed amendments to subsection 6.6.9 of the draft MSA as follows:

"6.6.9 Portal information: Each Access Provider must make available through an interactive self-service portal in accordance with subsections 6.6.13 and 6.6.14 of this Standard, access to a mechanism which allows Access Seekers to query:

(a) whether:

(i) a premises is on a street which is connected to a HSBB Network and where a BTU is installed;

(ii) a premises is on a street which is connected to the HSBB Network, but where a BTU is not installed; or

(iii) a premises is in an exchange service area or part of an exchange service area (*if applicable*) in which the Access Provider has a HSBB Network;

~~(b) whether the Access Provider offers the Layer 2 HSBB Network Service with QoS and/or the Layer 3 HSBB Network Service in respect of the premises, street, exchange area or part thereof;~~

(c) the maximum bit rate at which the Access Provider offers the HSBB Network Service (subject to any necessary provisos or qualifications related to technology or network facility limitations);

~~(d) the exchange buildings and other Access Provider premises at which Access Seekers may establish a POI to acquire the HSBB Network Services;~~

(e) information and parameters concerning service restoration including, without limitation, throughput achieved at the service boundaries of the HSBB Network Service, equivalent to that which the Access Provider provides to itself; and

(f) the ~~total number and~~ availability of BTU ports, on a premises-by-premises basis."

Maxis views on MSA subsection 6.6.10 Implementation and Migration Plan

23.35 Maxis proposed amendments to subsection 6.6.10 of the draft MSA, to reflect the current industry practice that the Implementation and Migration Plan is not published by the Access Provider in the portal but should be provided by the Access Provider to the Access Seeker via electronic form such as email, on a monthly basis or as mutually agreed between the Access Provider and the Access Seeker.

23.36 Maxis proposed amendments to subsection 6.6.10 and 6.6.11 as follows:

- (a) **6.6.10 Implementation and migration plan:** The Access Provider shall maintain and ~~publish, through an interactive self-service portal~~ *provide to the Access Seeker on a monthly basis or other timeframe as mutually agreed*, in accordance with subsections 6.6.13 and 6.6.14 of this Standard, a detailed up-to-date implementation plan that provides its procedures and timing for the HSBB Network Services that includes:
- (a) the implementation plan covering a total period of time for which the Access Provider has any internal rollout plans;
 - (b) the migration from copper to fibre at all existing nodes by location;
 - (c) the construction of new nodes by location;
 - (d) notification processes to Customers and Access Seekers for such migration and the minimum notice periods to be provided; and
 - (e) *the exchange buildings and other Access Provider premises at which Access Seekers may establish a POI to acquire the HSBB Network Services;*
 - (f) ~~(e)~~ ordering and provisioning procedures for HSBB Network Services including the applicable terms and conditions ~~and BTU Port availability;~~ *and*
 - (g) *the total number of available BTU ports, on a premises-by-premises basis subject to reasonable justification provided by the Access Seeker on a case-by-case basis.*
- (b) **6.6.11 Availability to Access Seeker:** The implementation and migration plan specified in Subsection 6.6.10 of this Standard shall be made available in electronic form to ~~the any~~ Access Seeker ~~on request~~ *monthly or on any other timeframe as mutually agreed between the Access Provider and the Access Seeker.*

Maxis views on MSA subsection 6.6.16 Reporting

- 23.37 Maxis fully supported the MCMC's proposal to add paragraph 6.6.16(b) to the draft MSA. Maxis proposed minor amendments to amendments to paragraph 6.6.16(b) as follows:
- (a) "(b) An Access Provider must, by the day that is on or about twenty (20) Business Days after the end of a calendar quarter (or such other period agreed with Access Seekers), provide to Access Seekers a report *at no additional charge* on the Access Provider's performance in each month of that quarter, against key operational metrics *as specified in the Commission Determinations on the Mandatory Standards for Quality of Service (Wired Broadband Access Services), Determination No.1 of 2021 and Mandatory Standards of Quality of Service (Customer Service), Determination No.4 of 2021*, in respect of services supplied by the Access Provider over the HSBB Network, including, without limitation:

- (i) network utilisation including OLT backhaul utilisation and the area the OLT is serving. For clarity, this further includes:
 - (A) *network node ID,*
 - (B) *coordinates,*
 - (C) *state,*
 - (D) *utilization (%) of 1st, 2nd and 3rd month.*
- (ii) throughput;
- (iii) latency;
- (iv) packet loss;
- (v) service fulfilment; and
- (vi) service assurance.”

23.38 Maxis submitted these proposed amendments to subsection 6.6.16 allow Access Seekers to:

- (a) **Optimise network efficiency:** especially for areas dependent on Access Providers, thereby increasing LTBE and meeting the respective MSQOS requirements; and
- (b) **Improve network quality:** [c-i-c].

Maxis’ views on MSA subsection 6.6.17 Equivalence of Inputs

23.39 Whilst Maxis submitted it largely agrees with the EOI position from the MCMC, it proposed adding a new paragraph (d) to the draft MSA subsection 6.6.17:

- (a) “(d) In addition to subsections 6.6.17(a), (b), and (c), Access Providers that are dominant must also:
 - (i) *ensure that its wholesale business unit is exercising independent decision making in relation to HSBB Services and is separate from its retail arm; and*
 - (ii) *implement appropriate measures to ensure such independent and separate decision-making.”*

23.40 As discussed in Maxis’ response to Question 47, Equivalence of Inputs (EOI) is typically seen in markets with the presence of a vertically integrated incumbent supplying to itself and other Access Seekers or a monopolistic or dominant player. Maxis submitted that these characteristics can be seen in Malaysia’s fixed markets that include HSBB, transmission, ducts and manholes. Consequently, Maxis supports the EOI obligation based on Malaysia’s market structure.

23.41 In markets which impose EOI with the above characteristics, regulators have previously imposed some form of separation of the dominant player’s wholesale and retail arm to enforce EOI. Maxis has cited the regulators in as detailed in the

UK and Italy have previously forced such separations. This is done to alleviate concerns that the dominant player can engage in anti-competitive behaviour by favouring its downstream businesses. Given the similarities of Malaysia's fixed markets to the international examples of regulator-forced separations, Maxis submitted the MCMC should impose requirements that the dominant Access Provider's wholesale and retail arm should be separate.

Maxis' views on MSA subsection 6.6.19 Churn Obligations

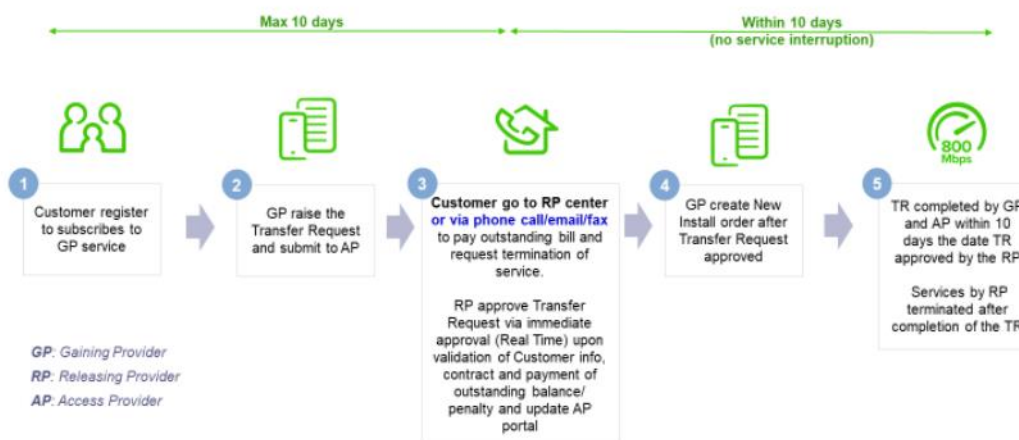
23.42 Maxis strongly supported the MCMC's proposal to include the Churn Obligations. Such obligations have been imposed in the UK through Ofcom's "One Touch Switch Process". Maxis submits the Transfer Request issues currently faced by Access Seekers in Malaysia have significantly impacted its customer experience.

(a) Maxis proposed the following improved Churn/Transfer Request (**TR**) processes to improve the customer experience in line with the current industry practice:

- (i) The customer registers to subscribe to GSP services;
- (ii) The GSP is allowed to submit the TR on behalf of the customer in the Access Provider wholesale portal;
- (iii) Upon submission of the TR, the AP shall provide a unique TR ID to the GSP, RSP and Customer.
- (iv) The customer settles outstanding payments and requests termination of the service to the RSP within 10 Days from submission of the TR, failing which, the TR shall be cancelled, and the GSP will be notified by the AP. GSP shall be allowed to reactivate the cancelled request without creating a new TR order request.
- (v) The RSP shall make various termination options (e.g., via phone call, email, visiting RSP's centre, etc.) and online payment options to the Customers and shall not impose any condition that restricts the Customer's TR (e.g., requiring Customer to visit RSP's outlet to terminate the service, pay the outstanding amount, return the BTU, etc.). This particular obligation is not currently standard industry practice.
- (vi) Upon receiving payment and termination request from the Customer, the RSP shall process the TR and grant immediate approval via the Access Provider wholesale portal.
- (vii) Upon approval of the Transfer Request by the RSP, the GSP and the AP shall schedule an appointment for installation using the existing Transfer Request ID, and the TR to be completed within 10 days from the date of approval.
- (viii) The RSP must not use information disclosed for the purposes of frustrating the TR and targeted marketing to the TR customer.

23.43 Maxis' proposed TR process is summarised below:

Proposed HSBB Transfer Process for MSA PI Paper – **Customer can have option to make payment and terminate via email/phone call (no need to walk-in)**



3

Figure 2: Summary of the proposed Transfer Request process

Maxis' views on MSA subsection 6.6.20 Customer Demand List

23.44 Maxis strongly supported the MCMC's proposal to include the draft MSA subsection 6.6.20 Customer Demand List for HSBB Network Services. Currently there are no effective processes and procedures for the Customer Demand List and this has significantly impacted customer experience. Maxis emphasises that under JENDELA, there is a policy of no footprint overlap for USP funded areas. This means that where the alternative service provider is unable to secure a port, the customer would not have a fibre alternative. The Customer Demand List process is critical to ensuring customers receive HSBB services.

23.45 Maxis submitted that the Access Provider's restriction to only submit Customer Demand Lists each month under the draft MSA paragraph 6.6.20(a) is too restrictive and prevents the Access Provider from efficiently providing services to its customers.

23.46 Maxis proposed amendments to the draft MSA subsection 6.6.20 as follows:

6.6.20 Customer Demand List: The following process shall apply to the submission of Customer Demand Lists by an Access Seeker:

- (a) The Access Provider must permit (but must not require) the Access Seeker to submit Customer Demand Lists on a ~~monthly~~ *daily or immediate* basis.

Maxis proposed new subsection 6.6.21 Point of interconnect aggregation

23.47 In line with Maxis' submissions regarding POI factors in the draft MSA subsection 5.8.6, Maxis proposed a further amendment to include a HSBB Network Service specific requirement regarding Points of Interconnection.

23.48 Maxis noted that in the MSA PI paper paragraph 13.11, the MCMC stated that it agreed Access Providers should be required to provide POIs at more central / regional locations, rather than local areas. This is important, otherwise, additional

transmission charges will be imposed to the Access Seeker in addition to the BTU Port charges and the Service Gateway charges. An Access Seeker having 2 POI per Closed Number Area is often unfeasible. Limiting the number of POI per Closed Number Area will ease the burden to the Access Seeker to establish POI at the local area or the OLT level which will result in cost savings to the Access Seeker and expedite the provision of services to customers. Maxis cited a case study in Australia of the regulator mandating the aggregation of POIs resulting in ~86% reduction in POIs.

23.49 Maxis proposed amendments to the draft MSA subsection 6.6 to add a new subsection 6.6.21 as follows:

- (a) **"6.6.21 Point of Interconnection for Layer-2 HSBB Network Services:** *The Access Provider shall not impose unreasonable requirement to the Access Seeker to establish their Point of Interconnection (POI) at each local area or Optical Line Terminal level for the purpose of access to the Layer-2 HSBB Network Services provided by the Access Provider. The maximum number of POI that the Access Provider is allowed to require the Access Seeker to establish for the purpose of access to the Layer-2 HSBB Network Services provided by the Access Provider is two (2) POI for each Closed Number Area."*

Maxis proposed new MSA subsection 6.6.22 Support

23.50 Maxis submitted in line with its support of the draft MSA subsection 6.15.15 in relation to 5G Services, it proposed to include the same obligation under that subsection for HSBB Network Services. Maxis emphasised the importance of the Access Provider being obligated to provide reasonable support to the Access Seeker to permit the Access Seeker to comply changes introduced by the MCMC.

23.51 Maxis proposed amendments to the draft MSA subsection 6.6 to add a new subsection 6.6.22 as follows:

- (a) **"6.6.22 Support:** *An Access Provider must provide an Access Seeker with any support reasonably requested by the Access Seeker to permit the Access Seeker to comply with any instruments developed by the Commission, including such modification or variation as may be determined by the Commission from time to time."*

Maxis proposed new subsection 6.6.24 Prohibited use of Customer Information

23.52 Maxis submitted there should be some layer of protection for the Access Seeker's customer data in line with those customer information protections in jurisdictions such as Australia, the United States and the European Union.

23.53 Maxis proposed amendments to the draft MSA subsection 6.6 to add a new subsection 6.6.24 as follows:

- (a) **"6.6.24 Prohibited use of Customer information:** *The Access Provider is expressly prohibited from using any Access Seeker's Customer information to market or offer to supply its goods or services to that or any other Customer. This includes any use or intended use by the Access*

Provider to dissuade that Customer from entering into a contractual relationship with the Access Seeker for retail services that use the HSBB Network Services as an input or more generally, to persuade that Customer to enter into a contractual relationship with the Access Provider for the Access Provider's retail services."

23.54 TT dotCom submitted the following comments in relation to the Service Specific Obligations:

- (a) **6.6.3 (Forecasts):** the proposed changes from one (1) year to three (3) years, provided that any period of time that is greater than one (1) year shall be a Non-Binding Forecast Period, may not be feasible. This is because any non-binding forecast will not enable the Access Provider to confirm and allocate an adequate number of BTUs for the Access Seeker's use.
- (b) **6.6.9 (Portal Information):** TT dotCom noted that the introduction of these obligations mandating that an Access Provider establish a portal imposes significant cost burdens on smaller network licensees which may cause long term competition imbalances. Further, the additional costs to be incurred for the establishment of a portal may be passed on to customers downstream thereby resulting in higher retail prices. TT dotCom also considered that mandating a portal may not significantly assist in the provision of access services by the Access Seeker as the need for such a portal, at best, only arises when the Access Provider has national coverage. TT dotCom submitted that mandating a portal is both beyond the scope of the standard access obligation (in Section 149 CMA) and what an access code is to address as specified in Section 153(2) to 153(4) CMA.
- (c) **6.6.13 (Service Fulfilment Timeline - Service Availability Check):** TT dotCom submitted the requirement to provide information as to available capacity, time frame to fulfil the Access Seeker's order does not consider that an Access Provider is to issue an acknowledgment of receipt within 1 Business Day of receipt of the order, and obtaining such information may in practice require more time to be fulfilled. Accordingly, TT dotCom submitted that the MSA obligation should require a response time of 5 Business Days for Access Providers to revert to the Access Seekers with information regarding its plan for servicing a particular area or premises, including an indicative timeframe for service availability in accordance with subsection 6.6.13.
- (d) **6.6.16 (Reporting):** TT dotCom disagreed with the MCMC's proposed amendments to subsection 6.6.16 as the amendments do not serve a real benefit to end users, the amendments only serve the interest of large Access Seekers, and Access Providers already submit the report to the MCMC as part of the MSQoS. Therefore, TT dotCom is of the view that there is no need for the reports to be provided to Access Seekers.
- (e) **6.6.17 (EOI – API integration):** TT dotCom disagreed with the MCMC's proposal to allow integration with Access Providers' OSS where requested by the Access Seeker. TT dotCom submitted that this would require the Access Provider to redesign and rebuild its existing system which is very

costly and time consuming (e.g. a typical system design and implementation takes approximately 3 years). TT dotCom also submitted that providing access to an internal system to external parties increases the risk of data leakage.

- (f) **6.6.19 (Churn Obligations):** TT dotCom was critical of the proposed churn obligations and submitted they do not consider market realities. TT dotCom stated the process for customer to churn is already simple. Imposing these obligations imposes unnecessary and burdensome regulatory costs on Access Providers. TT dotCom submitted its view that such regulatory costs outweigh the benefits.
- (g) **6.6.20 (Customer Demand List):** TT dotCom disagreed with the MCMC's proposed amendments to this subsection as the MCMC has already provided timeframes for the Access Providers to respond to Customer Demand List requests. Further adding these obligations will create additional unrecoverable costs on the Access Provider and the obligations appear to be heavily weighted towards the benefit of Access Seekers to the detriment of Access Providers.

23.55 In respect of Question 29, TM generally agreed with the MCMC's proposed amendments to subsection 6.6. TM also proposed various additional amendments to subsection 6.6 as discussed below.

23.56 TM proposed adding a new subsection on recovery for over-forecasting over the binding period (i.e., the first year) based on the number of ports not utilised and charged based on the MSAP (i.e., MYR45 per BTU port). This is in line with the recovery methodology agreed by Access Seekers in TM's commercial agreements for over-forecasting in the DSL wholesale service.

23.57 TM proposed amendments to the draft MSA to add a new subsection to subsection 6.6 as follows:

- (a) **"Recovery for over-forecasting:** *An Access Provider shall not seek to recover any costs or expenses incurred due to its acceptance of a Forecast from an Access Seeker if the Forecast is not met by the Access Seeker unless:*
 - (i) *the relevant portion of the Forecast that was not met by the Access Seeker does not relate to a Non-Binding Forecast Period;*
 - (ii) *the Access Provider only recovers from the Access Seeker the number of ports not utilised based on MSAP."*

23.58 TM submitted that portal information should be limited to information at the Service Gateway level. TM proposed the removal of the requirement in paragraph 6.6.9(f) for Access Providers to provide the total number and availability of BTU ports on a premises-by-premises basis. TM submitted various reasons for this amendment, including:

- (a) TM is currently unable to provide such information as the ports are not assigned to specific addresses. The process for checking the availability of

ports for a specific address is covered under the service availability check. TM submitted the availability of ports to serve a specific address is based on port availability at the fibre distribution point, and not at the BTU port. The practical realities of where BTUs and fibre distribution points are located and how they are used make it challenging for TM to provide the port availability information.

- (b) Regardless of the availability of port availability information, TM submitted such information at the fibre distribution point is not useful for Access Seekers and could potentially result in significant disputes between the Access Provider and the Access Seeker. Port availability at the fibre distribution point is a real-time resource which could change based on Order submission by any Access Seeker. The accuracy of the information would be highly contended by Access Seekers, leading to disputes which would result in a waste of time and resources.
 - (c) TM's retail unit, TM Unifi, does not receive information or report on port availability. TM clarifies that information on port availability is based on service availability check during order submission and that the process is consistent for all Access Seekers including TM Unifi.
- 23.59 TM submitted in respect of the draft MSA subsection 6.6.14 that Access Providers should not be held responsible if the non-fulfilment of MSQoS by the Access Seeker or the downstream operator. TM reiterated that an Access Provider does not have direct control over the Access Seeker's network. This is in line with the MCMC's response in paragraph 27.35 of the PI Paper, which states the following:
- "[...] one operator's compliance (or otherwise) with a mandatory standard should have no bearing on another operator's requirement to comply with the same".
- 23.60 TM submitted it faces various challenges in meeting MSQoS itself and TM's current cost base is based on its ability to meet the SLAs in the Access Agreement, and not the MSQoS. In order for TM to achieve the SLAs defined in the MSQoS, TM would need to invest additional resources in network operations which are not currently accounted for in the MSAP.
- 23.61 TM proposed the reporting requirement for network utilisation and performance under the service assurance timeline under the draft MSA subsection 6.6.14 should be removed. TM submitted the reporting requirement is irrelevant in this subsection, which specifically addresses service assurance timelines. Further, TM provides Access Seekers with a network utilisation and performance report subject to a fee, in Order to recover the costs incurred by TM in producing the report. As such, there is no need to mandate the reporting, as this report is already available to Access Seekers.
- 23.62 TM proposed the reporting requirement that are not practically feasible under the draft MSA subsection 6.6.16 should be removed. TM proposed these reporting obligations should be limited to key operational metrics that the Access Provider can feasibly provide.
- 23.63 TM proposed amendments to the draft MSA paragraph 6.6.16(b) as follows:

“(b) An Access Provider must, by the day that is on or about twenty (20) Business Days after the end of a calendar quarter (or such other period agreed with Access Seekers), provide to Access Seekers a report on the Access Provider’s performance in each month of that quarter, against key operational metrics in respect of services supplied by the Access Provider over the HSBB Network, ~~including, without limitation~~ *subject to customisation agreed between parties*:

- (i) network utilisation;
- (ii) ~~throughput;~~
- (iii) ~~latency;~~
- (iv) ~~packet loss;~~
- (v) service fulfilment; and
- (vi) service assurance.”

23.64 TM generally supported the inclusion of a requirement for API integration under the draft MSA subsection 6.6.17. TM submitted such API integration will take time to implement. TM submitted that the first phase of the API integration to provide Access Seekers with access to TM’s databases is expected to be ready by end 2023. TM submitted Access Providers should be allowed to charge Access Seekers a fee to recover the costs of enabling API integration as this will provide incentives for Access Providers to innovate and expedite the development of the API integration.

23.65 TM proposed amendments to the draft MSA paragraph 6.6.17(c) as follows:

“(c) ensure that Access Seekers are able to use the HSBB Network Services, the OSS, the systems and processes that are used by the Access Provider in the same way and with the same degree of reliability, performance, accuracy and up-to-date information as it provides to itself, ~~including by means of API integration if requested by an Access Seeker~~ *including by means of a customisable API module integration as agreed between an Access Seeker and an Access Provider.*”

23.66 Although TM generally agreed the industry needs to implement a practical and fair churn process, TM proposed amendments to the churn obligations in the draft MSA subsection 6.6.19. Overall, TM proposed that Churn processes should be lengthened to 11 business days, and not 5 business days as proposed by the MCMC. TM submitted this is comparable to the experience in jurisdictions such as the United Kingdom in which Churn processes typically take 14 calendar days.

TM Wholesale’s views on the churn obligations from the perspective on an Access Provider

23.67 TM examined the churn obligations from the perspective of TM Wholesale (an Access Provider) and TM Unifi (an Access Seeker). From the perspective of TM Wholesale, submitted that there should not be a reference to the Access Provider being prohibited from requiring the customer of an RSP to visit a physical location to facilitate a churn. TM is unable to control the processes of RSPs and thus proposed removing this reference from paragraph 6.6.19(a) of the MSA. TM

considered that the MCMC should work with the industry to develop a code of conduct on processes between internet service providers and their customers.

- 23.68 TM submitted that the 1 Business Day timeframe under the draft MSA subsection 6.6.19(b)(i) for the RSP to approve or reject the Transfer Request is not always possible due to the limitations of the system. TM as an Access Provider provides a portal on which the GSP submits its Transfer Request to the RSP. The RSP checks any outstanding Transfer Requests and process them periodically, within 10 Business Day. This is a manual process, resulting in delays to Transfer Requests. In order to meet the proposed 1 Business Day timeframe, TM would need to develop a new portal which significantly reduces the time this currently manual process takes. If such a portal were to be required, TM should be allowed to impose additional transaction fees to Access Seekers to subsidise the cost of building the new portal.
- 23.69 TM submitted with regards to the obligation to make BTU ports available under the draft MSA paragraph 6.6.19(b)(ii), that Access Providers should only be required to reserve the port at the distribution point upon approval of the Transfer Request (rather than at the BTU port). This is because the BTU port is already deployed at the customer premises and will be reused by the GSP.
- 23.70 TM submitted with regards to the draft MSA paragraph 6.6.19(f) on service activation timeframe that the timeframe for service activation should be increased. TM submitted the GSP needs sufficient time to book an available slot subject to availability of the Access Provider, the GSP and the Customer. In addition, cases such as customer deferment and return Order due to a faulty BTU port should be excluded from the service activation timeframe.
- 23.71 TM proposed to remove the draft MSA paragraph 6.6.19(i) as it claimed this subsection is against the EOI principle.

TM Unifi's views on the churn obligations from the perspective on an Access Provider

- 23.72 As mentioned, TM submitted its views as an Access Provider on the churn obligations. TM submitted in relation to paragraph 6.6.19(a) that while a customer of an RSP may not be required to visit any physical location, there is still a need to verify the Transfer Request. Not properly verifying the Transfer Request poses a significant financial risks on the RSP. TM cited an example that TM Unifi has approximately 12,000 completed Transfer Requests (churn from TM Unifi to other Access Seekers) as of July 2022, representing a run-rate of around 24,000 per annum. There would be significant exposure to TM Unifi in terms of non-payment of the final bill and penalties for early contract termination if TM Unifi is not allowed to collect the outstanding amounts before approving the Transfer Request.
- 23.73 TM submitted the one Business Day timeframe for the Releasing Service Provider (**RSP**) to approve or reject a Transfer Request under paragraph 6.6.19(b) is not achievable given the verification steps which need to be performed. TM proposed extending this timeframe to be 4 Business Days to allow for the following steps:
- (a) Day 1: Receive request from the GSP and perform validation of customer information, credit checking and contract status.

- (b) Day 2: Customer receives information on outstanding payment / penalties for early termination of contract.
 - (c) Day 3: Customer makes payment of outstanding bill.
 - (d) Day 4: the RSP checks for payment and reverts on the Transfer Request.
- 23.74 TM also requested that the Access Provider should implement the churn. TM did not provide further reasons as to why.
- 23.75 TM submitted that paragraph 6.6.19(c) be amended to remove the immediate provision of the Transfer Request if a Transfer Form is submitted to the RSP. TM highlighted the importance of a churn rejection to be resolved to the satisfaction of the RSP, in order to protect RSPs financial interests (as briefly discussed.
- 23.76 TM proposed amendments to the draft MSA subsection 6.6.19 in line with its views as an Access Provider and Access Seeker as follows:

"6.6.19 Churn Obligations: The following obligations apply in relation to a Churn:

- (a) The Releasing Service Provider and Access Provider must not object to impose any conditions on any party, or take any other steps, that have the effect of delaying or impeding, the implementation of a valid Churn request by a Gaining Service Provider, ~~including imposing any conditions requiring the Customer of the Releasing Service Provider to visit any physical location to facilitate a Churn;~~
- (b) Within ~~one (1)~~ *four (4)* Business Days of the date of receipt of the Gaining Service Provider's Transfer Request:
 - (i) the Releasing Service Provider must either:
 - (A) approve the Transfer Request and request the Access Provider to implement the Churn; or
 - (B) notify the Gaining ~~Access Service Provider~~ that the Transfer Request is invalid or incomplete, in which case paragraph 6.6.19(c) shall apply; and
 - (ii) the Access Provider must reserve an available ~~BTU~~ port for the Gaining Service Provider to be used solely in connection with the Churn, *upon approval of the Transfer Request;*
- (c) If a notification is made under paragraph 6.6.19(b)(i) of this Standard, the Releasing Service Provider must provide the Gaining Service Provider with evidence upon which the notification is based. In such circumstances, the Releasing Service Provider and the Gaining Service Provider must take immediate action to rectify the invalid Churn in accordance with the Customer's wishes. If the Customer wishes to proceed with the transfer to the Gaining Service Provider, and the Gaining Service Provider provides the Releasing Service Provider with a Transfer Form, the Transfer Request must be provided to the Access Provider immediately.

- (d) [...]
- (e) [...]
- (f) Each party shall use its best endeavours to ensure that the relevant Churn is implemented, and the relevant service activated, within ~~five (5)~~ *seven (7) business days* from the date of the Gaining Service Provider's first ~~valid~~ *approved* Transfer Request. *This excludes situations such as deferment from customer request and return Order due to faulty BTU port;*
- (g) [...]
- (h) [...]
- (i) ~~If, in respect of a Churn, the Releasing Service Provider and Access Provider are the same person, any acts required under this subsection 6.6.19 as between the Releasing Service Provider and Access Provider shall be deemed to occur instantaneously."~~

Activation and service fulfilment timeframes

- 23.77 Celcom agreed with the MCMC's proposed amendment to subsection 6.6.13 of the draft MSA in relation to the 14 Business Day configuration timeframe as this is consistent with JENDELA's target of 14 days service activation for ready for service (**RFS**) areas.
- 23.78 In respect of Question 30, Celcom proposed that the report which must be provided under paragraph 6.6.16(b) should include the status of the IP pool address utilisation. As IP addresses are an essential part of the service, it is important to ensure that there are sufficient IP addresses readily available.
- 23.79 Celcom proposed amendments to paragraph 6.6.16(b) of the draft MSA to add a new paragraph (ii) as follows:

"(b) An Access Provider must [...] provide to Access Seekers a report [...] against key operational metrics in respect of services supplied by the Access Provider over the HSBB Network, including, without limitation:

 - (i) network utilisation;
 - (ii) IP pool address utilisation;
 - (iii) throughput;
 - (iv) latency;
 - (v) packet loss;
 - (vi) service fulfilment; and
 - (vii) service assurance."
- 23.80 Celcom supported the proposal to include API integration under the draft MSA paragraph 6.6.17(c) as it facilitates customers self-registration process via a

portal. Celcom submitted this will enable customers to check the availability of service types for a particular address and the service installation schedule.

- 23.81 Digi submitted that activation and service fulfilment timeframes should include successful installations of return orders and Customer Demand List requests raised by Access Seekers.
- 23.82 Maxis proposed several amendments to strengthen the service fulfilment timeframes.
- 23.83 First, Maxis proposed amendments to the draft MSA subsection 6.6.13 SG Configuration parameter as follows:
- (a) "The SG configuration shall be performed and completed by the Access Provider within fourteen (14) Business Days *for existing nodes*, from the date on which connectivity to the Access Seeker's equipment has been established. *The timeline for new node is to be mutually agreed between the Access Provider and Access Seeker.*"
- 23.84 Second, Maxis proposed amendments to the draft MSA subsection 6.6.13 service availability check parameter as follows:
- (a) "The Access Provider shall enable the Access Seeker to check whether a premises or exchange service area (or part thereof) is serviceable by the HSBB Network Service via its ~~publicly accessible website~~ or interactive self-service portal in accordance with subsection 6.6.9 of this Standard. [...]"
 - (b) Where information about premises or exchange service area (or part thereof) is not available ~~on its publicly accessible website~~ or through the interactive self-service portal, the Access Provider shall inform the Access Seeker, within five (5) Business Days of an Access Seeker's request, whether the premises or exchange service area (or part thereof) is serviceable by the HSBB Network Service."
- 23.85 Third, Maxis also strongly considered the MCMC should add specific service level targets to this subsection relating to portal uptime, portal page loading time and supported browsers in subsection 6.6.13.
- 23.86 Fourth, Maxis proposed amendments to the draft MSA subsection 6.6.13 to add a new service order parameter as follows:
- (a) "*The Access Provider must, through its interactive self-service portal, allow the Access Seeker to submit orders for HSBB Network Services, including but not limited to, enabling the Access Seeker to upgrade its customer to new infrastructure (e.g., from VDSL to FTTH or any future FTTH technology).*"
- 23.87 Fifth, Maxis proposed amendments to the draft MSA subsection 6.6.13 to the service fulfilment timeline parameter as follows:
- (a) "*The Access Provider shall provide the available time slot for the Access Seeker to schedule the installation appointment with the Customer within*

five (5) Business Days from the date of Order created/submitted by the Access Seeker in the portal."

23.88 Sixth, Maxis proposed amendments to the draft MSA subsection 6.6.13 to the BTU installation parameter as follows:

- (a) ~~"Fifty percent (50%)~~ *Eighty percent (80%)* of BTU Installations per month to be completed within four (4) hours from the agreed installation time.
- (b) ~~Eighty percent (80%)~~ *Ninety percent (90%)* of BTU Installations per month to be completed within six (6) hours from the agreed installation time. [...]"

23.89 Seventh, Maxis proposed amendments to the draft MSA subsection 6.6.14 to the service assurance timelines on fault escalation, mean time to slot and BTU visibility for troubleshooting as follows:

- (a) *Fault Escalation: "The Access Provider must allow the Access Seeker to submit faults for all HSBB Network Services through its interactive self-service portal.*
- (b) *Mean Time To Slot: "The Access Provider shall provide the available timeslot for the Access Seeker to schedule the service restoration appointment with the Customer within one (1) day from the date of Customer Trouble Ticket ("CTT") creation / submission by the Access Seeker in the portal.*
- (c) *BTU Visibility for Troubleshooting: "Access Provider shall provide an option (but shall not require), via the portal, visibility of technical parameters up to the BTU to allow the Access Seeker to troubleshoot and enable remote restoration capabilities (including reset or reprovisioning of BTU) before the trouble ticket is raised."*

23.90 Eighth, Maxis also strongly considered the MCMC should add specific service level targets to this subsection relating to portal uptime, portal page loading time and supported browsers in subsection 6.6.14.

23.91 TM proposed various amendments to the service assurance timelines as follows. First, TM proposed that the MCMC should replace references to "a premises on a street that is connected to the HSBB Network" throughout the MSA, including in subsections 6.6.5, 6.6.7 and 6.6.9, to be "a serviceable address". The latter phrase is more well understood and used by Access Providers and Access Seekers. The latter phrase is also consistent with JENDELA.

23.92 Second, TM proposed removing the service availability check parameter from the service fulfilment timeline in subsection 6.6.13 of the draft MSA. TM instead proposed including amendments on service availability checks under subsection 6.6. TM proposed that Customer Demand List requests which return a result that either the address is serviceable but the port is full or that the address is not available, will be handled under subsection 6.6.20 of the MSA.

23.93 Third, TM proposed amendments to the draft MSA subsection 6.6 to add a new subsection as follows:

- (a) **"Service availability check:** The Access Provider shall enable the Access Seeker to check whether a premises or exchange service area (or part thereof) is serviceable by the HSBB Network Service via its publicly accessible website or an interactive self-service portal in accordance with subsection 6.6.9 of this Standard. [...]

~~Where information about a premises or exchange service area (or part thereof) is not available on its publicly accessible website or through the interactive self-service portal, the Access Seeker shall submit a demand request through a customer demand list. Provider shall inform the Access Seeker, within five (5) Business Days of an Access Seeker's request, whether the premises or exchange service area (or part thereof) is serviceable by the HSBB Network Service within five (5) Business Days of an Access Seeker's request.~~

~~If the relevant premises or exchange service area (or part thereof) is not serviceable by the HSBB Network Service, the Access Provider must provide to the Access Seeker information regarding the Access Provider's plan for servicing that premises, including an indicative timeframe for service availability."~~

- 23.94 Fourth, TM submitted the Customer Demand Lists timeframes should account for issues where addresses are not found in the portal under the draft MSA subsection 6.6.20. TM explained that if an address is not available following an Access Seeker's request in the portal, TM will manually verify if the address is serviceable within 5 Business Days of receiving the request. TM requested that if this process occurs and TM must manually verify the address, that the timeframe should be extended to be 5 Business Days. TM submitted that circumstances where the Access Provider uncovers additional issues which require more time to resolve (i.e. where a joint survey needs to be carried out or infrastructure deployment is required) or delays caused by factors outside of the Access Provider's control, should be carved out from this timeframe.
- 23.95 Fifth, TM proposed the addition of a new obligation under subsection 6.6.20 which requires an Access Provider to provide the Access Seeker with information regarding the Access Provider's plan for servicing the premises, including an indicative timeframe for service availability subject to the relevant demand forecast submitted by the Access Seeker and where information is available.
- 23.96 Sixth, TM proposed amendments to the draft MSA subsection 6.6.20 as follows:

"6.6.20 Customer Demand List: The following process shall apply to the submission of Customer Demand Lists by an Access Seeker:

- (a) [...]
- (b) [...]
- (c) *The Access Provider shall inform the Access Seeker, within five (5) Business Days of an Access Seeker's request, whether the premises or exchange service area (or part thereof) is serviceable by the HSBB Network Service.*

- (d) *If the relevant premises or exchange service area (or part thereof) is not serviceable by the HSBB Network Service, the Access Provider must provide to the Access Seeker information regarding the Access Provider's plan for servicing that premises, including an indicative timeframe for service availability subject to submission of relevant demand forecast by Access Seeker and where information is available.*
- (e) ~~(e)~~ *The Access Provider must investigate and resolve any issues identified in the Customer Demand List within ~~three (3)~~ five (5) Business Days of its receipt (for example, by ~~availing or augmenting any ports identified as being full or~~ updating its records to correct instances of missing address information). This excludes cases where additional information or joint survey confirmation is required from the Access Seeker or infrastructure deployment is required.*
- (f) ~~(d)~~ *The Access Provider must permit the Access Seeker to submit Customer Demand Lists through an interactive self-service portal if requested by an Access Seeker.*
- (g) ~~(e)~~ *The Access Provider must treat the Customer Demand List as the Confidential Information of the Access Seeker and must not use the Customer Demand List for any purpose other than as described in subsection 6.6.20~~(e)~~(e). For clarity, the Access Provider must not use the Customer Demand List to contact any Customers identified therein or in connection with any of the Access Provider's marketing and promotional activities."*

23.97 Seventh, TM proposed adding a new clause in the MSA mandating Access Seekers to book an appointment for BTU installation within a 30 day timeframe or risk the Order being cancelled by the Access Provider. TM submitted this requirement would be similar to commercial agreements for return Orders, where an Order is deemed cancelled after 30 calendar days. TM also submitted this clause would increase how efficiently the parties can roll out the HSBB Network Services to customers.

23.98 TM proposed to add the following subsection to the draft MSA:

"BTU installation appointments: Access Seekers shall book an BTU installation appointment within 30 calendar days upon notification of appointment slots being made available in the interactive portal of the Access Provider."

23.99 Eighth, TM proposed that the Service Gateway configuration should be performed and completed by the Access Provider within 20 Business Days from the date on which connectivity to the Access Seeker's equipment has been established, instead of 14 Business Days as proposed by the MCMC. TM submitted that there may be cases in which card upgrades, commissioning and testing at the Service Gateway will be required, and based on TM's experience, it takes more than 14 Business Days to perform such activities.

23.100 Ninth, TM proposes that the timeline for Return Order Management defined in subsection 6.6.13 of the draft MSA should be extended to be 14 Business Days to account for new infrastructure requirements. This extended timeline should not apply to Orders requiring extensive deployment of new infrastructure such as OLT

equipment and installation/replacement of street cabinets. TM submitted in its experience 28% of return Orders may require new infrastructure deployment.

23.101 TM proposed amendments to the draft MSA subsection 6.6.13 as follows:

- (a) "For any faulty or incomplete BTU installations, the Access Provider shall resolve the problem and complete the installation within five (5) Business Days of Access Seeker's notification unless the installation was faulty or incomplete for reasons outside the Access Provider's reasonable control. *In case where new infrastructure is required, Access Provider shall resolve the issue and complete the installation within fourteen (14) Business Days of Access Seeker's notification excluding cases where significant infrastructure deployment is required as listed under subsection 6.6.7.*"

Single truck rolls

23.102 In respect of Question 31, Digi, Maxis, U Mobile, YTL, and Astro agreed the MCMC should include an option for Access Seekers to request a single truck roll.

23.103 Maxis cited countries such as Australia, the United Arab Emirates and the United Kingdom as offering single truck roll options.

23.104 U Mobile considered the Access Provider should provide a platform on which the Access Seeker can order the single truck roll and specific requirements for the truck roll.

23.105 Celcom submitted there have been numerous challenges in the current dual truck rolls processes including:

- (a) delays in receiving the Access Provider's installer's contact details, receiving incorrect telephone numbers or not being able to contact the Access Provider;
- (b) delays in the arrival of the Access Provider's installers or no arrival at the customer's premise; and
- (c) delays caused by the Access Provider's unreasonable proposed charges for single truck rolls to which the Access Seeker is unable to agree. It appears that for single truck rolls there is a double charge on transportation cost which should not apply as there is only one installer travelling to the same location for multiple installations.

23.106 Celcom strongly supported the implementation of single truck rolls for service fulfilment and assurance. Celcom has one arrangement with one Access Provider which is working well but Celcom faces challenges with the incumbent operator due to unreasonable fees and the operator's reluctance to handle routers on behalf of Celcom.

23.107 Celcom recommended that the arrangements for single truck rolls should be based on the following principles:

- (a) the Access Provider appoints a third party installer who will carry out installation for both Access Provider and Access Seeker;

- (b) the Access Seeker provides router (residential gateway) to the Access Provider which then shares the router with the installer;
- (c) the installer is provided access to the Access Seeker's portal for tracking and invoicing purposes;
- (d) the Access Provider and Access Seeker agree on the contract terms and code of conduct for the installer. These include requirements for the installer to be present at customer's premises as per the scheduled time; and
- (e) the Access Provider and Access Seeker agree on reasonable charges.

23.108 Allo was agreeable to the single truck roll however it considered that this arrangement should be covered in the Access Agreement between the parties (rather than the MSA).

23.109 Astro considered that installers must be certified by both the Access Provider and Access Seeker to install the relevant equipment during the single truck roll. This will necessitate one or both parties incurring additional costs for training and tools which can be commercially agreed in the Access Agreement.

23.110 TM proposed to exclude the option for Access Seekers to request a single truck roll. TM claimed that HSBB Residential Gateway demarcation should be performed by the Access Seeker (or be outsourced to the Access Provider by the Access Seeker). The provision of a single truck roll should be based on commercial negotiations between the Access Seeker and the Access Provider.

Service level rebates

23.111 In respect of Question 32, Celcom proposed a requirement for the Access Provider to provide a breakdown of charges as well as a basis and justification for the charges. In relation to service level rebates, Celcom proposed a rebate to the affected Access Seeker for an amount equivalent to any penalty imposed on the Access Seeker or compensation required to be paid to affected customers. Celcom did not specify the kind of penalty this obligation should relate to. Celcom considered these steps would assist Access Seekers in negotiating with Access Providers particularly as some negotiations such as those with the incumbent are not progressing efficiently.

23.112 TT dotCom was of the view that the service level rebates should be negotiated on commercial basis as each Access Provider has its own method to calculate the rebates, based on differences in costs structure, resources, materials, and processes.

23.113 Maxis agreed with the MCMC's view that the MSA should set out the service level rebates for HSBB Network Services. Maxis cited countries such as Australia and the United Kingdom as stating HSBB Network Service rebates for Access Seekers if the Access Provider fails to meet SLAs.

23.114 Maxis proposed amendments to the draft MSA to add a new subsection 6.6.23 as follows:

"6.6.23 Rebate:

- (a) *The Access Provider shall comply with the KPIs, SLAs and other deliverables in this MSA subsection 6.6 including for Service Activation Timeframe, Service Fulfilment Timeline and Service Assurance Timeline. The Access Provider shall pay to an Access Seeker a compensation amount mutually agreed between the Access Seeker and the Access Provider for the non-compliance of any of the KPIs, SLAs and other deliverables under this MSA subsection 6.6.*
- (b) *addition to the above, for incidents involving unethical conduct by the Access Provider such as breaching of Subsection 6.6.19 Churn Obligations and Subsection 6.6.20 Demand List in relation to Subsection 6.6.24 Prohibited use of Customer information, the Access Provider shall pay to the Access Seeker a compensation to be mutually agreed between the Access Provider and Access Seeker."*

23.115 In respect of Question 32, U Mobile and YTL considered the MSA should set out the range (of rates) for rebates as guidance for the negotiating parties. U Mobile requested that Access Providers should provide rebates to the Access Seeker to the equivalent amount claimed by or owed to the Access Seeker's customers due to the breach in the downstream service level for loss of signal or slow internet. U Mobile gave the example that the slow internet SLA could be that the service does not meet 90% of the level to which customers are subscribed for 90% of the time.

23.116 Allo on the other hand considered that the SLA rebates should be left to the Access Agreement between the parties.

23.117 Astro proposed that the MCMC should set out the process for when the Access Seeker makes a claim for a rebate under the draft MSA subsection 6.7.10 and 6.7.11 related to the provision of inaccurate information by the Access Provider. Astro is of the view that since the rebate is applicable to inaccurate information and the AS may be required to provide evidence to support the claim, the Access Provider should not request an opportunity to rectify the inaccurate information rather than pay the rebate. This must be a 'strict liability' provision to incentivise APs to provide accurate information.

23.118 Astro strongly supported the inclusion of service level rebates in the draft MSA. Service level rebates should be provided for any instances where:

- (a) the Access Provider is not providing the agreed services to the service level as per the MSQoS, or enabling the Access Seeker to support the MSQoS; and
- (b) the Access Seeker is penalised by the MCMC for any negligence/fault which is attributable to the Access Provider.

- 23.119 Astro submitted that given the high dependency on the Access Provider, the service level rebates should reflect the loss or damages suffered by the Access Seeker particularly in respect of any penalties imposed on the Access Seeker in connection with services provided by the Access Provider.
- 23.120 In a similar vein, REDtone proposed that in circumstances where an Access Provider's negligence leads to an Access Seeker incurring damages, that the Access Provider must indemnify the Access Seeker. REDtone submitted this be addressed in the MSA.
- 23.121 TM supported the provision of rebates in the event that inaccurate information is provided by the Access Provider under draft MSA subsection 6.6 and noted it already includes a rebate process in its Access Agreement. However, TM proposes to amend subsection draft MSA paragraph 6.6.9(g) to allow the Access Provider to validate claims.
- 23.122 TM submitted Access Providers should be allowed to rectify any information errors, particularly minor typo errors, within a reasonable timeline before a rebate applies under draft MSA subsection 6.6.9(h). TM submitted this would be in line with the spirit of resolving issues amicably and efficiently with the Access Provider and the Access Seeker."
- 23.123 TM proposed amendments to the draft MSA subsection 6.6.9(g) and 6.6.9(h) as follows:
- "(g) the Access Provider must not request information, evidence or other materials from the Access Seeker beyond the ~~minimum~~ *required* amount that is ~~reasonably~~ necessary to validate the Access Seeker's claim; and
- (h) the Access Provider must, within such timeframes as agreed with the Access Seeker, pay any rebates validly claimed by the Access Seeker or notify the Access Seeker that some or all of the Access Seeker's claim is rejected *or rectify such errors based on reasonable timelines agreed between Access Provider and Access Seeker*; and"
- 23.124 TM proposed that any service level rebates or other commercial matters should be subject to commercial negotiation between the Access Provider and the Access Seeker, instead of being set out in the MSA. TM submitted the industry has generally been able to decide on service levels through negotiations.

Indicative delivery timeframes

- 23.125 Digi, Maxis and U Mobile considered that the MCMC's proposed indicative activation time frame in the draft MSA subsection 6.6.7 of 14 Business Days is aligned with the JENDELA target.
- 23.126 Digi also submitted the timeframes should include successful installations of return orders and Customer Demand List requests raised by Access Seekers.
- 23.127 Edotco submitted that projects under the JENDELA targets are already subjected to contractual obligations. Considering the short delivery timeframes, addressing JENDELA projects under the MSA will be counterproductive and require additional redundant reporting.

23.128 TM proposes that the indicative activation timeframe for HSBB Network Services in subsection 6.6.7 of the MSA should be amended to an indicative readiness timeframe, and allow for a longer period to deliver the new infrastructure. TM submitted its proposed timeframes (as further discussed below) are in line with the JENDELA plan given that the complexity of infrastructure delivery requires this longer timeframe.

23.129 TM proposed amendments to the draft MSA subsection 6.6.7 as follows:

"6.6.7 Indicative activation readiness timeframe: For the purposes of paragraph 5.7.13(a)(i) of this Standard, the indicative ~~activation~~ *readiness* timeframe for HSBB Network Services is:

~~(a) in respect of a premises on a street that is connected to the HSBB Network, five (5) Business Days including the date of the Broadband Termination Unit ("BTU") installation appointment; (whether or not a BTU has been installed at such premises as at the date of the relevant Notice of Acceptance); or~~

~~(b) otherwise, up to fourteen (14) Business Days including the date of the BTU installation appointment.~~

(a) *in respect of a serviceable address where infrastructure is available, five (5) Business Days including the date of the Broadband Termination Unit ("BTU") (whether or not a BTU has been installed at such premises as at the date of the relevant Notice of Acceptance); or*

(b) *in respect of a serviceable address where new fibre distribution point, new pole is required, fourteen (14) Business Days including the date of the Broadband Termination Unit ("BTU") (whether or not a BTU has been installed at such premises as at the date of the relevant Notice of Acceptance),*

Indicative readiness timeframe excludes cases where significant infrastructure deployment is required and is subject to Access Seeker's confirmation to proceed with Order fulfilment or customer demand confirmation and booking of BTU appointments."

Discussion

23.130 The MCMC thanks operators for the detailed and extensive submissions on the HSBB Network Services obligations, reflecting that these services remain some of the most heavily-acquired services in the Access List.

Proposed amendments to Service Specific Obligations for HSBB Network Services

23.131 The MCMC broadly agrees with Digi's submission to make amendments to paragraph 6.6.7(b) of the draft MSA to clarify the date on which the indicative activation timeframe commences for HSBB Network Services, with some minor amendments.

23.132 In response to Digi's submissions relating to the network utilisation and performance reporting obligations proposed under subsection 6.6.14, the MCMC:

- (a) does not consider a change is necessary to include the parameters suggested by Digi, as the MCMC considers that the parameters to which Digi refers are sufficiently addressed under the EOI obligation;
- (b) does not consider a change is necessary to mandate the provision of information regarding the number of complaints made about the Access Seeker engaging in 'sales hijacking', because such conduct would be prohibited if engaged in by the Access Provider and complaints can be made to the MCMC if required; and
- (c) broadly agrees with Digi's submission with regards to the Access Provider's HSBB portal stability and availability, and will include language to this effect in the MSA. The MCMC also notes that a similar submission was made by Maxis.

23.133 Digi also made a number of submissions in relation to amendments that Digi considers are required in subsection 6.6.19. The MCMC does not agree with these proposals, for the following reasons:

- (a) paragraph 6.6.19(b)(ii) already refers to "the Churn" which is sufficiently clear to indicate the BTU port is being reserved specifically for the customer requesting the transfer;
- (b) adjustments to installation costs are pricing issues and are not the subject of this MSA inquiry; and
- (c) the MCMC considers that it is reasonable to characterise customer relocations as a disconnection and reconnection and not a Churn, so no special provisions or exceptions are required in this regard.

23.134 The MCMC broadly agrees with Digi, Celcom and Maxis' submissions in respect of subsection 6.6.20, with minor amendments to give the Access Seekers flexibility as to how frequently Customer Demand Lists may be submitted.

23.135 Digi's recommendation that the Access Provider be required to disclose the Customer Demand List to all Access Seekers is rejected. An Access Provider cannot disclose one Access Seeker's Customer Demand List to other Access Seekers, as it would result in the disclosure of the first Access Seeker's confidential information.

23.136 The MCMC generally agrees with Digi's submission that Access Providers should be prohibited from imposing a penalty on Access Seekers for any changes to the Customer Demand List. The MCMC will make changes to the MSA to permit an Access Seeker to make one change per customer on the Customer Demand List without charge, cost or penalty. The MCMC also agrees with Digi's submission that similar requirements as set out in the draft MSA subsection 6.6.19 (relating to Churn obligations) should apply to the new Customer Demand List obligations. The MCMC will include general obligations in relation to processes applicable to cancelled Customer Demand Lists.

23.137 Digi and Celcom recommended that the MSA specify scenarios in which Access Providers are fully or partially liable for an Access Seeker's non-compliance with

the MSQoS. The MCMC notes this issue was considered and rejected prior to the PI, given this is an issue for the MSQoS, rather than the MSA, and reiterates those comments here. Similar comments apply to submissions by other operators, including TM, on MSQoS compliance.

- 23.138 The MCMC notes in respect of Celcom's submission regarding paragraph 6.6.9(f) that the subsection already specifies the applicable rebate amount is RM 44.75 or such higher amount as agreed by the parties. Consequently, no change is required.
- 23.139 The MCMC disagrees with Celcom's submission that a BTU should be accessible by more than one operator and more than one end-user. The MCMC considers it reasonable that generally each customer has a separate BTU. The MCMC understands in some circumstances multiple end-users will use a single service, but does not consider it necessary to clarify this level of detail in the MSA.
- 23.140 The MCMC notes Celcom's submissions with respect to minor delays in service configuration and initial onboarding of customers to fixed broadband services. The MCMC considers these are minor implementation issues which do not necessitate changes in the MSA.
- 23.141 In relation to submissions from Maxis the MCMC:
- (a) agrees that subsection 6.6.2 be amended to require the Access Provider to clarify the scope of the HSBB Network Services being provided by the Access Provider;
 - (b) agrees with Maxis's submissions regarding paragraph 6.6.3(a) (Forecasts) of the draft MSA with minor amendments. The MCMC proposes to amend this subsection so that the maximum forecast period for HSBB is 3 years and all forecast information is non-binding, except if the Forecast has been confirmed by the Access Seeker under subsection 5.6.3 of the MSA. Further, the MCMC considers these amendments will address the issues raised in TM's submission with respect to over-forecasting.
 - (c) accepts Maxis's proposed amendments to subsections 6.6.9 and 6.6.10 clarifying that certain information is provided to Access Seekers through means other than the portal;
 - (d) agrees with Maxis's proposed amendments to paragraph 6.6.16(b), subject to removal of the examples provided "for clarity", which the MCMC considers goes to a level of detail beyond that which is necessary for the MSA.
 - (e) rejects Maxis's proposed amendments to subsection 6.6.17. The MCMC does not consider that EOI necessitates any separation of Access Providers. This is a separate policy issue which is not suitable for addressing under the MSA and the MCMC does not propose to include this requirement in respect of any services or facilities under the MSA;
 - (f) rejects Maxis's proposed Churn/transfer request process amendments. The MCMC considers this process is an operational issue to be agreed at the

industry level. The MSA is not the appropriate vehicle to use to set out detailed operational processes for churns;

- (g) accepts Maxis's proposed new subsection 6.6.21 clarifying that Access Providers should be required to provide POIs at more central or regional locations rather than at local areas;
- (h) rejects Maxis's submission to add a new subsection 6.6.22 regarding obligations for the Access Provider to provide support reasonably requested by the Access Seeker in connection with compliance with the MCMC instruments. As Maxis acknowledges, this provision was proposed by the MCMC with respect to 5G services, which are in their nascency. The MCMC does not consider such an obligation is needed for HSBB Network Services, the supply of which is mature;
- (i) disagrees with Maxis's submission to add a new subsection 6.6.24 regarding prohibited use of customer information. As noted above in paragraph 4.74 above, the MCMC will add to the General Principles an equivalent obligation regarding prohibited use of customer information;
- (j) agrees with Maxis's proposed amendments to subsection 6.6.13 regarding the service gateway configuration obligation;
- (k) accepts Maxis's proposed amendment to subsection 6.6.13 to remove the reference to a "publicly accessible website" as the MCMC understands this Access Provider portal is not publicly available. The MCMC also accepts Maxis's amendment to this subsection to specify that installation appointment time slots must be provided by the Access Provider within 5 Business Days of the date of Order creation. Each other amendment proposed by Maxis to this sub-section is not agreed; and
- (l) rejects Maxis's submission in relation to the service assurance timelines in subsection 6.6.14, because it is not clear to the MCMC that the portal has the functionality proposed by Maxis or that such functionality is required.

23.142 The MCMC disagrees with TT dotCom's submission that mandating a portal is both beyond the scope of the standard access obligation (in Section 149 CMA) and what an access code is to address as specified in Section 153(2) to 153(4) CMA. The MCMC considers the MSA is intended to cover these types of practical issues, to ensure the EOI obligation (which lies squarely at the overarching objectives of the CMA) is complied with.

23.143 In relation to TM's submissions, the MCMC:

- (a) agrees with TM's proposed amendments to paragraph 6.6.9(f) (Portal information), with some minor adjustments. While the MCMC accepts removal of the requirement for Access Providers to provide information regarding the total number of the BTU ports, Access Seekers must be able to obtain from the portal information regarding the availability (or non-availability) of BTU ports;

- (b) rejects TM's submission that the reporting requirement under subsection 6.6.14 be removed. The MCMC emphasises reporting is an important transparency requirement and should be retained;
- (c) disagrees with TM's proposed amendments to paragraph 6.6.16(b) as the MCMC considers the current drafting reflects the correct amount of detail. The MCMC notes it has rejected a request from some Access Seekers for more detail to be added to this reporting obligation, reflecting the MCMC's balanced approach to considering these obligations from the perspective of both Access Providers and Access Seekers;
- (d) disagrees with TM's submission that the Churn process should be lengthened to 11 business days rather than 5 Business Days as proposed by the MCMC. The MCMC considers 5 Business Days is sufficient and is aligned with comparable benchmarks;
- (e) rejects TM's submission to remove paragraph 6.6.19(i) deeming certain acts done by the same person to occur instantaneously. This subsection is necessary to ensure the non-duplication of functions when the Releasing Service Provider and the Access Provider are the same person.
- (f) agrees with TM's proposed amendments to:
 - (i) increase the timeframe to four Business Days in paragraph 6.6.19(b), to more closely align with industry practice. This is also consistent with TM Unifi's submissions that timeframe of 1 Business Day under paragraph 6.6.19(b) may be insufficient to perform the necessary activities for a TR;
 - (ii) correct a minor error in the draft MSA paragraph 6.6.19(b)(i)(B), by replacing "Gaining Access Provider" with "Gaining Service Provider";
 - (iii) clarify when the Access Provider must reserve an available port for the Transfer Request in paragraph 6.6.19(b)(i); and
 - (iv) set out certain exclusions from the timeframe within which a Churn must be completed in paragraph 6.6.19(f), subject to retention of the five Business Day timeframe;
- (g) disagrees with TM's proposed amendments to paragraph 6.6.19(c) as the MCMC considers it important for the Gaining Service Provider and the Access Provider to accede to a Customer's wishes immediately and without any delay;
- (h) will deal with TM's submissions regarding service activation and fulfilment timelines as follows:
 - (i) the MCMC agrees to replace the phrase "a premises on a street that is connected to the HSBB Network" with the term "a serviceable address";
 - (ii) the MCMC agrees to TM's proposed amendments to the service availability obligation with minor adjustments. The MCMC also agrees

with the proposed amendments relating to the Customer Demand List, and the MCMC will increase the frequency of when Customer Demand Lists may be submitted. However, the MCMC disagrees with TM's proposed deletion of the Access Provider's obligation to respond to a Customer Demand List request within five Business Days;

- (iii) the MCMC will not make any changes in relation to TM's submission regarding the Customer Demand List timeframes in subsection 6.6.20. The MCMC considers the situations which TM has cited should not be excluded from the timeframe as they largely appear to involve problems with the Access Provider's information. It is the Access Provider's responsibility to resolve any issues within the three Business Day timeframe.
- (iv) the MCMC agrees with TM's submission that Access Seekers must book appointments for BTU installation within 30 days or risk order cancellation. The MCMC considers 30 calendar days to be sufficient time for Access Seekers to make an order. If the time elapses, Access Seekers should be required to go through the same process again.
- (v) will not make any changes in relation to TM's proposal to extend the timeframe in the definition for Return Order Management to 14 Business Days. However, the MCMC generally accepts TM's proposed amendments to add an exception with respect to extending the installation period in cases where new infrastructure is required. The MCMC will propose amendments to this effect.

23.144 In relation to Celcom's proposed amendment to require IP pool address utilisation information to be provided in the report required under paragraph 6.6.16(b), the MCMC does not consider this is an ongoing issue which needs to be addressed / reported on under this subsection.

Single truck roll

23.145 The MCMC received overwhelming support from Access Seekers that Access Seekers should have the option to request a single truck roll. The MCMC acknowledges TM's opposing view on this issue. In line with the industry's support overall and international benchmarks, the MCMC will include the option of a single truck roll in the MSA.

Service level rebates

23.146 The MCMC received support from most operators that the MSA should set out the service level rebates for HSBB.

23.147 The MCMC generally agrees with Maxis's proposed amendments to add a new rebates subsection with some amendments. However, the MCMC does not agree that Maxis's proposed paragraph 6.6.23(b) is needed. The MCMC emphasises operators should concentrate on rebates for late installations rather than penalties. The MCMC notes operators can make complaints to the MCMC for breaches of the MSA.

23.148 The MCMC acknowledges TM's proposed amendments to paragraph 6.6.9(g), but does not consider that these are substantive issues which warrant a change to the MSA.

23.149 The MCMC notes TM's submission that any service level rebates should be subject to commercial negotiation between the Access Provider and the Access Seeker. The MCMC will include drafting to this effect. The MCMC otherwise disagrees with TM's submission that service level rebates should not be set out in the MSA.

Indicative delivery timeframes

23.150 The MCMC received general support from several operators regarding the proposed indicative activation timeframe. The MCMC does not consider further changes are required to this timeframe.

MCMC Views

23.151 The MCMC generally maintains its preliminary views on the proposed amendments to the Service Specific Obligations for HSBB Network Services and the relevant service activation and fulfilment timeframes. However, the MCMC will make amendments to specific obligations discussed above, which are not repeated here for brevity.

24 Transmission Services

Introduction

24.1 The MCMC proposed some limited changes to the Transmission Services in the PI Paper, dealing with the following areas:

- (a) requiring access to the Trunk Transmission Service to be provided in accordance with express QoS parameters; and
- (b) requiring Access Providers to discuss and negotiate the provision of a rebate to Access Seekers.

24.2 A mix of Access Providers and Access Seekers generally agreed with the MCMC's proposed service specific timeframes. However, the MCMC received a number of detailed submissions from Access Providers and Access Seekers in relation to the Transmission Services.

Question 34: Do operators agree with the service-specific timeframes that currently apply in respect of the Transmission Services? Why or why not? If not, please specify and substantiate any proposed changes or amendments.

Question 35: Do operators agree with the quality of service parameters in relation to Trunk Transmission Services set out in subsection 6.7.9? If not, please specify and substantiate and proposed changes or amendment.

Question 36: Are there any other technical parameters that are not reflected in the Access List amendments that should be addressed under the MSA? Please provide details.

Question 37: Do operators agree with the MCMC's proposal that Access Providers should provide Access Seekers with rebates where they fail to comply with the service level availability requirements set out in Commission Determination on the Mandatory Standards for Quality of Service (Digital Leased Line Service), Determination No.3 of 2009? If so, what should be the appropriate amount of any such rebate?

Submissions Received

Service specific timeframes for Transmission Services

- 24.3 Celcom, Fibercomm, Altel and YTL agreed with the proposed service-specific timeframes. Fibercomm noted the timeframe is in line with its current practice in delivering services for on-net (20 days) and off-net (60–90 days). Fibercomm proposed Access Seekers and Access Providers be granted the ability to mutually agree on a delivery date where logistical challenges exist (e.g. remote and unpaved roads, challenging terrains, islands).
- 24.4 YTL highlighted that that it has experienced delays in the delivery of facilities and services. As a result, YTL suggested the inclusion of rebates in the MSA should encourage Access Providers to ensure delivery timelines are met.
- 24.5 U Mobile and TM both agreed with the service specific timeframes, subject to certain changes. U Mobile proposed the billing cycle be monthly in arrears in place of a quarterly billing cycle.
- 24.6 TM proposed an extended delivery timeframe for non-urban areas and geographically difficult regions. TM reasoned non-urban areas have wider coverage areas and physical procedures (e.g. infrastructure deployment) takes longer to be carried out, and proposed an additional 10 Business Days to the delivery timeframe. TM also proposed geographically difficult regions (e.g. unpaved roads, islands) should be set on a case-by-case basis instead of a standardised timeframe due potential constrains on infrastructure deployment. TM proposed the following:

"6.7.5 Indicative delivery timeframe: For the purposes of paragraph 5.7.13(a)(i) of this Standard, and unless otherwise agreed between the Access Provider and Access Seeker having regard to the volume of the relevant Order(s), the indicative delivery timeframe for Transmission Services is:

- (a) if no new network facilities are required to supply the Transmission Services, twenty (20) Business Days for *Urban Areas*, thirty (30) Business Days for *non-urban areas and mutually agreed upon timeline between Access Seeker and Access Provider for geographically difficult regions (like unpaved roads, hills, and remote islands)*; or
- (b) if new network facilities are required to supply the Transmission Services, sixty (60) Business Days for *Urban Areas*, ninety (90) Business Days for *non-urban areas and mutually agreed upon timeline between Access Seeker and Access Provider for geographically difficult regions (like unpaved roads, hills, and remote islands)*."

- 24.7 Digi and REDtone distinguished the service-specific timeframes that currently apply for Transmission Services between on-net infrastructure and off-net infrastructure. Digi agreed that the proposed timeframes for on-net infrastructure are sufficient, but suggested the MCMC to include exclusions clauses for off-net infrastructure, specially to paragraph 6.7.5(b). Digi argued this would accommodate unforeseen circumstances which affects the entire market (e.g. global microchip shortage).
- 24.8 REDtone agreed with the service-specific timeframes in respect of on-net infrastructure, however, in line with Digi, REDtone proposed the addition of an exclusion clause for off-net infrastructure.
- 24.9 SACOFA disagreed that a timeframe should be set for off-net infrastructure, and proposed a process of the Access Provider and Access Seeker mutually agree on the timeframe based on a consideration of factors (e.g. right-of-way, local authority approvals).
- 24.10 Edotco proposed changing the timeframes for Transmission Services, providing different timeframes depending on whether new network facilities are required. Where no new network facilities are required to supply the Transmission Services, Edotco proposed 30 Business Days. Edotco argued the increased timeframe is more realistic, allowing the Access Provider to undergo the testing and verification process and procedure, additional examination and assessment work to ensure the links are accessible and there is no cutting of links between the two proposed points.
- 24.11 Where new network facilities are required to supply the Transmission Services, Edotco proposed 90 Business Days. Again, Edotco argued the increased timeframe is more realistic, allowing the Access Provider to perform actual work (i.e. site survey, trenching, cable and equipment installation, testing, handover to Access Seekers). Edotco also proposed the timeline process of acquisition of permits and approvals from the relevant authorities prior to the actual work commencement should be excluded from the proposed 90 Business Day timeframe.
- 24.12 Maxis proposed an amendment to subsection 6.7.5 and imposing two new subsections to subsection 6.7. To reflect delivery timeframes for Transmission Services that require new network facilities being subject to obtaining 3rd party authority, Maxis proposed to include the following wording after paragraph 6.7.5(b):
- "(b) subject to obtaining required approvals by relevant third-party authorities."*
- 24.13 In response to the new subsection 6.7.10 in the draft MSA, Maxis proposed the following subsection to encourage the Access Provider reasonably support the Access Seeker in meeting the relevant MSQoS and requirements:
- "6.7.12 Support:** *An Access Provider must provide an Access Seeker with any support reasonably requested by the Access Seeker to permit the Access Seeker to comply with the Commission Determination on Mandatory Standards for Quality of Service (Digital Leased Line Service), Determination No.3 of 2009, including such modification or variation and any other mandatory standards that may be determined by the Commission from time to time."*

24.14 Maxis supported imposing EOI requirements on fixed services (including Transmission Services) and fully enforcing separation of the wholesale and retail Transmission Services arms for entities with dominance in the market (expanded in Maxis's submission for subsection 6.6.17 23.3923.41). Maxis proposed the following:

"6.7.13 Equivalence of Inputs:

(a) *An Access Provider must:*

(i) provide Transmission Services on an Equivalence of Inputs basis to Access Seekers, including the product, speed tiers, speed, price, timeframes, service level performance and terms and conditions that are equivalent to what it provides to itself and/or another Access Seeker;

(b) *In addition to 6.7.13(a)(i), Access Providers that are dominant must also:*

(ii) ensure that its wholesale business unit is exercising independent decision making in relation to Transmission Services and is separate from its retail arm; and

(iii) implement appropriate measures to ensure such independent and separate decision-making."

QoS parameters for Transmission Services

24.15 Allo and DNB agreed with the QoS parameters in relation to Trunk Transmission Services as set out in the draft subsection 6.7.9.

24.16 Celcom proposed that the technical QoS parameters be considered in a separate technical inquiry.

24.17 Digi and YTL disagreed with the proposed QoS parameters. YTL proposed adding the word "Round trip" to both latency (intra-region) and latency (inter-region), and changing the threshold of latency (inter-region) to $\geq 40\text{ms}$ and $< 80\text{ms}$.

24.18 Digi highlighted that the Access List did not indicate the threshold for Trunk Transmission Services. Digi also raised the extensive work and cost required to provision a service that could meet a stringent service level requirement (e.g. to meet a threshold of 99.992% as proposed requires three (1+1+1) circuit provisioning). Digi argued the provision of a higher service level will also depend on Access Provider's network capabilities, and proposed parties be permitted to commercially negotiate where a higher network specification is required.

24.19 U Mobile proposed several changes to subsection 6.7.9 of the draft MSA. First, latency needs to be described as either a "one way" or "round trip" measurement. Second, U Mobile proposed the latency value be reduced for intra-region to between $\geq 1\text{ms}$ and $\leq 20\text{ms}$, and inter-region to less than $\leq 40\text{ms}$. Finally, U Mobile proposed the Trunk Network availability should be either 1+0, 1+1 or 1+1+1, depending on the subscribed service configuration. Where the minimum configuration is 1+0, U Mobile proposed a network availability of at least $\geq 99.5\%$,

and the highest configuration of 1+1+1 carrying a network availability of $\geq 99.999\%$.

- 24.20 Sacofa, Fibercomm and Edotco disagreed on the percentage of the threshold for network availability for Trunk Transmission Service. SACOFA proposed a service level agreement for Trunk Transmission threshold of 99.90%. Whereas Fibercomm proposed a service level availability for Trunk Transmission threshold of 99.5% where there is a single point of failure from the Access Provider's equipment to its cross-connect with the Access Seeker equipment.
- 24.21 Edotco however, proposed segregation according to whether the threshold if for unprotected link (line without backup) and protected link (link with backup). Edotco proposed the threshold for unprotected link should be 99.5%, and the threshold for protected link should be 99.9%. Edotco noted these proposed percentages are industry standard threshold, and that Edotco agreed with the rest of the threshold for latency (intra region and inter region).
- 24.22 REDtone suggested any parameters prescribed in detail in the draft MSA should be reflected in the MSAP where the price is regulated at maximum price so it would not become a barrier to entry for the Access Seeker. REDtone also proposed the parameters be discussed commercially to suit the needs and requirements of the customer.
- 24.23 TT dotCom proposed imposing two obligations under subsections 6.7.9 and 6.7.10. First, TT dotCom proposed a network availability standard of 99.992% within subsection 6.7.9 and a requirement under subsection 6.7.10 that Access Providers meet the Digital Leased Line QoS Determination 3 of 2009 at 99.90%. Second, TT dotCom proposed only failure to meet Determination 3 of 2009 results in a rebate. However, TT dotCom noted Trunk Transmission Service is price mandated and as such there is no loss incurred by Access Seeker as proposed under subsection 6.7.11.
- 24.24 TT dotCom also highlighted the proposed parameters set out in subsection 6.7.9 currently exceed what is offered by some operators (e.g. network availability of 99.90% in the market). To meet the proposed network availability of 99.992%, TT dotCom considered large investments and cost will be required to enhance its network design. TT dotCom raised suggested the MCMC consider the relevant cost elements and pricing structure in the upcoming review of the Mandatory Standards on Access Pricing to cater for the proposed parameters of the relevant Facilities and Services.
- 24.25 DNB considered the QoS of Tunk Transmission Services taken as an input by DNB as an Access Seeker directly impacts DNB's ability to deliver the QoS demanded and committed to by DNB in its delivery of 5G services as an Access Provider. As such, DNB agreed Trunk Transmission QoS is important. DNB supported the proposed Network availability and the proposed latency (intra-region).
- 24.26 DNB raised concern that the proposed standards for transmission latency would prevent DNB from offering URLLC services, as DNB requires a maximum latency of 1ms to provide URLLC. DNB noted this technical problem is comparable to the proposed 40ms for inter-regional transmission links, and DNB raised the question of how best to mitigate this technical problem. DNB suggested comparing against

international benchmarks and best practices on the wholesale QoS parameters for the equivalent Transmission Services in other jurisdictions. DNB used Singapore’s Nucleus Connect products, such as Provider Backbone Ethernet Virtual Connection and Aggregation Ethernet, which offer latency depending on the Class of Service (e.g. Class A Real Time has 1ms latency, Class D Best Effort has 10ms latency). DNB also highlighted the wording of subsection 6.7.9 of the draft MSAs, and suggested the latency QoS parameter should appear as “<=” and not “>=”.

24.27 Maxis proposed several amendments to subsection 6.7.9 with the intention of incorporating a clearer definition of network availability, latency, redundancy and other technical parameters, measurements, and demarcations into the QoS definitions within the draft MSA for other types of Transmission Services (i.e. End-to-End Transmission). Maxis proposed including the set of technical parameters or QoS that must be delivered by the Access Provider not only for the Trunk Transmission Services, but also for other types of Transmission Services like End-to-End Transmission Services.

24.28 Maxis argued including End-to-End Transmission will allow the Access Seeker to provide retail services to end users/customers, while its omission would result in a majority number of services not falling within regulated protection as intended by the MSA. Maxis also reasoned its inclusion would avoid a repeat of potential disputes arising between Operator (e.g. between 2018 to 2020 upon issuance of the previous MSA by the MCMC). These disputes arose when Access Providers used technical reasons (e.g. redundancies, differences in SLAs and QoS) to not comply with the MSAP. Maxis reasoned that the following changes to subsection 6.7.9 would benefit the industry and promote LBTE:

“6.7.9 Quality of Service (end-to-end): An Access Provider shall provide access to the *Trunk Transmission Service* and *End-to-End Transmission Service* to Access Seekers in accordance with the quality-of-service parameters set out in the *table below*, and otherwise on an equivalent basis as it provides for itself *and/or other Access Seekers*:

Parameter (end-to-end)	Threshold
Service Availability—Network availability—(Trunk Transmission Service only)	≥ 99.992% ≥ 99.5% (regardless of the higher core network SLA)
Latency (intra-region) within Peninsular Malaysia within Sabah within Sarawak	Between >1ms and <40ms
Latency (inter-region) between Peninsular Malaysia and Sabah	Between ≥40ms and ≤80ms

Parameter (end-to-end)	Threshold
between Peninsular Malaysia and Sarawak	
between Sabah and Sarawak	
Packet Loss	As per the MSQOS for Wired Broadband Access Service (BAS), Determination No 1 of 2021.

Additionally, where there is a negotiated Access Agreement between the Access Provider and Access Seeker specifying service levels differing from those specified in the Commission Determination on the Mandatory Standards for Quality of Service (Digital Leased Line Service), Determination No.3 of 2009, including such modification or variation and any other mandatory standards that maybe determined by the Commission from time to time, the service levels in the negotiated Access Agreement shall apply.”

- 24.29 TM proposed several amendments to subsection 6.7.9 on the basis that it is not possible for TM to achieve a 99.992% network availability for the Trunk Transmission Service. TM reasoned that the provision of the Trunk Transmission Services involves the Access Seeker’s network elements and is provided through a single port interfacing the Access Seeker at both end points, as set out in Figure 3. TM suggested if a higher network availability is maintained, it implies an increase in the number of network elements and higher cost.

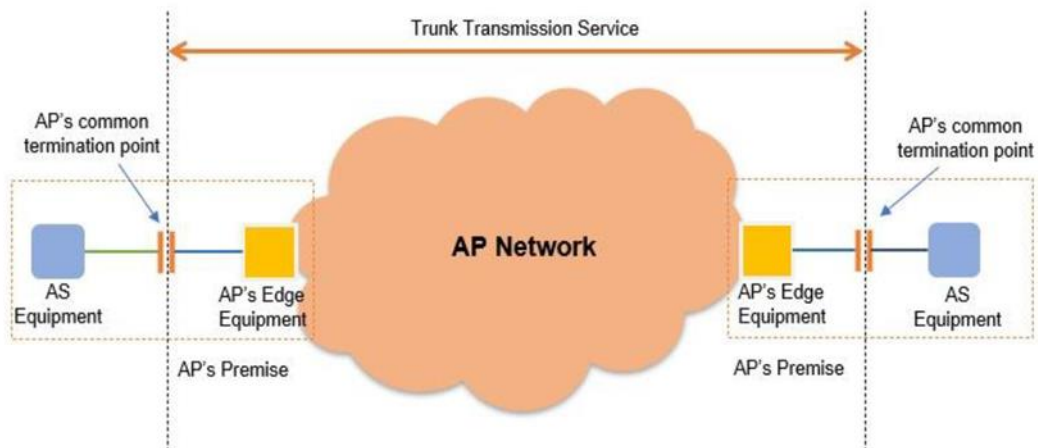


Figure 3 : Trunk Transmission Service demarcation

- 24.30 TM supported the MCMC’s proposal of defining different latency parameters by region, and TM proposed further specifying the distance for intra-region and inter-region. For Trunk Transmission Service, TM raised the importance of distance between two network transmission points, stating for TM to achieve the latency threshold specified in the intra-region, the distance for provision of Trunk

Transmission Service needs to be limited to < 500km, and the provision of Trunk Transmission Service beyond 500 km requires a latency threshold similar to inter-region.

Other technical parameters

- 24.31 Celcom and Altel considered the technical parameters sufficient at this point in time.
- 24.32 TM agreed no other technical parameters are required, but highlighted that if throughput and frame-loss parameters are added for Layer 2 and Layer 3 services, the MCMC should note the following technical limitations:
- (a) Throughput cannot be 100% of the subscribed bandwidth since overhead bandwidth will consume some of the Access Seeker's subscribed bandwidth; and
 - (b) Frame loss cannot be 0% at all times.
- 24.33 Digi argued the draft MSA should not prescribe any technical parameters beyond the standards set in the relevant Commission Determination. Digi proposed parties be permitted to commercially negotiate provision of service offerings beyond the standard technical requirements.
- 24.34 YTL proposed a intra-region latency threshold of < 10ms, and inter-region latency threshold of < 1ms
- 24.35 U Mobile proposed the following parameters be included:
- (a) Lease bandwidth shall be dedicated based on subscribed bandwidth;
 - (b) Link should be transparent and not discard any user protocols & native packets (including but not limited to Unicast, Multicast, LACP, BFD);
 - (c) No VLAN encapsulation and modification to Access Seeker traffics (payload) and able to deliver QoS without changing the traffic priority;
 - (d) Support MTU size up to 9600 bytes;
 - (e) Packet jitter of ≤ 3 ms; and
 - (f) Packet loss of 0.01%.

Rebates for Transmission Services

- 24.36 REDtone, Sacofa and Maxis agreed with the proposed rebate where the Access Provider failed to comply with the service level availability offered by the Access Seeker as a means of paying any penalties on non-compliance issued by the MCMC due to the Access Provider's failure. However, Sacofa and Maxis took the position that the amount should be agreed by both parties, with Maxis proposing the following:

6.7.11 Amount of rebate: The amount of any rebate for the purposes of section 6.7.10 shall, at a minimum, reflect:

- (a) the reduced costs that would have been incurred by the Access Seeker in acquiring the relevant Transmission Service with a service level availability equivalent to that provided by the Access Provider; and
- (b) any other diminution in value (including any rebates paid by the Access Seeker to end users) in the Transmission Service provided to the Access Seeker due to the Access Provider's failure to comply with the service level availability required under the Commission Determination on the Mandatory Standards for Quality of Service (Digital Leased Line Service), Determination No.3 of 2009, including such modification or variation and any other mandatory standards that may be determined by the Commission from time to time.

The maximum cap on the rebate amount offered shall be a sum mutually agreed upon between the Access Provider and Access Seeker."

- 24.37 TM supported the concept of rebates, but proposed amendments to subsections 6.7.10 and 6.7.11 of the draft MSA. TM proposed that the Access Seeker and Access Provider should retain the right to commercially negotiate the service level availability of any Transmission Service between themselves. TM also argued the Access Seeker should be allowed to design its own diversity rather than being forced to acquire Transmission Services based on a set of standardised MSQoS parameters. TM proposed the MCMC should provide greater flexibility for Access Seekers who do not require standardised MSQoS and are able to supplement the Access Provider's Transmission Service with offerings from other Access Providers or their own network for cost savings. TM proposed the following:

"6.7.10 Rebate: An Access Provider shall discuss and negotiate with the Access Seeker in good faith the provision of a rebate in respect of each Billing Cycle in which the service level availability of any Transmission Service provided by the Access Provider does not meet the relevant service level availability specified in the Commission Determination on the Mandatory Standards for Quality of Service (Digital Leased Line Service), Determination No.3 of 2009 *or the service level availability mutually agreed between the Access Seeker and the Access Provider*, including such modification or variation and any other mandatory standards that may be determined by the Commission from time to time, other than to the extent to which such non-compliance arises due to:

- (a) any act or omission of the Access Seeker other than in accordance with the directions of the Access Provider;
- (b) Force Majeure; or
- (c) any other excluded reason specified in that Determination."

- 24.38 TM also proposed to include a caveat within subsection 6.7.11 to allow the Access Provider to negotiate the amount of the rebate with the Access Seeker in line with the mutually agreed service level availability. TM proposed the following:

"6.7.11 Amount of rebate: The amount of any rebate for the purposes of section 6.7.10 shall, at a minimum, reflect:

- (a) the reduced costs that would have been incurred by the Access Seeker in acquiring the relevant Transmission Service with a service level availability equivalent to that provided by the Access Provider; and
- (b) any other diminution in value (including any rebates paid by the Access Seeker to end users) in the Transmission Service provided to the Access Seeker due to the Access Provider's failure to comply with the service level availability required under the Commission Determination on the Mandatory Standards for Quality of Service (Digital Leased Line Service), Determination No.3 of 2009, including such modification or variation and any other mandatory standards that may be determined by the Commission from time to time.; or
- (c) *the Access Provider should be agreeable with the Access Seeker on the applicable rebate amount in line with the accepted level of Service Level Availability."*

- 24.39 Digi, DNB, U Mobile and Fibercomm supported the MCMC's rebate proposal, subject to certain conditions. Digi suggested that where the Access Provider is required to provide rebates for failure to comply with service level availability set out in the MSQoS Commission Determination, concrete evidence must be presented to proof that such non-compliance is due to the Access Provider's negligence.
- 24.40 DNB also agreed with the proposed minimum amount of rebate, but highlighted that the provision for consideration under subsection 6.7.11(b) of the draft MSA: "any rebate paid by the Access Seeker to end users" does not apply to DNB. DNB stated, as a wholesale only provider, it does not pay rebates to end users but may be liable to pay rebates or compensation to its downstream Access Seekers. DNB suggested the MCMC consider this situation when setting the level of rebate it receives from its transmission provider and/or the rebates it pays to its Access Seekers.
- 24.41 U Mobile proposed the rebate amount should vary according to the SLA achieved rather than the agreed SLA, ranging from 2% to 15% of monthly recurring charges of the links.
- 24.42 Fibercomm proposed the SLA and rebate amount should be commercially negotiated between the Access Provider and Access Seeker.
- 24.43 Allo suggested the proposed rebate should be covered under the commercial engagement with the Access Seeker.
- 24.44 Celcom proposed that the amount of the rebate should also include any amount of penalty imposed by the MCMC as a result of the Access Seeker's non-compliance with the Commission Determination on the Mandatory Standards for Quality of Service (Digital Leased Line Service), Determination No.3 of 2009.
- 24.45 Altel and TT dotCom disagreed with the proposed rebate, arguing that providing a rebate to the Access Seeker imposed to the Access Provider is double punishment to the Access Provider over the same non-compliance.

Discussion

- 24.46 A mix of both Access Providers and Access Seekers agreed with the proposed indicative delivery timeframes for Transmission Services, however some operators, including Digi, REDtone, Sacofa and TM, considered that extended timeframes should be specified for certain types of supply, e.g. in geographically difficult regions. The MCMC agrees that the indicative delivery timeframes should be adjusted where appropriate to account for these limited scenarios and will make amendments to this effect.
- 24.47 The MCMC rejects Maxis's proposal to include a new subsection 6.7.12 requiring an Access Provider to provide such support as required to assist Access Seeker compliance with the MSQoS on Digital Leased Line Service. The MCMC considers that existing provisions already require the Access Provider to meet what is required of it in this respect.
- 24.48 Maxis proposed express clarifications regarding the application of EOI requirements to fixed services. The MCMC agrees to these clarifications, but does not agree to any further obligations relating to separation as proposed by Maxis.
- 24.49 Operators expressed mixed views on the QoS parameters for the Trunk Transmission Service proposed by the MCMC for inclusion in the draft MSA. While some operators agreed with the proposed technical parameters, others submitted that additional or different parameters should be specified, and Celcom submitted that the relevant parameters be considered in a separate technical inquiry.
- 24.50 The MCMC has considered these views, and considers that, on balance, and given the absence of clear consensus on these parameters, the MCMC's proposed parameters as set out in the draft MSA are appropriate. However, the MCMC will include clarifications regarding the range within which certain parameters are measured, and update the Network Availability threshold to $\geq 99.99\%$.
- 24.51 The MCMC will also extend the application of these parameters to the End-to-End Transmission Service, as proposed by Maxis.
- 24.52 The MCMC does not consider that further parameters are required at this time. The role of the MSA is not to set out every operational detail; rather, most operational details can be commercially agreed between operators in Operations Manuals and other similar documents.
- 24.53 The MCMC maintains the view that setting out high level principles in the MSA regarding service level rebates is appropriate. It is unnecessary for the service level rebates to be set out in detail and the MCMC rejects those submissions which require that to be done. These details can be commercially agreed, within the scope of the high level principles described in the MSA.
- 24.54 The MCMC agrees with Maxis's suggestion that the parties may agree to cap rebate levels. The MCMC also accepts TM's proposed amendment to section 6.7.10 to reflect that the relevant 'baseline' service level (against which performance may be measured for the purposes of any rebates) may be mutually agreed between the Access Seeker and Access Provider.

MCMC Views

24.55 The MCMC will make changes to the MSA as per the discussion above.

25 Infrastructure Sharing

Introduction

- 25.1 This section of the MSA relates to the Service Specific Obligations that apply in respect of the Infrastructure Sharing service.
- 25.2 In the PI Paper, the MCMC proposed a number of changes to the Service Specific Obligations regarding Infrastructure Sharing dealing with the following areas:
- (a) the delivery timeframes for the Infrastructure Sharing service;
 - (b) limiting the utility cost allocation principle's application to network facilities provided by the Access Provider to the Access Seeker;
 - (c) requiring Access Providers use all reasonable endeavours to augment the facilities comprising CASs;
 - (d) imposing reporting obligations requiring Access Providers notify the MCMC of street furniture offering access; and
 - (e) introducing maintenance and rectification obligations requiring the maintenance of all fixed telecommunication poles.

Question 38: Do operators agree with the amendments to the Service Specific Obligations that the MCMC has proposed in respect of Infrastructure Sharing? Why or why not? If not, please specify and substantiate any proposed changes or amendments.

Question 39: Do operators experience any issues with interference within Common Antenna Systems? How are these issues typically resolved, and are any amendments required to the Service-Specific Obligations in subsection 6.8 of the MSA to address those issues, or are the existing provisions in subsections 5.13.4 – 5.13.5 sufficient? Please provide details, including any proposed changes or amendments.

Submissions Received

- 25.3 Allo does not have any issues with Infrastructure Sharing and views that it should be left to parties to agree on technical and commercial issues.
- 25.4 Celcom is agreeable to the proposed amendments to the MSA which expands the scope of the service to cover access to poles, rooftops and street furniture, including the timeframes for maintenance and rectification of fixed telecommunications poles.
- 25.5 With regards to the proposed amendments to subsection 6.8.5 on the indicative delivery timeframe, Celcom suggested that the commencement of the delivery timelines take into account Access Seeker's readiness on the relevant facilities

and/or equipment for the purpose of connectivity with the Access Provider's Common Antennae Systems.

- 25.6 When it comes to issues with interference within Common Antenna Systems, Celcom submitted that these issues are currently handled via co-ordination among Access Provider and Access Seekers, and it is working well. In addition, Celcom also pointed out that the existing provisions under subsections 5.13.4 and 5.13.5 of MSA already addresses obligations of Access Provider and Access Seeker and it is not necessary to include any further obligations in the MSA.
- 25.7 Digi pointed out that as recognised in the PI Paper, the time required to provide access to Infrastructure Sharing varies due to many factors including delays in obtaining third-party (Local Authorities, landowners, etc.) approvals as well as prevailing conditions that affects the delivery timeframe. Digi noted that the timeline proposed in subsection 6.8.5 is typically applicable under normal circumstances, however, Digi is of the view that exclusion factors should be included to cater for the uncertainties surrounding the provision of Infrastructure Sharing. Digi suggested that the timeline stipulated in paragraph 6.8.5(b) should specify that the 10 Business days is for completion of technical integration works for sites which are ready with infrastructure for operators to install its equipment.
- 25.8 Digi estimated that typically it will take 60 business days to deploy 100 in-building coverage (**IBC**) antennas. However, recently as a result of working hours restriction due to Covid-19, it took almost six months to build 184 antennas for a hospital building in Shah Alam.
- 25.9 Finally, in the interest of clarity, Digi suggested to specify that paragraph 6.8.5(b) refers to in-building Common Antenna System (**CAS**).
- 25.10 Digi explained that with CAS, passive intermodulation interference (**PIM**) occurs as a result of combination of certain frequencies transmitted by difference Access Seekers at the same site. To resolve issues of interference, the CAS system will have to be retrofitted to be PIM compliant with a set of KPI's to be passed. Predominantly, support is required to have an extensive POC with all sharing parties to be present to experiment on worst case scenarios.
- 25.11 Digi is of the view that the existing provisions in subsections 5.13.4-5.13.5 are sufficient as issues of interference should be addressed more comprehensively by other division within the MCMC and subsidiary legislations under the CMA.
- 25.12 DNB considers that the indicative delivery timeframes for ground based towers and new sites should stay at its current 40 business days, given Access Providers have managed successfully to operate within this timeline in the past. 90 business days is not in line with international benchmarks and any timeline beyond 40 days might impede DNB's scheduled deployment.
- 25.13 DNB also sought clarification on two points regarding the MCMC's proposed changes. Firstly, they wanted to understand if it is correct to assume that 'street furniture' would be categorised, under subsection 6.8.5 of the draft MSA, as 'all other infrastructure' and whether it would be subject to an inductive delivery timeframe of 40 days. Secondly, since subsection 6.8.5 of the draft MSA is silent about the treatment of a single order for access to multiple infrastructure, DNB

sought whether it is correct to assume that a single order, specifying multiple pieces of infrastructure or sites, would be expected to be treated within one indicative delivery timeframe for the purposes of meeting paragraph 5.7.13(a)(i) of the draft MSA.

- 25.14 If street furniture is categorised under subsection 6.8.5, then DNB supports the proposed changes, provided the indicative delivery timeframe for ground based towers remains at the current 40 days. If, however, street furniture is to be treated either as 'ground based towers' or as 'new sites', then increasing the indicative delivery timeframe from 40 to 90 days could frustrate DNB's rollout of its 5G network.
- 25.15 Similarly, if DNB is required to place individual orders for each piece of street furniture to which it requires access, then the timescale for DNB expanding its capacity could be measured in years rather than days and DNB's administrative costs could also increase substantially.
- 25.16 DNB notes that there is considerable uncertainty about the terms on which it will gain access to street furniture because:
- (a) the MCMC's jurisdiction over local authorities and SBCs is currently uncertain (as discussed in Sections 29.51 and 29.52 of the Public Inquiry Paper on the Review of Mandatory Standard on Access);
 - (b) there may be a 90 day indicative delivery timescale for DNB to gain access to each piece of street furniture in an area where DNB wants to expand 5G RAN capacity through densification (as discussed under Issue 1 above). This could delay DNB and raises its costs in meeting future demand by Access Seekers for 5G RAN capacity; and
 - (c) it is uncertain how quickly the database of available street furniture will become sufficiently populated, and whether DNB will have direct access to the database, to make it operationally effective. The MCMC proposes in subsection 6.8.15 of the draft MSA that a database is established which will indicate where street furniture is available for 5G access. It proposes a light-touch approach to establishing this database to minimise the regulatory burden on Access Providers such as local authorities.
- 25.17 DNB requested the MCMC to resolve these issues by the beginning of 2025 when DNB plans to start densification of its 5G national wholesale network in urban areas. Otherwise, DNB may not be able to provide Access Seekers with the additional 5G capacity they order.
- 25.18 DNB supports the change to subsection 6.8.13 where the basis on which Access Providers can charge Access Seekers for utility costs is narrowed. DNB also noted that the terms "Access Seeker" and "Access Provider" in the subsection should be transposed.
- 25.19 With regards to CAS, DNB does not yet have experience of using it. However, DNB is of the view that CAS should work with 5G spectrum so that 5G capability is available to end-users in both internal private settings (for example a shopping mall) and the streets. It therefore strongly supports the MCMC's proposal to

introduce a new term as set out in subsection 6.8.14 of the draft MSA. In some cases, however complete replacement may be needed, especially if the coax cabling of the CAS does not have a sufficiently high bandwidth. Access Providers might judge that replacement or substantial modification is not a reasonable endeavour. In such circumstances, DNB highlighted the need for enforcement measures and/or incentives to ensure that CAS owners upgrade their systems.

- 25.20 Edotco does not support the introduction of subsection 6.8.14 to augment the facilities comprising Common Antenna Systems. Edotco is of the view that the highlighted issues raised by Access Seekers are covered under Access Agreement, including where the design and specification for in-building systems are concerned. They believe that the MCMC should also place consideration on external factors that can hinder the capacity deployment. For example, Edotco agrees with the MCMC's response that denial of services under spectrum in combination is considered fair and reasonable.
- 25.21 Edotco pointed out that augmentation of CAS not only places physical constraints on capacity, but there is also a risk of potentially catering for all MNOs (who may or may not join) which will significantly increase the costs of CAS deployments. As the costs of such systems increase, system deployment may be hindered to the detriment of Malaysian business and consumers. It is also important to note that future 5G access to CAS is yet to be determined.
- 25.22 With regards to paragraph 6.8.5(b), Edotco is not agreeable to for delivery timeframe of 10 business days for common antenna systems in certain defined High Priority Areas. The timeline is considered unrealistic given the need to agree on the technicalities of any solution – which is necessarily customized and bespoke - prior to any discussion on commercial terms.
- 25.23 Edotco reiterated its view that the main challenge for Edotco is the arrangement with non-licensees, such as a delay is caused by a third party that is not acting under the direction or control of the Access Provider. As these entities are not bound by MSA and as such the obligation on delivery timeframes to solve the affected sites is not reciprocal. Additionally, the MCMC cannot mandate any specific timeframes on such parties but can provide Access Providers with greater flexibility.
- 25.24 Maxis agrees with some of the amendments proposed by the MCMC to the Service Specific Obligations in respect of Infrastructure Sharing, while they proposed amendments to subsections 6.8.4, 6.8.5, 6.8.6, 6.8.12, 6.8.13, 6.8.14 and 6.8.16. In addition, Maxis also proposed three new subsections to be included in the MSA on Service Assurance Target for Infrastructure Sharing, Rebate and Conditional Restriction on Site Upgrades.
- 25.25 Maxis proposed the following changes:

Subsection 6.8.4: Time for Acceptance or Rejection:

- (a) “.....for that Order under subsection 5.7.8 of this Standard. For clarification, the post-Order Service Qualification timeframe for fixed telecommunications poles shall be in accordance with the post-Order Service Qualification

timeframe for Ducts and Manholes Services under subsection 6.11 of this Standard.”

Subsection 6.8.5: Indicative Delivery Timelines:

“For the purposes of paragraph 5.7.13(a)(i) of this Standard, the indicative delivery timeframe for Infrastructure sharing is

- (b) for ground-based towers and new sites, *forty (40) Business Days*; and
- (c) *for common antenna systems (upon approval from building manager/owner or agencies),*
 - (i) Sharing of existing CAS: forty (40) Business Days from approval by the Building Manager/Building Owner/etc.
 - (ii) Building of new CAS: one hundred and twenty (120) Business Days from approval by the Building Manager/Building Owner/etc.
 - (iii) For clarity, the timeframe for delivery will be subject to the delivery terms of the building (e.g., size of building, complexity of the CAS, working hours available to commence work as time to work depends on whether it is common areas or a tenanted area, and other requirements by the Building Manager/Building Owner/etc.) and will be subject to mutual agreement between Access Provider and Access Seeker
- (d) *for Fixed Telecommunication Poles, ten (10) Business Days; and*
- (e) *for all other structures, forty (40) Business Days*

For clarification, the indicative delivery timeframe in this subsection 6.8.5 commences from the Notice of Acceptance or confirmation of the Order (as applicable) in accordance with subsection 5.7.14 of this Standard. *The Access Provider shall provide the progress update of the site delivery to the Access Seeker on monthly basis.*”

Subsection 6.8.6: Billing Cycle:

“For the purposes of subsection 5.11.3 of this Standard, between the Operators, the Billing Cycle for Infrastructure Sharing will be ~~one (1) year in advance for the first year and quarterly in advance for subsequent years.~~ monthly or a period mutually agreed upon between the Access Seeker and Access Provider.”

25.26 Subsection 6.8.12: Utilities and Ancillary Services:

“The Access Provider must, where the relevant utilities and ancillary services are within the Access Provider’s control, ensure that all necessary utilities and ancillary services are provided to enable the Access Seeker to benefit from such access to the same extent that the Access Provider provides to itself, including but not limited to:

- (a) access to roads;

- (b) access to land;
- (c) power, including the provision of back-up power, *subject to mutual agreement between the Access Seeker and Access Provider*;
- (d) environmental services (including but not limited to heat, light, ventilation and air-conditioning, fire protection);
- (e) security, taking care to ensure that its agents, representatives or subcontractors do not damage any Equipment, and keeping the location secure and protected from vandalism or theft; and
- (f) site maintenance.”

25.27 Subsection 6.8.13: Cost:

“The utility and ancillary costs in respect of the network facilities provided by the Access Provider ~~Seeker~~ to the Access Seeker ~~Provider~~ as contemplated in subsection 6.8.12 of this Standard shall be apportioned (in accordance with fair and equitable principles) *and mutually agreed* between the Access Provider and ~~the~~ Access Seekers at the relevant location.”

25.28 Subsection 6.8.14:

“Augmentation of Common Antenna Systems (CAS): The Access Provider shall use all reasonable endeavours, *subject to technical feasibility, capacity constraints and interference tests/studies*, to augment in-building Common Antenna Systems to the extent required to enable the Access Provider to supply access to such in-building Common Antenna Systems on request by an Access Seeker.”

25.29 Maxis proposed the following SLAs for Infrastructure Sharing:

Subsection 6.8.17: Service Assurance Target for Infrastructure Target:

Severity	Severity Definition	Fault Type (including but not limited)	Response Time	Progress Update Frequency	Temporary Restoration Time	Rectification Time	Incident Report (RCA) Issuance
Level 1	Hub Sites (a site with more than 5 child sites)	<ul style="list-style-type: none"> • Outage caused by fault of AC power supply system owned by Access Provider • Outage caused by power issue at landlord/building • Outage caused by CME issues • Outage due to flooding 24 	1 hour	Every 1 hour	4 hours	48 hours	48 hours
Level 2	End Sites (Site that is not a Hub Site)	<ul style="list-style-type: none"> • Outage caused by fault of AC power supply system owned by Access Provider • Outage caused by power issue at landlord/building • Outage caused by CME issues • Outage due to flooding 	1 hour	Every 2 hours	4 hours	7 Business Days	5 Business Days
Level 3	No Service Affecting Fault	<ul style="list-style-type: none"> • Issues related to power system asset belonging to Access Provider, 	1 hour	Every 24 hours	24 hours	14 Business Days	N/A

Severity	Severity Definition	Fault Type (including but not limited)	Response Time	Progress Update Frequency	Temporary Restoration Time	Rectification Time	Incident Report (RCA) Issuance
		<i>landlord/building site access or CME issues</i>					

- i. All faults reported shall be ascribed with a Severity Level set out above and Parties shall cooperate with one another to achieve Rectification Times based on the severity of the fault reported*
- ii. "Progress Update Frequency" means the frequency at which the Access Seeker may call the Access Provider for restoring the fault to obtain a verbal or written progress update*
- iii. "Response Time" refers to the time for the Access Provider to respond to the fault and is measured from the time the fault is reported by the Access Seeker to the Access Provider*
- iv. "Rectification Time" refers to the time for the Access Provider to rectify a fault and is determined by the period between the reporting of a fault by the Access Seeker to the Access Provider and the rectification of the fault on a permanent basis*
- v. "Temporary Restoration Time" refers to the time for the Access Provider to temporarily rectify a fault and is determined by the period between the reporting of a fault by the Access Seeker to the Access Provider and the rectification of the fault on a temporary basis*

Subsection 6.8.18: Rebate:

"If the Access Provider is unable to provide the Service due to negligence on its part (e.g., poorly designed structure or platform that does not function properly, Access Provider failed to pay rental to its landlord on time, Access Provider failed to approve upgrade works on a timely manner, Access Provider failed to provide site access), affected Access Seekers are entitled to rebates as follows:

- (a) The rebate for delay in sites delivery should be in accordance with subsection 5.7.33 Late Delivery of this Standard; and/or*
- (b) The rebate for not meeting the Service Assurance Target under Subsection 6.8.17 above shall at minimum, reflect the following:*
 - (i) the rental amount paid or to be paid by the Access Seeker to the Access Provider for the period of site downtime;*
 - (ii) revenue loss incurred by the Access Seeker for not able to provide the services to their customers for the period of downtime; and*
 - (iii) any rebates paid by the Access Seeker to their customers due to the site downtime."*

Subsection 6.8.19: Conditional Restriction on Site Upgrades

"The Access Provider shall not unreasonably deny the Access Seeker's requests to upgrade sites by tying it to additional commercial terms (e.g., In exchange for allowing Access Seeker to upgrade the site, Access Provider is not allowed to demand the Access Seeker to commit to upcoming sites or demand that the Access Seeker must provide certain concessions that are not in the commercial

contract, such as paying royalty fees on behalf of the Access Provider to state governments).”

- 25.30 With regards to interference within Common Antenna System, Maxis submitted that there are potential issues between operators within in-building Common Antenna Systems, because unlike passive tower sharing, in-building coverage uses a common antenna for all operators. The propagation of certain spectrum bands in combination (e.g., 2600MHz and 1800MHz) is proven to result in harmful interference. However, Maxis is of the view that subsection 5.13.3 on Technical Standards, subsection 5.13.4 on No Interference and subsection 5.13.5 on Notice of Interference and Rectifications have sufficiently addressed the interference issues within the CAS.
- 25.31 MyTV, Altel and Net2One are agreeable to the amendments to service specific obligations. On the interference, they are of the view that it is manageable within common antennae when power, modulation, channel and duplexer are addressed. They agree that the Service-Specific Obligations in subsection 6.8 of the MSA addresses those issues. They also believe that the existing provisions in subsections 5.13.4 – 5.13.5 are sufficient.
- 25.32 PPIT maintained that the use of the term SBC exclusivity in the PI paper shows the prejudice others have against SBCs including the MCMC. PPIT submitted research reports that indicate that Infrastructure Sharing can result in significant cost reduction. PPIT highlighted that the telcos are still making huge profits from the services that the SBCs provide. In addition, SBCs business model is not that different from the appointment of DNB as an exclusive provider of 5G infrastructure.
- 25.33 With regards to the proposed timelines, PPIT is of the view that the timelines are acceptable and noted that the proposed timelines are more than the standard timelines in the UK. PPIT also sought clarification on what is meant by “fixed telecommunication poles” under (c) and “all other structure” under (d) of subsection 6.8.5. As definition for the terms are not provided, PPIT view that there may be confusion between operators in the future. In any case, PPIT suggested that such timeframes should also be subject to “mutual commercial arrangement between the operators”.
- 25.34 PPIT noted that pursuant to the newly proposed subsection 6.8.15, PPIT has to notify the MCMC in writing about network facilities in proximity to a street, road, path, railway corridor, park or other outdoor areas (including billboards, public transit shelters, poles, traffic lights poles, bridges, road gantries). PPIT questioned the need for reporting under this subsection when there is already a new reporting requirement under the proposed change to subsection 5.3.13 and sought clarification on whether this reporting is in addition to the reporting requirement under subsection 5.3.13. In any case, all new sites built by PPIT require the MCMC’s approval and therefore PPIT considers subsection 6.8.15 to be redundant.
- 25.35 PPIT proposed amendments to subsection 6.8.13.

“Cost: The utility and ancillary costs in respect of the network facilities provided by the Access Seeker to the Access Provider as contemplated in subsection 6.8.12

of this Standard shall be apportioned (in accordance with fair and equitable principles) between the Access Provider and all Access Seekers at the relevant location *unless mutually agreed commercially between the Operators.*"

- 25.36 Regarding the proposed new subsection 6.8.16, PPIT repeated the suggestion to define fixed telecommunications pole for clarity. Apart from subsections 6.8.5, 6.8.13 and 6.8.15 as stated above, PPIT does not have any issues with the other proposed amendments by the MCMC.
- 25.37 REDtone agrees with the proposed amendments by the MCMC in respect of Infrastructure Sharing.
- 25.38 Sacofa proposed indicative delivery timelines of 60 business days for towers and 30 business days for rapole or monopole. However, the erection timeline should be from commencement of approval by local authority.
- 25.39 TM agreed with most of the amendments proposed by the MCMC but proposed a few additional changes. TM proposed updating the indicative delivery timeframe to be in line with commercial practice. From TM's experience, the delivery timeframe for fixed telecom poles and ground based tower/new site is the same. TM proposed the following:

"6.8.5 Indicative delivery timeframe: For the purposes of paragraph 5.7.13(a)(i) of this Standard, the indicative delivery timeframe for Infrastructure Sharing is:

- (a) for ground-based towers, *fixed telecoms poles* and new sites, ninety (90) Business Days; and
 - (b) for Common Antenna Systems in ~~High Priority Areas~~, ~~ten (10) Business Days~~; *to be mutually agreed by the Access Seeker and the Access Provider*; and
 - ~~(c) for fixed telecommunication poles, ten (10) Business Days; and~~
 - (d) for all other structures, ~~forty (40)~~ *ninety (90)* Business Days.
 - (e) For clarification, the indicative delivery timeframe in this subsection 6.8.5 commences from the Notice of Acceptance or confirmation of the Order (as applicable) in accordance with subsection 5.7.14 of this Standard."
- 25.40 TM proposed the following changes to subsection 6.8.7 to allow physical access to access providers network facilities to be subject to approval from any third party:

"6.8.7 Physical access: Where required to fulfil an Order for Infrastructure Sharing or for the Access Seeker to perform operations or maintenance activities, an Access Provider shall allow an Access Seeker, its nominated employees and/or contractors to physically access the Access Provider's network facilities and the Access Seeker's Equipment, and to have physical control over the Access Seeker's Equipment located at such network facilities *subject to the approval of the third-party premises (if any)*, at equivalent times and in accordance with equivalent processes and procedures as are applicable to itself."

25.41 TM proposed changes to subsection 6.8.15 to provide information on infrastructure sharing where available as TM does not have an updated inventory of its network facilities. TM proposed the following:

“6.8.15 Reporting: As required under paragraph 5.3.12(I) of this Standard, the Access Provider shall notify the Commission in writing of any specified network facilities (as that term is used in the description of the Infrastructure Sharing Page 135 of 199) that support, or have the capability to support, the installation of mobile network equipment along, or in close proximity to:

- (a) a street;
- (b) a road;
- (c) a path;
- (d) a railway corridor;
- (e) a park; or
- (f) such other outdoor area that may be accessed by members of the public, including but not limited to billboards, public transit shelters, poles, traffic light poles, bridges, and road gantries. *This reporting is subject to the availability of information by the Access Provider on a best-effort basis.*”

25.42 TM requested for grounds for refusal, similar to ducts and manholes access, for fixed telecoms poles based on safety and security.

“Grounds for refusal: In addition to the grounds for refusal in subsection 5.4.11 of this Standard, an Access Provider may refuse an Order Request to fixed telecoms poles to the extent (and only to the extent that):

- (a) there are reasonable grounds for the Access Provider to refuse access based on safety and security, to the extent that the fixed telecoms pole is being utilised for critical government services, including in connection with government agencies, the military or the police.”

25.43 TM also proposed to include capacity allocation policy, similar to ducts and manholes access as the availability of space would be dependent on available space and capacity on the poles. Further, TM believes that it should have the right to reserve for its own use for up to 24 months.

“Capacity Allocation Policy: In addition to subsection 5.7.32 of this Standard, the Access Provider’s Capacity Allocation Policy for Infrastructure Sharing Service shall set out the principles to be applied on an equivalent basis between itself and other Access Seekers, where:

- (a) *the Access Provider has already taken steps to optimise space by using the current available technology, including removing any unused cables;*
- (b) *the Access Provider shall determine the available space only after considering:*

- (i) the requirements for Infrastructure Sharing Service for the Access Provider's then existing maintenance purposes; and
 - (ii) the reservation of the Infrastructure Sharing Service for future use by the Access Provider or another Access Seeker, applicable on an equivalent basis for 24 months, upon receipt of an Order; and
 - (iii) the structural integrity of the infrastructure to safely accommodate additional capacity; and
- (c) *the allocation of available space shall be:*
- (i) on a first-come, first-served basis;
 - (ii) applicable to reserved capacity that is not used by either the Access Provider or an Access Seeker within the 25th months from the date of the Order; and
 - (iii) to the extent possible, based on efficient allocation principles to minimise space wastage."

25.44 With regard to CAS, TM submitted that operators do experience issues with interference which can be attributed to various reasons such as equipment, installation and spectrum. TM gives its Access Seekers a trial period of 14 days and during this time, the Access Seeker can report any interference that they might experience. Access Seeker can notify the Access Provider in writing if Access Seeker rejects the infrastructure. TM proposes to include this procedure in the operations manual of Access Provider and to add a subsection in section 6.8 of the MSA to mandate a 14-day trial period.

25.45 U Mobile is generally agreeable to the proposed amendments as they provide clear delivery timelines that should encourage more timely provision of the service. U Mobile pointed out an error in the proposed amendments in 6.8.13 where it should read "provided by the Access Provider to the Access Seeker".

25.46 U Mobile submitted that the existing provisions in subsections 5.13.4 – 5.13.5 which relate to avoiding interference are sufficient as they offer a clear way for managing the situation. However, U Mobile pointed out that the troubleshooting work to locate the source of interference might (usually) require more than 24 hours.

25.47 U Mobile also highlighted that there are potential interference issues with in-building systems between operators because unlike passive tower sharing, the in-building coverage uses a CAS for all operators. The propagation of certain spectrum bands in combination (e.g. 2600MHz and 1800MHz bands) may result in interference which needs to be resolved between operators.

25.48 YTL does not agree that the proposed timeline of 90 days in paragraph 6.8.5(a). YTL pointed out that there are third party issues for new sites such as site acquisition or permit approval from local authorities. As such, YTL proposed 120 days for new ground based structure and 60 days for new rooftop sites.

25.49 YTL stated that interference can happen in the same band but this is mitigated through good engineering, design and use of filters. Similarly, it can happen within the common antenna system, especially in-building systems. Usually, the interference is minor and easily mitigated and managed. These issues can be discussed and resolved between two parties and should not be rejected on mere possibility of interference. YTL views that subsections 5.13.4 and 5.13.5 are sufficient to deal with interference.

Discussion

25.50 The MCMC has considered the operators' submissions and is of the view further amendments are required to the Service Specific Obligations that apply in respect of the Infrastructure Sharing service.

Proposed amendments to Service Specific Obligations for Infrastructure Sharing

25.51 The MCMC does not agree with DNB's proposal to reinstate the indicative delivery timeframes for ground-based towers and new sites to 40 business days. The MCMC considers it is reasonable in the circumstances for the delivery timeframe for these sites and facilities to be set at 90 business days, based on other operator feedback. In relation to DNB's queries regarding the MCMC's proposed changes, the MCMC confirms that street furniture forms part of the scope of paragraph 6.8.5(d) of the draft MSA as "all other structures", and is accordingly subject to the indicative delivery timeframe of 40 business days. The MCMC will make a minor amendment to clarify this point.

25.52 The MCMC further clarifies that DNB is not correct in its assumption regarding a single order for access to multiple infrastructure being treated as falling within one indicative delivery timeframe. Indicative delivery timeframes for orders comprising multiple facilities or sites will be split up depending on the infrastructure which is subject to the combined order. That is, the delivery timeframes would be unbundled for each facility.

25.53 While the MCMC acknowledges DNB's comments regarding uncertainty on the terms on which DNB will gain access to street furniture given some of these facilities are owned by third parties (including SBCs), the MCMC notes that the issues identified by DNB are known issues which cannot be resolved through the MSA.

25.54 The MCMC accepts Edotco's submission that the current delivery timeframe of 10 business days for access to CAS in certain areas may be insufficient. The MCMC will make amendments increasing this timeframe to 40 business days (for existing CAS) and 120 business days (for new CAS builds), in line with Maxis's proposed amendments. However, the MCMC does not agree to Maxis's further proposed clarifications on what matters affect the indicative timeframes for delivery, as this level of detail is not necessary.

25.55 Maxis also submitted that:

- (a) the Access Provider be required to provide monthly updates on the progress of site delivery in subsection 6.8.5. The MCMC accepts this submission as it promotes transparency and reduces information asymmetry between Access Providers and Access Seekers;

- (b) the Billing Cycle for Infrastructure Sharing be monthly or a period agreed to between the Access Provider and an Access Seeker. The MCMC considers that this would be unfavourable to Access Providers, as it would undermine investment certainty. However, the MCMC will make amendments such that the Billing Cycle for Infrastructure Services will be one year in advance for the first year, and monthly (or such other mutually agreed period) in advance for subsequent years. The MCMC considers that this strikes the appropriate balance between flexibility for Access Seekers and preserving investment incentives for Access Providers;
- (c) provision of access to power be subject to mutual agreement between the Access Seeker and Access Provider. The MCMC accepts this proposal;
- (d) utility and ancillary costs are to be "mutually agreed" between the Access Provider and "the Access Seeker", rather than being "apportioned...between all Access Seekers" as currently set out in the MSA. The MCMC agrees to these amendments, which also address PPIT's submission on this point;
- (e) the augmentation of CAS by the Access Provider is subject to technical feasibility and capacity constraints. This submission is rejected on the basis that the obligation in clause 6.8.14 is already a "reasonable endeavours" obligation;
- (f) the MSA set out certain service assurance targets for Infrastructure Sharing. The MCMC agrees with the inclusion of these targets, which provide certainty for both Access Providers and Access Seekers, and will include these targets in the MSA;
- (g) a new section 6.8.18 be included setting out further details regarding rebates payable for Infrastructure Sharing. While the MCMC agrees that MSA should clarify that rebates for a failure or delay in the provision of Infrastructure Sharing are payable in accordance with section 5.7.33 of the MSA, the MCMC does not accept paragraphs (b)(ii) or (b)(iii) of the proposed additions. Those paragraphs would impose an unreasonable burden on the Access Provider, noting that this section, in the form adopted by the MCMC, already specifies that rebates are "at a minimum". This minimum amount should relate to rental amounts, not lost revenue;
- (h) Access Providers must not make site upgrades conditional on agreement to additional commercial terms. This is not necessary as such conduct would already be prohibited under the MSA, and if any such conditions are being imposed, the MCMC encourages Access Seekers to raise a complaint to the MCMC; and
- (i) there are potential interference issues between operators within in-building CAS due to the combination of certain spectrum bands. The MCMC acknowledges this issue but does not consider that any further changes are required to the MSA in this regard, as the MSA sufficiently deals with this issue. This is also consistent with the view expressed by operators such as MyTV, Altel and Net2One.

- 25.56 In response to comments from PPIT regarding the definition of "fixed telecommunication poles" and "all other structures", the MCMC notes that these terms are intentionally broad and intended to take their ordinary meaning. The MCMC does not consider that further clarifications or definitions are necessary as this could unduly limit the scope of facilities and services to which access must be provided. However, as noted above, the MCMC will clarify that "other structures" includes access to street furniture.
- 25.57 The MCMC also notes that that sub-section 6.8.15 is intended to clarify the Access Provider's reporting obligations under the MSA generally, and the MCMC does not consider that section 6.8.15 is redundant. In particular, section 6.8.15 is not limited to "new sites" built by an Access Provider, as suggested by PPIT.
- 25.58 The MCMC does not agree with TM's proposed change to the indicative delivery timeframe for Infrastructure Sharing, on the basis that they are not consistent with existing industry practice.
- 25.59 However, the MCMC agrees with TM's submissions that:
- (a) the MCMC include additional grounds for refusal of access to Infrastructure Sharing, on the same security and safety grounds as proposed by the MCMC in respect of Duct and Manhole Access; and
 - (b) a capacity allocation policy be established on a similar basis as for Duct and Manhole Access, given supply of the Infrastructure Sharing is reliant on the availability of physical space.

MCMC Views

- 25.60 The MCMC will make the changes to the MSA as summarised in the discussion above.
- 25.61 The MCMC will also correct a typographical error in section 6.8.13 as identified by some operators. by transposing the terms "Access Seeker" and "Access Provider".

26 Network Co-Location Service

Introduction

- 26.1 In the PI Paper, the MCMC proposed some limited changes to the Network Co-location Service Specific Obligations, as described in Question 40 below.

<p>Question 40: Do you have any comments regarding the MCMC's proposal to require Operators to mark or label their wires, cables and other ancillary equipment? In particular, please comment on:</p> <ul style="list-style-type: none">(a) whether this reflects operational practice;(b) the operational burden this would create (as an Access Seeker) or the benefits this would provide (as an Access Provider); and(c) any specific equipment to which the expanded obligation should (or should not) apply.
--

Submissions Received

- 26.2 Celcom highlighted that currently Access Providers for tower sharing do carry out the markings on Access Seekers equipment to identify the owner of equipment. This exercise does not involve Access Seeker. Celcom is not aware of any requirement to mark or label wires, cables and other ancillary equipment and submitted that this may be as an operational burden.
- 26.3 Digi confirmed that current operational practice is to label the wires, cables and other ancillary equipment. Marking and labelling would benefit to both Access Seeker and Access Provider in term of tracing for troubleshooting. However, for security and safety purposes, marking this obligation under subsection 6.9.28 should apply to equipment of Access Seeker's only and should not apply to those which does not belong to the Access Seeker.
- 26.4 With regard to the Network Co-location service, Digi is of the view that it is timely for Network Co-location Service to be removed from the reporting obligations stipulated in subsection 5.3.13 of the MSA. Accordingly, paragraph 6.9.31(a)(iii) should be deleted.
- 26.5 Fibrecomm noted that marking or labelling of wires, cables and other ancillary equipment reflects operational practice. It is a one-time activity during installation, which would not create operational burden and with proper labelling, it will benefit Access Provider in differentiating network asset owner. Fibrecomm also believes that marking or labelling should apply to all tangible assets.
- 26.6 Maxis is agreeable to the MCMC's proposal to require Operators to mark or label their wires, cables and other ancillary equipment and provide the following comments on each part:
- (a) This reflects operational practice and provides greater clarity for Access Seeker and Access Provider;
 - (b) This would be beneficial to Access Providers and Access Seekers by reducing human error; and
 - (c) The expanded obligation should apply to all ancillary equipment including wires, cables and batteries.
- 26.7 MyTV, Altel and Net2One are in agreement with the MCMC's proposal to require Operators to mark or label their wires, cables and other ancillary equipment due to the following reasons:
- (a) current assets are individually tagged for asset management and ease of operation at Co-location sites;
 - (b) beneficial for both parties in terms of daily operations; and
 - (c) the obligation should be applied to all network equipment at co-location sites.
- 26.8 PPIT supports the move for marking and labelling and submitted that this should be applicable to Infrastructure Sharing. PPIT suggested to include similar provisions under subsection 6.8 of the MSA.

- 26.9 REDtone stated that the MCMC's proposal reflects operational practice and they do not foresee this as a burden. They believe this to be a good practice and would be beneficial during audits, trouble shooting, tracing of cable and identification of unauthorized equipment/wires/adapters.
- 26.10 Sacofa is agreeable with the MCMC's proposal.
- 26.11 According to TM, the requirement for operators to mark or label their wires, cables and other ancillary equipment reflects its operational practice. In addition, this will not create an operational burden for Access Seekers and would bring about significant benefits to both the Access Seeker and the Access Provider. For access seekers, it would be easier to install and use their equipment, while for access provider, the marking and labelling of wires, cables and other ancillary equipment reduces the time required to determine the root cause of the problems faced by the access provider or the access seekers.
- 26.12 TM also proposed to extend this practice to all equipment and proposed the following amendments to subsection 6.9 of the MSA:
- (a) 6.9.22: Preparatory work by the Access Provider – propose to increase the threshold for Access Seeker to withdraw an order without penalty from 10% to 30%.
 - (b) 6.9.22(b): The Access Provider shall permit the Access Seeker to withdraw the request for preparatory work without penalty if the revised estimate exceeds the original estimate by more than ten thirty percent (10%30%) of the original estimate.
 - (c) 6.9.23: Delays – increase accountability measure for Access Seekers with regards to costs incurred with regards to delays, as well as to ensure that Access Provider is not liable for delays caused by access seekers or third parties.
 - (d) 6.9.23: If the Access Provider agrees to perform preparatory work and the Access Provider is or is likely to be unable to perform such work within the agreed timeframe, the Access Provider shall:
 - (i) notify the relevant Access Seeker of the delay to a delivery date, together with the reasons for the delay, as soon as practicable after the Access Provider becomes aware of the possible delay;
 - (ii) permit the Access Seeker notified under paragraph 6.9.23(a) above to cancel the preparatory work without penalty if the delay is longer than ten (10) Business Days; and
 - (iii) compensate the Access Seeker for the costs it has incurred as a result of delay, subject to the Access Seeker using reasonable endeavours to mitigate those costs *subject to the Access Seeker providing a written report to justify the amount of additional costs incurred due to the delay.*
- 26.13 However, if the delay is caused by reasons beyond the control of the Access Provider or any third-party under the Access Provider's direction or control, the

Access Provider shall not be liable to compensate the Access Seeker as per paragraph 6.9.23(c) of this Standard.

- (a) 6.9.27 Equipment allowance: To improve security and prevent the misuse of equipment in network facilities.

"6.9.27 An Access Provider shall permit an Access Seeker to locate Equipment on or at the Access Provider's network facilities which is necessary for the purposes of obtaining the benefit of access to the network services and network facilities provided in accordance with this Standard, including but not limited to multi-functional Equipment which may also be used for purposes other than those specified in this subsection 6.9.27 subject to a formal declaration by the Access Seeker outlining the use and reasons for use of the equipment when being used for purposes other than those specified in this subsection 6.9.27 and the Access Provider reserves the right to reject such a request for security reasons."

- (b) 6.9.28 Marking: More stringent measures to increase the operators markings and labelling of equipment.

"6.9.28 All Operators shall mark or label their Equipment, wires, cables, batteries and distribution boards in such a manner that they can be easily identified as the property of the relevant Operator. At all times during the Access Seeker's tenancy, it is the responsibility of the Access Seeker to ensure that the marking and labelling is done with reasonable quality and the Access Provider is allowed to penalise an Access Seeker for not adhering to specific marking guidelines set out by the Access Provider."

- (c) 6.9.31 Security and critical national information infrastructure:- Reduce frequency of reporting for security-sensitive network facilities and remove requirement to treat access seeker's personnel the same as access Provider's own personnel. This is because TM carries out extensive background checks on TM's personnel security sensitive locations.

"6.9.31 (a)(iii) provide all such information to the Commission and, on a ~~6-monthly~~ yearly basis, the locations at which the Access Provider is offering to supply Network Co-Location Service, the locations at which Access Seekers have requested Network Co-Location Service and the locations at which the Access Provider is actively supplying Network Co-Location Service."

~~6.9.21(b)(ii) be no more restrictive or onerous than the procedures and processes that the Access Provider imposes on its own personnel who physically access the same Points of Interface and locations."~~

26.14 In respect of paragraph 6.9.13(c), U Mobile is agreeable that Access Seekers should be able to elect whether they require in-span interconnection.

26.15 Regarding the MCMC's proposal to require Operators to mark or label their wires, cables and other ancillary equipment, U Mobile is of the view that it does not reflect the current operational practice. They also submitted that the additional labels will result in added burden, in terms of time and cost to the operator. U

Mobile estimated that it will incur an estimated cost of RM2.1m on an annual basis (assuming 7,000 sites @ RM300 each) and additional OPEX on staff cost.

26.16 YTL is agreeable to the proposed changes.

Discussion

26.17 Operators generally agree with the MCMC's proposal to expand the obligation on operators EOI to mark or label their equipment to include ancillary equipment, as this reflects operational practice. Accordingly, the MCMC will maintain its proposed changes on this issue.

26.18 TM proposed some additional amendments to the MSA in respect of the following matters, which the MCMC rejects for the reasons given:

(a) an increased threshold for Access Seeker to withdraw without penalty. The MCMC considers this is unnecessary and not consistent with existing practice, which gives Access Seekers sufficient flexibility;

(b) increased accountability measures for Access Seekers regarding costs incurred with regards to delays. The MCMC notes that Access Seekers are already required to justify costs, and dispute resolution offers parties a reasonable pathway in the event of any issue between the parties, so these additional measures are unnecessary;

(c) requiring Access Seekers to provide a formal declaration outlining reasons for use of equipment on the Access Provider's facilities. Again, the MCMC considers that existing protections are sufficient, so this requirement is not necessary;

(d) imposing penalties on Access Seekers for incorrect marking of equipment. This is unnecessary. Complaints of non-compliance with the MSA can be made to the MCMC; and

(e) to remove requirements in paragraph 6.9.31(b)(ii) relating to the standard of required background checks. This is an EOI requirement and accordingly will be retained.

26.19 The MCMC agrees with TM's proposals to:

(a) clarify that Access Seekers must mark and label equipment to a reasonable standard; and

(b) reduce the frequency of reporting under paragraph 6.9.31(a)(iii) to annually, rather than 6-monthly.

MCMC Views

26.20 The MCMC confirms its preliminary view to change the Network Co-Location Service Specific Obligations to require markings on all Equipment, together with the other minor changes described in the Discussion section above.

27 Domestic Connectivity to International Services

Introduction

- 27.1 In the PI Paper, the MCMC did not propose to make any changes substantive to the Service Specific Obligations that apply to Domestic Connectivity to International Services.
- 27.2 The MCMC sought operators' feedback as to whether any amendments are currently required.

Question 41: Do operators consider the current Service Specific Obligations for the Domestic Connectivity to International Service are sufficient? Please detail any proposed addition, deletion or amendment to the existing terms.

Submissions Received

- 27.3 Maxis, MyTV, Altel and Net2One believe that the MCMC's current Service Specific Obligations for the Domestic Connectivity to International Service are sufficient.

Discussion

- 27.4 The MCMC notes the consensus amongst operators that the current Service Specific Obligations remain appropriate and no significant changes are required. The MCMC agrees with the views of the operators that the obligations for these services are sufficient.

MCMC Views

- 27.5 The MCMC confirms that the Specific Obligations for the Domestic Connectivity to International Service will remain unchanged.

28 Duct and Manhole Access

Introduction

- 28.1 In the PI Paper, the MCMC proposed several changes dealing with the following:
- (a) compliance by Access Seekers with the Operations Manual;
 - (b) grounds to refuse access based on safety on security;
 - (c) application of EOI principle to the provision of information relating to the Duct and Manhole Access Service;
 - (d) added maintenance and rectification obligations; and
 - (e) added indemnity for any damage to duct and manholes.

Question 42: Do operators consider the Service Specific Obligations for Duct and Manhole Access are sufficient? Please detail any proposed addition, deletion or amendment to the terms currently proposed by the MCMC.

Question 43: Do you typically require any on-site support services in acquiring the Duct and Manhole Access service? If so, do you face any impediments in acquiring those support services and would those impediments be resolved by requiring the services to be provided under the MSA?

Submissions Received

- 28.2 Allo is of the view that the current service specific obligations for duct & manhole access are acceptable and submitted that there is a need to acquire on-site support services.
- 28.3 Astro proposed to include a service specific obligation for Duct and Manhole Access where the Access Seeker is allowed to engage with other operators than the AP to lay fibre cables owned by the other operators. This is because there will be instances where the Access Seeker may need to rely on other partners to invest and lay the fibre cables in order to provide backhaul service to the Access Seeker from the Access Provider's fibre interconnect point/site.
- 28.4 Celcom disagrees with the provision under paragraph 6.11.14(a) on exemption given to duct and manhole infrastructure in Putrajaya where Access Provider may refuse access if there is arrangement of exclusivity. Celcom is of the view that this may set a precedent that exclusivity principle is acceptable in access regime and state-backed companies who are dominant operators may refuse access to their infrastructure based on the exclusivity arrangement with state government. As such, Celcom proposed to remove paragraph 6.11.14(a).
- 28.5 Celcom also proposed removal of paragraph 6.11.14(b). Celcom believes that refusal of access based on safety and security (for critical government services) should be treated on case-to-case basis. In any event, under paragraph 5.4.11(g), there is already a provision to refuse access based on national interest. Celcom suggested that the Access Provider provides the refusal notice to Access Seeker together with information on Facilities such as location and supporting documents on the reasons for refusal and this information should be forwarded to the MCMC for record and monitoring purposes.
- 28.6 According to Celcom, one of main impediments in acquiring on-site support services is concerning charges related to the service. Access Provider must be obliged to specify the methodology and reasonable unit costs (including any potential or contingent unit costs) for calculating the charge.
- 28.7 Digi is of the view that the Service Specific Obligations for Duct and Manhole Access are sufficient. With regards to on-site support for Ducts and Manhole, Digi requires support from Access Provider during pre and post implementation. To date, Digi has not faced any impediments in acquiring on-site support services from Access Provider.
- 28.8 Maxis agrees with some of the amendments to the Service Specific Obligations that the MCMC has proposed in respect of Duct and Manhole but believe that there are some necessary amendments required for the benefit of the industry and LTBE. Maxis has proposed amendments to subsections 6.11.4, 6.11.6, 6.11.12, 6.11.14, 6.11.15, 6.11.16 and 6.11.17. In addition, Maxis also proposed four new subsections to be included in the MSA.

28.9 Maxis also believes that the MCMC has made the right decision to regulate fixed telecommunications poles in the Access List and MSA Determinations as this can significantly accelerate fibre rollout. In addition, local authorities typically do not allow the construction of second fixed telecommunication poles within regions where one already exists. However, Maxis is of the view that fixed telecommunications poles should be included under subsection 6.11 *Poles, Duct and Manholes Access* instead of under section 6.8 *Infrastructure Sharing*.

28.10 The proposed changes by Maxis are as follows:

6.11.4: Time for Acceptance or Rejection

(b) "providing the Access Seeker with the result of post-Order Service Qualification under subsection 5.7.9 of this Standards, where the Access Provider has undertaken post-Order Service Qualifications for that Order under subsection 5.7.8 of this Standard. *For the purpose of Subsection 5.7.9(a) of this Standard, subject to the distance and scale of the required infrastructure and obtaining relevant third-party authority approvals, the post-Order Service Qualification timeframe for PDM is within the shorter of:*

- (i) *twenty (20) Business Days after the date of the Notice of Receipt; and*
- (ii) *the time within which the Access Provider performs and notifies the result of an equivalent Service Qualification undertaken for itself."*

6.11.6: Billing Cycle

- (a) *First year: Quarterly payments in advance*
- (b) *Subsequent years: Monthly payments in advance*

6.11.12: Capacity Allocation Policy

- (b) "the Access Provider shall determine the available space only after considering:
 - (i) The requirements for *poles*, ducts and space in manholes for the Access Provider's then existing maintenance purposes; and
 - (ii) the reservation for *poles*, ducts or sub-ducts for future use by the Access Provider or another Access Seeker, applicable on an equivalent basis for ~~six (6)~~ *three (3) months*, upon receipt of an Order; and
- (c) the allocation of available space shall be:
 - (i) On a first-come, first served basis
 - (ii) Applicable to reserved capacity that is not used by either the Access Provider or an Access Seeker within the ~~seven (7)~~ *four (4) months* from the date of the Order; and

- (iii) To the extent possible, based on efficient allocation principles to minimise space wastage.”

6.11.14: Grounds for refusal (to be replaced with below):

"6.11.14 Access to the Access Provider’s PDM that are being utilized for critical government services: Access to the Access Provider’s PDM that are being utilized for critical government services, including in connection with government agencies, the military or the police shall be subject to reasonable security procedures and processes (such as identity checks) that will apply to the Access Seeker personnel who will physically access the PDM. However, such procedures and processes shall:

- (a) *not completely or substantially prohibit an Access Seeker from physically accessing a PDM; and*
- (b) *be no more restrictive or onerous than the procedures and processes that the Access Provider imposes on its own personnel who physically access the same PDM.*

Where the Access Provider subjects the Access Seeker to special security or safety procedures, the Access Provider shall present written government documents as evidence detailing these procedures and their necessity to the Access Seeker.”

6.11.15: Equivalence of Inputs:

- (a) “An Access Provider must:
 - (i) provide ~~PDM Duct and Manhole~~ Access on an Equivalence of Inputs basis to Access Seekers (on request), including with information that is of the same degree of reliability and currency as that which it provides itself, including but not limited to:
 - A. ~~(a)~~ information relating to the locations at which *Pole, Duct and Manhole* ~~Duct and Manhole~~ Access is available;
 - B. ~~(b)~~ information relating to the physical space available at such locations; and
 - C. ~~(c)~~ any other information that is reasonably required by the Access Seeker to enable the Access Seeker to place an Order for *PDM Duct and Manhole* Access or otherwise access PDM infrastructure
- (b) *In addition to 6.11.15(a)(i), Access Providers that are dominant must also:*
 - (i) *ensure that its wholesale business unit is exercising independent decision making in relation to Poles Ducts and Manhole Access and is separate from its retail arm; and*
 - (ii) *implement appropriate measures to ensure such independent and separate decision-making.”*

6.11.16 Maintenance and Rectification: An Access Provider shall:

- (a) "An Access Provider shall ensure that it maintains in reasonable working condition all *poles*, ducts and manholes, subject to paragraph 6.11.16(b);
- (b) An Access Provider shall on notice by an Access Seeker, or upon otherwise becoming aware, that any *pole*, duct or manhole does not comply with paragraph 6.11.16(a), perform within forty (40) Business Days such activities as required to rectify such non-compliance;
- (c) In the situation of broken / blocked poles / ducts resulting in lack of capacity, the Access Provider shall conduct remediation in a timely manner at its own cost;
- (d) During installation, in the event of broken or blocked poles or ducts due to poor maintenance, the Access Provider shall conduct remediation (i.e. clean up the broken / blocked poles or ducts) in a timely manner at its own cost;
- (e) If the poles, ducts and manholes that are only used by the Access Seeker are beyond repair, and both Access Provider and Access Seeker agree that replacement is required, parties shall mutually agree on the reasonable cost to be shared between Access Provider and Access Seeker(s)".

6.11.17 Indemnity

- (a) "In relation to matters of, and relating to, liability between an Access Provider and Access Seeker not governed by the terms of an Access Agreement, where an ~~Access Seeker Operator~~, through its acts or omissions (whether negligent or otherwise), causes damage to Equipment used/owned by ~~the Access Provider~~ the other Operator in connection with the provision of Poles, Duct and Manhole Access, then, subject to subsection 6.11.17(b), the Access Seeker defaulting Operator must indemnify ~~the Access Provider~~ the non-defaulting Operator against such damage or loss including any reasonable costs or expenses associated with such repair or replacement.
- (b) In respect of the indemnity under subsection 6.11.17(a):
 - (i) under no circumstances will ~~an Access Seeker~~ either Operator be liable for any indirect, consequential or special loss or damage, or loss or any other damage that does not arise naturally from the breach according to the usual order of things;
 - (ii) to the extent permitted by law and ~~subject to subsection 6.11.17(b)(iii)~~, an Access Seeker's a defaulting Operator's maximum liability to the ~~Access Provider~~ non-defaulting Operator shall be limited to an ~~the~~ amount to be mutually agreed upon in writing between both Operators specified in an Access Agreement, or Ringgit Malaysia one million (RM1,000,000) per incident, whichever is lower; ~~and~~
 - (iii) ~~the limitation of liability in subsection 6.11.17(b)(ii) will not apply to any acts or omissions of the Access Seeker that cause or contribute to death or personal injury of any person, damage to property, intentional default, breach of confidentiality, fraud and~~

~~any indemnification obligations relating to breach of intellectual property rights."~~

28.11 Maxis also proposed inclusion of new subsections in the MSA as follows:

6.11.18 Technical Specifications (new)

"6.11.18 Technical Specifications: The Access Agreement between the Access Provider and Access Provider may include mutually agreed technical specifications and technical proposals for PDM including but not limited to the following:

- (a) Fibre optic technical specifications*
- (b) Distance measurement*
- (c) Acceptance Test*
- (d) Trenching Method*
- (e) Ductways*
- (f) Manhole specifications"*

6.11.21 Access to internal building telecommunications infrastructure (new)

"6.11.21 Access to internal building infrastructure: Where an Access Seeker reasonably requests for access to internal building infrastructure, including but not limited to risers, conduits, cable trunks, cable trays, etc. owned or managed by the Access Provider, the Access Provider shall provide access to the internal building infrastructure."

28.12 Maxis stated that it typically requires on-site support on a case-by-case basis, depending on locations. As such, Maxis proposed to add new subsections as follows:

6.11.19 Escorts (new)

"6.11.19 Escorts: An Access Provider is only permitted to require an escort to be present when nominated employees and/or contractors of the Access Seeker wish to enter into the Access Provider's property if the Access Provider requires an escort for its own employees or contractors in the same circumstances. If an Access Provider determines that it is necessary to have an escort present when the nominated employees and/or contractors of the Access Seeker wish to enter into the Access Provider's property, the Access Provider shall:

- (a) bear the costs of such escort service;*
- (b) subject to paragraph 6.11.19(d) of this Standard, provide immediate physical access to the Access Seeker for emergency maintenance requests, twenty-four (24) hours a day, seven (7) days a week;*

- (c) *subject to paragraph 6.11.19(d) of this Standard, provide physical access at the time requested by an Access Seeker for planned maintenance requests on the shorter of:*
 - (i) *two (2) Business Days' notice for manned sites and five (5) Business Days' notice for unmanned sites; and*
 - (ii) *the period of notice which it requires from itself when providing itself with physical access for planned maintenance;*
- (d) *for both planned and emergency maintenance requests at unmanned sites only, have its escort arrive within the shorter of:*
 - (i) *thirty (30) minutes of time required by the Access Seeker pursuant to paragraph 6.11.19(b) or 6.11.19(c) of this Standard (as applicable) plus a reasonable window to allow for travel time (which must be estimated in an operations and maintenance manual given to the Access Seeker, or estimated at the time of responding to the Access Seeker's physical access request); and*
 - (ii) *the period of time it requires for its escorts to arrive for planned and emergency maintenance at unmanned sites."*

6.11.20 Absence of Escort (new)

"6.11.20 Absence of Escort: For the purposes of subsection 6.11.8 of this Standard, if an escort does not arrive at the Access Provider's property within the timeframe specified in subsection 6.11.19, the Access Seeker's nominated employees and/or contractors may proceed to enter the Access Provider's property without an escort."

- 28.13 MyTV, Altel and Net2One agree that the MCMC's current Specific Obligations for Duct and Manhole Access are sufficient. They think that on-site support services are required when acquiring the Duct and Manhole Access service but admitted that they don't have any experience with regards to impediments in acquiring those support services.
- 28.14 PPIT considers the amendments reasonable but proposed that operators allowed to freely negotiate commercial terms.
- 28.15 Sacofa is of the view that ducts and manholes should be made available in the MCMC's CIMS.
- 28.16 TM submitted that the MCMC's decision to expand the geographical scope of the Duct and Manhole Access service is expected to result in a significant financial loss for TM of [c-i-c] million annually as access seekers are likely to roll out their own fibre infrastructure in high-value urban areas using TM's existing ducts and manholes, which will result in the loss of both wholesale and retail business for Telekom Malaysia. This would strongly disincentivise TM and other operators from rolling out new fixed infrastructure in greenfield areas, to the detriment of achieving the Jalanan Digital Negara (**JENDELA**) targets.

- 28.17 TM urged the MCMC to incentivise Access Providers to roll out infrastructure in greenfield areas. TM requested the MCMC to consider introducing a new ground for an access provider to refuse access to its ducts and manholes where alternative active services (e.g., HSBB, transmission) are offered in the MSA. This will avoid duplication of infrastructure, which is one of the main considerations in the JENDELA plan and also one of the main drivers for the government of Malaysia to pursue the current 5G deployment model through a single wholesale network.
- 28.18 In addition, TM also proposed to add a clause in the MSA to restrict reselling, sharing or swapping of duct and manhole infrastructure by access seekers, as this undermines the access provider's ability to get a fair return on its passive infrastructure investment. This clause, together with a clause to avoid duplication of infrastructure would incentivise operators to further roll out in greenfield and rural areas, to help achieve the JENDELA targets.
- 28.19 TM also provides critical services to government agencies and enforcement bodies such as the police and the military and nationwide access to mainline and inter-exchange ducts also poses a significant security risk to TM's network. As such, TM supports the inclusion of grounds of refusal in the MSA based on safety and security concerns. This is critical to protect the national digital infrastructure from potential threats such as theft and criminal offences, as it has occurred in other developed countries such as Singapore and the USA.
- 28.20 TM is of the view that the MSA should also account for operational challenges faced by an access provider, such as the limitation on inventory management for ducts and manholes, and adopt the EOI principle in relation to Duct and Manhole Access, where access seekers are provided with the same inputs as the access provider's retail unit.
- 28.21 Telekom Malaysia proposed amendments to subsections 6.11.11, 6.11.5, 6.11.7, 6.11.12, 6.11.14, 6.11.16 and 6.11.17 as follows:

6.11.11 Joint Survey – to account for access seeker's agreement on the scope and date of the joint survey.

"For the purposes of subsection 5.7.8 of this Standard and subject to the timeframe specified under subsection 5.7.9 of this Standard, a joint survey may be conducted by the Access Provider and the Access Seeker, along with surveyors, where necessary, to determine the availability of requested ducts and manholes at a particular area, provided that the scope of the survey be jointly decided, and any costs are necessarily incurred, itemised and agreed between the parties.

The timeframe specified under subsection 5.7.9 of this Standard shall apply only after the Access Provider and the Access Seeker have come to an agreement on the scope of the joint survey, the date of the joint survey and any costs necessarily incurred to be itemised between the parties."

6.11.5 Indicative Delivery Timeframe – to account for volume per order. Other regulators such as the regulator in Australia make a distinction for orders based on distance.

"For the purposes of paragraph 5.7.13(a)(i) of this Standard, the indicative delivery timeframe for Duct and Manhole Access, *less than 10KM*, is ten (10) Business Days. For clarification, the indicative delivery timeframe in this subsection 6.11.5 commences from the Notice of Acceptance or confirmation of the Order (as applicable) in accordance with subsection 5.7.14 of this Standard."

6.11.7 Reporting – to carry out joint survey with access seekers when an Order is requested and subsequently update the information.

"As required under paragraph 5.3.12(l) of this Standard, an Access Provider shall notify the Commission in writing details of:

- (a) each area in which the Access Provider has built or assumed maintenance obligations in respect of Lead-in Ducts, Mainline Ducts, Inter-exchange Ducts or manholes, including any manholes associated with any infrastructure provided only *where joint survey has been conducted*; referred to in this paragraph 6.11.7(a);
- (b) each area in which the Access Provider has been granted exclusive rights to develop or maintain mainline ducts, Interexchange Ducts and associated manhole infrastructure *applicable only where information is available.*"

6.11.12 Capacity Allocation Policy – capacity allocation policy should allow access provider or other access seeker to reserve ducts or subducts for 24 months for future use.

"In addition to subsection 5.7.32 of this Standard, the Access Provider's Capacity Allocation Policy for Duct and Manhole Access shall set out the principles to be applied on an equivalent basis between itself and other Access Seekers, where:

- (a) the Access Provider has already taken steps to optimise space by using the current available technology, including removing any unused cables;
- (b) the Access Provider shall determine the available space only after considering:
 - (i) *the requirements for ducts and space in manholes for the Access Provider's then existing maintenance purposes; and*
 - (ii) *the reservation of the ducts or subducts for future use by the Access Provider or another Access Seeker, applicable on an equivalent basis for ~~six (6) months~~ twenty four (24) months, upon receipt of an Order; and*
- (c) the allocation of available space shall be:
 - (i) *on a first-come, first-served basis;*
 - (ii) *applicable to reserved capacity that is not used by either the Access Provider or an Access Seeker within the ~~seven (7)~~ twenty fifth (25) months from the date of the Order; and*
 - (iii) *to the extent possible, based on efficient allocation principles to minimise space wastage.*"

6.11.14 Ground for refusal – grounds for refusal should be applicable to orders request instead of an access request and grounds for refusal to avoid duplication of infrastructure.

“In addition to the grounds for refusal in subsection 5.4.11 of this Standard, an Access Provider may refuse an ~~Access Order~~ Request to Duct and Manhole Access to the extent (and only to the extent that):

- (a) the Access Provider has entered into an exclusive arrangement for access to duct and manhole infrastructure in Putrajaya with the Government of Malaysia *and its appointees* and such arrangement has been entered into (without extension or amendment) prior to the Effective Date of this Determination. For clarification, subsection 5.4.19 of this Standard applies to any refusal under this subsection; or
- (b) there are reasonable grounds for the Access Provider to refuse access based on safety and security, to the extent that the duct and manhole infrastructure is being utilised for critical government services, including in connection with government agencies, the military or the police.
- (c) *where the Access Provider has fibre infrastructure to the premises and is offering access to Transmission Services to the same premises.”*

6.11.16 Maintenance and rectification – maintenance and rectification should be limited per damage per section in order to fulfil the timeframe specified.

“An Access Provider shall:

- (a) ensure that it maintains in reasonable working condition all ducts and manholes subject to paragraph 6.11.16(b); and
- (b) on notice by an Access Seeker, or upon otherwise becoming aware, that any duct or manhole does not comply with paragraph 6.11.16(a), perform within forty (40) Business Days *per damage per section (from one manhole to the next closest manhole)* such activities as required to rectify such non-compliance.”

6.11.17 Indemnity – Access Provider should be indemnified for any penalties incurred due to service disruption caused by an access seeker.

“6.11.17(b) In respect of the indemnity under paragraph 6.11.17(a):

- (i) ~~under no circumstances will an Access Seeker be liable for any indirect, consequential or special loss or damage, or loss or any other damage that does not arise naturally from the breach according to the usual Order of things;~~
- (ii) to the extent permitted by law and subject to paragraph 6.11.17(b)(iii)6.11.17(b)iii), an Access Seeker’s maximum liability to the Access Provider shall be limited to the amount specified in an Access Agreement, or RM [insert], whichever is lower; and

- (iii) the limitation of liability in paragraph 6.11.17(b)(ii)6.11.17(b)(ii) will not apply to any acts or omissions of the Access Seeker that cause or contribute to death or personal injury of any person.”

28.22 In addition to the above amendments, TM also proposed inclusion of three new subsections under subsection 6.11.

28.23 First, TM proposed that an accredited list of sub-contractors should be used for all works related to installation, maintenance and rectification on its network infrastructure, as a preventive measure to protect TM’s duct and manhole infrastructure from any potential damages caused by the Access Seeker. TM cited other best practice markets such as UK and Australia where similar obligations are imposed by access provider on access seeker. The proposed subsection is as follows.

“Use of accredited sub-contractors: Access seekers are required to use an accredited list of sub-contractors provided by the Access Provider for all works related to installation, maintenance and rectification on the Access Provider’s network infrastructure.”

28.24 Second, TM proposes to include a clause to restrict the reselling, sharing or swapping of duct and manhole infrastructure by Access Seekers, as this undermines the Access Provider’s ability to get a fair return on its passive infrastructure investment. TM cited Australia as an example where regulator has accepted similar practices by operators. The proposed subsection is as follows:

“Restriction on resale: Without the approval of the Access Provider, an Access Seeker shall not assign, share, or sublet part or all of duct space or manholes to a third party.”

28.25 Third, TM pointed out that although the MCMC proposed to include grounds of refusal based on safety and security concerns, this does not cater for scenarios where TM has already provided Duct and Manhole Access to access seekers. Given that critical services should be prioritised, TM would need some flexibility to reallocate its duct and manhole infrastructure to these government agencies. In addition, subject to compensation by government agencies, TM also want flexibility to invoke early termination to the specific duct and manhole section. Additionally, where government agencies express their intention to seek access to a specific duct and manhole section post expiry of the Access Seeker’s contract term, the contract renewal requirement would give the flexibility to accommodate demand from government agencies. With the contract renewal requirement, Access Seekers would need to submit a request to renew their access term, which would be subject to TM’s approval.

28.26 The proposed new subsection is as follows:

“Termination circumstance: Subject to subsection 5.14.3 of this Standard, an Access Provider may only terminate an Access Agreement for Duct and Manhole Service, whether in whole or in part (for example, only to the extent relating to a particular Facility or Service, or at a particular sector), if any of the circumstances referred to in paragraphs (a) of this Standard apply, and the Access Provider has notified the Access Seeker that it will terminate where:

- (a) *there are reasonable grounds for the Access Provider to terminate access based on safety and security, to the extent that the duct and manhole infrastructure is being requested for critical government services, including in connection with government agencies, the military, or the police.*

For early termination, Access Provider is required to compensate the Access Seeker with an early termination fee equivalent to the remaining lease of the contract term."

"Renewal of Access: *Upon the receipt of Access Seeker request to extend the term of access, the Access Provider shall consider extending the Duct and Manhole Access subject to existing capacity requirement and demand from critical government agencies. Access Seekers are required to submit in writing for the extension with a minimum of six months' notice before contract expiration."*

- 28.27 As for on-site support, TM stated that access to ducts and manholes typically does not require any on-site support services from the access provider. However, TM faces a number of impediments in acquiring access to ducts and manholes and these support services from other Access Providers.
- 28.28 U Mobile stated that the provisions for this service are generally adequate and beneficial to both the Access Seeker and Access Provider. In relation to 6.11.13, U Mobile suggested that the Access Seeker must be allowed to have inputs and agree to the O&M manuals to avoid unreasonable conditions by Access Provider.
- 28.29 Although U Mobile does not currently acquire this service, they are of the view that provision of support services (such as fault handling and repair) should be included together with specific timeframe for the acceptance or refusal of a request for supply and for completion, testing and hand- over or delivery of services and facilities.
- 28.30 U Mobile has not acquired on-site support services but view that it should be included in MSA as one of the requirements to prevent the Access Provider from limiting information (e.g. coordinates). Lack of accurate information could lead to the wrong duct and manhole location.
- 28.31 YTL stated that the new ground for refusing access under subsection 6.11.14 is subjective and open to abuse. YTL suggested that access providers should allow access seekers to install its own sub-duct in access providers duct and manhole (whether lead in, mainline or inter-exchange ducts), unless there is no room. Any refusal of access must be approved by the MCMC in writing.
- 28.32 On on-site support services, YTL stated that they do require support services and access provider need send representative to supervise access seeker's work to avoid any unforeseen damages.

Discussion

- 28.33 There were varying views from operators on the obligations that apply to Duct and Manhole Access in the MSA. The MCMC has considered these views and will make further amendments to these obligations to reflect those submissions with which it agrees.

- 28.34 In response to Astro's request to allow Access Seekers to engage with operators other than the Access Provider, the MCMC does not consider such a provision necessary, given for any Access Agreement, there can only be a single Access Seeker.
- 28.35 The MCMC acknowledges Celcom's concerns which relate to charges relating to acquiring on-site support services, including in relation to transparency of the methodology of such charges and reasonable unit costs for calculating the charge. However, the Mandatory Standard on Access Pricing will address any charging issues relating to the Duct and Manhole Access Service.
- 28.36 Maxis proposed a number of changes to the obligations for Duct and Manhole Access, which are considered in turn below.
- 28.37 The MCMC does not agree with Maxis's submission that telecommunication poles be included in section 6.11 (in relation to Duct and Manhole Access) as opposed to section 6.8 in relation to Infrastructure Sharing. This is because access services provided in relation to fixed telecommunication poles are closest to tower sharing rather than ducts and manholes. Accordingly, the MCMC does not accept any of the references to "PDM" in its suggested amendments.
- 28.38 The MCMC agrees with the revised timeframe proposed by Maxis for the commencement and completion of Service Qualifications for the Duct and Manhole service, effectively increasing the existing maximum timeframe of 15 Business Days to 20 Business Days for ducts and manholes. The MCMC also agrees to reduce the timeframe for use of reserved capacity from seven months to four months, on the basis that four months is sufficient for an Access Seeker to use allocated space, while balancing the need to prevent 'gaming' of capacity reservation by larger Access Seekers in order to restrict access for other Access Seekers.
- 28.39 The MCMC agrees with some elements of Maxis's proposal to implement security procedures and processes in circumstances where duct and manhole infrastructure is being utilised for critical government services. In particular, the MCMC agrees with the qualification that such procedures and processes must be no more restrictive or onerous than the procedures and processes that the Access Provider imposes on its own personnel who physically access the same ducts and manholes. However, the MCMC does not agree with the requirement that the security procedures and processes do not completely or substantially prohibit an Access Seeker from physically accessing a duct or manhole. This is because the MCMC considers there may be certain exceptional cases such as significant cybersecurity issues that may require prohibition of physical access.
- 28.40 Further, the MCMC does not agree with Maxis's proposal to add a requirement for Access Providers to present written government documents as evidence detailing procedures to the Access Seeker. This is because the MCMC notes there are circumstances where security issues cannot be verified by a third party (in this case the Access Seeker) due to the nature of the security issue.
- 28.41 For reasons the MCMC has made clear in previous consultations, including earlier in this MSA inquiry, access regulation in Malaysia is a symmetric, rather than asymmetric regime. Accordingly, there is no scope under the CMA for the MCMC

to differentially regulate dominant and non-dominant Access Providers in the manner proposed by Maxis. This is a policy issue that is beyond the scope of this and any similar the MCMC access-related inquiry, and the MCMC rejects any such submissions.

- 28.42 The MCMC agrees with Maxis's proposed amendments to the maintenance and rectification obligations to:
- (a) conduct remediation in a timely manner at its own cost in the event of broken ducts resulting in the lack of capacity and in the event of broken or blocked ducts due to poor maintenance; and
 - (b) require parties to mutually agree on reasonable costs to be shared between Access Provider and Access Seeker(s) in the event ducts and manholes that are only used by the Access Seeker are beyond repair and the Access Seeker and Access Provider agree a replacement is required.
- 28.43 The MCMC supports Maxis's proposed changes to the indemnity provision at paragraph 6.11.17(a) which effectively imposes a mutual indemnity for damage to equipment.
- 28.44 The MCMC also agrees with Maxis's suggestion to the maximum liability under the indemnity in subsection 6.11.17, to an amount that is the lower of the amount that is mutually agreed upon in writing and RM1,000,000. However, the MCMC does not agree with the removal of the exclusion to the limitation of liability. It is common practice for the acts or omissions of a part causing or contributing to death or personal injury, damage to property, intentional default, breach of confidentiality, fraud and indemnification relating to breach of intellectual property rights to be excluded from the limitation of liability.
- 28.45 The MCMC also accepts Maxis's proposed new subsection outlining certain technical specifications.
- 28.46 The MCMC disagrees with Maxis's proposal to include a new subsection 6.11.21 requiring the Access Provider to provide access to internal building infrastructure. The MCMC considers access to building infrastructure to be a matter between the Access Seeker and the building owner. This is because the Access Provider does usually not own or operate "building infrastructure" and therefore could not provide access to such infrastructure.
- 28.47 The MCMC agrees with the inclusion of the new escort provisions proposed by Maxis, to set terms and timeframes for on-site support is required, including the qualification that the Access Provider may only require that an escort be present if it requires an escort for its own employees or contractors in the same circumstances. This is entirely consistent with EOI requirements.
- 28.48 The MCMC also accepts the proposed new provision setting out the Access Seeker's right to enter the Access Provider's property without an escort where an escort does not arrive within the specified timeframes. This will also partially address U Mobile's comments regarding the importance of on-site support, by incentivising Access Provider to provide an escort within the specified timeframes.

- 28.49 The MCMC has considered TM's proposal to introduce a new ground for an Access Provider to refuse access to ducts and manholes where alternative active services are offered to avoid duplication of infrastructure. However, the MCMC does not agree with TM's submission, on the basis that competition, and not the Access Provider, should determine the forms of access required by Access Seekers.
- 28.50 In relation to TM's proposal to restrict resale of duct and manhole infrastructure, the MCMC agrees to make this an exception to the rule permitting resale. The MCMC believes that special circumstances (e.g. security) exists so that resale should not be permitted.
- 28.51 The MCMC acknowledges TM's proposed amendments to the joint survey provision and will amend this provision to reflect that the timeframe for completing Service Qualification will only commence after the parties have agreed on the scope of the joint survey, the date of the joint survey and any costs.
- 28.52 With regards to TM's suggested amendment to the indicative delivery timeframe, the MCMC agrees to limit the indicative ten business day timeframe for delivery of duct and manhole access to ducts that are less than 10km. The MCMC also notes this timeframe is indicative only.
- 28.53 The MCMC agrees with TM's proposal to limit reporting requirements in paragraph 6.11.7(a) to areas where a joint survey has been conducted.
- 28.54 The MCMC agrees with TM's submission to change the period of future use to be considered by the Access Provider in section 6.11.12 from six months to twenty-four months for ducts or subducts.
- 28.55 As mentioned earlier, the MCMC considers that it is not for the Access Provider to determine which form of access is optimal. As such, the MCMC rejects TM's proposal to add a ground of refusal for when the Access Provider has fibre infrastructure to the premises and is offering access to Transmission Services to the same premises.
- 28.56 The MCMC does not agree to TM's proposed removal of the exclusion applicable to the indemnity for any indirect, consequential or special loss or damage. It is standard for such exclusions to apply in these circumstances.
- 28.57 The MCMC has considered TM's proposal to include a requirement for Access Seekers to use accredited subcontractors. Due to security concerns, the MCMC will agree to these amendments.
- 28.58 The MCMC notes that TM also proposed additional security measures to be included in the MSA. The MCMC also acknowledges TM's concern regarding critical services, however the MCMC is not satisfied that there is a reasonable argument to adopt TM's early termination proposal in the event of a subsequent order from a Government organisation. If security issues arise in this case, the MCMC expects the Access Provider to find alternatives instead of terminating the Access Agreement with the Access Seeker. Terminating an Access Agreement may cause significant damage and delay to an Access Seeker's business.

MCMC Views

28.59 The MCMC will make a number of changes to this section as outlined in the Discussion section above.

29 Digital Terrestrial Broadcasting Multiplexing Service

Introduction

29.1 In the PI Paper, the MCMC did not propose to change the existing obligations under subsection 5.23.

Question 44: Do operators consider the existing Service Specific Obligations for the Digital Terrestrial Broadcasting Multiplexing Service are sufficient? Please detail any proposed addition, deletion or amendment to the current terms.

Submissions Received

29.0 MyTV, Altel and Net2One view is that the current Service Specific Obligations for access to the DTT service are sufficient. Therefore, it does not require any addition. They are of the view that the current MSA's terms are still relevant and functioning well.

MCMC Views

29.1 As the MCMC has not received any operator feedback suggesting any changes to the Service Specific Obligations that apply to the Digital Terrestrial Broadcasting Multiplexing Service, the MCMC will retain the existing obligations.

30 MVNO Access

Introduction

30.1 In the PI Paper, the MCMC proposed several amendments to the MVNO Access obligations in subsection 6.13. These amendments included:

- (a) new subsection 6.13.12 clarifying the application of the EOI principle to the provision of MVNO Access;
- (b) new subsection 6.13.13 clarifying the obligations on the Access Provider to approve certain marketing and publications within a reasonable timeframe; and
- (c) new subsection 6.13.14 regarding how Access Providers and Access Seekers must handle Access Seeker insolvency events.

30.2 The MCMC sought operator feedback on the proposed amendments and sought feedback as to whether customer data protection obligations should be included in the MSA.

Question 45: Do operators agree with the proposed amendments to the Service Specific Obligations that apply to MVNO Access? Why or why not? If not, please specify and substantiate any proposed changes or amendments.

Question 46: Should the MSA set out customer data protection obligations in relation to MVNO Access?

Submissions Received

Proposed Service Specific Obligations

30.3 Altel and Net2One agree with MCMC's proposed amendments to the draft MSA. They believe that the modifications are pertinent considering the MVNO's ability to launch their business and the impending rollout of 5G mobile networks. Altel and Net2One also support the MCMC's proposal to include additional clauses that would allow the Access Providers to approve marketing, price, product, and other commercial efforts, promotions, etc. in a reasonable timeframe without delaying the Access Seekers.

30.4 In addition, Altel and Net2One are supportive of the MCMC's proposal to include an obligation for the Access Provider to ensure its wholesale business is exercising independent decision making and is separate from its retail arms and implement appropriate measures to ensure such independent and separate decision-making. This will ensure the negotiations on the wholesale commercial rates will not be influenced by the Access Provider's own retail pricing. This would give the Access Seekers (MVNOs) a level playing ground in providing services that are priced more competitively and would not be disadvantaged against the Access Provider's own retail services.

30.5 Celcom proposed a new obligation with regard to prevention of technical harm, as follows:

"For the purpose of subsection 5.13.2 (Prevention of technical harm), of this Standard, Access Provider may deny, restrict or refuse access or connection of any Mobile Device (or other equipment belonging to the Access Seeker, subscriber of the Access Seeker or any other third party) to Access Provider's network if, in Access Provider's reasonable opinion, the Mobile Device or equipment unlawfully interfere with or materially/adversely affect (or is reasonably suspected to unlawfully interfere with or materially/adversely affect) the operation of the Access Provider's network or operational support system. This shall be carried out in accordance with subsection 5.14.5 (Suspension) of this Standard."

30.6 Celcom believes that the above provision is necessary to ensure only devices or equipment which conforms to security standards are allowed to be integrated to ensure that there's no interference or disruption to both parties' end-users.

30.7 Celcom proposed provisions on Data Security and Protection which shall be applicable to both Access Provider and Access Seeker for all Facilities and Services on the Access List as follows:

"Each Operator shall comply and procure its employees, or a person who performs services on behalf of the organization in connection with this Agreement:

- (a) *shall put in place and implement its own Data Security and Protection ("DSP") policy/or its own DSP terms and conditions ("DSP Terms") to ensure compliance with the applicable laws in Malaysia;*
 - (b) *comply with its own DSP Terms;*
 - (c) *immediately notify of any breach of Clause 1(a) and (b) above; and*
 - (d) *Each Operator agrees that in the event of any inconsistency between each Operator's DSP Terms, the higher standard between Operator's DSP Terms shall apply to the extent of resolving such inconsistencies."*
- 30.8 With regards to subsection 6.13.12 on EOI, Digi submitted that for new technologies such as 5G, the MCMC should consider granting a lead time of at least 6 months from the time 5G network is made available to the MNOs. In addition to this, provisions of this subsection 6.13.12 should be amended to also provide for a timeframe within which MNO's 5G services to MVNOs may be offered on a trial basis, considering the time required to conduct technical testing and proof of concept prior to service deployment.
- 30.9 Digi also recommended the MCMC to consider expanding the provisions in subsection 6.13.14 to include Access Provider's right to terminate due to non-payment by Access Seekers to mitigate Access Provider's credit risks and protection against non-payment by the Access Seekers. Normally, within one month of an event of default, Access Provider would call on Access Seeker's bank guarantee and suspend services. Under these circumstances, Access Provider should be allowed to terminate if the default is not resolved within 3 months or where the Access Seeker has failed to make payment of any invoices amounting to a 3-month value of invoices. The MCMC's consent for termination under this condition should be waived so as not to prolong Access Provider's credit risks.
- 30.10 With regards to the MCMC's proposal to include a new subsection on equivalence of input, Maxis submitted that wholesale and retail business unit separation requirements are not required for the following reasons:
- (a) **MVNO Access is sufficiently competitive; EOI instead should be implemented in fixed markets with a single dominant player.** With four major national mobile networks, sufficient competitive conditions at the wholesale level exist and there have not been any examples of market failure where Access Seekers have not managed to seek access. Maxis also highlighted that since separation regulations are not currently applied on an equivalent service (HSBB) with an even higher market concentration, retail and wholesale separation requirements pertaining to MVNOs are unnecessary.
 - (b) **There should be light-touch regulation, as MVNO Access globally is typically unregulated unless in cases of an incumbent having significant market power.** Maxis cited examples of countries such as Australia, Ireland, UK, New Zealand, Spain and Norway. In all the aforesaid countries, with the exception of Norway, MVNOs are not regulated.
- 30.11 As such, Maxis proposed to delete the proposed subsection 6.13.12 entirely.

- 30.12 Maxis is agreeable to the proposed subsection 6.13.13. Since MVNOs do not own the underlying infrastructure and operational systems, and MNOs configure these items to fit the MVNO offerings, it is fair that MVNOs may require the approval of MNOs before any changes are made to the underlying configuration.
- 30.13 Maxis proposed the following amendments to subsection 6.13.14 for clarity:
- “6.13.14 Reasonable Assistance:** If an Access Seeker becomes subject to an event that is specified in paragraph 5.14.3(b), the Access Seeker must provide the Access Provider with all assistance reasonably requested by the Access Provider to facilitate the transition of each of the Access Seeker’s Customers onto retail mobile services supplied by the Access Provider or another Access Provider. *The acceptance of Access Seeker’s Customers will be subject to the terms and conditions to be agreed between Access Seeker and Access Provider.*”
- 30.14 REDtone is agreeable to the proposed amendments on EOI. According to REDtone, they do face issues where the retail arm influences the plan that can be offered to MVNOs and the wholesale is not running independently from retail. The proposed amendments by the MCMC will reduce the conflict of interest in completing the process. In addition, REDtone is of the view that the request for approval in respect of marketing, pricing, product or other retail promotions should not be used to delay and give MNO retail better advantage in the market. Access provider should not be restricting how MVNO go to market.
- 30.15 TM agreed with the proposed amendments to the Service Specific Obligations that apply to MVNO Access and strives to be a fair and transparent provider of MVNO services. TM believes that following the merger of Celcom and Digi, it would be critical for MVNO Access to be provided on an EOI basis given that Celcom is currently the main Access Provider for MVNOs.
- 30.16 U Mobile agreed that customer data should be protected at all times. In the event of insolvency of the access seeker, the customer data should not be compromised in the transition to a new operator.
- 30.17 YTL believes that this is not necessary as all licensees are subject to Personal Data Protection Act and the industry Code of Practice.

Data Protection

- 30.18 Astro is agreeable to the MCMC’s proposal to not include customer data protection obligations in relation to MVNO as the MVNO, being a data user is required to register with the Personal Data Protection Department and with the Personal Data Protection Act 2010.
- 30.19 Digi takes note of the MCMC’s views on customer data protection obligations in relation to MVNO and has no further comments on this matter.
- 30.20 Maxis also submitted that it does not support expanding the MSA to include customer data protection obligations in relation to MVNO Access. They are in agreement with the MCMC that customer data protection obligations have already been covered by the Personal Data Protection Act 2010 and the Personal Data Protection Code of Practice for licensees under the CMA. Additionally, international

practice leans towards regulatory forbearance in regulated access instruments in relation to these matters, which are typically left to commercial negotiation between the parties. Maxis cited Australia and Singapore as examples.

- 30.21 MyTV, Altel and Net2One agreed with the MCMC's preliminary views as all licensees are required to adhere to the Personal Data Protection Act 2010. They believe that the privacy and data protection laws have adequately handled the customer's data information.
- 30.22 REDtone also believes that the MSA should set out customer data protection obligations in relation to MVNO Access.
- 30.23 TM agreed with the MCMC that all licensees are already required to comply with general privacy and data protection obligations, and consequently there is no need to impose additional obligations through the Service Specific Obligations for MVNO Access.
- 30.24 U Mobile is of the view that the proposed amendments to the Service Specific Obligations are reasonable, and provided the following comments:
- (a) U Mobile agreed paragraph 34.17 of the PI Paper which recognizes the need to ensure that the creditworthiness of MVNOs is made more transparent. U Mobile has experienced difficulties with MVNOs with poor financial standing and have resulted in their liquidation and payments owed. In this regard, U Mobile proposed that MVNOs should be subject to higher financial security requirements and tighter credit controls.
 - (b) In relation to paragraph 34.9 of the PI Paper, U Mobile concurred that every MNO has a different operating model. Therefore, it does not make sense to have a detailed expansion on the governance and SOP for this service.
 - (c) U Mobile agreed with Maxis's view in the PI Paper paragraph 34.23, that a longer negotiation period is required for parties to agree on terms. U Mobile also reiterated Maxis' point that negotiations with separate MVNOs entail vastly different levels of complexity depending on their requirements.
 - (d) With respect to 5G, and in particular relating to MVNOs with specific requirements such as Internet of Things (**IOT**), U Mobile wished to stress that access should be sought from the MNO and not DNB directly.
- 30.25 YTL does not agree with the provision that requires the access provider to have the right to approve access seeker marketing, pricing, product or other retail promotions, initiatives or launches. These are confidential information and prohibited in the MSA.

Discussion

- 30.26 The operators were generally agreeable to the positions adopted by the MCMC in the Public Inquiry Paper.
- 30.27 The MCMC will not make changes regarding data protection. The MCMC agrees with operators such as MyTV, Altel and Net2One that these matters are covered

by the Personal Data Protection Act and the industry Code of Practice and do not need to be included in the MSA.

- 30.28 The MCMC disagrees with Celcom's submission to create a new obligation relating to the prevention of technical harm. The MCMC notes all devices are subject to standards. The proposed obligation is not a relevant access issue and does not seem necessary in the circumstances.
- 30.29 The MCMC disagrees with Digi's submission with regards to subsection 6.13.12 on the EOI and 5G services. MNOs and MVNOs should have the same access to 5G services for the reasons previously discussed.
- 30.30 The MCMC also disagrees with Digi's submission that the MSA should include an additional right for Access Providers to terminate if certain non-payment events occur. The MCMC is not persuaded there is a practical issue which needs to be addressed in the MSA. The MCMC notes that the MCMC consent can be sought by an Access Provider on an urgent basis if needed under subsection 5.14.6(a).
- 30.31 The MCMC disagrees with Maxis's proposed removal of subsection 6.13.12 relating to the application of EOI to MVNO Access. However, the MCMC agrees to the removal of the wholesale and retail business unit separation requirement in subsection 6.13.12. This is because:
- (a) the MCMC considers that the EOI requirement is sufficient at this stage; and
 - (b) on reflection, the MCMC does not believe separation matters are appropriate to be included in the MSA as they are policy related matters. The MCMC will accordingly remove this proposal, although the EOI requirement will still remain mandatory.
- 30.32 The MCMC disagrees with Maxis's submission that MVNOs should be required to seek MNO approval before making certain service configuration changes. The MCMC does not consider such approval is necessary.
- 30.33 The MCMC notes comments from U Mobile (in agreement with earlier submissions from Maxis) that a longer timeframe is required for agreement with MVNOs on access terms, given negotiations with different MVNOs vary in complexity depending on each MVNO's particular requirements. The MCMC notes that the 40 Business Day timeframe is only indicative, and that, like other services and facilities to which indicative delivery timeframes apply, there may be justification for longer or shorter timeframes depending on a particular Access Seeker's requirements. Accordingly, no change is required to the MSA in this regard.
- 30.34 For the reasons explained in other parts of this report, the MCMC disagrees with U Mobile's submission that 5G MVNO access should be sought from the MNO and not DNB directly.

MCMC Views

- 30.35 The MCMC will reverse the change requiring separation of mobile network operators and requiring separate wholesale and retail business units. The MCMC otherwise confirms its preliminary views in relation to the obligations for MVNO Access.

31 5G Services

Introduction

- 31.1 In the PI Paper, the MCMC proposed to include a new subsection 6.15 in the MSA containing non-Service Specific Obligations in respect of 5G Services. The new section of the draft MSA principally addresses obligations relating to the following (among other things):
- (a) Access Provider’s determination of forecasting requirements;
 - (b) acceptance and rejection of Orders;
 - (c) indicative delivery timeframe;
 - (d) billing;
 - (e) public information and disclosure requirements;
 - (f) reporting;
 - (g) deployment plan for 5G rollout;
 - (h) planning and product committees;
 - (i) coverage plots; and
 - (j) use of customer information.

Question 47: Do operators agree with the proposed Service Specific Obligations that apply to 5G services? Why or why not? If not, please specify and substantiate any proposed changes or amendments.

Question 48: Should any different Service Specific Obligations apply as between 5G Standalone Access and 4G EPC with 5G Radio Access Network RAN? If so, please specify and provide details.

Question 49: Do you agree with the timeframes proposed by the MCMC in respect of the provision of 5G Services, including negotiation timeframes, the time for acceptance or rejection of orders, delivery timeframes and billing cycles?

Submissions Received

- 31.2 DNB broadly agreed with the proposals set out in the Service Specific Obligations of the draft MSA however raise four primary issues with the MCMC’s views:
- (a) **10-year minimum term:** The MCMC expressed in the MSA PI Paper that it “does not presently consider that access seekers should be required to commit to long-term arrangements upfront as proposed by DNB”. DNB contended that the 10-year minimum term originally proposed by DNB was fundamental to achieving the Government’s policy objective of fast 5G network rollout and speedy take-up of 5G services as such rollout is based on a cost-recovery model in which the NPV of its revenue less its costs equals zero over the expected life of the network. DNB is also of the view that

reducing the minimum term is not consistent with cost recovery by DNB, thereby making it harder for DNB to meet the Government policy objectives for 5G. DNB referenced data obtained from European jurisdiction in support of a longer minimum term. DNB therefore proposed to retain the 10-year minimum term requirement.

- (b) **Access seeker's rights to points of interconnect:** DNB disagreed with the obligation to offer Points of Interconnection to its network at all "technically feasible" locations. DNB is concerned that this right would allow each Access Seeker to demand POIs at the locations which minimise costs which would have the effect of raising costs (and hence end user prices) above that which is optimal for the industry.
- (c) **What constitutes unbundling of 5G services:** DNB proposed additional clarification to subsection 6.15.16 to clarify: (1) what constitutes unbundled products that should be sold separately; and (2) which products need to be bought in combination so that they work. DNB proposed to introduce the process in Australia to define legitimate bundling whereby NBN Co and its Access Seekers specify in advance which products are required to be bundled to work effectively, and such specification is the subject to consultation and regulatory approval.
- (d) **Applying the general principle of non-discrimination to DNB:** DNB is of the view that given it supplies on a wholesale only basis, it has no incentive to discriminate in favour of one Access Seeker and against others. DNB proposed that the MCMC apply non-discrimination to DNB in a similar way to that adopted by ACCC in Australia when applying non-discrimination to NBN Co. Digi, Maxis and Celcom agreed that clarity was required to recognise DNB's unique role as Malaysia's single wholesale provider of 5G.

31.3 Digi considered that the appointment of DNB as the single 5G wholesale provider necessitates a separate and a more stringent regulatory oversight. Digi suggested that the MSA should clearly establish that for 5G services, all reference to 'Access Provider' means DNB and as a wholesale-only provider, DNB and any of its subsidiaries be restricted from undertaking retail services.

31.4 Maxis similarly expressed concern about clarifying DNB's wholesale mandate. Maxis submitted that the definition of 'wholesale' in DNB's licence conditions are not clear and therefore considers that there is a risk that DNB could provide near retail services to end users and enterprise customers who can easily procure an ASP Class licence (e.g. to sell network facilities or services to companies within the group or related parties). Maxis proposed amendments to ensure DNB does not go beyond the scope of "wholesale only Access Provider" and preserve fair market competition and promote innovation and differentiation which are as follows:

- (a) include a clearly laid out definition of 'wholesale';
- (b) restrict Access Seekers to NSP Individual licensees;

- (c) incorporate a line of business restriction on DNB (where DNB cannot sell to Access Seekers who use more than 25% of the 5G services for their own use);
- (d) restrict DNB from entering into any agreements with Government Agencies with the intention to provide retail services.

31.5 Maxis proposed the following subsection to provide clarity on DNB's wholesale mandate:

"6.15.28 Clarity on DNB wholesale mandate:

- (a) *The definition of wholesale is the sale of large volumes of the shared 5G Radio Access Network up to the point of interconnect or local break out to the NSP(I) licensees for further resale of services and 5G services to the end consumer and enterprise customers*
- (b) *The Access Provider shall not supply the 5G Services to the Access Seeker, if 25% or more of the 5G Services supplied, or to be supplied, by Access Provider to the Access Seeker in any year are or will be supplied for Access Seeker's, including its Related Corporation's, own use or consumption*
- (c) *Access Seekers shall be limited to NSP(I) licensees*
- (d) *The Access Provider shall not enter into any agreement with any entities or parties including Government Agencies apart from Access Seekers, with the intention to provide retail services*
- (e) *The Commission shall ensure that Access Seekers comply to 6.15.28 through the necessary audits (or any other means required that will ensure compliance)"*

31.6 Digi proposed that all terms and conditions relating to access to 5G services be carved out from the general principles and re-located in the Service Specific Obligations for 5G services. This includes the treatment of non-discriminatory principles and DNB's obligation to prepare and maintain a RAO that is sufficiently balanced, robust and comprehensive, where the central rule is that all terms and conditions for each service is standardised and transparently specified in the RAO, in which the Access Provider will only offer services which are fully defined in the RAO to ensure equitable and non-discriminatory services to all Access Seekers.

31.7 Digi submitted that the equitable allocation of capacity to all Access Seekers should also be moved to the Service Specific Obligations. Digi also recommended that the MSA recognise the capacity constraints as the 5G network is being built, limiting the number of Access Seekers that can be efficiently supported by the single wholesale provider network.

31.8 In addition to ensuring active expansion of the 5G network, Digi also submitted that the MSA must promote extensive 4G network optimisation, as Digi noted that global trends indicate that 4G will remain to be an important part of the mobile network and MNOs are expected to invest in the 4G network in the years to come. Digi accordingly requested that the MSA prescribe that access to 5G services by MVNOs must be made through the MNOs.

31.9 U Mobile concurred with Digi, Maxis and Celcom and proposed that the MCMC consider the implications of a monopoly player in the context of fair competition espoused in the MSA and the access regime. U Mobile considered that this needs to be sufficiently addressed to ensure that the Access Seekers are not unduly burdened by the Access Provider in their role to provide services that are for the best interest of the end user. U Mobile therefore proposed that the MCMC consider issuing a separate regulatory instrument to monitor and guide negotiations with a monopoly in relation to how DNB conducts its business with Access Seekers.

31.10 In addition to the matters set out in the remainder of this section 31, there are several other areas where Maxis disagreed with the MCMC's proposed amendments to 5G Services and have provided further recommendations. The key areas of discussion have been outlined below.

(a) **Equivalence of Inputs:** Maxis is supportive of the MCMC's position on EOI but proposed that EOI should be complemented with volume discounts to ensure market making and sustainable investment. Access Provider should offer the same volume discounts to all Access Seekers. Malaysia's 5G market exhibits some characteristics typically seen in jurisdictions that have imposed EOI. These characteristics include having a player with monopoly or significant market power. According to Maxis, allowing volume discounts can promote efficiency in cellular markets and accelerate the uptake of 5G, a key enabler in supporting Malaysia's strategic objective to be a regional leader in the digital economy.

(b) **One RAO for all Access Seekers:** Maxis is of the view that a robust, comprehensive and balanced Reference Access Offer is critical given DNB's position as the sole 5G wholesale provider in a Single Wholesale Network (SWN). To ensure transparent, non-discriminatory, and equitable services, Maxis proposed that the same RAO must apply to all Access Seekers who seek access from DNB. Moreover, Maxis emphasised DNB shall only provide services which are fully defined in the RAO and ensure pricing is also fully defined in the RAO with no separate negotiations with individual Access Seekers. Maxis is of the view that this ensures Access Seekers have equal visibility of what services and options are available, while ensuring rate setting is fair and will not unreasonably prejudice the competitive opportunities of other providers. Maxis therefore proposed the new subsection as detailed in B of Annexure 1.

(c) **Minimum Commitment:** Maxis disagrees with the MCMC's position to prohibit the implementation of minimum requirements on an Access Seeker on a national basis. Instead, Maxis proposed that Access Seekers be required to acquire 5G services at a 'Target Capacity' for each polygon in the national 5G wholesale network throughout the term. Maxis submitted that a minimum commitment would:

(i) support the rollout of 5G nationwide and support Malaysia's digital ambitions under the Twelfth Malaysia Plan and JENDELA. Maxis expressed concern that without minimum commitments, the 5G rollout would be concentrated on few densely populated areas, creating a further divide between densely populated and rural areas; and

- (ii) ensure only serious Access Seekers are able to commit to the nationwide roll out of 5G services, where they have the capability to purchase large quantities of 5G RAN which ultimately provides predictable revenue for DNB and enable DNB to continue investment in 5G infrastructure for the successful roll out of 5G.
- (d) **Modularity:** Maxis supports the MCMC's position on modularity but highlight that if other services are provided, such services should be available as incremental services provided to the base national 5G wholesale network service. Maxis also submitted that despite the MCMC's position that alternative cores enable differentiation, innovation and resilience, bundling for RAN and Core is not in line with the broader industry objectives as this disincentivises Access Seekers from having their own core, thereby limiting innovation in use cases which is critical to harness the full potential of 5G.
- (e) **DNB as a neutral 5G wholesale provider:** Maxis submitted that DNB should remain neutral while supporting multiple Access Seekers who are developing 5G-dependent solutions in competition with each other.

31.11 The following paragraphs set out the amendments proposed by Digi, Maxis, TM, Celcom and U Mobile:

Subsection 6.15.2 (Forecasts)

31.12 U Mobile proposed to remove end user related information from paragraph 6.15.2(b).

Subsection 6.15.3 (Limitation of Forecasts)

31.13 Digi proposed that 5G services should not be referred to as MVNO Access and reiterated that comparison to "itself" in paragraph 6.15.3(b) has no relevance in DNB's set up. According to Digi, subsection 6.15.3 should be drafted to indicate that DNB must commit to meet the Access Seeker's request for capacity and should take full responsibility in making sure network is efficient and meets Access Seeker's forecasts.

31.14 Maxis agreed with Digi and suggested the following amendment: "(a) what is necessary for the Access Provider to supply ~~MVNO Access~~ 5G Services without adversely affecting the Access Provider's Network"

Subsection 6.15.8 (Public information)

31.15 Digi disagreed with the proposed draft paragraph 6.15.8(d) relating to the acknowledgment by the Access Seeker that the Operations Manual will set out minimum requirements for customer devices to work with the 5G service.

31.16 Digi is of the view that DNB must ensure that all devices fulfil the requirement of frequency and have been approved for use in Malaysia must be supported by DNB's 5G network. Digi therefore considers paragraph 6.15.8(d) to be deleted.

31.17 Maxis proposed that the Access Agreement template needs to be public information along with the Operations Manual.

- 31.18 Maxis also suggested a requirement that the Operations Manual be approved by the MCMC to ensure transparent, and non-discriminatory processes, procedures, roles and responsibilities are set out between the Access Provider and all Access Seekers. Maxis also proposed to add detail to the additional details and processes to be included in the Operations Manual.
- 31.19 Maxis is of the view that Access Seekers should work directly with vendors to ensure the 5G services will function in the right configuration by performing 5G device testing and 5G device certification.
- 31.20 Maxis' proposed amendment to subsection 6.15.8 of the draft MSA as follows:
- (a) "The Operations Manual, *Access Agreement template* and associated documents which set out the operational engagement processes, procedures, roles and responsibilities between the Access Provider and the Access Seeker must be published on the Access Provider's publicly accessible website. *The Commission shall approve the Operations Manual and Access Provider's Operations Manual shall comply with requirements set out in the MSA.*
 - (b) The Access Seeker acknowledges that the Operations Manual and associated documents will contain additional detail and processes regarding (but not limited to):
 - (i) the roles and responsibilities of the Access Provider, the Access Seeker and other Access Seekers, *in relation (but not limited to) the following activities:*
 - A. Access Management of DNB Network Tools (FSSAT-GIS DNB Network View & CSP-KPI Reporting, Billing and Invoice) offered to Access Seeker
 - B. Network Status of DNB RAN and Access Seeker's network
 - C. Change management for the service impacting changes in DNB RAN or Access Seeker Network.
 - D. Performance Verification for Network KPIs in DNB RAN and Access Seeker Network Operational
 - E. Incident Management and Creation/Sharing of Trouble Ticket for incidents in DNB RAN Network
 - F. Customer Complaint Management for the Access Seeker's customer experience related issues
 - G. Network Performance & Optimization for DNB RAN Network
 - H. Governance between Access Seeker and DNB (RAO KPIs review and Issues)
 - I. Reporting

- (ii) planning, including processes around the provision of network information, interconnection of equipment, ordering services, reservation of co-location space, service provisioning and service handover;
 - (iii) operational support and maintenance processes;
 - (iv) service monitoring and network traffic management;
 - (v) modes of communications;
 - (vi) billing and CSP Portal access and operation procedures;
 - (vii) reporting and document sharing;
 - (viii) operational governance;
 - (ix) fault management, KPIs and Service Level monitoring and reporting;
 - (x) contact details and escalation matrix; and
 - (xi) other details and processes that the Access Provider considers appropriate from time to time;
 - (xii) Single site verification and single site optimization for both in-building and non-in-building sites. This shall cover, but is not limited to, the process for onboarding, acceptance and performance monitoring of new sites;
 - (xiii) Guidelines on cyber security controls implementation for mitigating threats. The guidelines should comply with IMT 2000 (5th Generation) – Security requirements;
 - (xiv) PKI Certificate Management process that covers generation, renewal and revocation of certificates;
 - (xv) Network onboarding activities and operational processes that apply in relation to the go-live of a new Polygon and new onboarded Sites for a Polygon. This shall cover, but is not limited to, the acceptance and approval process of new sites or polygon by the Access Seeker;
 - (xvi) Processes and systems (e.g., OSS) that are tied to a pre-defined Service Level Agreement (SLA) or Operational Level Agreement (OLA).
- (c) [...]
- (d) The Access Seeker acknowledges that the Operations Manual will set out minimum requirements for Customer devices to work with the 5G Service. *The minimum requirements should include description of 5G devices specification and compatibility to be used with the 5G Service.* The Access Seeker further acknowledges and agrees that the 5G Service provided by the Access Provider may not work with any Customer device that does not meet the requirements set out in the Operations Manual. *For clarity, the Access Seeker may also work directly with device vendors to ensure that 5G*

Services will function in the right configuration by performing 5G device testing and providing 5G device certification with support provided by the Access Provider.”

- 31.21 TM requested that Access Seekers be allowed to suggest additional details and processes to be included in the operations manual to ensure details and processes deemed important by the Access Seekers are addressed by the Access Provider in the operations manual.
- 31.22 TM’s proposed amendments to paragraph 6.15.8(xi) of the draft MSA is as follows:
- “(xi) other details and processes that the Access Provider considers appropriate from time to time, *as mutually agreed with the Access Seeker.*”
- 31.23 U Mobile requested a proviso at subsection 6.15.8 as follows: “provided always that the Service provided by the Access Provider (DNB) shall at all times comply with 3GPP standards”.

Subsection 6.15.10 (Deployment Schedule)

- 31.24 Digi recommended that paragraph 6.15.10(a) be expanded to state that deployment plans must be done consultatively with the Planning Committee (defined in the draft subsection 6.15.11) in order to ensure that 5G network deployment is driven with the principle of efficient capacity allocation and a balanced between supply and demand requirements.
- 31.25 Maxis and U Mobile proposed that the DNB be required to regularly update the indicative deployment plan in paragraph 6.15.10(a) of the draft MSA.
- 31.26 Maxis proposed to delete paragraph 6.15.10(e) which provides that the parties agree and acknowledge that DNB will define the rollout and configuration of its 5G RAN and 5G Services and any information provided by DNB related to the deployment of the RAN is subject to change.
- 31.27 Maxis also proposed a new provision to provide further clarity on the information that DNB should provide for increased transparency.
- 31.28 Maxis’ proposed amendment to subsection 6.15.10 is as follows:
- (a) An indicative plan for the various phases in the Access Provider’s 5G RAN must be published on the Access Provider’s website. The indicative plan may have regard to the information shared under paragraph 6.15.11(c)(ii). *In addition, the Access Provider shall provide an updated deployment schedule on a regular quarterly basis.*
 - (b) Any information relating to the deployment schedule published on the Access Provider’s website or otherwise provided to the Access Seeker s indicative only and subject to change based on a number of factors including consolidated Access Seeker prioritisation inputs and estimated population coverage targets mandated by the Commission.

- (c) An Access Provider must promptly, and in any event within 20 Business Days, provide or otherwise make available to Access Seekers an updated deployment schedule in accordance with paragraph 6.15.10(a) upon becoming aware of any fact, matter or circumstance which results, or is likely to result, in a material change to any information included in the most recent such plan.
- (d) The Access Provider will use reasonable endeavours to consider and consolidate the Access Seeker's input and feedback within 30 days of the Access Seeker providing the Access Seeker Feedback to prepare and provide the Access Seeker with:
 - (i) an indicative list of all Polygons that the Access Provider intends to roll out in the following calendar year; and
 - (ii) the indicative scheduled deployment timeframe for each Polygon.
- ~~(iii) Notwithstanding anything in this subsection 6.15.10, the parties acknowledge and agree that:~~
 - ~~(i) the Access Provider will define the rollout and configuration of the Access Provider's 5G RAN and 5G Services (including with respect to prioritisation and capacity); and~~
 - ~~(ii) any information provided by the Access Provider to the Access Seeker relating to the deployment of the Access Provider's 5G RAN is subject to change.~~
- (e) *The information provided by the Access Provider must allow the Access Seeker to:*
 - (i) *Market their 5G Retail Services to Customers and Potential Customers*
 - (ii) *Compete for the delivery of 5G Retail Services to Customers and Potential Customers.*
 - (iii) *Order 5G Services to deliver the 5G Retail Services to Customers and Potential Customers.*

The information provided shall be on the same basis and principle to all the Access Seekers on an equitable and non-discriminatory basis."

Subsection 6.15.11 (Planning Committee)

31.29 Digi submitted that to ensure that 5G network design, capacity and quality is driven by principle of an efficient network, beyond sharing relevant information in relation to the 5G Services and Access Provider's 5G RAN. The Planning Committee should also develop network quality improvement plans based network performance. In addition Digi proposed that the Access Provider be required to commit to maximise network capacity and efficiency upon recommendation by the Planning Committee.

- 31.30 Further, as there has been no available information from DNB to guarantee the level of quality of services deemed acceptable by Access Seeker for commercialisation, Digi submitted that DNB must provide sufficient quality guarantee and information to Access Seekers on the sites/cluster readiness for commercialisation/onboarding users before declaring the site/cluster ready for service.
- 31.31 Maxis proposed further detail in paragraph 6.15.11(c)(iii) to increase transparency and to enable more effective collaboration between Access Providers and Access Seekers. In particular, the new provision is intended to provide visibility to Access Seekers to allow them to plan services to be offered and allow Access Seekers to provide input and feedback on its indicative prioritisation and capacity requirements. Maxis cited Australia's NBN Special Access Undertaking requiring NBN Co (the Access Provider) to disclose any internal network roll out plans, including the point of interconnection construction plan.
- 31.32 Maxis proposed the following amendments to subsection 6.15.11 of the draft MSA:
- (c) "At meeting of the Planning Committee:
- (i) the Access Provider will share relevant information in relation to the Services and the Access Provider's 5G RAN, including:
 - A. network quality and capability status;
 - B. status of network coverage;
 - C. network quality improvement plans; and
 - D. changes in network capability plans; and
 - (ii) the Access Seeker will share relevant information reasonably requested by the Access Provider, which may include:
 - A. forecast capacity requirements;
 - B. network quality improvement requests;
 - C. requests for changes in network capability.
 - (iii) *The Access Provider shall also share a detailed up-to-date network rollout coverage and capacity upgrade plan that provides the procedures and timing for the 5G Services that include:*
 - A. The network rollout coverage and capacity upgrade plan covering total period which the Access Provider has any internal 5G network rollout plans and any new type of 5G Services by location and timeframe (e.g., by "Daerah", "Polygon" and "Mukim")
 - B. The construction of new Point of Interconnection by location and timeframe

- C. The notification process to the Access Seeker of the plan and minimum notice period to be provided
- D. Ordering and provisioning procedures for 5G Services including the applicable terms and conditions
- E. Clearly defined processes prior to go-live date which includes coverage planning, all technical testing including handover and acceptance process, IT testing and integration, and all other tests required to ensure network is fully ready to Go-Live for commercial use

The rollout and configuration plan shall be approved by the Planning Committee (and not a unilateral decision by the Access Provider)."

31.33 Celcom proposed that subsection 6.15.11 of the draft MSA be amended as follows:

- (a) "The parties must, as soon as reasonably practicable following execution of the Access Agreement, establish a committee comprised of representatives from *the Commission*, Access Provider, the Access Seeker and other Access Seekers (Planning Committee).
- (b) The Planning Committee must meet at Quarterly intervals (or such other frequency agreed between the parties) to collaborate, jointly discuss and exchange information for the purposes of the continuous development and enhancement of the 5G Services.
- (c) At meetings of the Planning Committee:
 - (i) the Access Provider will share relevant information in relation to the Services and the Access Provider's 5G RAN, including:
 - A. network quality and capability status;
 - B. status of network coverage;
 - C. network quality improvement plans; ~~and~~
 - D. changes in network capability plans; *and*
 - E. *network coverage expansion plans; and*
 - (ii) the Access Seeker will share relevant information reasonably requested by the Access Provider, which may include:
 - A. forecast capacity requirements;
 - B. network quality improvement requests; ~~and~~
 - C. requests for changes in network capability *and service features; and*
 - D. *request for network coverage expansion.*

- 31.34 U Mobile proposed that the frequency of meetings by the Planning Committee change from “quarterly” to “monthly” intervals. U Mobile also suggested to include “introduction of new services and features” as one of the types of information to be shared at a Planning Committee meeting.
- 31.35 U Mobile submitted that the scope of the Planning Committee should include supporting technical solution for new products discussed in the Product Committee, to ensure efficient and quality delivery of the new product.

Subsection 6.15.12 (Coverage plots and go live)

- 31.36 Digi suggested amendments that compel DNB to disclose coverage and capacity of 5G services to all Access Seekers. The amendments to subsection 6.15.12 of the draft MSA is as follows:

- (a) “An Access Provider must, ~~on request by an Access Seeker~~, provide or otherwise make available to the Access Seeker, in Polygon form (preferably in .kmc format), up-to-date coverage plots depicting the committed coverage and capacity of 5G Services across Malaysia.”

- 31.37 Maxis raised three main issues in relation to cover plots and go-live:

- (a) **Minimum volume commitment:** Maxis disagreed with the MCMC’s position to mandate no minimum commitment and propose amendments to subsection 6.15.12. According to Maxis, minimum commitment would be able to support the rollout of 5G nationwide and support Malaysia’s digital ambitions. Maxis cited the Twelfth Malaysia Plan and JENDELA to highlight Malaysia’s ambition to ensure access to all end users through inclusive and high-quality digital infrastructure, including achievement of full 4G coverage in populated areas, 100% household subscription to the internet, and wider 5G coverage.

In addition, Maxis submitted that a minimum commitment for the primary wholesale market would ensure only serious Access Seekers in the 5G market are able to commit to the nationwide roll out of 5G services. This would provide predictable revenue streams for DNB to sustain investment in 5G infrastructure for the successful rollout of 5G. Maxis submitted that the minimum volume commitment must apply equally to all Access Seekers (whether they are pioneer or non-pioneer Access Seekers). Maxis commented that reduction in the minimum commitment cost (or its removal), even if made available to all parties under a RAO at that time, would unfairly advantage later entrants who are able to enter a market that other “Pioneer” Access Seekers have paid to create. Maxis also recommended that the minimum volume commitment should still apply in a Dual Wholesale Network scenario (albeit with a smaller minimum commitment). Maxis cited the USA Federal Communications Commission (FCC16-54) the benefit of establishing a minimum commitment being that “the provider establishes a minimum volume for purchases under a particular plan because there would be greater efficiencies arising from a purchase or such a minimum volume”.

- (b) **Go-live procedures:** Maxis recommended that there is a need for a clear and transparent 5G go-live process to ensure the Polygons are ready for operational use. Maxis therefore proposed the additional paragraph 6.15.12(d).
- (c) **Target capacity and usage above target capacity and charging:** According to Maxis and Celcom, Access Seekers require further clarity and transparency in determining how target capacity and usage above target capacity is measured and charged. Maxis recommended that charging should be on a per polygon basis, to ensure that serious Access Seekers can commit to rollout 5G to both urban and rural areas.

31.38 Maxis' proposed subsection 6.15.12 of the draft MSA is as follows:

- (a) "An Access Provider must, on request by an Access Seeker, provide or otherwise make available to the Access Seeker, in Polygon form, coverage plots depicting the coverage and capacity of 5G Services across Malaysia *within 5 working days*.
- ~~(b) An Access Provider must not impose any requirement on an Access Seeker to make the Access Seeker's services available on a national basis or across any other particular geographical scope, for example in respect of a minimum number of Polygons. For clarification, an Access Seeker may, in its sole discretion, elect the areas and sites across which it wishes to supply products and services which use 5G Services as an input.~~
- (b) *The Access Seeker must acquire the 5G Services at the Target Capacity for all Polygons in the National 5G Wholesale Network (on and from go-live date of each Polygon) throughout the Term. For clarity,*
 - (i) *the Target Capacity charging and measurement shall be performed at Polygon level*
 - (ii) *The Access Provider shall not request the Access Seeker to commit to the Target Capacity higher than the minimum Target Capacity to be set out in any policy to be approved by the Commission*
 - (iii) *The unit of measurement for Target capacity shall be Gbps per month per polygon*
 - (iv) *The Target Capacity should be the same for all Access Seekers and shall be enforced as long as there is a Single Wholesale Network regime.*
- (c) Unless otherwise agreed between an Access Provider and an Access Seeker, the Billing Cycle for 5G Services commences on the go-live date of each relevant Polygon.
- (d) *For Target Capacity, the Access Provider must notify the Access Seeker at least 30 days prior to the Polygons going live and hence considered for the purposes of determining the overall Target Capacity. For deployment of a new Polygon, the Access Provider must ensure that:*

- (i) *Access Provider has conducted the site acceptance and functionality tests as set out in the Operations Manual, to the satisfaction of the Access Seeker, to ensure the Polygon is ready to integrate to Access Seeker's network*
- (ii) *Access Provider to submit site acceptance report to Access Seeker with evidence that the Polygon has successfully commissioned and integrated with the Access Seeker's Network*
- (iii) *The Polygon will only be deemed as "Go-live" once after the site acceptance report is accepted by the Access Seeker*
- (e) *The Access Provider shall:*
 - (i) *Maintain sufficient capacity at each Polygon to fulfil usage required by Access Seekers while meeting all KPIs and SLAs defined in 6.15.27*
 - (ii) *Undertake required capacity upgrades to enhance existing capacity of the Polygon at its own cost to comply with MSQOS and the Service Level or KPIs set out in the Services Catalogue; and enable the Access Seeker to meet its MSQOS requirements*
 - (iii) *Take into account potential traffic surge during major events in its capacity management*
- (f) *Fees for Target Capacity shall be charged regardless of the utilization of the Services in a Polygon*
- (g) *Usage above Target Capacity for the Polygon shall be charged at the Volume Discount Rate based on the monthly capacity utilization in excess of the Target Capacity in each polygon*
- (h) *The monthly utilization of the Access Seeker will be determined for each Polygon based on the following steps*
 - (i) *the capacity utilisation is aggregated for all sites within each Polygon in blocks of 60-minute intervals of each calendar day. The 60-minute blocks must be fixed from hour 00:00 to hour 00:59, then hour 01:00 to hour 01:59 and so on, and shall be applied across all sites for each Polygon;*
 - (ii) *an average hourly Polygon utilisation is then determined for every hour for that calendar day;*
 - (iii) *a daily peak (Polygon Peak per Day) for each Polygon is selected based on the highest average hourly reading for that calendar day;*
 - (iv) *a monthly peak (Polygon Peak per Month) for each Polygon is selected based on the average of all the Polygon Peak per Day in a calendar month."*

Subsection 6.15.13 (Information disclosure)

31.39 Digi recommended that all information be disclosed and that subsection 6.15.13 be amended as follows:

- (a) ~~"In addition to subsection 5.3.7 of this Standard, t~~ The Access Provider will disclose any details of the 5G Services offered by the Access Provider ~~not included~~ in the RAO, including details of network coverage maps including locations of active Polygons, locations of cell sites carrying traffic and POI locations at which physical or virtual co-location is available to Access Seekers."

Subsection 6.15.14 (Prohibited use of customer information)

31.40 U Mobile commended that the Access Provider is allowed to undertake wholesale activities relating to 5G services and is expressly disallowed to use end-user/customer information and therefore requests the removal of paragraphs 6.15.14(a) and (b) carving out customer information that is publicly available and customer information that has been received or developed by the Access Provider from sources other than the Access Seeker.

Subsection 6.15.16 (Modularity)

31.41 Digi submitted that the requirement that DNB provide 5G services on a modular and unbundled basis must not limit the Access Seeker's obligation to support DNB in achieving its mandate of nationwide 5G coverage and adoption to reflect the shared commitment between DNB and its Access Seekers to deliver nationwide 5G coverage.

31.42 Maxis is supportive of the inclusion of modularity. Maxis highlighted concern that DNB might be able to coerce Access Seekers to purchase both 5G RAN and 5G core without modularity, limiting choice and disincentivising Access Seekers from having their own core which is a key driver of differentiated and innovated 5G use cases according to Maxis. Maxis have therefore proposed additional clarity on the need for National 5G Wholesale Network (i.e. 5G RAN) to be a mandatory base service, with other services offered by DNB only being available as add-ons on this base service. Maxis considers this to preserve DNB's wholesale-only role and is in the interest of creating a balanced, equitable and sustainable 5G ecosystem for Malaysia.

31.43 Maxis further suggested that DNB be prohibited from using payments received for 5G RAN services to fund development of non-5G RAN services. Maxis proposed to add the following to subsection 6.15.16:

- (b) *"For clarity, the National 5G Wholesale Network service (i.e., 5G RAN) is a mandatory base service that is offered. If the Access Provider provides any other services, the Access Seekers are required to subscribe to the National 5G Wholesale Network service as a mandatory base service to gain access to these services and these services should be available only as incremental services provided to this base National 5G Wholesale Network service and should not be viewed as standalone services without the need to subscribe to the base service;*

- (c) *Access Provider is prohibited from using payment received for 5G RAN Services to support the development of non-RAN services (e.g., 5G core, BSS, value added services) to avoid cross-subsidization”.*

Subsection 6.15.17 (Equivalence of input)

- 31.44 Digi submitted that this subsection be amended to clearly prescribe that all terms and conditions must be made available equally and disclosed simultaneously to all Access Seekers. Digi also recommended that the basis of equivalence of input should specify that Access Seekers undertake and allocate capacity to facilitate the delivery of 5G nationwide coverage.
- 31.45 Maxis broadly agreed with the proposed EOI provisions, citing other jurisdictions that have imposed EOI in relation to markets with similar characteristics as Malaysia’s 5G market such as EOI obligations imposed on the eir Group in Ireland, BT Group in the UK, O2 in Czech Republic, Chorus in New Zealand and NBN Co in Australia. Maxis acknowledged that DNB is prohibited from vertical integration given its wholesale mandate and is therefore prohibited from selling to retail or near-retail customers, however maintained that EOI was appropriate as it may discriminate in favour of itself (e.g. by prioritising repairs for customers that acquire highly bundled wholesale products in the situation of RAN network failure).
- 31.46 Maxis also requested that the EOI be complemented with volume discounts to ensure the market making and sustainable investments.
- 31.47 Maxis suggested that the scope of DNB’s EOI be broader than that applied to other operators who function in a competitive market, using NBN Co as an example in support. Maxis have therefore proposed to amend subsection 6.15.17 as follows:
- (a) *“An Access Provider must provide 5G services on an Equivalence of Inputs basis to Access Seekers, including the product, speed tiers, speed, price, timeframes, service level performance and terms and conditions that are equivalent to what it provides to itself and/or other Access Seekers. For clarity, the Access Provider may offer a common set of tiered volume discounts which are equivalent between Access Seekers with the same volumes.*
- (b) *An Access Provider must not, in carrying on any of the following activities, discriminate between Access Seekers or discriminate any of the Access Seekers against the Access Provider:*
- (i) *developing a new 5G Service;*
- (ii) *enhancing an existing 5G Service;*
- (iii) *extending or enhancing the capability of a facility or telecommunications network by means of which a 5G service is, or is to be, supplied, including any configurations or enhances to DNB’s 5G network which undermines the principle of technology neutrality and renders the integration of the Access Seeker’s existing core network with DNB’s 5G network commercially impracticable or for DNB to otherwise develop 5G Services which will only be supported*

on or enhanced on DNB's core network to encourage take-up of the DNB 5G core;

- (iv) *an activity that is preparatory to supply of a 5G Service;*
- (v) *an activity that is ancillary or incidental to the supply of a 5G service; or*
- (vi) *giving information to Access Seekers about any of the above activities.*

- 31.48 Celcom proposed that subsection 6.15.17 be replaced with the phrases "non-discriminatory and equitable", as DNB has no retail role or mandate and therefore the phrase "that are equivalent to what it provides itself" does not apply to DNB.
- 31.49 Altel and Net2One agreed with the MCMC's proposal to introduce a new subsection 6.15 and believe that subsection 6.15 sufficiently addresses the principle that Access Seekers, like MVNOs, must be always treated with the same grade of service with "equal access".

Subsection 6.15.18 (Approval of Commercial Initiatives)

- 31.50 Maxis largely agreed with the proposed subsection 6.15.18 but submitted that Approval of Commercial Initiatives only be required in certain circumstances as Access Seekers have their own 5G Core and are able to customise products for the retail market.
- 31.51 Maxis' suggested adding the following to subsection 6.15.18:
- (a) *"For clarity, the Access Provider shall only impose such approval requirements on the Access Seeker requesting for both Nation 5G Wholesale Network (i.e. 5G RAN) and other 5G services using the Access Provider's 5G Core."*

- 31.52 According to TM, DNB should not be allowed to approve commercial incentives requested by an Access Seeker. According to TM, such approval is only relevant for MVNO Access. TM therefore proposed that subsection 6.15.18 of the draft MSA be removed.
- 31.53 U Mobile requested that subsection 6.15.18 not impose any requirement for the Access Seeker to obtain approval from the Access Provider since the Access Provider is providing service on a wholesale basis.

Subsection 6.15.19 (Continuous improvements)

- 31.54 Digi proposed to expand subsection 6.15.19 to stipulate that any new products, service features or options shall be added in the RAO upon development by the Product Committee. In addition, Digi recommended that all product, service features or options be made available to all Access Seekers simultaneously in accordance with the RAO.
- 31.55 Maxis raised concern with the MCMC's proposal in relation to continuous improvements on the basis that the obligation is too general to address the risk that non-vertical monopoly providers can be slow to innovate in the wholesale

products which they offer to downstream providers. Maxis therefore proposed to amend subsection 6.15.19 by deleting paragraph 6.15.19(b) as introduction to new products and services is already covered under subsection 6.15.22, and suggested to add a new obligation to introduce periodic benchmarking requirements as follows:

“6.15.19 Continuous improvements: An Access Provider must use reasonable endeavours to implement continuous improvements in the provision of 5G Services, including by:—~~(a)~~ improving the *technology, service offerings, performance and the efficiency of 5G Services during the term of an Access Agreement. To ensure commitment by the Access Provider to carry out continuous improvements to 5G services against the global standards, the Access Provider shall implement an auditing and reporting mechanism to be approved by the Commission:*

~~(b) introducing new products and services to the extent the Access Provider considers that such products and services can feasibly be added to its 5G RAN~~

- (a) *To this end, the Access Provider must undertake every three years from the commencement of this section a benchmarking study which:*
- (i) *compares the features, functions, capabilities and service quality of the Access Provider’s 5G Services against those services offered by 5G operators in comparable economies;*
 - (ii) *compares the Access Provider’s overall product roadmap outlook with the publicly announced 5G investment and future product plans of 5G in comparable economies;*
 - (iii) *to the extent that the Access Provider compares less favourably to other operators under paragraphs 6.15.19(a)(i) or (ii), explain whether, how and over what timeframe the Access Provider intends to close that gap.*
- (b) *The Commission may by written notice to the Access Provider specify the 5G operators or economies which are to be included in the benchmarking study.*
- (c) *The Access Provider must provide a copy of the international benchmarking to the Commission and to the Product Committee.*
- (d) *Following the international benchmark study being issued, the Access Provider agrees to run a consultation period with the Access Seeker and the other Access Seekers in accordance with the process defined in the Product Committee and set out in the RAO and Operations Manual. The process of consultation must involve all Access Seekers.*
- (e) *The Access Provider agrees to consider any written feedback provided by the Access Seeker in accordance with paragraph 6.15.19(d) in good faith. In addition, the Access Provider agrees to share transparently the feedback*

provided by the Access Seekers in the approval process with the Commission.”

Subsection 6.15.20 (Product Committee)

- 31.56 Both Digi and Maxis requested that 6.15.20(c) be deleted. This is because as DNB is the only network provider, Digi and Maxis concurred that mutually agreed mechanisms and governance is critical to enable Access Seekers to predict and control their own costs for 5G services, coverage and capacity. As such, Digi submitted that that nothing in the MSA or any other regulations should allow DNB to make any decision at its absolute discretion. Digi commented that product updates and future 5G services should be jointly developed by the Product Committee and updated in the RAO once it is ready to be offered to all Access Seekers.
- 31.57 Maxis proposed to amend “on a half-yearly basis” to “at least a half yearly basis” to ensure consistent communication between the Access Provider and Access Seekers to build more effective collaboration and innovation of 5G services.
- 31.58 TM proposed to increase the frequency of product committee meetings from twice a year to four times a year. Given 5G is in its early stages of development, TM considered it would be beneficial for the product committee to meet more frequently to provide sufficient product planning and enable faster go-to-market.
- 31.59 TM considered that as one of the key drivers for Malaysia’s digital economy aspirations, it is critical for the MCMC to ensure the 5G roll-out is on track and that the wholesale 5G services suit the needs of Access Seekers.
- 31.60 TM suggested that increasing the frequency of meetings to enable operators to share and discuss new product updates and potential future releases of new or amended 5G services would ultimately accelerate the launch of 5G in Malaysia, to the LTBE.
- 31.61 TM and U Mobile agree on the following proposed amendment to paragraph 6.15.20(a) of the draft MSA:
- (a) “An Access Provider must invite Access Seekers who have entered into an Access Agreement for 5G Services to participate in a committee with other Access Seekers run and facilitated by the Access Provider on a ~~half-yearly~~ *quarterly basis* (or such other frequency mutually agreed between the Access Provider and the Access Seeker) during the term of an Access Agreement to share and discuss new product updates, and potential future releases of new or amended 5G Services (Product Committee).”

Subsection 6.15.21 (Change to the technical details of a Service)

- 31.62 Maxis submitted that DNB must be subject to a higher level of governance where any proposed changes to technical details of a Service have effects on all Access Seekers given its status as the single wholesale 5G provider.

31.63 Maxis have therefore proposed the following amendments to subsection 6.15.21:

“6.15.21: Change to the technical details of a Service:

- (a) If at any time during the term of the Access Agreement, the Access Provider wishes to amend the technical details of an existing 5G Service, the Access Provider must issue the Access Seeker with a notice outlining:
 - (i) the proposed amendments to the technical details;
 - (ii) when the proposed amendments are proposed to be introduced;
 - (iii) any proposed amendments to the pricing for the relevant 5G Service *(if applicable)*; and
 - (iv) inviting the Access Seeker to provide any written feedback and to take part in consultations run by the Access Provider, (the notice being a Change to Service Notice)
- (b) Following the Change to Service Notice being issued, the Access Provider agrees to run a consultation period with the Access Seeker and the other Access Seekers in accordance with the process *defined in the Product Committee* and set out in the RAO ~~Operations Manual~~. *The process of consultation must involve all Access Seekers and include an impact analysis on existing services of the proposed amendment, and it should not degrade the existing services. It is critical that the proposed changes are not unilaterally decided by the Access Provider.*
- (c) During the consultation period described in paragraph 6.15.21(b), the Access Seeker may submit a written response to the Access Provider addressing the Change to Service Notice.
- (d) The Access Provider agrees to consider any written feedback provided by the Access Seeker in accordance with paragraph 6.15.21(c) in good faith. *In addition, the Access Provider agrees to share transparently the feedback provided by the Access Seekers in the approval process with the Commission.*
- (e) *All proposed amendments shall be subject to final review & approval by the Commission prior to implementation.*
- (f) The Access Seeker acknowledges and agrees that prior to making any changes to the technical details of a Service effective, the Access Provider may first test those changes on a trial basis.
- (g) *The Access Provider agrees that there shall be no changes in technical details of an existing Service that would impact pricing for the existing service. If any, it should only be applicable to events that is unavoidable and substantiated by the Access Provider, and approved by the Commission.*

31.64 U Mobile proposes to remove paragraph 6.15.21(a)(iii) as changes to technical details should not have an impact on pricing unless prior approval from the MCMC is sought.

Subsection 6.15.22 (Introduction of a new Service)

31.65 Maxis is of the view that the retail/wholesale line of business restriction described in the draft MSA is neither self-evident nor self-executing. As such, Maxis proposed to embed further restrictions which apply to DNB in introducing a new service. Maxis highlighted that there will be scope of competition wholesale markets to emerge between the upstream monopoly market and the downstream retail markets. As such Maxis is of the view that it is in the interest of Malaysian consumers that competition in these intermediate wholesale markets is enabled.

31.66 Maxis therefore proposed the amendments to 6.15.22 as follows:

(b) "The Access Provider must discuss the introduction of a new 5G Service at the Product Committee before providing a New Service Notice. *Before providing a New Service Notice, the Access Provider must:*

(i) Undertake an assessment of the following:

A. whether a third party offers a service which is a close substitute for the New Service and the impact which the Access Provider offering the New Service will have the third party;

B. whether the market in which the New Service is to be supplied is competitive or prospectively competitive and the impact which the Access Provider supplying the New Service will have on competition;

C. the justification for the Access Provider offering the New Service; and

D. the measures which the Access Provider will take to ensure that in supplying the New Service the Access Provider does not enjoy net competitive advantages over competitors by virtue of the Access Provider's 5G wholesale monopoly,

E. a Competition Impact Statement; and

(ii) Discuss the introduction of a new 5G Service at the Product Committee

(c) Following the New Service Notice being issued, the Access Provider agrees to run a consultation period with the Access Seeker and the other Access Seekers in accordance with the process *defined in the Product Committee and set out in the RAO and Operations Manual. The process of consultation must involve all Access Seekers.*

(d) During the consultation period described in paragraph 6.15.22(b), the Access Seeker may submit a written response to the Access Provider addressing the New Service Notice.

(e) The Access Provider agrees to consider any written feedback provided by the Access Seeker in accordance with paragraph 6.15.22(d) in good faith,

including whether the Access Provider needs to reassess its Competition Impact Statement for the New Product. In addition, the Access Provider agrees to share transparently the feedback provided by the Access Seekers in the approval process with the Commission.

- (f) *All proposed new Services shall be subject to final review & approval by the Commission prior to introduction*
- (g) ~~(f)~~The Access Seeker acknowledges and agrees that prior to making a new Service available, the Access Provider may first make the proposed new Service available on a trial basis.
- (h) *The Access Provider must retain copies of its Competition Impact Statements as part of its company records. The Access Provider must provide the Commission with a Competition Impact Statement on request."*

Subsection 6.15.23 (Removal of Services)

- 31.67 Digi submitted that DNB must ensure that it obtains express consent Access Seekers for the removal of service to ensure continuation of service and to ensure that the Access Seeker's customers are not adversely impacted by the removal of service. Digi therefore proposed that paragraph 6.15.23(c) be deleted. Digi also opposes any provision that allow DNB to make a decision at its absolute discretion. As such Digi recommended that the words "at its absolute discretion" be removed in paragraph 6.15.23(e). Further, Digi submitted that any changes to the terms of the Removal of Service Notice under subsection 6.15.23 shall be disclosed to all Access Seekers simultaneously.
- 31.68 TM submitted that a longer notice period for the removal of a 5G service is required as the Access Provider may need to assess how the removal of the service may affect the Access Seeker before the proposed 5G service is removed.
- 31.69 TM's proposed amendment to paragraph 6.15.23(b) of the draft MSA is as follows:

"(b) Within ~~30 days~~ *3 months* of receiving the Removal of Service Notice, the Access Seeker may issue the 5G Service with a notice requesting either:"
- 31.70 U Mobile suggested to include proposed steps in relation to the removal of a service to minimise disruptions and inconvenience the Access Seeker's customers, including providing alternative arrangements to enable Access Seekers to provide continuous services to its end users. U Mobile further proposed an additional limitation on the Access Provider's right to remove unless the process or steps in relation to such removal are followed or complied with. U Mobile proposed to include a new paragraph 6.15.23 (g) as follows:

"(g) *Despite any of the steps/procedure set out above, Access Provider shall not remove or change any Services unless approved by MCMC."*

Subsection 6.15.24 (Changes to the 5G services required by law)

- 31.71 Digi proposed that subsection 6.15.24 be amended to required DNB to allocate reasonable time after becoming aware of changes required by law to notify Access

Seekers and allocate a time to discuss whether access to the relevant 5G services may be provided by DNB on different terms and conditions that comply with the relevant change in law. Digi also requested that the MCMC add a right for Access Seekers to terminate 5G Services without penalties or incurring any liquidated damages in subsection 6.15.24.

31.72 Maxis is of the view that amendment or deletion in the Access Provider's spectrum award conditions and Access Provider's Detailed Business Plan are reasonable circumstances for the Access Provider to change the 5G services. In addition, Maxis submitted that DNB be required to provide an impact analysis of the impact of the proposed changes such that the existing service(s) are not degraded. Maxis also suggested that DNB be required to provide advanced notice of such changes and provide sufficient information and mitigation measures on changes that impact Access Seekers to ensure adherence to transparency and non-discriminatory obligations.

31.73 Maxis' proposed amendments to subsection 6.15.24 are as follows:

"6.15.24 Changes to the 5G Services required by Law:

(a) Notwithstanding anything to the contrary in this section 6.15, *subject to the Commission's approval*, the Access Provider may change the 5G Services (including by adding or removing a 5G Service) at any time and by providing only with as much notice as is practicable in the circumstances where the change is *required*:

- (i) ~~(a) necessary to comply with any applicable law or reasonably necessary or otherwise desirable to comply with or respond to a regulatory event;~~
- (ii) ~~(b) in response to a direction or determination made by the Minister relating to the subject matter of this subsection 6.15;~~
- (iii) ~~(c) if the Commission issues in response to a direction or determination issued by the Commission relating to the subject matter of this subsection 6.15;~~
- (iv) ~~(d) if in response to an amendment to the Act is amended in relation to the subject matter of this subsection 6.15; or~~
- (v) ~~(e) if in response to the amendment or deletion of a condition of the Access Provider's licence, and/or spectrum award conditions is amended or deleted or a new condition is imposed in relation to the subject matter of this subsection 6.15.~~
- (vi) *as a result of any amendment to the Access Provider's Detailed Business Plan in relation to the subject matter of this subsection 6.15.*
- (vii) *accompanied with an impact analysis, proving that no impact or degradation will be caused to the existing service(s)*

*(the notice being a **Mandatory Service Change Notice**).*

- (b) *A Mandatory Service Change Notice must outline:*
 - (i) *the 5G Service that is proposed to be added, removed or changed;*
 - (ii) *when the 5G Service is proposed to be added, removed or changed;*
 - (iii) *the reason for the addition, removal or change of the 5G Service; and*
 - (iv) *subject to sub-paragraph (c), the measures the Access Provider is taking or is proposing to take to mitigate any adverse impact on the Access Seeker (Mitigation Measures).*
- (c) *To the extent that it is not practicable for the Access Provider to provide information on the Mitigation Measures, the Access Provider must provide that information no later than 30 days after the date of the Mandatory Service Change Notice.*
- (d) *Following the Mandatory Service Change Notice being issued, the Access Provider agrees to run a consultation period on the Mitigation Measures with the Access Seeker and the other Access Seekers in accordance with the process set out in the Operations Manual.*
- (e) *The Access Provider agrees to consider any written feedback provided by the Access Seekers on the Mitigation Measures in good faith."*

31.74 TM proposed that the Access Provider should give notice of no less than 6 months for any changes to 5G services required by law to enable sufficient time for Access Seekers to assess the situation and put a process in place to minimise service disruption for the end user.

31.75 TM's proposed amendment to subsection 6.15.24 of the draft MSA is as follows:

"6.15.24 Changes to the 5G Services required by Law: Notwithstanding anything to the contrary in this section 6.15, the Access Provider may change the 5G Services (including by adding or removing a 5G Service) at any time and by providing only with ~~as much as~~ *at least 6 months' notice as is practicable in the circumstances* where the change is:

Subsection 6.15.25 (Quality of Service)

31.76 Digi submitted that the MSA must be drafted in a forward-looking manner and therefore proposed that the service levels for 5G services be better than the current 4G services.

31.77 Maxis is of the view that service levels for 5G should be set out to a sufficiently high level in the MSA, prior to the release of the 5G MSQoS. Maxis provided download speed experience data of ASEAN countries as a comparison and submitted that to maintain competitiveness in the region, it is imperative for the Access Provider to comply with the applicable service levels to achieve sustainable and rapid roll-out of 5G nationwide.

31.78 Maxis proposed the following amendments to subsection 6.15.25:

6.15.25 Quality of Service: An Access Provider shall comply with any applicable mandatory standard on QoS for 5G Services from the date that such mandatory standard on QoS in relation to 5G Services comes into effect, and until such date the Access Provider shall provide access to 5G Services for Access Seekers in accordance with service levels *as defined in subsection 6.15.27(e)* set out in the ~~relevant RAO~~ MSA. *For clarity, in the event the Service Level or KPIs set out in the Services Catalogue prior to the introduction of the mandatory standard on QoS in relation to 5G Services is of a higher service quality than the minimum standard set out in the mandatory standard on QoS in relation to 5G Services, the Access Provider shall continue to comply with the Service Level or KPIs set out in the Services Catalogue prior to the introduction of the mandatory standard on QoS.*

Subsection 6.15.26 (Amount of Rebate)

31.79 Maxis agreed with the MCMC's position but proposed that the rebates be regulated more stringently to ensure appropriate standards are maintained across the relevant RAO, MSA and Access Agreement.

31.80 Maxis proposed the following amendments:

"(a) The amount of any rebate specified in the ~~relevant RAO~~ MSA for failure to meet the relevant service levels set out in that ~~RAO~~ MSA shall apply until any applicable mandatory standard on QoS for 5G Services comes into effect. *For clarity, in the event the Service Level or KPIs or rebates set out in the Services Catalogue prior to the introduction of the mandatory standard on QoS in relation to 5G Services is of a higher service quality than the minimum standard set out in the mandatory standard on QoS in relation to 5G Services, the Access Provider shall continue to comply with the Service Level or KPIs or rebates set out in the Services Catalogue prior to the introduction of the mandatory standard on QoS.* From the date that such mandatory standard on QoS in relation to 5G Services comes into effect, the amount of any rebate shall, at a minimum, reflect any diminution in value (including any rebates paid by the Access Seeker to end users) in the 5G Service provided to the Access Seeker due to the Access Provider's failure to comply with the service level availability required under the mandatory standard on QoS.

(b) *The Access Provider shall provide Rebates and/or Service Credits as a consequence for non-compliance to its 5G wholesale obligations*

(c) *The Rebate and/or Service Credits should be based on a pre-defined, standardised formula across services based on KPIs and Service Targets specified in 6.15.27(d) and 6.15.27(e). The detailed calculations for Service Credits can be found in 6.15.27 (f).*"

31.81 In TM's view, it is critical to define the service levels and other technical parameters that need to be adhered to by the Access Provider and the Access Seeker, and that rebates should apply in the event that Access Provider fail to meet the agreed service levels and other technical parameters. According to TM, this would ensure the Access Provider adheres to the service level and other technical parameters.

31.82 TM’s proposed amendments to subsection 6.15.26 of the draft MSA is as follows:

“6.15.26 Amount of Rebate: The amount of any rebate specified in the relevant RAO for failure to meet the relevant service levels set out in ~~that RAO~~ *subsection 6.15.25* shall apply until any applicable mandatory standard on QoS for 5G Services comes into effect. From the date that such mandatory standard on QoS in relation to 5G Services comes into effect, the amount of any rebate shall, at a minimum, reflect any diminution in value (including any rebates paid by the Access Seeker to end users) in the 5G Service provided to the Access Seeker due to the Access Provider’s failure to comply with the service level availability required under the mandatory standard on QoS.”

31.83 Celcom submitted that rebates should be applicable to all SLAs KPIs and reciprocal compliance to the MCMC’s MSQoS and not solely on service general availability. Celcom further proposed that DNB be required to include details on operational KPI and reciprocal compliance to the MCMC’s MSQoS such as handover success rate, call set-up success rate etc.

Technical parameters proposed by TM

31.84 TM proposed that QoS parameters should differentiate between wholesale technical parameters and retain service quality. According to TM, the reason for differentiating between the wholesale technical parameters and retail service quality is for two reasons:

- (a) more technical parameters need to be specified for the provision of wholesale services; and
- (b) a set of minimum technical parameters are required to enable Access Seekers to achieve the MSQoS to its retail end users.

31.85 TM also proposed that the MSA should provide guidance on the technical parameters applicable to the Access Provider to facilitate commercial negotiation for initial 5G deployment, while the 5G MSQoS is in the process of being determined as part of a separate determination.

31.86 TM have also provided expected minimum technical parameters which it expects the Access Provider to improve as the 5G services mature (outlined below).

Table 1: Expected Minimum Technical Parameters

KPI	Expectation on future improvement
Network Availability	<ul style="list-style-type: none"> • To revise KPI upon maturity of the 5G Network. With reference to: <ul style="list-style-type: none"> ○ Pop Coverage from current 30% to optimum e.g. at 70% pop coverage ○ Growth of Device Ecosystem to reach maturity period • Target: 99.8%
Data Session Setup Success Rate	<ul style="list-style-type: none"> • To revise KPI upon maturity of the 5G Network. With reference to:

KPI	Expectation on future improvement
*If failure resides in DNB RAN	<ul style="list-style-type: none"> ○ Pop Coverage from current 30% to optimum e.g. at 70% pop coverage ○ Growth of Device Ecosystem to reach maturity period ● Target: 99.5%
Data Session Abnormal Release *If failure resides in DNB RAN	<ul style="list-style-type: none"> ● To revise KPI upon maturity of the 5G Network with reference to: <ul style="list-style-type: none"> ○ Pop Coverage from current 30% to optimum e.g. at 70% pop coverage ○ Growth of Device Ecosystem to reach maturity period. ● Target: 0.5%

31.87 TM also proposed individual use cases for 5G services e.g. enhanced mobile broadband (**eMBB**) /mobile broadband deployment, ultra-reliable low latency communication (**uRLLC**), massive machine-type communications (**mMTC**) and location-based services (**LBS**). As such, each individual use case should be governed by a set of individual technical parameters to address the needs of different market segments. The technical parameters proposed by TM are as follows:

Table 2: Proposed Technical Parameters

Service Level	Target
Network Availability	99.9%

Key Performance Indicator New Radio (5G NSA/SA)	Target
Radio Network Availability Rate	>99.90%
SgNB Addition Success Rate	>=98%
Intra-SgNB PSCell Change Success Rate	>=98%
Inter-SgNB PSCell Change Success Rate	>=98%
Intra-SgNB IntraFreq PSCell Change Success Rate	>=98%
Inter-SgNB IntraFreq PSCell Change Success Rate	>=98%
Inter-RAT Handover Out Success Rate (NR to LTE)	>=98%
SgNB-Triggered SgNB Abnormal Release Rate	<=1%
SgNB Abnormal Release Rate	<=1%

Key Performance Indicator New Radio (5G NSA/SA)	Target
RRC Setup Success Rate (Service)	>=98%
RRC Setup Success Rate (Signaling)	>=98%
NGSIG Connection Setup Success Rate	>=98%
Qos Flow Setup Success Rate	>=98%
Call Setup Success Rate	>=98%
Intra-frequency Handover Out Success Rate	>=97%
Inter-frequency Handover Out Success Rate	>=97%
Inter-RAT Handover Out Success Rate (NR to LTE)	>=98%
EPSFB Success Rate Based Handover (NR to LTE)	>=98%
Service Call Drop Rate	<=1%
Call Drop Rate (VoNR)	<=1%

Key Performance Indicator (LTE 700Mhz)(NSA)	Target
Radio Network Availability Rate	>99.90%
RRC Success Rate	>=98%
VoLTE Fallback Success Rate	>=98%
Inter-Freq Handover Success Rate	>=98%

5G NR (NSA/SA) Capacity/Traffic	Target
Average User Number (Downlink /Uplink)	Weekly status report sharing with AS
Maximum User Number (Downlink /Uplink)	Weekly status report sharing with AS
Traffic Volume (Downlink /Uplink)	Weekly status report sharing with AS
Cell Average Throughput (Downlink /Uplink)	Weekly status report sharing with AS
User Average Throughput (Downlink /Uplink)	Weekly status report sharing with AS
MU-MIMO pairing PRB (Downlink /Uplink)	Weekly status report sharing with AS
NR Resource Block Utilizing Rate (Downlink /Uplink)	Weekly status report sharing with AS

Average CPU Load	Weekly status report sharing with AS
Voice Quality Indicator	Weekly status report sharing with AS

LTE 700Mhz (NSA) Capacity	Target
Average User Number (Downlink /Uplink)	Weekly status report sharing with AS
Maximum User Number (Downlink /Uplink)	Weekly status report sharing with AS
Traffic Volume (Downlink /Uplink)	Weekly status report sharing with AS
Cell Average Throughput (Downlink /Uplink)	Weekly status report sharing with AS
User Average Throughput (Downlink /Uplink)	Weekly status report sharing with AS
Resource Block Utilizing Rate (Downlink /Uplink)	Weekly status report sharing with AS
Average CPU Load	Weekly status report sharing with AS

31.88 Aside from the new subsections 6.15.28 and 6.15.29 already mentioned above in paragraphs 31.5 and 31.10(b), Maxis proposed a number of new provisions which are set out in the following paragraphs.

Maxis's proposed new subsection 6.15.27 SLAs for high quality and reliability

31.89 Maxis has proposed SLAs for high quality and reliability, as set out in paragraph A of Annexure 1. Maxis reiterated DNB's role as the single 5G wholesale provider and therefore considered network outage or failure to have greater impacts. Maxis therefore recommended that SLAs and KPIs be included to incentivise continual improvement of network capability by DNB.

Maxis's proposed new subsection 6.15.30 on Access Provider as a neutral 5G wholesale provider

31.90 In Maxis' view, expressing non-price terms and conditions in a standardised RAO is not enough by itself to achieve neutrality. Maxis is also of the view that DNB must commit in the RAO that it will avoid and prevent any business practices or communications which may have an effect of guiding or influencing end-users.

- 31.91 Maxis submitted that there should be a clearly defined neutral process for when DNB is required to develop bespoke pricing or terms, particularly when Access Seekers are bidding against each other for the customer's contract.
- 31.92 Maxis referenced the requirement that the ACCC imposed on NBN to maintain records explaining differences between its standard and non-standard supply terms and to provide these records to the ACCC. Maxis also cited the standard term of Access Determination restrictions imposed by the ACCC on an access provider communicating with customers of access seekers. Maxis therefore proposed a new subsection 6.15.30, as set out in paragraph C of Annexure 1.

Maxis's proposed new subsection 6.15.31 on Service Catalogue

- 31.93 Maxis commented that there needs to be a comprehensive service catalogue which supports the full range of 5G capabilities, with defined services and a clear product map. Maxis submitted that transparency of the available offerings from DNB through the service catalogue is critical to achieving the non-discriminatory and equitable objective.
- 31.94 Maxis also requested that there be an overall roadmap outlook section in the Service Catalogue. A new subsection 6.15.31 was proposed by Maxis, as set out in paragraph D of Annexure 1.

Maxis's proposed new subsection on Service Fulfilment timeline and Obligations

- 31.95 Maxis expressed concerns about risks that may arise in the absence of documentation of timelines and obligations if the level of service does not fulfil the requirements of end-users. Maxis therefore commented that the obligations should be communicated with sufficient clarity and detail to avoid confusion or ambiguity, as well as ensuring accountability and transparency.
- 31.96 In addition, Maxis is of the view that DNB should have a capacity upgrade policy to minimise the risk of capacity constraint including for unanticipated and unplanned peak usage. Accordingly, a new subsection 6.15.32 was proposed by Maxis, as set out in paragraph G of Annexure 1.

Maxis's proposed new subsection 6.15.33 on Service Assurance and Operational Obligations

- 31.97 Maxis considered that it is essential to introduce clear roles and responsibilities and processes required for prompt resolution and operation issues as they arise. Accordingly, Maxis proposed a new subsection 6.15.33 as detailed in paragraph H of Annexure 1.

Maxis' proposed new subsection 6.15.34 on Point of interconnection, network co-location and access route

- 31.98 Maxis noted the Multi-Access Edge Compute (**MEC**) moves the computing of traffic services to the edge of the network and closer to the customer. According to Maxis, collecting and processing data closer to the customer reduces latency and brings real-time performance to high-bandwidth applications. Maxis therefore submitted that the Access Provider must allow the Access Seeker to deploy MEC and the relevant equipment at the appropriate points in the network to support

higher performance. Maxis therefore proposed to add subsection 6.15.34 as detailed in paragraph I of Annexure 1:

Maxis' proposed new subsection 6.15.35 on Proof of concept

31.99 Maxis proposed a new subsection 6.15.35 referencing Bahrain's Batelco Joint Working manual under its reference offer which stipulate that parties must conduct joint testing before capacity is brought into service as detailed in paragraph J of Annexure 1.

Maxis' proposed new subsection 6.15.36 on MVNO Access

31.100 Maxis' proposed new MVNO Access provision at subsection 6.15.36 is as follows:

"6.15.36 MVNO Access: *MVNOs, who have not deployed a 2G and/or 4G network nationwide, who want 5G must subscribe from the same MNOs who provides the 2G and 4G Services."*

Maxis' proposed new subsection 6.15.37 on Network, cyber and other security

31.101 Maxis highlighted that DNB's cybersecurity measures, both for security of the RAN itself and for connected networks is crucial. Maxis therefore proposed that DNB make commitments to implement and comply with global best practices on security, privacy and data protection which are set out in a proposed new subsection 6.15.37 as set out in paragraph K of Annexure 1.

31.102 Maxis' proposed new subsection 6.15.38 on Billing and Settlement

31.103 Maxis proposed to add addition detail and requirements on top of existing General Obligations set out in a new subsection 6.15.38 as follows:

"6.15.38 Billing and Settlement: *The Access Provider shall comply with the following obligations relating to Invoices:*

(a) *Access Provider to make available in the Customer Service Platform (CSP) CSP Portal (a secure platform established by the Access Provider to enable the Access Seeker to access invoices, usage reports, settlements, network performance reports and other relevant information), information as may be reasonably necessary for the Access Seeker to verify rates and charges contained in the invoice*

(b) *Invoices may be downloaded by Access Seeker and will remain available online in the CSP Portal for 2 years from the invoice date."*

Maxis' proposed new subsection 6.15.39 on Termination

31.104 Maxis is of the view that there needs to be special attention paid to the termination considerations. In particular, Maxis highlighted its view that Access Seekers should be allowed to terminate for convenience in the event of any regulatory changes without penalty, consequence or compensation, including situation such as where another party enters the market for 5G Services. Maxis therefore proposed to add a new subsection 6.15.39 as set out in paragraph L of Annexure 1.

Maxis' proposed new subsection 6.15.40 on Amendment to RAO

31.105 Maxis commented that the RAO amendment process for 5G Services be defined in the Service Specific Obligations and therefore proposed a new subsection 6.15.40 which is based on subsection 5.3.5 of the draft MSA, but amended in accordance with the new provision as set out below:

"6.15.40 Amendment to RAO: If an Access Provider proposes to amend an RAO to the extent relating to 5G Services, then ~~the Access Provider must:~~

- (a) *the Access Provider must consult with all Access Seekers who are being provided with, or have in the preceding three (3) months requested access to, 5G Services under the existing RAO for a period of up to thirty (30) business days;*
- (b) *the Access Provider must, following such consultation, provide to such Access Seekers 30 Business Days' notice of any changes to the RAO; and*
- (c) *the Access Provider must obtain written approval from the Commission to publish, and following such approval promptly publish, the updated RAO on the Access Provider's website;*
- (d) *Upon written approval from the Commission, all the existing signed and in effect Access Agreements must be amended to reflect the amendments to the RAO; and*
- (e) *Without prejudice to an Access Seeker's right to dispute a change to a RAO, where the terms and conditions of an Access Agreement are identical to those in the existing RAO, an amendment to the RAO will be deemed to alter the relevant terms and conditions of that Access Agreement after twenty (20) Business Days of the expiry of the notice referred to in 6.15.40(b). However, if the Access Seeker disputes the change to the existing RAO within twenty (20) Business Days, no amendments to the Access Agreement will be deemed to occur unless and until such dispute is resolved in favour of the Access Provider*
- (f) *the terms must not be worse off than the terms and conditions of the existing RAO;*
- (g) *6.15.40(a) and 6.15.40(b) shall not apply where the Commission has approved a change to Services under the following subsections because the consensus on amendments to the RAO have been discussed and agreed by the Access Seekers:*
 - (i) *6.15.21 Change to the technical details of a Service*
 - (ii) *6.15.22 Introduction of a new Service*
 - (iii) *6.15.23 Removal of a Service*
 - (iv) *6.15.22A Changes to the Services Catalogue"*

Maxis' proposed new subsection 6.15.41 on Reasons for Rejection

31.106 Maxis commented that as a single 5G wholesale provider, reasons for rejection should no longer be applicable. The following new subsection was therefore proposed:

"6.15.41 Reasons for rejection: *For the purposes of subsection 5.7.17, the Access Provider shall not reject an Order from an Access Seeker based on 5.7.17(a) and 5.7.17(b)."*

Maxis' proposed new subsection 6.15.42 on Grounds for refusal

31.107 Maxis is of the view that DNB must provide access to services defined in a RAO even if at the time there are no existing customers taking that service. Maxis also considered that technical feasibility should be assessed when deciding whether Services should be added into the Service Catalogue and therefore should not be a ground for refusal. In addition, DNB must provide additional capacity within a time period defined as an SLA in the RAO.

"6.15.42 Grounds for refusal: *for the purposes of subsection 5.4.11, the Access Provider shall not refuse an Access Request based on grounds stated in 5.4.11(a), 5.4.11(c) and 5.4.11(d)"*

Maxis' proposed new subsection 6.15.43 on Capacity constraints

31.108 Maxis proposed to shift subsection 5.4.18 in the draft MSA to the Service Specific Obligations as it relates only to 5G, and amend the provision as follows:

"6.15.43 Capacity constraints: *For the purposes of subsection 5.4.18, if the Access Provider ~~refuses~~ is unable to provide an Access Request for 5G Services on the ground that the Access Provider has insufficient capacity or space under subsection 5.4.11(d), then the Access Provider must, within 6 months of such ~~refusal~~ request, and to the extent reasonably and commercially practicable, increase capacity on its 5G RAN or take such other measures that may be reasonably necessary to accept the Access Seeker's Access Request, following which:*

- (b) The Access Provider must notify the Access Seeker of the completion of such measures; and
- (c) The Access Seeker may re-submit an Access Request in accordance with this Determination.

For clarity, the Access Provider cannot refuse an Access Request for 5G Services on grounds of insufficient capacity or space."

Maxis' proposed new subsection 6.15.44 on Cancellation and variation of Orders

31.109 Maxis submitted that the penalty on Access Seekers upon cancellation should be an exception, rather than the default, to reflect the monopoly power that DNB have. The following was therefore suggested as a new subsection 6.15.44:

"6.15.44 Cancellation and variation of Orders: *Notwithstanding subsections 5.7.25 and 5.7.26, an Access Provider shall allow the Access Seeker to cancel or*

vary an Order at any time. Except otherwise provided in the relevant RAO, the cancellation or variation of an Order is to be at no penalty.”

Differentiating the Service Specific Obligations between 5G standalone access and 5G EPC

- 31.110 DNB commented that the key differences between 5G standalone (**SA**) and 5G with 4G EPC (**NSA**) are technical. According to DNB, 5G SA enables lower latency levels and additional services such as network slicing. There are also potential differences in interfaces from DNB to the Access Seekers in that NSA requires interfacing from a 4G core network while SA allows access from entities without a core network, or interfacing at a core network – core network level.
- 31.111 DNB is of the view that none of the following matters would differ depending on whether the service was NSA or SA: forecasts of demand, delivery timescales, billing, operations manuals, planning committees, coverage plots, continuous improvement, introduction of service, removal of service and change of service.
- 31.112 TM, Digi, YTL, U Mobile and Celcom agreed that there is no need to differentiate the Service Specific Obligations for 5G Standalone Access versus 4G EPC with 5G RAN. According to TM, given the level maturity of 5G Standalone Access, there is no clear differentiation or requirement at the moment, and that this could be discussed in the next MSA review. Digi is of the view that subsection 6.15 of the draft MSA should govern access to 5G services regardless of the network utilised to access 5G services.
- 31.113 Altel and Net2One however submitted that different Service Specific Obligations should be applied between 5G Standalone Access and 4G EPC with 5G RAN in the draft MSA, noting that network slicing is one of the landmark technologies that differentiate 5G from 4G. According to Altel and Net2One, the 5G Standalone Access network, in combination with network slicing enable Access Seekers to permit their customers to enjoy connectivity and the services tailored to their specific business requirements.

Delivery timeframes

- 31.114 DNB raised two issues of concern in relation the delivery timeframes:
- (a) Meeting an Access Seeker’s requirements for additional 5G capacity: DNB comment that it has no problem in meeting the requirement to increase capacity within six months to meet an Access Seeker’s request where the Access Seeker is compliant with the framework provided by forecasting requirements and planning committee processes specified in its RAO. However according to DNB, if there are third party delays, the ability to offer additional capacity to a six-month deadline might be unreasonable or impractical. DNB therefore requested modification of subsection 5.14.18 or 6.15 of the draft MSA to take such circumstances into account.
 - (b) The impact of the new MSQoS: DNB expressed concern about the MSQoS which may materially raise DNB’s costs and hence the prices which DNB would need to charge Access Seekers to recover its costs. DNB therefore proposed that the upcoming MSAP and MSQoS inquiries are conducted in

parallel and the MCMC explore the relationship between DNB's costs and quality of service, SLAs and rebates to be specified in the next MSQoS.

- 31.115 TM agreed with the timeframes proposed by the MCMC in respect of the provision of 5G services however requested that the MCMC clarify whether the indicative delivery timeframe for 5G Services at 40 Business Days is for the initial service commencement. In the case of multi-operator core network (**MOCN**) type access for 5G services which would be activated on a site-by-site basis, TM viewed 40 Business Days to be unreasonably long for each and every activation request.
- 31.116 Similarly, Digi proposed a shorter timeframe to apply after the 5G network has been established as the 40 Business Day timeframe is too lengthy for the delivery of 5G services. Digi is of the view that 20 Business Days is more adequate.
- 31.117 Celcom broadly agrees with the timeframe in subsection 6.15.18 but considers it to conflict with the general provision in subsection 5.4.6 and therefore should be removed.
- 31.118 Altel and Net2One agreed with the proposed timeframe and consider the timeframe appropriate for Access Provider and Access Seeker.
- 31.119 U Mobile agreed to the monthly billing cycles and forecasts of 12 months. U Mobile also highlighted the following:
- (a) The time to accept/reject of 10 Business Days is acceptable for a scenario without any post order service qualification, however in the case of post order service qualifications, U Mobile submitted that the lead time should be reduced as assessments would have been completed during the Post-Order Service Qualification exercise.
 - (b) The indicative delivery timeframe of 40 business days is accepted by U Mobile but noted that DNB should strive to make 5G services available in a shorter timeframe.
 - (c) The Operations Manual should be made available prior to the signing of an Access Agreement according to U Mobile, as there are joint responsibilities for both Access Seekers and Access Provider in the Operations Manual.

Discussion

- 31.120 The extensive and differing submissions from operators on 5G Services reflect the nascency of 5G Services. There is a need for the MCMC to strike an appropriate balance between regulatory forbearance and introducing regulatory settings for 5G Services that are in the LTBE.
- 31.121 By way of response to the four primary points raised by DNB, the MCMC:
- (a) acknowledges DNB's submission for a 10 year minimum term for access to 5G Services. The MCMC considers that the minimum term of access is a matter for commercial negotiation, given the nascency of 5G services. The MCMC notes that is also consistent with section 5.14.2 of the draft MSA, which specifies that, even for Facilities and Services for which a minimum term is prescribed in that section, such limits only apply "unless otherwise

agreed” by operators. Further, as described in paragraph 17.45, the MCMC has determined to change the minimum term of Access Agreements in section 5.14.1 of the draft MSA from three years to five years, which also partially addresses DNB’s submission. The MCMC will continue to closely monitor DNB’s negotiations with Access Seekers to ensure that the risk allocations between the parties are appropriate and consistent with the LTBE;

- (b) the MCMC acknowledges DNB’s comments regarding Access Seekers’ rights to POIs and the potential cost implications of interconnection at all “technically feasible” locations. The MCMC will adjust this to introduce a requirement that these locations be agreed between DNB and an Access Seeker;
- (c) reiterates its comments at paragraph 19.18 agreeing with DNB’s submission that a degree of bundling is permitted so as to require Access Seekers to subscribe to a base National 5G Wholesale Network Product, given all 5G services will need to use this product in order to operate functionally. In summary, the MCMC will permit DNB to bundle its basic National 5G Wholesale Network Product with other products and services, but DNB must not require an Access Seeker to acquire any such bundle. Acquisition of such bundles shall be solely at the Access Seeker’s election, to preserve the modularity sought by Access Seekers; and
- (d) will also make changes to clarify the application of the non-discrimination principle in the context of 5G Services. In particular, the MCMC agrees with DNB’s proposal that DNB should be subject to a non-discrimination obligation equivalent to that which applies to NBN Co under the legislative framework in Australia. That obligation, which is set out in section 152AXC of the Competition and Consumer Act 2010 (Cth), prohibits NBN Co, as the access provider for wholesale bitstream services, from discriminating between access seekers, subject to limited exceptions such as where there are reasonable creditworthiness concerns in respect of an access seeker. It also prohibits NBN Co from discriminating in favour of itself in relation to the supply of services. The MCMC considers that imposing equivalent obligations on DNB would be appropriate given the similarities in the two rollout models (albeit between fixed line and mobile networks).

31.122 The MCMC has considered all other submissions on 5G Services. For brevity, and as noted earlier, the MCMC has not responded to each submission or listed in this section every change that it will make to the draft MSA in response to these submissions, but sets out below a detailed summary of the key changes the MCMC will make to the Service Specific Obligations for 5G Services.

Technical parameters and quality of service

31.123 A number of operators, particularly Maxis and TM, provided detailed and extensive submissions regarding proposed technical parameters for 5G Services. The MCMC acknowledges that quality of service is particularly important to 5G Services, given the fundamental benefits to end users of 5G Services over 4G/LTE services (e.g.

lower latency, support for a greater number of concurrent devices, support for higher bandwidth applications) are centred on quality of service.

- 31.124 Similarly, in relation to Maxis's submissions on network and cybersecurity measures relating to 5G Services, the MCMC notes that there are a number of technical codes maintained by the MCMC in relation to information security, and the MCMC will consider updates to these codes as necessary to reflect the importance of compliance by DNB with appropriate technical codes as safeguard measures in the supply of 5G Services. The MSA is not the appropriate vehicle for these matters.
- 31.125 Further, the MCMC does not agree with Maxis's proposal for a general obligation to be imposed on DNB to perform a benchmarking analysis at periodic intervals and to supply services in accordance with industry best practice. The MCMC considers that requiring updates to the 5G Services by reference to an undefined global standard is problematic and could lead to disputes, particularly given the Malaysian 5G context is unique and should be informed, rather than bound, by international standards. Further, the proposal imposes an undue burden on both DNB and the MCMC, where the benefits of such a process are unclear and are unlikely to outweigh the costs involved.
- 31.126 The MCMC accepts however that the 5G Services should comply with 3GPP standards at all times and will make changes to clarify this requirement, as proposed by U Mobile. The MCMC considers this is sufficient (as far as the MSA is concerned) to address the risk identified by Maxis above.
- 31.127 Further, given the importance of technical parameters, and noting the extent of the technical parameters on which operators have made submissions, the MCMC does not consider it appropriate for these technical parameters to be addressed in the MSA. Following the conclusion of this MSA inquiry, the MCMC plans to conduct a separate consultation on QoS for 5G Services, which will cover technical parameters for both wholesale and retail 5G services. The MCMC will take into account at that time submissions on QoS received from operators in the context of this inquiry, and will invite further submissions specifically on QoS for the MCMC's consideration.

Product development

- 31.128 Operators also stressed the importance of product development in the context of 5G Services, particularly with respect to DNB's obligations in respect of new products and services proposed by Access Seekers, and DNB's broader product development roadmap for 5G Services.
- 31.129 The MCMC notes in response to these submissions that the service description for 5G Services on the Access List has been drafted intentionally broadly so as to cover any voice, data and application services "as selected" by an Access Seeker. While the Access List includes examples of such facilities and services (e.g. for 5G SA, NSSF, MEC, NEF, etc), these are not exhaustive and do not represent the totality of the services that may be ordered by Access Seekers.
- 31.130 Given the above, the MCMC does not consider it appropriate that the MSA seek to define exhaustively the types of facilities and services that may be offered as part

of the 5G Services, whether in the form of a Service Catalogue (as proposed by Maxis) or otherwise. 5G Services are in their nascency, and it would be counter-productive to seek to define every possible use case as it could lead to unintended outcomes.

- 31.131 However, the MCMC agrees with submissions from TM that the proposed Product Committee obligations in the draft MSA could be strengthened. The MCMC proposes to do this by requiring DNB to engage constructively in the process, including to assess product ideas in good faith. While the MCMC considers that DNB should retain control over its product development timelines, the MCMC notes that DNB faces natural incentives to deploy the full range of 5G capabilities sought by Access Seekers, to maximise potential revenue streams and to develop and supply services that are in demand.
- 31.132 Further, the MCMC considers it appropriate to impose a high-level obligation on DNB to share information in relation to its product development roadmap for the next 24 months, at quarterly intervals. This will provide transparency to the industry and give Access Seekers sufficient time to develop and market retail offerings in response to DNB's roadmap. From DNB's perspective, the MCMC expects that DNB will, as a matter of practice, prepare a product development roadmap for its own planning purposes, which roadmap can be adapted for the purposes of compliance with this obligation.

Operational processes

- 31.133 Some operators, particularly Maxis, requested that certain operational processes regarding 5G Services be set out in the MSA. While it is appropriate for some key processes to be set out in the MSA e.g. with respect to ordering and provisioning timeframes, etc, the MCMC's preference is for the majority of operational processes to be set out in the Operations Manual to be maintained by DNB and agreed in an Access Agreement. The MSA is not the appropriate vehicle for many of the amendments sought by Access Seekers in this regard.
- 31.134 In light of the above, the MCMC will include clarifications in the MSA about the type of information that the Operations Manual is to contain, and that the Operations Manual is to be agreed between the parties as part of an Access Agreement, although the MCMC expects and encourages some degree of flexibility in how operational processes are implemented and updated over time (including the process for updates to be made to the Operations Manual).
- 31.135 The MCMC also does not agree to the suggestions that the MCMC should approve the Operations Manual. This is unnecessary and will unnecessarily add to the administrative burden of the MCMC.

Key targeted changes

- 31.136 The MCMC will make updates to the draft MSA to reflect a number of submissions from operators with which the MCMC agrees. These include the following, non-exhaustive list of key changes:
- (a) accepting Digi's proposal that deployment plans be developed in collaboration with the Planning Committee;

- (b) accepting Maxis and U Mobile's proposal that the deployment plan be regularly updated by DNB;
- (c) including Maxis's proposal to require DNB to provide certain information to allow Access Seekers to market, compete in the supply of, and supply 5G services to customers;
- (d) including Maxis's proposal to expand the level of information to be shared by DNB about rollout coverage and procedures;
- (e) removing the requirement for Access Seekers to provide certain end user-related information for the purposes of forecasting, as proposed by U Mobile;
- (f) removing sub-section 6.15.8(d) requiring Operations Manual to set out minimum requirements for customer devices, as requested by DNB, on the basis that other regimes sufficiently govern device compliance and this requirement goes beyond what is necessary in the context of the MSA;
- (g) accepting Celcom's changes to section 6.16.11 to include network coverage expansion information as part of the information to be shared in meetings of the Planning Committee;
- (h) clarifying in section 6.15.16 that each 5G Service must be provided on an unbundled basis, to prevent the scenario identified by Maxis where DNB may require Access Seekers to purchase both types of 5G Service without optionality;
- (i) adding to section 6.15.17 examples of activities in respect of which the non-discrimination principles applies, as proposed by Maxis;
- (j) accepting Maxis's submission that DNB should not be permitted to refuse an Access Request based on the grounds stated in 5.4.11(a) (no current supply) and 5.4.11(d) (insufficient capacity or space), with associated amendments to section 5.4.18 (which the MCMC will retain in its current position). However, the MCMC does not accept that DNB should be prevented from rejecting an Access Request where it is not technically feasible to do so. In any event, as a wholesale-only entity that is subject to non-discrimination obligations (in respect of which the MCMC will provide further protections and clarifications, as noted above), DNB faces natural incentives to supply services on request by Access Seekers, so the MCMC considers the risk of DNB gaming this provision is low;
- (k) increasing the timeframe for Access Seekers to give notice in response to a Removal of Service Notice from 30 days to 60 days. The MCMC notes that TM requested 3 months, but considers that 3 months is too long a timeframe given there is already a 6 month lead time for removal of services by DNB;
- (l) requiring DNB to consult with Access Seekers (where practicable having regard to the timeframes) on any changes required by law to the terms on which it can provide access to a 5G Service. This addresses changes proposed by Digi;

- (m) requiring DNB to provide an impact analysis of the impact of proposed changes to a 5G Service due to legislative changes, where such change is expected to have a materially detrimental impact on Access Seeker. This reflects Digi's submission, subject to an additional materiality threshold to minimise undue burden on DNB;
- (n) requiring DNB to share with the Commission any feedback provided by Access Seekers in relation to a Change to Service Notice, as proposed by Maxis;
- (o) clarifying, as requested by Celcom, that rebates apply to all relevant SLAs KPIs and not solely to a general service level availability metric;
- (p) clarifying that an Access Provider cannot refuse an Access Request for 5G Services on the grounds of insufficient capacity or space; and
- (q) amending DNB's obligations in relation to the Planning Committee processes in section 6.15.11 to include obligations on DNB to also share information in relation to its product development roadmap for the next 24 months.

Other considered submissions in response to which no changes will be made

- 31.137 In relation to comments from U Mobile requesting the MCMC to issue a separate regulatory instrument to monitor and guide negotiations with a monopoly such as DNB, the MCMC is not sure what instrument is intended. The MCMC encourages U Mobile to take up this matter separately, outside the scope of this MSA inquiry.
- 31.138 Some operators, including Maxis, commented that the line of business restrictions applicable to DNB are not evident in the MSA. The MCMC confirms that this is appropriate, because line of business restrictions are a question of policy, and also reflected in DNB's licence. It is not necessary to include provisions about this policy decision in the MSA.
- 31.139 As noted in paragraph 30.29, the MCMC rejects Digi's submission that access to 5G Services be limited to access through MNOs. All operators must have equal access to 5G Services.
- 31.140 The MCMC does not agree with Maxis's submission that minimum commitments should apply to the acquisition of 5G Services. Such a requirement would increase barriers to entry in the provision of 5G retail services. The MCMC considers that vibrant competition would best promote the achievement of the JENDELA coverage objectives. Further, the Access List and MSA are designed to permit incremental or modular acquisition of services. It would be inconsistent with those principles to impose minimum commitments for 5G Services.
- 31.141 The MCMC does not agree with Maxis's view that EOI in the context of 5G Services should be supplemented by volume discounts. Volume discounts would skew the competition in favour of the larger MNOs and is inconsistent with the non-discrimination principle.
- 31.142 Maxis also commented that Access Seekers should be permitted to vary or cancel an order at any time with no penalty other than to the extent provided in the relevant RAO. The MCMC disagrees with this proposal on the basis that the MSA

should not preclude DNB from recovering costs to which it is entitled in accordance with sub-sections 5.7.25 and 5.7.26 merely because DNB is the only Access Provider.

- 31.143 It is not necessary to enforce that identical Access Agreements must apply to all Access Seekers, as proposed by Maxis. DNB has an obligation to make and publish a RAO, with non-discriminatory obligations and operational processes to determine how RAO terms are offered equally to all Access Seekers.
- 31.144 The MCMC does not consider that DNB should be subject to an additional obligation to disclose information pertaining to 5G Services that is already set out in DNB's RAO, as proposed by Digi. The MCMC considers it would impose an unreasonable burden on DNB if it were required to disclose even those matters which are set out in the RAO, which has been subject to extensive development and the MCMC approval.
- 31.145 Some operators were unclear regarding the effect of section 6.15.18 regarding approval of commercial initiatives. The MCMC notes that nothing in subsection 6.15.18 requires DNB to approve such initiatives. Rather, the MCMC notes that it has received submissions from MVNOs that some MNOs are already imposing these requirements on MVNOs in the 4G/LTE context, and in including this section, the MCMC is merely seeking to set bounds on such requirements (without encouraging or enforcing the requirements themselves).
- 31.146 Similarly, the MCMC does not agree with Digi's proposal that section 6.15.19 be expanded to require new products, services or options to be added to the RAO upon development by the Product Committee. The MCMC considers subsection 5.3.3 of the draft MSA is sufficient in this regard.
- 31.147 The MCMC does not agree to add the further detail proposed by Maxis to paragraph 6.15.21(b). The substantive obligation to consult is sufficient, and the details regarding consultation can be set out in an Operations Manual as required. Access Seekers may always approach the MCMC in the event of non-compliance by DNB with the consultation obligation.
- 31.148 U Mobile proposed that additional steps be included in relation to the removal of a service, in order to minimise disruption and convenience. The MCMC notes that there is a six month lead time for removal of services, and the MCMC's approval is required for removal. The MCMC expects that the consultation process between DNB and Access Seekers will focus on end user impacts amongst other matters, with the MCMC having a backstop power as needed. Accordingly, no changes are necessary.
- 31.149 The MCMC disagrees with Maxis's proposal to mandate in the MSA a "Service Catalogue" of 5G Services, for a number of reasons:
- (a) the Access List already requires the Access Provider to supply access to voice, data and application services "as selected by the Access Seeker". The Access List also contains a non-exhaustive list of examples of such voice, data and application services. It is not appropriate to try and define all such services in a service catalogue or similar document at this time, given 5G

services are in their relative nascency. Accordingly, the MCMC prefers a broader, “future-proof” approach, in alignment with the existing framework.

- (b) the proposed Product Committee processes will give Access Seekers the opportunity to put forward ideas for consideration. As noted above, the MCMC will strengthen these processes by including a substantive obligation on DNB to assess product ideas; and
- (c) DNB faces natural incentives to deploy the full range of 5G capabilities. Despite being a monopoly operator, DNB has commercial incentives to maximise its potential revenue streams and develop and supply services that will actually be acquired by Access Seekers.

31.150 Although Altel and Net2One submitted that there should be different Service Specific Obligations, no details were provided and given the weight of submissions that no distinction is needed, the MCMC has decided in favour of those submissions.

31.151 Finally, all pricing matters are beyond the scope of this MSA inquiry and the MCMC will separately consult on those matters as part of a future inquiry into the MSAP.

MCMC Views

31.152 The MCMC will make a number of amendments as listed in the Discussion section, along with other targeted changes in response to operator submissions with which the MCMC agrees.

32 IP Transit Service

Introduction

32.1 In the Access List Review, the MCMC determined to include IP Transit Services in the Access List. In the PI Paper, the MCMC proposed Service Specific Obligations in relation to IP Transit Services, covering issues such as:

- (a) forecasting;
- (b) time for acceptance or rejection of an Order for an IP Transit Service;
- (c) indicative delivery timeframe; and
- (d) billing cycle.

Question 50: Do you have any comments on the proposed Service Specific Obligations for IP Transit Services, as set out in subsection 6.16 of the draft MSA? Alternatively, do you consider that no Service Specific Obligations should apply to the supply of the proposed new IP Transit Services? Please provide details, including any additional Service Specific Obligations that you consider are required beyond those set out in subsection 6.16 of the draft MSA.

Submissions Received

- 32.2 Celcom submitted that the proposed Service Specific Obligations for IP Transit Services are acceptable.
- 32.3 Digi stated that it had not faced any impediments in obtaining IP Transit Service. It took the view that current commercial arrangement had worked well, and that Service Specific Obligation is not necessary to be prescribed to the supply of IP Transit Services.
- 32.4 TM also agreed with most of the proposed Service Specific Obligations for IP Transit Services under subsection 6.16 of the draft MSA. It further submitted that, given the MCMC's rationale for including IP Transit Services in the Access List (that is, to address challenges faced by Access Seekers in accessing those services where peering is not available), there should be a ground for refusal to provide the services where peering is available and offered by the Access Provider. In particular, TM proposed the addition of the following provision to subsection 6.16 of the draft MSA:

***"Grounds for Refusal:** In addition to the grounds for refusal in subsection 5.4.11 of this standard, an Access Provider may refuse an Access Request to IP Transit Services to the extent (and only to the extent that) peering facilities are available and provided by the Access Provider in the region."*

TM noted that it is in the process of deploying 62 TMiX sites across Malaysia, including in Sabah and Sarawak, by end of 2022.

- 32.5 In addition, TM expressed the view that the MSA should reflect industry practice in relation to the indicative delivery timeframe (but did not go on to suggest what this might be for the services in question).
- 32.6 REDtone considered that Access Provider and Access Seeker should be required to upgrade the purchase of bandwidth/port if utilisation of IP transit hits 70%. This is to prevent any performance degrading in the event of congestion (100%) which would eventually impact end users. Redtone proposed that such upgrade should be completed within 20 business days.
- 32.7 Sacofa noted that any regulatory engagement or requirement should benefit all service and infrastructure providers equally (it said this notwithstanding its view that the question in respect of Service Specific Obligations for IP Transit Service is not applicable to it).
- 32.8 Similarly, U Mobile submitted that Service Specific Obligations should not apply to IP Transit Services. It reasoned that commercial arrangements for IP Transit Services are working very well, providing good quality of service with a competitive commercial pricing environment. According to U Mobile, competitive prices for IP Transit Services improved over the past 4 years by >27%, from both local and international providers.

Discussion

- 32.9 Despite objections from a small number of submitting parties, the MCMC takes the view that Service Specific Obligations should apply to IP Transit Services.

Subject to the changes described below, the MCMC believes that its proposal will be beneficial and adequate.

- 32.10 The MCMC accepts TM's suggestion that there should be a ground for refusal to provide IP Transit Services where peering is available in the region and offered by the Access Provider in question. The MCMC sees merit in that position, which strikes an appropriate balance between the interests of both Access Providers and Access Seekers.

MCMC Views

- 32.11 The MCMC determines to retain its proposed Service Specific Obligations in relation to IP Transit Services, subject to an amendment incorporating a ground to refuse to provide those services on the basis that peering is available in the relevant region and offered by the Access Provider, but not in the exact terms described by TM.
- 32.12 The MCMC will also include a broad obligation for Access Providers to provide information relating to IP Transit Services on request by the MCMC.

33 Domestic Inter-Operator Roaming Service

Introduction

- 33.1 The Domestic Inter-Operator Roaming Service is a new service on the Access List. Service Specific Obligations have been included in the MSA for this service, principally in line with the Service Specific Obligations for similar services.

<p>Question 51: Do you have any comments on the proposed Service Specific Obligations for Domestic Inter-Operator Roaming Service, as set out in subsection 6.14 of the draft MSA? Alternatively, do you consider that no Service Specific Obligations should apply to the supply of the proposed new Domestic Inter-Operator Roaming Service? Please provide details, including any additional Service Specific Obligations that you consider are required beyond those set out in subsection 6.14 of the draft MSA.</p>

Submissions Received

General comments

- 33.2 Altel agreed with the MCMC's preliminary views that the Domestic Inter-Operator Roaming Service should be included in the draft MSA under Service Specific Obligations. Altel considered the addition of the proposed subsection 6.14 may provide a robust competition in downstream markets and ultimately increase the benefits to the MVNO operators like Altel.
- 33.3 Maxis, however, argued there should be minimal Service Specific Obligation in the MSA in respect of Domestic Inter-Operator Roaming Service based on complexity of the services, and should be left open to be mutually agreed between the Access Seeker and the Access Provider.
- 33.4 YTL considered Domestic Inter-Operator Roaming Service can optimise the use of resources in both sparsely populated areas where the cost of rollout of all

operators is high, and in in-building situations where it is not feasible for operators to install a separate system due to space limitations and associated costs. YTL suggested that as a result of the JENDELA program, where service must be provided everywhere, YTL may acquire Domestic Inter-Operator Roaming Service in the future.

- 33.5 SACOFA supported any engagement or requirement equally benefitting all service and infrastructure providers.
- 33.6 TM agreed there is a greater need for regulatory scrutiny from the MCMC to ensure the interests of Access Seekers are protected, including Domestic Inter-Operator Roaming Services requiring Service Specific Obligations. TM reasoned that large MNOs (as Access Providers) are impeding access for Access Seekers such as TM, and referred to its Access List Review submissions as evidence of the barriers faced by TM.
- 33.7 TM argued existing MNOs possess strong negotiation power and have refused service enhancements (e.g. correctly configured billing Call Data Records) or shown a lack of commitment with standard industry SLAs and penalties. TM argued it is subject to regulatory scrutiny regarding Service Specific Obligations for Mobile Services, while large MNOs have generally failed to adhere to the same obligations. TM argued it encounters significant barriers in negotiating access to the Domestic Inter-Operator Roaming Service, and considered it critical that the MCMC intervenes in the mobile market to promote effective competition following the merger of Celcom and Digi.

Application

- 33.8 Maxis agreed with the MCMC's position, but proposed light regulation of the Domestic Inter-Operator Roaming as the Malaysian retail market is currently competitive. The proposed changes are as follows:

"6.14.1 Application:

- (a) *This subsection 6.14 applies where access to a Domestic Inter-Operator Roaming Service has been requested or is to be provided;*
- (b) *The Content Obligations do not apply in respect of Domestic Inter-Operator Roaming, with the exception of the following:*
 - (i) *subsection 5.6 of this Standard (Forecasting Obligations);*
 - (ii) *subsection 5.7 of this Standard (Ordering and Provisioning Obligations);*
 - (iii) *subsection 5.11 of this Standard (Billing and Settlement Obligations);*
 - (iv) *subsection 5.14 of this Standard (Term, Suspension and Termination Obligations); and*
 - (v) *subsection 5.16 of this Standard (Legal Boilerplate Obligations)."*

Transition

- 33.9 Maxis disagreed with this proposed subsection entirely for two reasons. First, Maxis considered different Access Seekers have different requirements, impacting the time required to conduct activities prior to offering the Domestic Inter-Operator Roaming Service (e.g. conducting Proof of Concept, billing reconciliation/validation process etc.). Second, Maxis considered the time taken to offer Domestic Inter-Operator Roaming Services is also subject to Access Seeker's readiness (e.g. Access Seeker who requires both 4G and 2G Domestic Inter-Operator Roaming Services instead of 2G or 4G individually). Maxis used the USA as precedent for adopting this mutual agreement arrangement between two parties as the scenarios vary between Access Providers and Access Seekers. Maxis proposed the following:

~~"Subject to paragraph 6.14.2(b), an Access Provider may, for a period of up to six (6) months following the date of this Determination, elect to provide Domestic Inter-Operator Roaming Service on at least a trial basis, or otherwise only to the extent the Access Provider has published on its website product offerings in respect of the Domestic Inter-Operator Roaming Service.~~

~~b) An Access Provider must, by the date that is six (6) months from the date of this Determination or an earlier date on which the Access Provider has completed its product development activities in respect of the Domestic Inter-Operator Roaming Service, provide the Domestic Inter-Operator Roaming Service in accordance with this Determination, from which date paragraph 6.14.2(a) will have no further effect.~~

6.14.2 Transition: *An Access Provider shall provide an Access Seeker with Domestic Inter-Operator Roaming Service based on the mutually agreed timeframe between the Access Provider and Access Seeker."*

- 33.10 TM disagreed with the 6 month transition timeframe to allow Access Providers to develop a Domestic Inter-Operator Roaming Service, however, proposed the timeframe be reduced to 3 months.

Limitation of Forecast

- 33.11 Maxis agreed with the MCMC's position, however noted a potential typo in the text in this subsection, that "MVNO Access" should be replaced with "Domestic Inter-Operator Roaming".

Acknowledgement of receipt

- 33.12 Maxis agreed with this subsection, but based on its experience handling similar requests, proposed increasing the timeframe for acknowledgement of receipt from one Business Day to three Business Days.

Time for acceptance or rejection

- 33.13 Maxis disagreed with this subsection because it considers Domestic Inter-Operator Roaming Service to be different from other Facilities and/or Services. As a result, Maxis considers subsection 5.7.12 will no longer be relevant. Maxis suggested a POC needs to be conducted for Domestic Inter-Operator Roaming to assess the

technical feasibility of providing the service prior to deciding whether to accept or reject the Order. Maxis found the time taken to conduct the POC varies from Access Seeker to Access Seeker, depending on the complexity. Maxis proposed an increased POC completion time based on its experience that a POC typically requires three months to complete to account for the time to design, implement, test and validate the results of a POC prior to any decision.

33.14 Maxis proposed the following:

~~a) issuing the Notice of Receipt in respect of the Order, where the Access Provider did not undertake any post Order Service Qualification for that Order under subsection 5.7.8 of this Standard; or~~

~~b) providing the Access Seeker with the result of post Order Service Qualification under subsection 5.7.9 of this Standard, where the Access Provider has undertaken post Order Service Qualification for that Order under subsection 5.7.8 of this Standard.~~

"6.14.6: Time for acceptance or rejection: *An Access Provider must notify an Access Seeker that an Order for a Domestic Inter-Operator Roaming Service is accepted or rejected subject to the timeline and outcome of the Proof of Concept. The Proof of Concept shall be completed within three (3) months, or any other time period, as mutually agreed between the Access Provider and Access Seeker."*

Indicative delivery timeframe

33.15 Maxis proposed the successful delivery of Domestic Inter-Operator Roaming Service is dependent on Access Seeker requirements (e.g. the number of sites requested by the Access Seeker). Maxis commented in its experience, it takes 14–16 weeks for delivery, 9–10 weeks for delivery of equipment and 5–6 weeks for execution. Maxis also raised other works that contribute to surpassing the 40 Business Days proposed by the MCMC, including 12–16 weeks to expand capacity in areas if required and 8-12 weeks for delivery of the core network.

33.16 Maxis raised additional factors that increase the time taken to successfully deliver Domestic Inter-Operator Roaming Service, including large volumes that result in negotiations between the Access Provider and Access Seeker to determine the most efficient, reliable and affordable network for LTBE. Similarly, the time taken for delivery is not entirely dependent on the Access Provider, as the Access Seeker must conduct certain configurations and integration, and the time take varies on a case-by-case basis.

33.17 Maxis highlighted the USA's light touch regulation on domestic roaming, allowing Access Providers and Access Seekers to negotiate mutually agreed timeframes for the delivery of services, transition and fulfilment periods. Maxis noted the FCC relied on complexities varying on a case-by-case basis to justify this regulation and the negotiation of commercial terms and conditions between Access Seekers and Access Providers. Maxis proposed the following:

"6.14.7 Indicative delivery timeframe: For the purposes of paragraph 5.7.13(a)(i) of this Standard, the indicative delivery timeframe for Domestic Inter-Operator Roaming Services *is subject to mutual agreement between the Access*

Provider and Access Seeker forty (40) Business Days. For clarification, the indicative delivery timeframe in this subsection 6.14.7 commences from the Notice of Acceptance or confirmation of the Order (as applicable) in accordance with subsection 5.7.14 of this Standard.”

Service fulfilment timeline

33.18 Both U Mobile and Maxis proposed to amend the services fulfilment timeline with the intention of providing Access Seekers with more flexibility. Maxis, however, proposed removing the timelines entirely, amending the subsection as follows:

“**6.14.9 Service fulfilment timeline:** An Access Provider shall comply with the following service fulfilment timelines for Domestic Inter-Operator Roaming Services *as mutually agreed with the Access Seeker:*

Parameters	Timelines
New links with new infrastructure	4 months
New links with existing infrastructure	2 months
Changes of capacity to existing facilities and services	30 days
Activation / Deactivation (up to 10 Tracking Area Codes)	3 Business Days
Activation / Deactivation (more than 10 Tracking Area Codes)	7 Business Days

33.19 U Mobile agreed the MSA should set out the ceiling regarding timelines as a guide for licensees but suggested parties be allowed to negotiate terms instead of an MSA mandate due to Access Seekers having specific requirements. U Mobile proposed Domestic Inter-Operator Roaming Service should be applicable to “non-commercial area”, to leverage on the existing deployed infrastructure and avoid duplication of investments in USP (remote/rural) areas.

33.20 Additionally, U Mobile proposed MOCN Sharing be included in the Service Specific Obligations in USP areas as the more efficient infrastructure method. U Mobile considered the current arrangement for Domestic Inter-Operator Roaming Service in commercially viable areas (i.e. non-USP) is sufficient.

33.21 In line with U Mobile, Digi considered commercial negotiations for Domestic Inter-Operator Roaming Service to be more effective for parties to reach a mutually beneficial arrangement based on the technical feasibility and business viability of the negotiating parties.

33.22 Digi highlighted that there is no notable demand for wholesale Domestic Inter-Operator Roaming Service for 4G services, and specifying Service Specific Obligations for Inter-Operator Roaming Services would be overly prescriptive. Digi submitted that mandating a Domestic Inter-Operator Roaming Service would

jeopardise operators' ability to fulfil its QoS commitment to the end-users due to operators' spectrum limitations, particularly in urban and sub-urban areas where capacity is utilised at its optimum level.

- 33.23 Celcom also proposed more providing more flexibility to Access Providers by amending the extending certain timelines to account for the complexity of integration between networks as follows:

Table 3: Service fulfilment timeline

Parameters	Timelines
New links with new infrastructure	4 months 6 months
New links with existing infrastructure	2 months 6 months
Changes of capacity to existing facilities and services	30 days 60 days
Activation / Deactivation (up to 10 Tracking Area Codes)	3 Business Days 7 Business Days
Activation / Deactivation (more than 10 Tracking Area Codes)	7 Business Days 14 Business Days

Modularity

- 33.24 Maxis found that it is typical in domestic roaming for an operator with a smaller existing network to leverage the network of the larger operator. Maxis suggested, from a technical standpoint, this meant that the Access Seeker may need to concurrently subscribe to other Facilities and/or Services (e.g. for core-to-core network integration etc.) from the Access Provider together with Domestic Inter-Operator Roaming Service. Maxis determined the provision of the Domestic Inter-Operator Service can only be modular insofar as it is technically feasible. Additionally, Maxis raised that a typo exists in the draft MSA that "MVNO Access" should be changed to "Domestic Inter-Operator Roaming". Maxis proposed the following:

6.14.12 Modularity: An Access Provider must provide ~~MVNO Access~~ *Domestic Inter-Operator Roaming* on a modular and unbundled basis, where it is technically feasible, so that the Access Seeker does not have to acquire network components, Facilities or Services that are not required for ~~MVNO Access~~ *Domestic Inter-Operator Roaming* to be provided."

Equivalence of Inputs

- 33.25 Maxis disagreed that EOI is required in Domestic Inter-Operator Roaming Services and argued to remove the subsection entirely for two reasons: Malaysia's retail mobile market is sufficiently competitive; and EOI is not typically imposed in countries where domestic roaming is regulated.

33.26 Maxis argued that Malaysia’s retail mobile market is sufficiently competitive. Maxis stated that, based on precedent, EOI is typically implemented in fixed markets with circumstances where there is a vertically integrated incumbent or a monopolistic/near-monopolistic market situation. Maxis found that in Malaysia, there are several MNOs of roughly equal market share who are competing across all regions nation wide, as set out below.

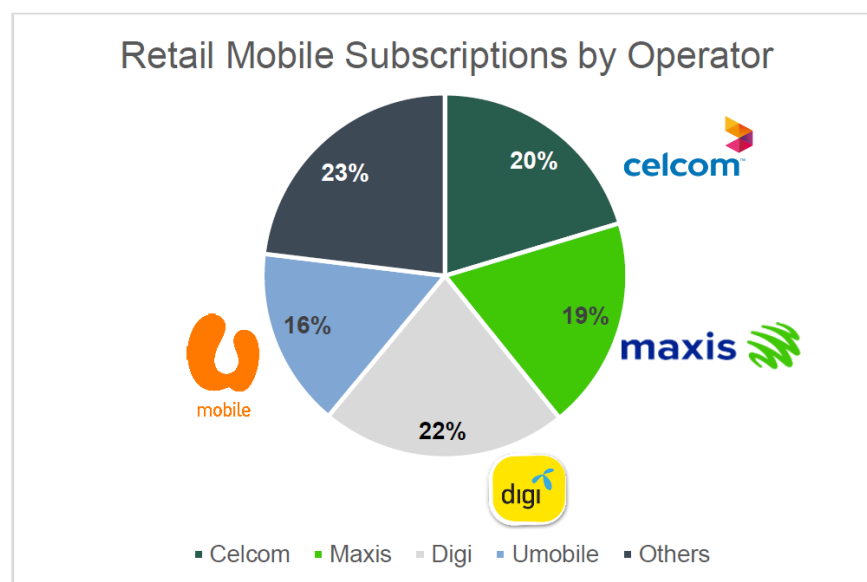


Figure 4 – Retail mobile subscriber share by operator (% , 2021)

33.27 Maxis argued that EOI is not required because Malaysia’s retail mobile market does not have a vertically integrated incumbent or monopolistic player. Maxis used the USA as an example of domestic roaming regulation being imposed to enable nationwide access as it had regional spectrum licensing. Maxis stated that in the USA spectrum is auctioned on a region-by-region basis and is tradable in the secondary market where operators can sub-divide and sell parts of the spectrum. Maxis noted this resulted in geographical fragmentation of spectrum holdings amongst operators across the USA, leading to the introduction of national roaming regulation for voice (2007) and data (2011) as operators refused to enter into commercial roaming agreements.

33.28 Maxis compared the USA MNO market to the Malaysian market, having fair competition between the three main MNOs. Maxis highlighted that while national roaming regulations have been introduced, the regulation has been light, allowing operators to offer data roaming services on commercially reasonable terms and conditions, and negotiate individualised terms. Maxis highlighted that EOI for national roaming has not been introduced in the USA, which Maxis argued shows regulators are typically reluctant to impose EOI where sufficient competition exists in a regulated market.

33.29 EOI is typically not imposed where domestic roaming is regulated. Maxis argued another scenario where regulators have adopted domestic roaming regulation is temporary regulation to facilitate a new market entrant, using Norway and Italy as case studies. Maxis noted that Norway currently imposes national roaming regulations to assist a new entrant build out its network capabilities, while Italy

previously imposed temporary (30 months) domestic regulations to assist new entrants penetrate the market. Maxis highlighted that neither country has imposed EOI.

TM's proposed new subsection (Information disclosure)

- 33.30 TM proposed a new subsection to the MSA with the effect of requiring the Access Provider to disclose any details of the Domestic Inter-Operator Roaming Service that is not included in the RAO (e.g. network coverage maps, locations of active Polygons, locations of cell sites carrying traffic, POI locations where physical/virtual co-location is available). TM reasoned, as an Access Seeker, it has faced challenges receiving the required information from Access Providers. TM noted a similar subsection was included in the draft MSA for Service Specific Obligations for 5G Services, stating that the new subsection would remove existing barriers and expedite the Ordering process, ultimately benefiting end users. TM proposed the following:

Information disclosure: *In addition to subsection 5.3.7 of this Standard, the Access Provider will disclose any details of the Domestic Inter-Operator Roaming Service not included in the RAO, including details of network coverage maps including locations of active Polygons, locations of cell sites carrying traffic and POI locations at which physical or virtual co-location is available to Access Seekers.*

TM's proposed new subsection (Amount of Rebate)

- 33.31 TM proposed a new subsection to be added to the MSA to define a set of minimum technical parameters for the provision of wholesale Domestic Inter-Operator Roaming Service (differing from the MSQoS between Access Seekers to retail end users). TM suggested the need to differentiate between wholesale technical parameters and retail service quality (MSQoS) is a result of more practical technical parameters needing to be specified for the provision of wholesale services, while only a set of minimum technical parameters are required to enable Access Seekers to achieve the MSQoS to its retail end users.
- 33.32 To ensure that the Access Provider complies with the minimum technical parameters for the Domestic Inter-Operator Roaming Service, TM proposed the Access Provider provide Access Seekers with rebates if it fails to comply with the minimum technical parameters (in line with 5G Services and Fixed Services provisions).
- 33.33 TM proposed the following subsection for the MSA below, and technical parameters required for Access Seekers in Figure 5 below:

Amount of Rebate: *The amount of any rebate specified in the relevant RAO for failure to meet the relevant service levels set out in that RAO MSA shall apply until any applicable mandatory standard on QoS for Domestic Inter-Operator Roaming Services comes into effect. From the date that such mandatory standard on QoS in relation to Domestic Inter-Operator Roaming Services comes into effect, the amount of any rebate shall, at a minimum, reflect any diminution in value (including any rebates paid by the Access Seeker to end users) in the Domestic Inter-Operator Roaming Service provided to the Access Seeker due to*

the Access Provider's failure to comply with the service level availability required under the mandatory standard on QoS."

Service Level	Target
Network Availability	99.5%

Key Performance Indicator	Target
LTE PS Connection Success Rate (LTE-ESR)	99%
CSFB Call Setup Success Rate (LTE-CSR)	99%
LTE DL Throughput Service level	10Mbps
LTE UL Throughput Service level ¹	2Mbps
LTE Round Trip Delay	50 msec
LTE Cell Availability	99.50%
RRC Connection Success Rate	99.50%
Initial ERAB Establishment Success Rate	99.3%
LTE-LTE Intra Frequency Handover Success Rate	90%
LTE-LTE Inter Frequency Handover Success Rate	88%
LTE PS Drop Call Rate	0.20%
LTE Voice Drop Call rate	0.50%
CSFB Call Setup Time	10 sec
Additional ERAB Establishment Success Rate	96%
DL Packet Error Loss rate	0.20%
UL Packet Error Loss rate	0.50%
SRVCC success rate	97%
Inter Freq HO Out Success Rate	99%
LTE PS Connection Success Rate (LTE-ESR)	99%

Severity Level			
Disaster	Critical	Major	Minor
<ul style="list-style-type: none"> Total Failure of Core elements impacting Nationwide All Base Station Down 	<ul style="list-style-type: none"> Failure of core elements impacting one or more regions More than 50 base stations down/offline 	<ul style="list-style-type: none"> More than 10 Base Station down/offline 	<ul style="list-style-type: none"> Less than 10 Base Station down/offline

Severity Level			
Disaster	Critical	Major	Minor
<ul style="list-style-type: none"> Total Failure of Core elements impacting Nationwide All Base Station Down 	<ul style="list-style-type: none"> Failure of core elements impacting one or more regions More than 50 base stations down/offline 	<ul style="list-style-type: none"> More than 10 Base Station down/offline 	<ul style="list-style-type: none"> Less than 10 Base Station down/offline

MTTR NTT	Disaster	Critical	Major	Minor
Mean Time To Respond	Immediately	10 min	15 min	30 min
Mean Time To Restore	2 hours	2 hours (POI & Core) 4 hours (>50 sites down)	8 hours	12 hours
Progress Notification Frequency	30 min	30 min	1 hour	2 hours
Incident Report Submission	14 days	48 hours	3 days	7 days
Permanent Solution	14 days	24 hours	3 days	5 days

Figure 5 : TM’s Proposed technical parameters for the Domestic Inter-Operator Roaming Service in the 4G MOCN Service

Discussion

- 33.34 The MCMC proposes to make all of the changes outlined in the PI Paper, with only minor changes to account for typographical errors.
- 33.35 The MCMC will also extend the service delivery timeframes as suggested by Celcom.
- 33.36 The MCMC does not entirely agree with Maxis that Domestic Inter-Operator Roaming Services should be subject to completely light handed regulation. The service was included in the Access List and the MSA should include provisions regarding service delivery and should not just be subject to mutual agreement.
- 33.37 The MCMC also expects all Access Providers to comply with the EOI requirements imposed under the MSA, and for all services. For this reason, the MCMC does not believe the detailed service level requirements suggested by TM are necessary. It will be very difficult for the MNOs to deliver different service quality levels to Access Seekers than they provide to themselves and therefore the EOI requirement should be sufficient.
- 33.38 The MCMC proposes to proceed with a service level rebate, but similar to other services, will allow these rebates to be commercially agreed between the parties.

MCMC Views

- 33.39 The MCMC only proposes limited minor changes in addition to those suggested in the PI Paper.

Part D Standard Administration, Compliance and Dispute Resolution

34 Standard Administration and Compliance

Introduction

- 34.1 General feedback was sought on how the MSA is administered and to be complied with.

Question 52: Do operators have any feedback on the current Standard Administration and Compliance provisions?

Submissions Received

- 34.2 Celcom, Maxis, MyTV, Altel and Net2One are of the view that the current Standard Administration and Compliance provisions are acceptable, while Digi submitted that it has not encountered any difficulties.
- 34.3 YTL welcomes the MCMC's commitment that it will increase its compliance and enforcement activities to ensure access provider's RAO complies with the MSA. In addition, the MCMC will also take necessary enforcement action in respect of non-compliance with the MSA.

Discussion

- 34.4 The MCMC thanks operators for their feedback and encourages all operators to notify the MCMC of any instances of non-compliance.

MCMC Views

- 34.5 No further changes arise to the MSA following this feedback.

35 Dispute Resolution Procedures

Introduction

- 35.1 General feedback was sought about the detailed dispute resolution procedures in the MSA.

Question 53: Do you agree that the current Dispute Resolution Procedures set out under Annexure A of the MSA can be retained without amendment, or do you have any suggested improvements to these provisions?
--

Submissions Received

- 35.2 Astro urged the MCMC to clarify the differences between the dispute resolution procedure in the MSA and Section 151 of the CMA. This is useful in the event that the access seeker wishes to raise certain disputes directly to the MCMC under section 151 of the CMA to avoid further delays on access. Astro also wishes to understand the evidence which the access seeker will need to demonstrate to the MCMC if the access provider does not endeavour to settle the dispute by way of the IWG or ISG. To shorten the timeframe for dispute, Astro proposed to remove the IWG and views that the dispute should be referred to directly to ISG or

Technical Expert or to the Commission for final arbitration. In the event that the MCMC does not agree with Astro's proposal, then subsection 6.1 of Annexure A is amended so that a dispute can be referred to a Technical Expert if the provisions of Sections 4 or 5 of Annexure A should be complied with.

35.3 Astro also sought clarification on when the period of 30 Business Days referred to in subsection 4.4 of Annexure A accrues from. Astro views that the 30 Business Days should start from the earliest point of notification.

35.4 Celcom is of the view that the proposed subsection 4.5 to replace subsection 5.1 of Annexure A is acceptable as there is better clarity in the process. Celcom noted that if operators face barriers in accessing listed Facilities and Services at any stage during negotiations or during the Dispute Resolution Procedure, operators can also submit a complaint to the MCMC in accordance with section 69 of the CMA.

35.5 Digi said it has not encountered any difficulties with the current Dispute Resolution Procedures set out under Annexure A of the MSA. As such, Digi has no objection to retain the provisions without amendment.

35.6 Edotco suggested the following proposed amendment as follows:

"...subsection which give *any* parties the option of either referring the issue to the Interconnect Steering Group, or referring the issue to a Technical Expert (if the issue in dispute is technical in nature) or directly to the Commission for final arbitration, with consequential amendments in subsection 5.1 of Annexure A to reflect the introduction of subsection 4.5."

35.7 Fibrecomm agrees with the current Dispute Resolution Procedures except for paragraph 4.5(b)(ii) of Annexure A where they proposed to remove the word "final".

35.8 Maxis opined that there is a need for significant improvement to the Dispute Resolution Procedures based on their experience of going through the Dispute Resolution Procedures with an Access Provider. Maxis proposed to skip the IWG and start the dispute resolution procedures directly with ISG. Maxis suggested various changes to Dispute Resolution Procedures in Annexure A as follows.

"1.1 In the Dispute Resolution Procedures set out in this Annexure A:

...

(g) "**Notice**" means the notice issued of intention to *notify another party of a dispute escalate the issue to the Interconnect Steering Group*, as specified in subsection 5 4.1 of this Annexure;"

"2.2 The following dispute resolution mechanisms are discussed in this section:

(a) ~~Inter-party working groups;~~

(a) ~~(b)~~ *Interconnect steering group*; and

- (b) ~~(e)~~ subject to specific resolution of disputes, being:
- (i) technical disputes (to follow procedure set out in section 6 if they cannot be resolved through the application of the general dispute resolution provisions in sections 3 *and* 4 and 5 of this Annexure);
 - (ii) Billing disputes (as defined in subsection 1.1 of this Annexure), which must follow the procedures set out in section 7 of this Annexure; or
 - (iii) any other types of disputes, which, if cannot be resolved through the application of the general dispute resolution provisions in sections 3, *and* 4 ~~and~~ 5 of this Annexure, must be referred to the Commission for resolution.”;

“2.3A Dispute shall first be attempted to be resolved by negotiation between the Parties. If the Parties to the Dispute cannot or otherwise fail to reach an agreement, the Parties shall always be entitled to seek resolution of the Dispute by the Commission in accordance with sections 151 *and* 175 of the Act, and the Commission will decide the dispute if it is satisfied that:

- (a) the Parties will not reach agreement, or will not reach agreement in a reasonable time;
- (b) the notification of the Dispute is not trivial, frivolous or vexatious; and
- (c) the resolution of the Dispute would promote the objects in the Act.

An Access Provider shall not prevent the Access Seeker from notifying a Dispute to the Commission in accordance with the Act.”

35.9 Maxis also proposed a new subsection 3.9 to allow parties to escalate a dispute to the Commission for resolution in the event parties have attempted to resolve a dispute among themselves but have reached an impasse.

35.10 The proposed subsection is as follows:

“3.9 A Party may directly raise a dispute to the Commission for resolution under Chapter 7 of Part V of the Act in the event Parties have negotiated and reach an impasse without having to go through the Dispute Resolution process if the party thinks that an agreement will not be reached, or will not be reached within a reasonable time even after reasonable effort to resolve the dispute through negotiation with the other party. The Commission shall not reject the dispute on the ground that Parties have not completed the Dispute Resolution Process under Annexure A of the MSA.”

35.11 In accordance to amendments proposed in subsection 2.2, Maxis suggested amending section 4 from Inter-Party Working Group to Interconnect Steering Group. In addition, Maxis proposed amendments to subsections 4.1 to 4.7 as follows:

"4.1 In the first instance the Access Seeker and the Access Provider should attempt to resolve the Dispute between themselves. *Where Parties are unable to resolve the Dispute between themselves, either Party can issue a Notice of Dispute to the other Party outlining the details of the Dispute ("Notice")*";

"4.2 The Access Provider and the Access Seeker shall establish an *Interconnect Steering Group (ISG) working group, or working groups*, to fulfil the requirements of subsection 4.1 above. The ISG ~~working group~~ shall comprise of representatives of the Parties, and be headed by a person who holds a position that is at least equivalent to the ~~head of the Access Provider's Wholesale or Interconnection Group~~ *chief officer or executive vice president of the Access Provider.*";

35.12 "4.3 ~~The Access Provider~~ *Both parties* shall provide for:

- (a) subject areas to be dealt with by ~~each working group~~ *the ISG*;
- (b) equal representation by Access Seeker and Access Provider;
- (c) chairmanship and administrative functions to be shared equally; and
- (d) formal notification procedures to the ~~ISG working group~~ *"*.

35.13 Maxis proposed to move subsection 5.2 to 4.4 as shown below:

~~"4.4 The Access Provider and the Access Seeker shall use reasonable endeavours to attempt to settle the Dispute in the working group for a period of no longer than thirty (30) Business Days unless otherwise agreed by the Parties, subject always to a party's right to seek urgent interlocutory relief.~~

...

4.4 ~~5.2~~ The ~~ISG~~ *Interconnect Steering Group ("ISG")* to which an issue has been raised will meet within ten (10) Business Days of the receipt by the Receiving Party of the Notice under subsection ~~5.1~~ *4.1* of this Annexure. If the ISG fails to meet or has not been formed within ten (10) Business Days of the receipt by the Receiving Party of the Notice, either Party may refer the Dispute *to either*:

- (a) to the extent the issues in dispute are technical in nature, to a Technical Expert (in accordance to section 6 of this Annexure); or
- (b) to the Commission ~~for arbitration~~

for resolution".

35.14 With regards to subsection 4.5, Maxis agrees that there should be the option to escalate to a Technical Expert or the Commission after the ISG. However, since they had proposed to skip the inter-party working group and start the dispute

resolution procedures directly with the ISG, Maxis proposed to remove subsection 4.5. Instead, Maxis proposed to replace it with a new subsection 4.6.

- 35.15 Maxis proposed to move subsection 4.4 in the draft MSA to subsection 4.5. However, they proposed to amend the period for the ISG to 20 Business Days to keep the dispute process streamlined to minimize impact to business operations and services to end-users. Maxis cited Singapore as an example where prior to escalation to the relevant authority or mediation. Singapore provides 20 Business Days for the "Inter-Working Group" to resolve any issues prior to escalation. Maxis's proposed changes are as follows:

~~"...4.5 In the event that the Parties cannot resolve the Dispute between themselves within the time specified in subsection 4.4 of this Annexure, or after any agreed time extension has expired, either party may give ten (10) Business Days' written notice ("Notice") to the other party stating its intention to escalate the issue and outlining the details of the issue. If the issue is not resolved prior to the expiry of the Notice, then either party may:~~

- ~~(a) notify the other party ("Receiving Party") that it wishes to refer the issue to the Interconnect Steering Group ("ISG"); or~~
- ~~(b) notify the Receiving Party that it wishes to refer the issue to:~~
 - ~~i. to the extent the issues in dispute are technical in nature, to a Technical Expert (in accordance with section 6 of this Annexure); or~~
 - ~~ii. to the Commission for final arbitration.~~

4.5 ~~4.4~~ The Access Provider and the Access Seeker shall use reasonable endeavours to attempt to settle the Dispute in the ~~ISG working group~~ for a period of no longer than ~~thirty (30) twenty (20)~~ Business Days ~~unless otherwise or any other shorter period~~ agreed by the Parties, subject always to a party's right to seek urgent interlocutory relief".

- 35.16 Maxis proposed a new subsection as follows:

~~"4.6 5.3~~ If the ISG has not resolved the Dispute within twenty (20) Business Days after it first meets to review the Dispute under subsection ~~5.3 5.2~~ 4.5 above, either party may refer the Dispute *to either:*

- (a) to the extent the issues in dispute are technical in nature, to a Technical Expert (in accordance to section 6 of this Annexure); or
- (b) To the Commission ~~for final arbitration~~

for resolution"

- 35.17 Maxis proposed to include a new subsection 4.7 to increase clarity on the timeline. According to Maxis, regulators such as Ofcom have set fixed timelines for itself to resolve disputes as follows:

"4.7 Where a dispute is referred to the Commission for resolution, the Commission shall decide on the Dispute within thirty (30) Business Days from the date the dispute is referred to the Commission."

35.18 In line with Maxis's proposal to skip the inter-party working group, Maxis proposed removal of Section 5.

35.19 Maxis proposed some amendments to Section 6 for greater clarity and to expedite the process as follows:

"6.1. A Dispute will only be referred to a Technical Expert if the provisions of sections 4 and 5 of this Annexure have been complied with.";

6.2 Once a Dispute is referred to a Technical Expert, it may not be referred back to the a working group or ISG.";

"6.5 When relying on the services of a Technical Expert, the following dispute resolution procedures will apply to the Technical Expert:

(a) The parties will present written submission to the Technical Expert and each other within 15 BD of the appointment of the Technical Expert; and

(b) Each party may respond to the other party's submission in writing within (fifteen) 15 Business Days from the date of the other party's submission set out in Subsection 6.5a. No further submission in reply shall be made unless with the Technical Expert's approval.";

~~*"6.6 At the request of either party and subject to the parties agreeing, or the Technical Expert deciding within five (5) Business Days of the last written submission, that the arbitration by the Technical Expert should be by documents only, a Technical Expert hearing will be held within fifteen (15) Business Days of the last written submission.*~~

"6.6 Arbitration by the Technical Expert (TE) shall be by documents only as set out in Subsection 6.5 and the TE must decide on the Dispute within 5 Business Days of the last written submission submitted pursuant to Subsection 6.5(b):

(a) *If upon request by either party and subject to mutual agreement; or*

(b) *where TE decides that a hearing is required,:*

a Technical Expert hearing will be held within ten (10) Business Days of the last written submission pursuant to Subsection 6.5(b) and subject to Subsection 6.8, and TE to thereafter decide the dispute within five (5) Business Days from the last date of hearing.";

"6.7 Should a Technical Expert hearing be held, each party will have the opportunity of making an oral submission in addition to the written submission submitted in Subsection 6.5. This process will be conducted in private.";

"6.8 The procedure for hearing technical disputes will be determined by the Technical Expert prior to the commencement of the hearing (including number and duration of oral submissions by the parties) but in any case, the Technical Expert's hearing will last no longer than three (3) Business Days."; and

"6.10 The Technical Expert will deliver his or her award within ~~fifteen (15)~~ five (5) Business Days of the hearing or of the last written submission where the arbitration is by documents only."

35.20 Maxis proposed to add a new subsection 6.13 to provide clarification that the Technical Expert is not a step prior to escalation to the Commission but rather the same step as escalation to the Commission; the parties should decide whether to escalate to the Technical Expert or to the Commission.

35.21 Maxis also provided a summary of NBN's dispute resolution process in Australia as an example.

"6.13 For avoidance of doubt, a dispute shall not be referred to the Commission once it has been referred to a Technical Expert. The Technical Expert shall be the one determining the dispute."

35.22 Maxis also proposed changes several subsections under Section 7 on Billing Dispute Resolution.

"7.2 An Invoicing Party shall allow an Invoiced Party to dispute an Invoice prepared by the Invoicing Party if the Invoiced Party notifies the Invoicing Party:

- (a) in the case of domestic calls and interconnection, the Invoiced Party notifies the Invoicing Party within thirty (30) Business Days after the date of receipt of such Invoice;
- (b) in the case of outgoing and incoming international calls and interconnection, the Invoiced Party notifies the Invoicing Party within six (6) months after the date of receipt of such Invoice; or
- (c) *In the case of 5G related Services, the Invoiced Party notifies the Invoicing Party within sixty (60) Business Days after the date of receipt of such Invoice; or*
- (d) in case of any other Facilities and/or Services, the Invoiced Party notifies the Invoicing Party within thirty (30) Business Days after the date of receipt of such Invoice,

provided that, in any case specified above, the Invoiced Party's Billing Dispute Notice specifies the information in accordance with subsection 7.4 of this Annexure.";

"7.3A Billing Dispute may only arise where the Invoiced Party has reasonable grounds to believe that an error has arisen from one of the following circumstances:

- (a) Invoicing Party's Billing System is, or has been, defective or inaccurate in respect of the recording of the calls *or capacity utilization* which are the subject of the Dispute;
- (b) there is, or has been, a discrepancy between the Invoice in dispute and the records generated by the Invoiced Party's Billing System;

- (c) there is, or has been, a fraud perpetrated by the Invoicing Party; or
- (d) the Invoicing Party has made some other error in respect of the recording of the calls *or capacity utilization* or calculation of the charges which are the subject of the Billing Dispute.”;

“7.5 The Invoiced Party may withhold payments of amounts disputed in good faith in accordance with subsection 5.11.11 of this Standard. If the Billing Dispute is resolved against the Invoiced Party, that Invoiced Party shall be required to pay interest at the rate specified in subsection 5.11.15 of this Standard on the amount payable. *For clarity, interest will be payable from the due date of the disputed invoice until the date of actual payment.*”;

“7.11 The Invoiced Party may refer a Billing Dispute to the Billing Dispute Escalation Procedure under this subsection 7.11 by notifying the Invoicing Party’s Billing Representative. Both parties shall then appoint a designated representative who has authority to settle the Billing Dispute, and who is at a higher level of management than the persons with direct responsibility for administration of this Standard. The designated representatives shall meet as often as they reasonably deem necessary to discuss the Billing Dispute and negotiate in good faith in an effort to resolve such Billing Dispute *within 60 Business Days, failing which either party may directly raise the Billing Dispute to the Commission for resolution under Chapter 7 of Part V of the Act or to pursue any other remedy in law or equity that may be available to them if the Billing Dispute cannot be resolved to their satisfaction.* The specific format for such discussions will be left to the discretion of the designated representatives, however all reasonable requests for relevant information made by one party to the other party shall be honoured.”;

“7.13 Although it shall be the good faith intention of the parties to use the above Billing Dispute Resolution Procedures to the fullest extent to try to solve Billing Disputes, nothing in this Annexure shall prevent either party from *directly raising the Billing Dispute to the Commission for resolution under Chapter 7 of Part V of the Act or pursuing any other remedy in law or equity that may be available to them if a Billing Dispute cannot be resolved to their satisfaction.*”; and

“7.17 If the Billing Dispute Escalation Procedure has been exhausted, either party may refer the Billing Dispute to the Commission for resolution under Chapter 7 of Part V of the Act. *The Commission shall resolve the dispute within thirty (30) Business Days from the date of escalation to the Commission.*”

- 35.23 MyTV, Altel and Net2One concurred with the proposed amendment by the MCMC to add new subsection 4.5. The provision under the subsection 4.5 of Annexure A provide an option to the parties to escalate the unresolved dispute to the relevant party.
- 35.24 PPIT is agreeable to the MCMC’s suggestion to bypass certain levels.
- 35.25 REDtone and Sacofa agreed to retain current Annexure A without amendments.

- 35.26 TM proposed to retain the Dispute Resolution Procedures set out under Annexure A of the 2016 MSA. The MCMC's amendment to allow the Receiving Party to directly refer the issue to the Commission for final arbitration bypassing the need to go through the interconnect steering group is expected to be effective in resolving disputes within the industry. However, retaining an interconnection steering group before approaching the MCMC directly would reduce the administrative burden for the MCMC. As such, TM proposed that the MCMC should revert to the Dispute Resolution Procedures defined in the 2016 MSA without further amendments.
- 35.27 TT dotCom is of the view that Access Providers should be required to submit their RAOs to the MCMC before publication to ensure compliance with the MSA. TT dotCom has experienced in the past where the MCMC sought clarifications on a published RAO during negotiation and subsequently requested amendments to the RAO. The revised RAO could only be republished upon approval of the amendments by the MCMC. As a result, both parties had to realign the negotiation based on the newly published RAO and this was time consuming to the process and should be avoided in the future. Accordingly, TT dotCom would like to propose that the submission and/or clarification of RAO to the MCMC be completed i.e. assessment and approval by the MCMC, before any negotiation takes place.
- 35.28 YTL agreed with the proposed subsection 4.5 and the deletion of subsection 5.1 of Annexure A.

Discussion

- 35.29 The MCMC notes the submissions from Astro and Maxis about streamlining the dispute resolution procedures, principally through the removal of the Inter-party working group. The MCMC agrees that this seems an unnecessary step to go through as part of the dispute resolution process. It is highly likely that before a dispute is notified, the parties will have had some discussions at the working level in any case, and it seems unnecessary duplicative to include this as a step in the dispute resolution process itself.
- 35.30 Accordingly, the Interconnect Steering Group will be the main first step in the formal dispute resolution process as the MCMC expects the parties to have been unable to reach a resolution at the working level prior to notifying a dispute.
- 35.31 The MCMC will also consider other amendments suggested regarding the billing dispute processes.

MCMC Views

- 35.32 The IWG will be removed as a step in the dispute resolution procedures.

36 Other Submissions

Introduction

- 36.1 Any other submissions from operators were also invited, in particular the access agreement registration process.

Submissions Received

- 36.2 Allo is agreeable to this.
- 36.3 Astro agrees with some of the operator's submission that in line with Section 150 of the CMA, Astro has experienced circumstances where the access provider is not willing to provide services until the access agreement has been registered with the MCMC. This has resulted in delays to Astro's initial project timelines and therefore created a commercial disadvantage.
- 36.4 Astro proposes to have an alternative/provision to address the issue of enforceability under Section 150 of the CMA to allow for services to commence pending the registration of Access Agreement with the MCMC.
- 36.5 Astro proposes the following in order to expedite the registration process of an Access Agreement:
- (a) the MCMC to allow parties to jointly submit the application for registration of Access Agreement and a certified true copy of the AA electronically; and
 - (b) An online system to be developed so that parties may obtain real-time information as to the status of their application.
- 36.6 Finally, Astro proposed for the MCMC to review the Guideline to Registration of Access Agreements ("Guideline") to provide clarification on its position on the enforceability of a commercial agreement between parties pending the registration of the access agreement.
- 36.7 Celcom supports the MCMC's efforts in ensuring smooth registration process for access agreements to avoid any delay in service provision. Celcom highlighted its concern that some operators insist that access will only be provisioned upon registration of access agreement where the access agreement will be enforceable pursuant to section 150 of the CMA. Based on Celcom's experience, the registration process takes time. As such, it is not appropriate to wait for the access agreement to be registered before a service can be provisioned since the agreement has already been signed by both parties and duly stamped.
- 36.8 Digi suggested that the MCMC consider allowing operators to operationalise an access agreement upon submission of registration. Digi is of the view that submitting a duly stamped access agreement for registration as required by the MCMC, already makes the access agreement a valid and binding document. More importantly, it should be made clear that parties have the right to raise access dispute as provided in section 151 of the CMA regardless of the status of the registration of the access agreement.
- 36.9 Edotco commented that the overall terms of the MSA are comprehensive, making it one of the most complex telecommunications regulatory instruments globally, which also translate to convoluted compliance and registration processes. The costs involved in these processes are substantial, not just for regulatory bodies, but also to operators. Edotco suggested that the MSA is simplified and focused on the key aspects.

- 36.10 Fibrecomm proposed for operators to execute an agreement, but the agreement should be registered by the MCMC for administrative purpose only.
- 36.11 Maxis is agreeable with the MCMC's intention to review the requirement that Access Agreements will only be effective after registration is completed by the MCMC in accordance with CMA Section 150. CMA Section 150 states that Access Agreement is only enforceable from date of registration. However, Maxis believes that the effective date of the Access Agreement can be either:
- (a) the date of the Access Agreement; or
 - (b) any other date that is mutually agreed between the Access Seeker and the Access Provider.
- 36.12 However, the Access Agreement must be subsequently registered by the MCMC pursuant to CMA Section 150, allowing the MCMC to validate and ensure compliance of the Access Agreement with the relevant Regulatory Frameworks such as Access List, MSA, MSA, MSQOS Determinations and the Act. This to ensure equitable and non-discriminatory treatment by the Access Provider to the Access Seeker in accordance with the relevant Regulatory Framework for the benefit of the industry and end-users.
- 36.13 The MCMC shall also continue to require Access Provider and Access Seeker to amend their Access Agreement accordingly, in compliance with the relevant Regulatory Frameworks and the Act.
- 36.14 PPIT appreciated the MCMC's efforts to streamline the process. In addition, PPIT also proposed amendment in Clause 3 as follows:

Business Day

"(b) in states where Friday is observed as the weekly holiday, a Thursday and Friday or a Friday and Saturday (whichever is applicable); or"

- 36.15 REDtone proposed to establish a timeline for access agreement to be registered e.g., 90 days or 120 days – where the days is to be determined by the MCMC.
- 36.16 Sacofa submitted that parties typically negotiate terms of access that are not in MSA until they reach a consensus. The typical issues include pricing, SLA, delivery dates and liquidated damages.
- 36.17 TM supports the MCMS's effort to simplify and streamline the registration process for Access Agreements, and minimise the time required to enter into an Access Agreement. TM notes that the registration of an Access Agreement has been a cumbersome process. For instance, TM signed 14 Access Agreements from 2018 up until recently, of which 10 have yet to be registered due to various challenges and delays faced by TM during the registration process. As such, TM proposes to streamline the process and allow operators to execute the agreement immediately upon signing. Thereafter, the agreement should be registered immediately by the MCMC for administrative purpose only. During the negotiation process, the operators shall utilise the Dispute Resolution process to resolve any disagreements to eliminate any issues during the registration process.

- 36.18 TT dotCom is of the view that the current Dispute Resolution Procedures set out under Annexure A of the MSA should be retained without amendment. They view that the disputes could be resolved at the IWG and ISG stages. They also believe that access provider and access seeker should exhaust all avenues of the negotiation i.e. referring to IWG and ISG, before escalating the matter to the MCMC.
- 36.19 U Mobile is cognisant that the "MSA already seeks to strike a balance between setting out the key non-price terms of access to Facilities and Services listed on the Access List while ensuring that operators have the flexibility to agree certain matters on a commercial basis, such as service level credits, liquidated damages for delay, and more detailed operational and maintenance-related matters". U Mobile is encouraged by the fact that the MCMC has focused on the terms of access to limit the scope for anti-competitive conduct and to support the national policy objectives. U Mobile believes that the MCMC is consistently adhering to this approach and supports the continued application of the MSA to ensure fair and equitable access to facilities and services by Access Seekers.
- 36.20 YTL welcomes this proposal as it will facilitate the conclusion and registration of access agreements.

Discussion

- 36.21 The MCMC thanks operators for their feedback on the Access Agreement registration process. The MCMC will consider this feedback and separately communicate with operators about this issue.

MCMC Views

- 36.22 No changes to the MSA arise from this discussion, but the MCMC thanks operators for their feedback.

Annexure 1 Detailed Maxis 5G submissions

A. Proposed service levels for 5G Services

As mentioned in paragraph 31.89, Maxis’s proposed service levels for 5G Services are as follows:

Subsection 6.15.27 (SLAs for high quality and reliability):

“Access Provider shall comply with the following Service Target Key Performance Indicator (“KPI”) and Service Level Target (“SLT”) obligations for 5G Services:

- (a) Shall have and provide high network quality & customer service at all touchpoints, ranging from network and service provisioning to service quality assurance to allow the Access Seeker to meet the relevant MSQoS requirements. The Access Provider shall provide to the Access Seeker indemnification of the Commission’s fines where the Access Seeker fails to meet the relevant MSQoS.
- (b) Shall have and provide real time feedback on the 5G Wholesale Access Provider network for network configuration and alarms, KPI performance and user experience matrix for SLA assurance and monitoring.
- (c) Shall avoid any single point of failure in any part of their 5G network.

Subsection 6.15.27(d) 5G Services Service Level Target for Fault Restoration:

There are three primary SLAs (Critical, Major, Minor) of which Critical and Major are to be linked to service credit commitments.

Severity	Severity Definition	MTT Respond	MTT Notify	MTT Restore	Progress Update	RCA
1 (Critical)	<p>Total failure of network</p> <ul style="list-style-type: none"> • Any total site outage (single or multiple) • Critical (Enterprise/VIP etc) site total service interruptions • Complete loss of visibility of network performance i.e., no means to determine network status • Problems with a planned activity that caused disruption to a previously operational element at site level • Incident that causes severe performance degradation or lead to increase of customer complaints • Any Cybersecurity breach impacting services towards network and/or customers and/or DNB • Loss of redundancy on POI level 	15 mins	15 mins	4 hours (95%)	Hourly	2 days

2 (Major)	Sector failure/degradation <ul style="list-style-type: none"> • Loss of visibility of network performance (i.e., limited means to determine network status) • Problems with a planned activity that caused disruption to a previously operational element at sector level • Any Cybersecurity breach with risk of impact to services towards network and/or customers and/or DNB • Loss of network FM and PM visibility 	30 mins	30 mins	8 hours (90%)	2-Hourly	5 days
3 (Minor)	Non-Service Affecting / Non-Customer Impacting	60 mins	60 mins	24 hours	12-Hourly	NA

Subsection 6.15.27(e) Key Performance Indicators for National 5G Wholesale Network

No	KPI	Target	Measurement
1	Download Speed Cell Edge (Indoor/Outdoor) Cell Edge is defined as signal strength lower than -115dBm	100 Mbps, 90% of samples	<ul style="list-style-type: none"> • Drive test to be conducted on monthly basis during busy hour on the predefined DT route (static test) agreed by MNOs and DNB for each area (higher order than DNB polygon) regardless of PRB allocated – PRB Neutral • Indoor: DNB uses measurement report and geo location tools to assess subscribers RSRP/coverage and ensure signal strength is above a certain level equivalent to 100Mbps. By knowing typical RSRP of the indoor users, this value is mapped back to Drive Test RSRP against throughput results • Preferred method of calculation is using counters generated on the 5G RAN, using crowd source data from Ookla and OSS data • There shall be a minimum of 100 samples per Polygon
2	Download Speed Network (Indoor/Outdoor)	100 Mbps, 90% of samples	<ul style="list-style-type: none"> • Drive test to be conducted on monthly basis during busy hour on the predefined DT route (static test) agreed by MNOs and DNB for each area (higher order than DNB polygon) regardless of PRB allocated – PRB Neutral • Indoor: DNB uses measurement report and geo location tools to assess subscribers RSRP/coverage and ensure signal strength is above a certain level equivalent to 100Mbps. By knowing typical RSRP of the indoor users, this value is mapped back to Drive Test RSRP against throughput results • Preferred method of calculation is using counters generated on the 5G RAN, using crowd source data from Ookla and OSS data • There shall be a minimum of 100 samples per Polygon
3	Upload Speed (Indoor/Outdoor)	10 Mbps, 90% of samples	<ul style="list-style-type: none"> • Drive test to be conducted on monthly basis during busy hour on the predefined DT route (static test) agreed by MNOs and DNB for each area (higher order than DNB polygon) regardless of PRB allocated – PRB Neutral

No	KPI	Target	Measurement
			<ul style="list-style-type: none"> Indoor: DNB uses measurement report and geo location tools to assess subscribers RSRP/coverage and ensure signal strength is above a certain level equivalent to 10Mbps. By knowing typical RSRP of the indoor users, this value is mapped back to Drive Test RSRP versus throughput results Preferred method of calculation is using counters generated on the 5G RAN, using crowd source data from Ookla and OSS data <p>There shall be a minimum of 100 samples per Polygon.</p>
4	Latency	5G E2E <ul style="list-style-type: none"> < 50ms East Malaysia Infrastructure (gNB to POI), 2-way: <ul style="list-style-type: none"> DNB Regional POI Gateway: < 5ms DNB State POI Gateway: < 3ms *only in failure scenario	<ul style="list-style-type: none"> 5G service layer: Ping test at X number of static locations conducted on a monthly basis at the predefined location agreed by MNOs and DNB within the area (higher order than DNB polygon) E2E measured via crowdsourcing (UE to MNOs core) In the event where E2E KPIs are not met, DNB and MNOs need to work together and troubleshoot. With regular reporting, escalation and resolution in place, MNOs are not liable to DNB Infrastructure layer: TWAMP gNB to POI – Subject to revision due to technology and regulatory requirements
5	Packet Loss	Infrastructure (gNB to POI): <ul style="list-style-type: none"> < 0.01% 	<ul style="list-style-type: none"> 5G service layer: Ping test at X number of static locations conducted on a monthly basis at the predefined location agreed by MNOs and DNB within the area (higher order than DNB polygon) E2E measured via crowdsourcing (UE to MNOs core) Infrastructure layer: TWAMP gNB to State POI
6	Data Session Setup Success Rate	> 99.80% (UE to gNB)	<ul style="list-style-type: none"> DNB RAN counters
7	Data Session Drop Rate	< 0.07% (UE to gNB)	<ul style="list-style-type: none"> DNB RAN counters
8	Voice Redirection Setup Success Rate (including fallback rate)	> 99.80% (UE to gNB)	<ul style="list-style-type: none"> DNB RAN counters
9	Cell Availability	> 99.80% (UE to gNB)	<ul style="list-style-type: none"> DNB RAN counters

6.15.27(f) Service Credit Calculation Methodology

“Service Credits for KPIs or Service Level = Total service credit on performance non-compliance [A] * service credit multiplier on frequency of non-compliance if applicable [B], where

[A] = service credit on performance band % in Table 8 or 9 * monthly bill

[B] = service credit on frequency band in Table 10.

Table A: Service Level Target – Definition of Performance Band and Service Credit

No	Severity Level Definition / Impact	Service Level					Service Credit on Performance Band (% of monthly bill)				
		Mean Time to Respond	Mean Time to Notify	Mean Time to Restore	Progress Update	RCA	Mean Time to Respond	Mean Time to Notify	Mean Time to Restore	Progress Update	RCA
1	Critical	15 mins	15 mins	4 hours (for 95% of cases)	Every 60 mins	2 days	n/a	n/a	20.0%	n/a	20.0%
2	Major	30 minutes	30 minutes	8 hours (for 90% of cases)	Every 2 hours	5 days	n/a	n/a	10.0%	n/a	10.0%
3	Minor	60 minutes	60 minutes	24 hours	Every 12 hours	NA	n/a	n/a	n/a	n/a	n/a

Table B: KPI Target – Definition of Performance Band and Service Credit on performance Band

No	KPI	Performance Band					Service Credit on Performance Band (% of monthly bill)				
		T1	T2	T3	T4	T5	T1	T2	T3	T4	T5
1	Download Speed Cell Edge (Indoor/Outdoor) Cell Edge is defined as signal strength lower than -115dBm	100Mbps, 88.00% - 89.99% of samples	100Mbps, 86.00% - 87.99% of samples	100Mbps, 84.00% - 85.99% of samples	100Mbps, 82.00% - 83.99% of samples	100Mbps, < 82.00% of samples	10.0%	12.5%	15.0%	17.5%	20.0%
2	Download Speed Network (Indoor/Outdoor)	100Mbps, 88.00% - 89.99% of samples	100Mbps, 86.00% - 87.99% of samples	100Mbps, 84.00% - 85.99% of samples	100Mbps, 82.00% - 83.99% of samples	100Mbps, < 82.00% of samples	10.0%	12.5%	15.0%	17.5%	20.0%
3	Upload Speed (Indoor/Outdoor)	10Mbps, 88.00% - 89.99% of samples	10Mbps, 86.00% - 87.99% of samples	10Mbps, 84.00% - 85.99% of samples	10Mbps, 82.00% - 83.99% of samples	10Mbps, < 82.00% of samples	10.0%	12.5%	15.0%	17.5%	20.0%

No	KPI	Performance Band					Service Credit on Performance Band (% of monthly bill)				
		T1	T2	T3	T4	T5	T1	T2	T3	T4	T5
4	Latency	Any POI 99% busy hour: <5ms	Any POI 98% busy hour: <5ms	Any POI 97% busy hour: <5ms	Any POI 96% busy hour: <5ms	Any POI 95% busy hour: <5ms	10.0 %	12.5 %	15.0 %	17.5 %	20.0 %
6	Data Session Setup Success Rate	99.75 %	99.70 %	99.65 %	99.60 %	99.50 %	10.0 %	12.5 %	15.0 %	17.5 %	20.0 %
7	Data Session Drop Rate	0.080 %	0.09%	0.10%	0.11%	0.12%	10.0 %	12.5 %	15.0 %	17.5 %	20.0 %
8	Voice Redirection Setup Success Rate (including fallback rate)	99.75 %	99.70 %	99.65 %	99.60 %	99.50 %	10.0 %	12.5 %	15.0 %	17.5 %	20.0 %
9	Cell Availability	99.75 %	99.70 %	99.65 %	99.60 %	99.50 %	10.0 %	12.5 %	15.0 %	17.5 %	20.0 %
6	Data Session Setup Success Rate	99.75 %	99.70 %	99.65 %	99.60 %	99.50 %	10.0 %	12.5 %	15.0 %	17.5 %	20.0 %

Table C: KPI Target – Definition of Frequency Band and Service Credit on Frequency Bands

No	KPI	Frequency Band			Service Credit on Frequency Band		
		P1	P2	P3	P1	P2	P3
1	Download Speed Cell Edge (Indoor/Outdoor)	2 consecutive times	3 consecutive times	≥4 consecutive times	1.025x	1.050x	1.075x
2	Download Speed Network (Indoor/Outdoor)	2 consecutive times	3 consecutive times	≥4 consecutive times	1.025x	1.050x	1.075x
3	Upload Speed (Indoor/Outdoor)	2 consecutive times	3 consecutive times	≥4 consecutive times	1.025x	1.050x	1.075x
4	Latency	2 consecutive times	3 consecutive times	≥4 consecutive times	1.025x	1.050x	1.075x
5	Packet Loss	2 consecutive times	3 consecutive times	≥4 consecutive times	1.025x	1.050x	1.075x

No	KPI	Frequency Band			Service Credit on Frequency Band		
		P1	P2	P3	P1	P2	P3
6	Data Session Setup Success Rate	2 consecutive times	3 consecutive times	≥4 consecutive times	1.025x	1.050x	1.075x
7	Data Session Drop Rate	2 consecutive times	3 consecutive times	≥4 consecutive times	1.025x	1.050x	1.075x
8	Voice Redirection Setup Success Rate (including fallback rate)	2 consecutive times	3 consecutive times	≥4 consecutive times	1.025x	1.050x	1.075x
9	Cell Availability	2 consecutive times	3 consecutive times	≥4 consecutive times	1.025x	1.050x	1.075x

B. Proposed obligation that all Access Seekers are served under one RAO

As discussed in paragraph 31.10(b), Maxis proposed the following new section 6.15.29 setting out proposed obligations for DNB to provide services to all Access Seekers:

“6.15.29 One RAO for all Access Seekers

- (a) All Access Seekers are served only under one same version of the Reference Access Offer (RAO). No Access Agreement between the Access Provider and Access Seeker shall deviate from the RAO. For clarity, DNB shall not provide any 5G Services or 5G related services or products to any customers on terms and conditions (including pricing), which deviate from the Reference Access Offer.
- (b) All 5G Services and options shall be fully defined in the RAO and any introduction of a new product, service, option, terms or pricing or any variation to existing 5G Services and options must be carried out in accordance with the process set out in this Standard.
- (c) All pricing and non-pricing terms and conditions shall be fully defined in the RAO.”

C. Proposed non-discrimination obligations

As discussed in paragraph 31.92, Maxis proposed the following new section 6.15.30 setting out proposed non-discrimination obligations for DNB:

“6.15.30 Access Provider as a neutral 5G wholesale provider

- (a) The Access Provider commits to business practices and communications which are fair, equitable and avoid creating any advantage or disadvantage to any of the Access Seekers. For clarity, Access Provider must not conduct

itself in a manner which may be favourable to, prejudice or provide any unfair advantage or impair one Access Seeker over the other Access Seekers or to participate in any Access Seeker sales, sales, marketing and promotion activities such as product or service launches and must not appear in print and other advertisement media to avoid being seen as supporting one Access Seeker over other Access Seekers.

- (b) The Access Provider may only communicate with customers of an Access Seeker or end users of an Access Seeker's service in the following circumstances:
 - (i) in a manner or in circumstances agreed with the Access Seeker;
 - (ii) in or in connection with an emergency, to the extent the Access Provider reasonably believes necessary to protect the safety of persons or property; or
 - (iii) as members of the general public or a part of the general public or members of a particular class of recipients of 5G Services, provided that the communication is neutral as between Access Seekers.
- (c) If a customer of an Access Seeker or an end-user of an Access Seeker's service initiates a communication with the Access Provider in relation to goods and/or services supplied to that end-user by the Access Seeker, the Access Provider must:
 - (i) advise that person that they should discuss any matter concerning the Access Seeker's goods and/or services with the Access Seeker and must not engage in any form of marketing or discussion of the Access Provider's goods and/or services;
 - (ii) make and maintain a record of the communication (Communication Record); and
 - (iii) inform the Access Seeker of such communication and to provide a copy of Communication Record to the Access Seeker.
- (d) The Access Provider shall remain neutral while supporting multiple Access Seekers who are developing 5G-dependent solutions in competition with each other as bids toward an enterprise or Government end-customer. The Access Provider shall have a clear process, which will be made available to Access Seekers, on how it will handle multiple Access Seekers bidding for the same job and to ensure proper information barriers are maintained and to further ensure that no relevant information is disseminated between the Access Provider's personnel who are supporting different Access Seekers in developing the 5G-dependent solutions.
- (e) For rare cases (e.g., customized private networks) where standardized pricing or pricing formulas and/or non-price terms are unachievable (each a Non-standard Transaction) there must be a process by which the Access

Provider will negotiate with multiple Access Seekers in a non-discriminatory and equitable manner

- (f) The Access Provider to maintain a record in respect of each Non-standard Transaction (including any variations) in a form approved by the Commission, which:
- (i) identifies the parties to the Non-standard Transaction;
 - (ii) describing the differences between the terms and conditions of the Non-standard Transaction and the Access Provider's standard terms;
 - (iii) setting out such other information as is required by the form,
(called a **Statement of Differences**).
- (g) On request, the Access Provider must give the Commission any Statement of Difference."

D. Proposed Service Catalogue principles

As discussed in paragraph 31.94, Maxis submitted the following new section 6.15.31 setting out Maxis's detailed Service Catalogue proposal:

"6.15.31 Service Catalogue

- (a) The Access Provider agrees with the following Service Catalogue principles:
- (i) All services offered by the Access Provider shall be included in the Services Catalogue and offered equally to Access Seekers in an equitable and non-discriminatory basis
 - (ii) National 5G Wholesale Network shall be a mandatory service prior to taking other optional Services
 - (iii) Each entry in the Service Catalogue shall include description; technical details; options; pricing; KPIs; KPI penalties; spectrum used; eligibility criteria; ordering process; assurance and roadmap
 - (iv) The following shall not be construed to form part of the Services:
 - A. Any carriage of 4G traffic except when it is unavoidably part of the 5G NSA architecture or used as part of the dynamic spectrum sharing between 4G and 5G
 - B. Provision of Multi-Access Edge Compute (MEC) capabilities
 - C. Provision of information technology services (e.g., OSS or BSS on a standalone basis) to the Access Seeker
 - D. Provision of transmission or transport services or hosting or data center services other than those integrated with the 5G RAN and providing connectivity to the nearest POI

- E. Connection to or data carriage to / from 'the Internet'
 - F. Applications and services running 'over the top' of the 5G RAN (e.g., IoT services, consumer services)
 - G. Provision of devices to End User Customers
 - H. Provision of 5G use cases for end customer or enterprise customers
 - I. Provision or deployment of factory automation solutions
- (v) Access Seekers are allowed to (i) deploy fibre and install transmission equipment at the Point of Interface and (ii) deploy Equipment at gNodeB and Point of Interface at no additional cost to the Access Seeker
 - (vi) Pricing for Services in the Services Catalogue shall be reviewed by an independent third party appointed by the Commission
 - (vii) An independent third party approved by the Commission shall conduct periodic pricing reviews.

Services in Service Catalogue: The Service Catalogue shall include the following services:

- (i) National 5G Wholesale Network: mandatory service which provides 5G radio access network to Access Seekers
- (ii) RAN Coverage Extension (IBS) Shared: Opt-in service which provides coverage extension for selected locations to ensure seamless mobility from outdoor to IBS
- (iii) 5G RAN Coverage Extension (Bespoke): Opt-in service which enables Access Seekers to direct the Access Provider to deploy coverage for a specific area
- (iv) 5G RAN Private Network: Opt-in service that enables the Access Seeker to work with the Access Provider to define a specific private network solution for its customer which the Access Provider will then deploy

In addition, Maxis also proposed a new subsection 6.15.22A on changes to Changes to Services Catalogue as follows:

6.15.22A Changes to the Services Catalogue:

The following applies where the Access Seeker wishes to add a new 5G Service or amend an existing 5G Service.

- (a) An Access Seeker may submit a written request to the Access Provider to insert a new 5G Service or amend an existing 5G Service in the Service Catalogue ("Service Request").
- (b) The Access Provider shall upon receipt of a Service Request, submit a copy of the Service Request to the Commission and undertake an initial

consultation period with the Product Committee in subsection 6.15.20 within 10 days or any other mutually agreed timeline from date of Service Request.

- (c) The Access Provider shall submit a Service Feasibility Report within 30 days or any other mutually agreed timeline from date of Service Request receipt
- (d) The Access Seeker shall commence further consultations with the Access Provider in the Product Committee within 10 days or any other mutually agreed timeline from date of Service Feasibility Report
- (e) The Access Provider shall inform all Access Seekers in writing its acceptance (Service Proposal) or refusal (Service Notification) of the Service Request within 30 days or any other mutually agreed timeline from date of Service Feasibility Report. The Service Proposal shall include the Access Provider's proposal of the Service Request which includes the roadmap and the Service Levels, KPI, operational management and such other information relating to the Service Request.
- (f) If Service Request is rejected, the Access Provider shall provide the grounds for its decision (from a pre-determined list of reasons) and meet the Product Committee within 7 Business Days to discuss the refusal of the Service Request
- (g) Refusal of a Service Request by the Access Provider must be approved by the Commission
- (h) Access Seekers shall provide its comments on the Service Proposal within 20 days from date of Service Proposal, and mutually agree with the Access Provider on a Final Service Proposal in the Product Committee within 40 days from the date of Service Proposal to be submitted to the Commission for approval
- (i) The Access Provider shall implement the Final Service Proposal after approval by the Commission
- (j) Any new 5G Service or any changes, updates or modifications made to an existing 5G Service to be implemented by the Access Provider pursuant to the Final Service Proposal shall be offered and made available to all Access Seekers and the Access Provider is restricted from providing such new 5G Service or change, update or modify existing 5G Service to any Access Seekers unless and until such new 5G Service or change, update or modification to an existing 5G Service is included in the Services Catalogue.
- (k) If the parties are unable to resolve any differences in 6.15.22A(f) above, either party may request the resolution of the dispute in accordance with the Dispute Resolution Procedures

E. Technical Capability:

The 5G RAN (outdoor coverage, IBS coverage extensions, bespoke coverage extensions and even Femto coverage extensions) and all Services based on that RAN must all support and include use of the full range of 5G capabilities as these evolve and become available in the technology.

These capabilities include:

- (i) Both SA and NSA
- (ii) Local Network Slicing, where the Access Seeker can define Network Slices, eMBB, URLLC, mMTC from their core. For clarity, the DNB Base 5G RAN parameters should support these definitions and functions
- (iii) URLLC
- (iv) mMTC
- (v) Advanced location capabilities consistent with 3GPP Release 16
- (vi) Break-out at appropriate locations (e.g., gNB, POI, agreed location as part of Bespoke coverage)
- (vii) Carriage of VoNR traffic & signalling
- (viii) Capability to integrate and operate in tandem with service provider non -3GPP based wireless/wired connectivity for hand-off, load-balancing, hot swap to backup line etc
- (ix) Seamless fall-back to LTE, 3G and 2G networks
- (x) Data carriage, Voice-over (VoNR) and seamless fall-back to VOLTE
- (xi) Full support for MERS 999 including ongoing upgrade in accordance with evolving Malaysian requirements
- (xii) Support for all QCI/5QI Priority Levels and Pre-emption options consistent with 3GPP Release 16
- (xiii) OSS and Information & Data Available including:
 - A. Interfaces through which the Access Seeker will have real time access for network visibility such as configurations, alarms, performance statistics, geo-location, network slices and radio measurement data, including all data to support reconciliation of charging and network performance KPIs as well as to enable effective end-user customer service management by the Access Seeker.
 - B. OSS integration that supports trouble-ticket raising, response-passing and status tracking.
 - C. Direct access to values of all RAN counters involved in measurement of traffic for billing. It also includes updated coverage plot, rollout plan, site database, network architecture and configurations, etc.

F. Overall Product Roadmap Outlook:

There are items in the Service Catalogue already identified as future services (i.e. 5G Network Slice Product, 5G Core Network as a Service Product, 5G Network Slice Product for uRLLC and 5G Network Slice Product for mMTC / MIoT).

The following Service details shall be included as part of the overall product Roadmap:

- (i) Private Network-as-a-Service capability for Access Seekers that subscribe on:
 - A. uRLLC themed services (on private network): tiered by Latency SLAs
 - B. mMTC themed services (on private network): tiered by connectivity points of access on different QOS (Bit Error, Guaranteed Bit Rate, etc.)
 - C. Committed capacity
 - D. Other 5G B2B2X service mould (network, latency, vertical specific like manufacturing, port, etc.)
 - E. Dedicated 5G Spectrum leasing for Private Networks
- (ii) Network Slice
 - A. 5G Guaranteed Bandwidth services
 - B. Network-Slicing-as-a-Service supporting B2B2X models
 - C. eMBB slice
 - D. uRLLC slice
 - E. mMTC slice
- (iii) Fixed Wireless Access – 5G HSBB
- (iv) Any other 5G services and/or use cases that are defined in the future by the standard bodies (e.g. 3GPP)“

G. Proposed capacity upgrade policy

As discussed in paragraph 31.96, Maxis proposed the following new section 6.15.32 in relation to a proposed capacity upgrade policy for DNB:

"6.15.32 Service Fulfilment timeline and Obligations:

In addition to subsection 6.15.6, Access Provider shall comply with the following service fulfilment timelines:

- (a) New POI establishment – the Access Provider shall establish, configure, and complete the new 5G POI including the transmission capacity from the 5G RAN Sites to the new 5G POI location, the space for the Access Seeker to

co-locate their equipment in the new 5G POI location and the access route for the Access Seeker to pull their fibre to the new 5G POI location building/premise within three (3) months from the date of request by the Access Seeker

- (b) Existing 5G POI capacity upgrade – the Access Provider shall configure and complete the existing 5G POI Capacity Upgrade as follows:
 - (i) If new line card required, within eight (8) weeks
 - (ii) If new port required, within two (2) weeks
 - (iii) If only logical configuration, within one (1) week
- (c) New 5G RAN Capacity Site – the Access Provider shall establish, configure, and complete the new 5G RAN Capacity Site including the transmission capacity from the new 5G RAN Capacity Site to the 5G POI location where the Access Seeker equipment is co-located within three (3) months from the date of request by the Access Seeker
- (d) Existing 5G RAN Capacity Site Upgrade – Access Provider shall configure and complete the existing 5G RAN Capacity Site upgrade including the transmission capacity from the existing 5G RAN Capacity Site to the 5G POI location where the Access Seeker’s equipment is co-located within two (2) weeks from the date of request by the Access Seeker
- (e) Access Provider Capacity Upgrade Threshold – Access Provider shall ensure that all their respective capacity for 5G Services including the 5G RAN, Transmission, POI, etc. will be upgraded within seven (7) days once the utilization reached sixty percent (60%) of the existing capacity as per the MSQoS requirement”

H. Proposed service assurance obligations

As discussed in paragraph 31.97, Maxis proposed the following new section 6.15.33 setting out detailed service assurance obligations for DNB:

“6.15.33 Service Assurance and operational obligations:

Access Provider should comply with the following Service Assurance and Operational Obligations:

- (a) Establish the Roles & Responsibility matrix in accordance with the determined Operating Model which shall include (but not limited to) the Operations & Maintenance, Fault & Complaints Handling, Performance Verifications, Reporting, Change Management, Fraud, Systems & Tools, Disaster Recovery (BCP), Contact Details, Governance, Security & Privacy and Occupational Safety, Health and Environment (OSHE)
- (b) Maintain Network Operation Centre (NOC) that operates 24 hours by 7 days throughout the year. The NOC will be responsible to deal with all faults; preventive maintenance and notification; change management schedule; and cybersecurity and cyber defense management relating to the 5G

Services. The NOC shall be equipped with necessary systems, tools, automations, and processes to facilitate effective operation and maintenance activities as required by the Access Seeker.

- (c) Establish and operate a Service Operating Centre (SOC) that operates 24 hours by 7 days' basis throughout the year to ensure best in class experience to End User Customers of the Access Seeker. The Service Desk/Service Operating Center shall handle bulk complaints, non-incident and VIP complaints reported by one or multiple Access Seekers, or where the complaint is proved to have an issue in DNB 5G RAN
- (d) Provide the Fault Escalation Matrix (e.g. NOC, Incident Manager, Head of NOC and Head of Operations) and timelines for each process stage to the Access Seeker
- (e) Comply with the Service Level for Fault Restoration for 5G Services Network, Cyber and other Security as per sections 6.15.27(d) and 6.15.27(e)
- (f) Establish a Joint Operations Committee, comprising of the Access Provider and Access Seekers, that is responsible for the validation and approval of any changes required in the Operations Manual. The Access Provider undertakes not to implement any changes to the Operations Manual that may have a direct or indirect commercial or operational impact on the Access Seeker or that which may vary the Service Levels, KPIs, Service Credits and other commercial considerations set out in the Service Catalogue/RAO, MSA and Access Agreement.

The roles and responsibilities of the Joint Operations Committee as mentioned are (but not limited to):

- (i) Review, oversee and guide the overall operations of the DNB 5G SWN
- (ii) Develop insight and suggest strategic directions and policy implementations
- (iii) Formulate long-term strategy and policy decisions related to Operations
- (iv) Conduct monthly meetings/engagements to:
 - A. Approve final standings of KPIs/SLAs achieved as per the operation performance report that includes SLA/delivery metrics, performance KPIs, RCAs
 - B. Review continuous improvement action plans (which includes but is not limited to improvement plans for MSQoS, crowd sourcing benchmarking, congestion relief initiatives)
 - C. Provide guidance and support needed to sub-committees on action plans
 - D. Provide financial decision of any actions not agreed by sub-committees
 - E. Planning the flow and forecast of new Private Network onboardings in line with delivery organization

- (v) Approve final O&M Manual and any revisions suggested/requested based on justifications provided
- (vi) Provide guidance on any stand-off inconclusive between the Access Provider and Access Seekers
- (vii) Provide ad hoc engagements, when necessary, in the event of emergencies to provide guidance and support needed in managing these instances

The Joint Operations Committee should comprise of: Head of Operations, Head of NOC, Assurance & Field Support (from each represented organization).

The Joint Operations Committee may include the Chief Technology Officer or Chief Network Officer into the Committee for unresolved disputes during the monthly meetings.

- (g) The NOC and SOC must be BCP-ready and its effectiveness to be tested/simulated at least once a year with the involvement and validation of the access seekers. The BCP location must be built/designed to seamlessly undertake its role within 2 hours of its needfulness, preferably immediate.
- (h) The Access Provider may with mutual agreement of the Access Seeker change the Operations Manual subject to:
 - (i) The Access Provider consulting with the Access Seeker
 - (ii) Giving 30 days notice of any agreed changes to the Operations Manual following completion of that period of consultation
 - (iii) Not be any worse off than the terms and conditions of the then prevailing Operations Manual
 - (iv) Be agreed in writing by both parties
 - (v) Obtaining approval from the Commission, with the updated Operations Manual published on the Access Provider's website. Prior to Commission approval, it must first be approved by the Joint Operations Committee that includes designated representatives from the Access Provider and Access Seeker.
 - (vi) Entering a new or supplementary Access Agreement to reflect the updated Operations Manual as approved by the Commission."

I. Proposed point of interconnection, network co-location and access route obligations

As discussed in paragraph 31.98, Maxis proposed the following detailed point of interconnection, network co-location and access route obligations for DNB, as a new section 6.15.34:

"6.15.34 Point of interconnection network co-location and access route

Access Provider shall comply with the following Point of Interconnection ("POI"), Network Co-location and Access Route obligations for 5G Services:

- (a) The Access Provider shall allow the Access Seeker to deploy MEC in various points in the network e.g. at Customer's premise, depending on use case requirements. The Access Provider shall prepare the respective points for MEC integration.
- (b) Access Provider shall provide space for Network Co-location and Access Route at any technically feasible POI or MEC locations as selected by the Access Seeker. Access Seekers shall have physical control over their respective Equipment installed at the POI
- (c) Access Provider must allow Access Seekers to deploy its own fiber to the POI
- (d) The Access Provider shall provide alternative interim short-term leasing arrangements from regional/state POI to Central POI for Access Seekers upon request according to Access Seeker's Regional/State POI readiness timeline
- (e) The Access Provider shall not impose additional charges on Access Seekers for connectivity between POIs in the same data center
- (f) Access Provider shall not relocate any POI under any circumstance except:
 - (i) with all Access Seekers consent and the MCMC approval; or
 - (ii) Force Majeure"

J. Proposed proof of concept obligations

As discussed in paragraph 31.99, Maxis proposed the following proof of concept obligations for DNB, as a new section 6.15.35:

6.15.35: Proof of concept:

In addition to subsection 5.7.27 of this Standard, Access Provider shall comply with the Proof of Concept ('POC") obligations for 5G Services as follows:

- (a) The POC will be carried out on a date and for the period to be mutually agreed by the Access Provider and the Access Seeker.
- (b) The POC is undertaken to ensure that the following objectives are met:
 - (i) MVIV – Multi Vendor Interoperability Validation.
 - (ii) Product/Use Case validation.
 - (iii) Enterprise Customer POC.
 - (iv) Any other POC requirements as required by the Access Seeker from time to time
- (c) For clarity, for 5G Services, MSA subsection 5.7.27(b) shall be worded as: shall treat an Access Seeker's testing and provisioning on an equivalent basis to that which the Access Provider treats testing and provisioning for itself and other Access Seeker

K. Proposed security obligations

As discussed in paragraph 31.101, Maxis proposed the following detailed network security obligations for DNB, as a new section 6.15.37:

“6.15.37 Network, cyber and other security: Access Provider and its agents, sub-contractors and representatives shall comply with the following Network, Cyber and other Security obligations for 5G Services for the scenario where the Access Seeker is using its own Core Network, and subscribe only the 5G RAN services from the Access Provider:

- (a) Shall endeavor to adopt best practices and a standards-based continuous improvement approach to managing cybersecurity by implementing standards from 3GPP, GSMA, ITU, ISO, CIS, MTSFB, PDPA, SOC and others.
- (b) Shall provide or publish annual independent audited reports for cybersecurity compliance that should include as a minimum compliance to ISO, MTSFB, 3GPP and GSMA standards.
- (c) Shall require the 5G network equipment, solutions and/or technology provider to provide cybersecurity device certification for key technology components used in the network.
- (d) Shall ensure continuous updates for policies and processes related to cybersecurity, data privacy and protection, network security, net neutrality policy and device approvals.
- (e) Shall actively maintain a cybersecurity threat catalogue, risk register and ensure that risk mitigating measures are undertaken and regularly reviewed. A key emphasis are risks related to national security, dependence of network equipment suppliers, confidentiality, privacy, availability and integrity of the shared networks.
- (f) Shall have 24x7 SOC and provide proactive monitoring and detection, mitigation and response to any malicious cybersecurity attacks that could potentially lead to service disruption, coordinated failure, interception, customer information disclosure, fraud and/or other security breaches for all provided 5G services.
- (g) Shall provide:
 - (i) Data integrity, by ensuring that data traffic (user, control and management plane) not to be altered during transmission.
 - (ii) Data authentication, by ensuring that data transmitted comes from the right party and ensure that user connect to right mobile provider.
 - (iii) Secure data/network access control to prevent unauthorised access and protect nodes (servers, networks, apps) from outsider and insider threat.
- (h) Shall ensure vulnerability management and patch management processes are continuously performed.

- (i) Shall ensure segmentation between tenants to prevent interference, data access from unauthorised party, and data interception
- (j) Shall not share and provide any data relating to performance, QoS, network utilisation, capacity or similar information that would provide other operators/tenants with competitive information
- (k) Shall comply with the Service Level for Fault Restoration for 5G Services Network, Cyber and other Security as per subsection 6.15.27(d)."

L. Proposed termination obligations

Maxis proposed the following termination obligations be added to a new section 6.15.39, as discussed in paragraph 31.104:

"6.15.39 Termination:

The following shall apply for 5G Services in relation to termination:

(a) Termination by the Access Provider

- (i) Subsection 5.14.3(a)(i) shall not apply for 5G Services
- (ii) The following clause shall apply in place of 5.14.3(a)(iii): A Force Majeure has continued for a period of more than 3 months which has affected the ability of Access Provider to fulfil their obligations under the Access Agreement after attempts were made to make good the situation and discussion and agreement by the Access Seeker to the termination.

(b) Termination by the Access Seeker

- (i) In addition to subsection 5.14.3(b), Access Seeker allowed to terminate when there is a regulatory change which:
 - A. Materially and adversely affects the ability of the Access Provider to continue with the provision of the Services under the RAO;
 - B. Result in DNB no longer being the sole provider of 5G RAN services in Malaysia or the Government of Malaysia or the Commission has allowed the emergence of second 5G RAN services provider in Malasia
 - C. Allow the Access Seeker to deploy their own 5G cellular network services using its own spectrum; or
 - D. Where the Access Provider is unable to secure the spectrum necessary to provider the Services,

In such a scenario, the Access Provider and Access Seeker shall meet within 5 BD of becoming aware of the regulatory change to review whether access to the relevant Services may be provided by the Access Provider on different terms and conditions that comply with the relevant regulatory change (which terms and

conditions are acceptable to the Access Seeker), failing which the Access Seeker shall be entitled to terminate the Access Agreement

- (ii) Save and except for termination due to change in law or a regulatory event, the Access Seeker shall not be permitted to terminate the Access Agreement in part with respect to individual Polygons or the National Shared 5G RAN Standard Coverage service
- (c) The Access Provider shall have the following additional obligations:
- (i) In addition to 6.15.39(b)(i), the Access Provider shall allow termination for convenience by the Access Seeker (at no cost or penalty) in the event of any other material Regulatory Changes.
 - (ii) The Access Provider shall not invoice Access Seekers for the affected Service during the suspension period if the suspension is not due to the Access Seeker's fault."