

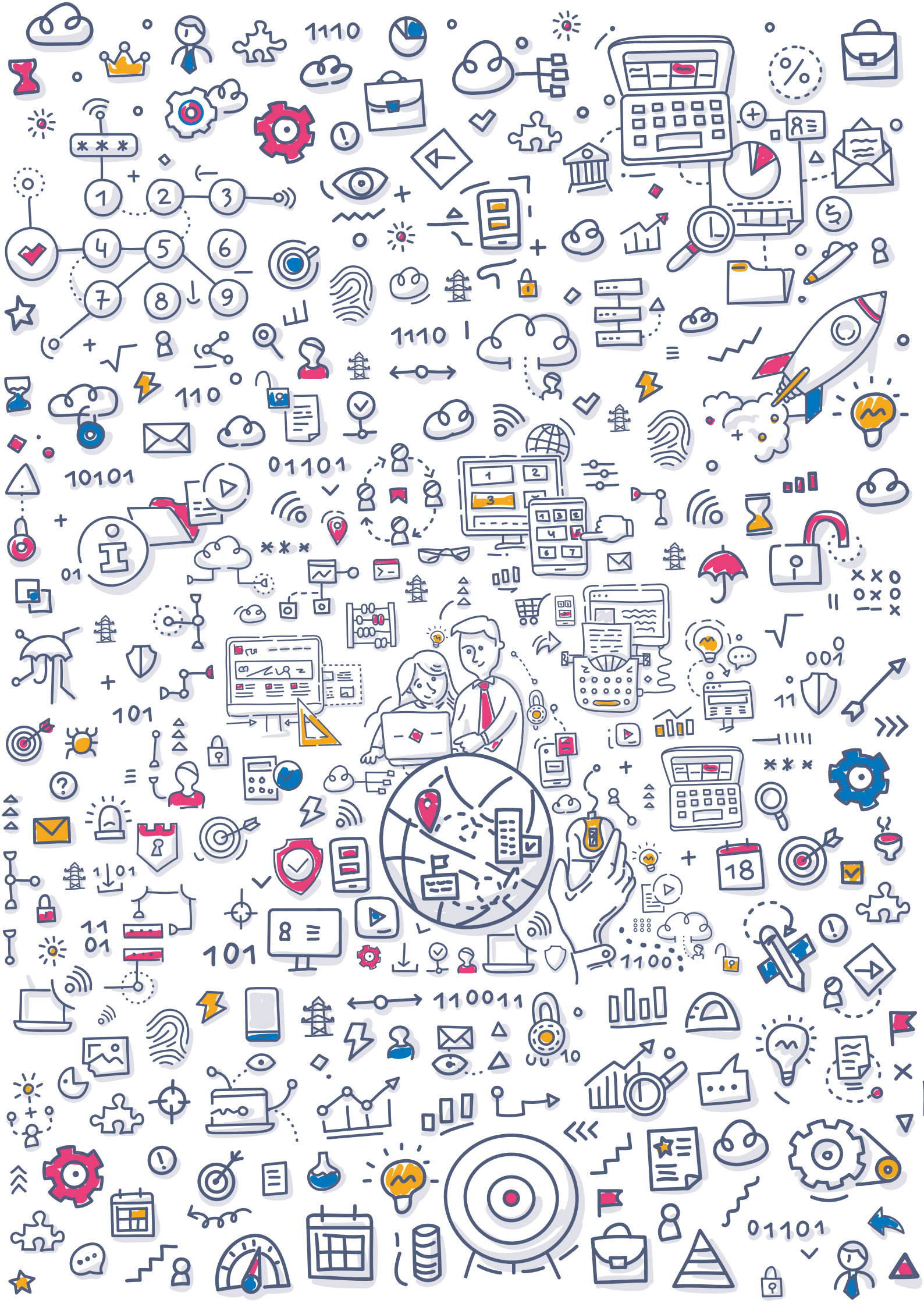


20
TAHUN
MENCORAK
LANDSKAP
DIGITAL



SHAPING THE DIGITAL LANDSCAPE

ANNUAL REPORT 2018





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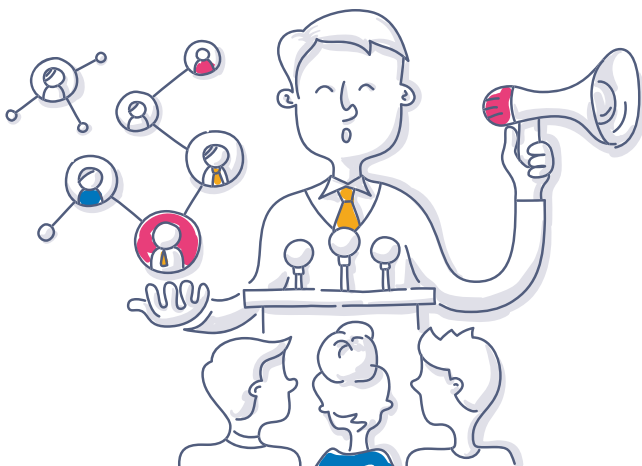
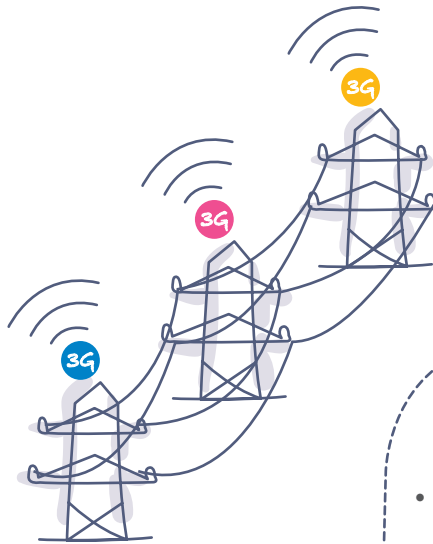
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INTRODUCTION

20 years of MCMC Infographics



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1998

- 1 November: MCMC was established under the Communications and Multimedia Act 1998 and the Malaysian Communications and Multimedia Commission Act 1998.

1999

- 31 March: The Communications and Multimedia Act 1998 came into effect.

2002

- Spectrum allocation which introduced IMT-2000 or 3G services in Malaysia.
- Pilot project implemented under the Community Communications Development Programme (CCDP) in Julau, Sarawak and Kinabatangan, Sabah.

2001

- MCMC's portfolio was further expanded with the additional responsibilities of regulating the postal and courier service under the Postal Services Act 1991 and certification services under the Digital Signature Act 1997.
- 31 March: Consumer and Content Forums were established.

2000

- Six (6) by-laws under the Communications and Multimedia Act 1998 were approved and gazetted.



2005

- The development of the National Spectrum Monitoring and Control Centre (NASMOC) project initiated.
- Introduction of a 5-year MyICMS 886 strategic plan to improve ICT quality and multimedia services in Malaysia.



2006

- The launch of MyIX, a non-profit, independent and first neutral Internet Exchange platform that enables local Internet Service Providers (ISP) and content providers to connect and peer to exchange domestic internet traffic.
- Implementation of registration exercise for mobile prepaid service customers.

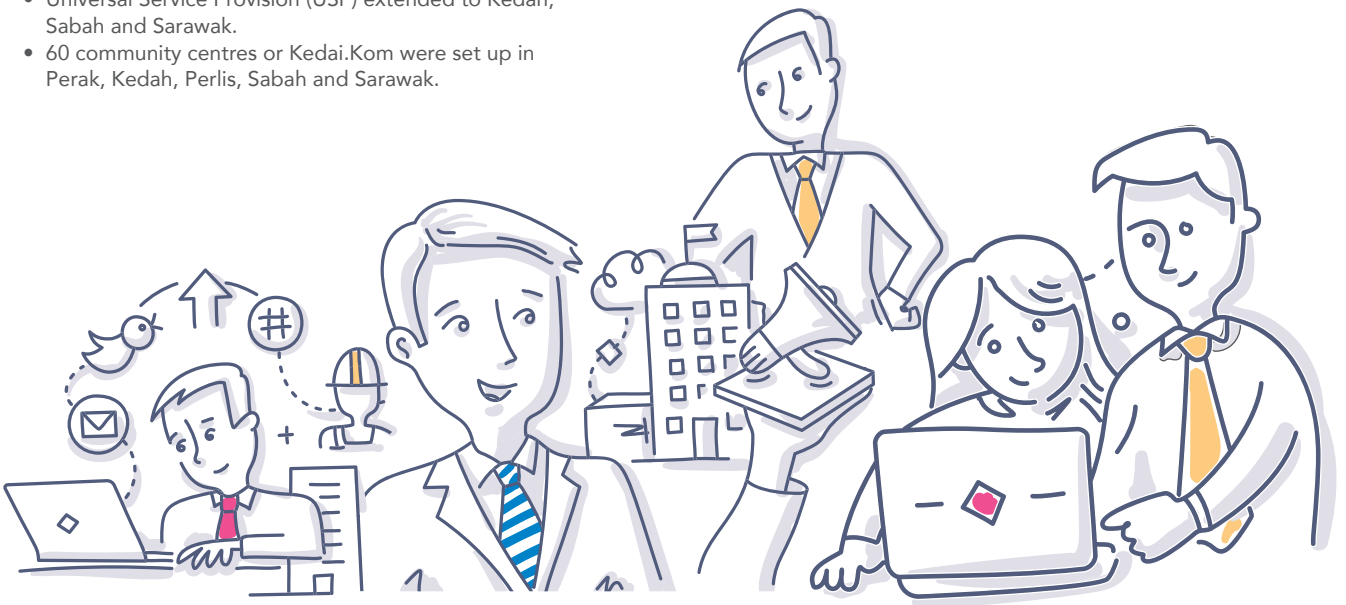


2004

- 8 June: Malaysian Technical Standards Forum Bhd (MTSFB) was incorporated.

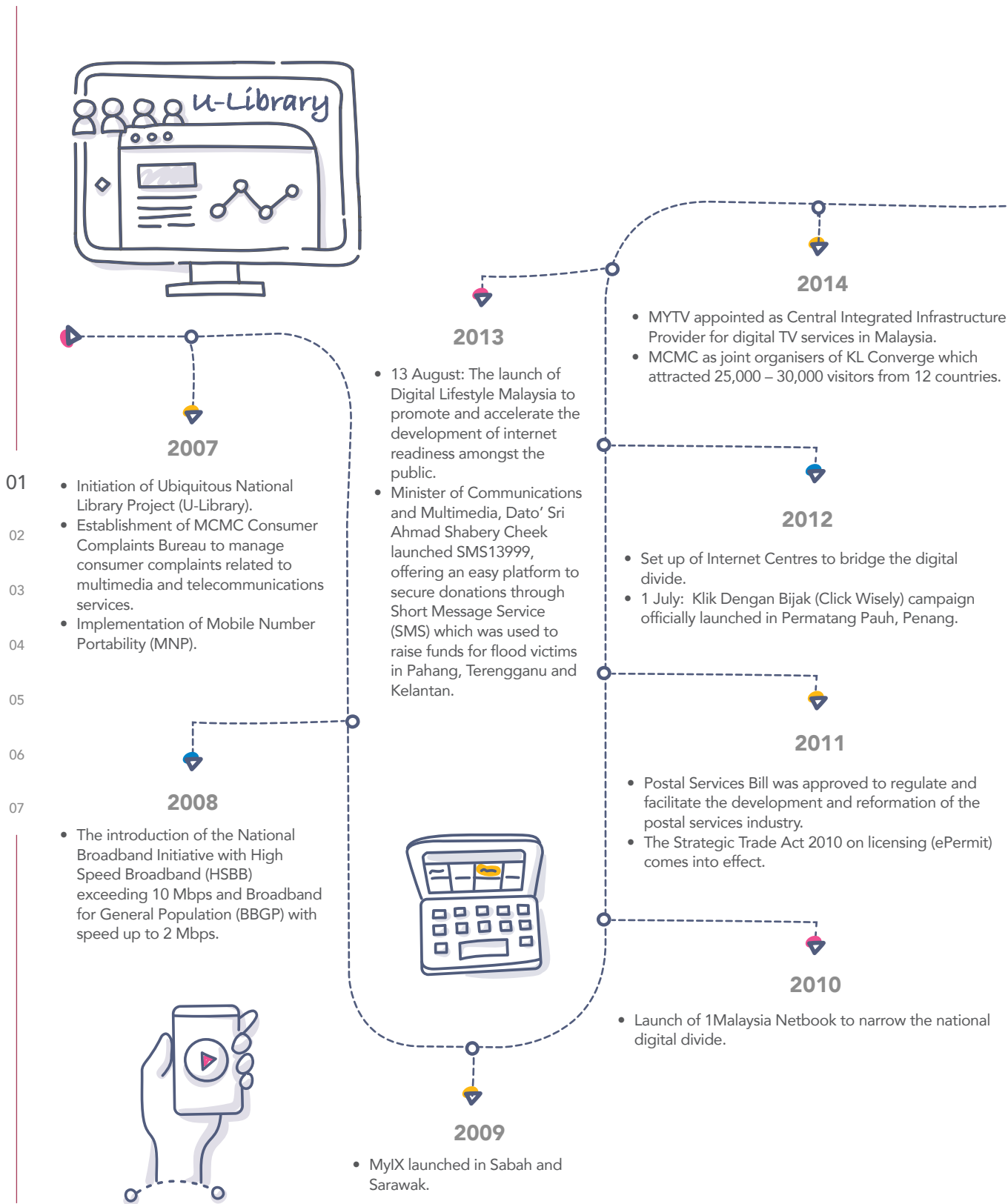
2003

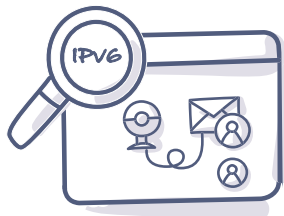
- 1 April: Malaysian Access Forum Berhad was established.
- Universal Service Provision (USP) extended to Kedah, Sabah and Sarawak.
- 60 community centres or Kedai.Kom were set up in Perak, Kedah, Perlis, Sabah and Sarawak.



INTRODUCTION

20 years of MCMC Infographics





2015

- Implementation of the Smart Community Project.
- IPv6 Capability: Malaysia ranked first in Southeast Asia and second in Asia.

2016

- Integrated Complaint Management System (ICMS) began operations as part of MCMC Consumer Empowerment Plan 2013-2016.

2017

- Introduction of Star Rating Award in recognition of excellent services provided by telecommunications companies to consumers.
- Launch of Sebenarnya.my portal.

2018

- Implementation of Mandatory Standard on Access Pricing (MSAP).
- Announcement on key targets for the National Fibreisation and Connectivity Plan (NFCP) by Communications and Multimedia Minister of Malaysia, Y.B. Gobind Singh Deo.
- Formation of 5G Taskforce to conduct a study followed by recommendations to the government on 5G implementation strategies.



Vision and Mission



Vision

Establishing a communications and multimedia industry that is competitive, efficient and increasingly self-regulating, generating growth to meet the economic and social needs of Malaysia.



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Salam Sejahtera and Salam Sayangi Malaysiaku.

IT IS WITH GREAT PRIDE THAT I PRESENT TO YOU THE MALAYSIAN COMMUNICATIONS AND MULTIMEDIA COMMISSION'S (MCMC) ANNUAL REPORT FOR THE YEAR 2018. THIS REPORT SERVES AS AN IMPORTANT SOURCE OF INFORMATION IN OUTLINING MCMC'S STRATEGIC DIRECTION MOVING FORWARD. I WISH TO CONVEY MY DEEPEST APPRECIATION TO ALL MCMC PERSONNEL FOR THEIR ZEAL, CONTRIBUTIONS AND DEDICATION IN SUCCESSFULLY COMPLETING THE TASKS THAT HAVE BEEN ENTRUSTED TO THEM OVER THE YEARS.

Automation-based technologies such as the Internet of Things (IoT), Big Data, Artificial Intelligence (AI), robotics and cloud computing evolved to become increasingly significant and set 2018 as a benchmark year. In this regard, the telecommunications and multimedia industry had to adopt and align itself to these digital transformation changes to remain dynamic and competitive. The "Double the Speed, Half the Price" initiative along with the implementation of the Mandatory Standard on Access Pricing (MSAP) effectively bridged the digital divide, giving Malaysians access to affordable and high-speed broadband network. For the first time, Malaysians can enjoy a 100Mbps package for less than RM100 and a 30Mbps starter package for RM79 per month. Well done and congratulations to those who worked tirelessly in making this initiative a resounding success.

Malaysia is indeed an exemplary example of a country in the Asian region to drive transformation and innovation with the announcement and implementation of such initiatives as the National Fibreisation and Connectivity Plan (NFCP), 5G Technology, the transition to digital TV broadcasting, and the implementation of National Digital Identity (ID) framework. I look forward to doubling our efforts in the coming year to fully realising these goals to ensure a prosperous future for Malaysia.

Thank you.

Y.B. Gobind Singh Deo

Minister of Communications and Multimedia Malaysia



Chairman's Message

Bismillahirrahmanirrahim.
Assalamualaikum warahmatullahi wabarakatuh.
Salam Sejahtera and Salam Sayangi Malaysiaku.

SYUKUR ALHAMDULILLAH, WITH THE BLESSINGS BESTOWED FROM ALLAH S.W.T, THE MALAYSIAN COMMUNICATIONS AND MULTIMEDIA COMMISSION (MCMC) SUCCESSFULLY COMPLETED YET ANOTHER OPERATIONAL TERM WITH VARIOUS MILESTONES AND ACHIEVEMENTS. MY SINCEREST APPRECIATION TO YANG BERTHORMAT TUAN GOBIND SINGH DEO, MINISTER OF COMMUNICATIONS AND MULTIMEDIA MALAYSIA, COMMISSION MEMBERS AND MCMC PERSONNEL FOR ENTRUSTING ME TO LEAD THE DIGITAL TRANSFORMATION OF THE NATION'S COMMUNICATIONS AND MULTIMEDIA INDUSTRY.

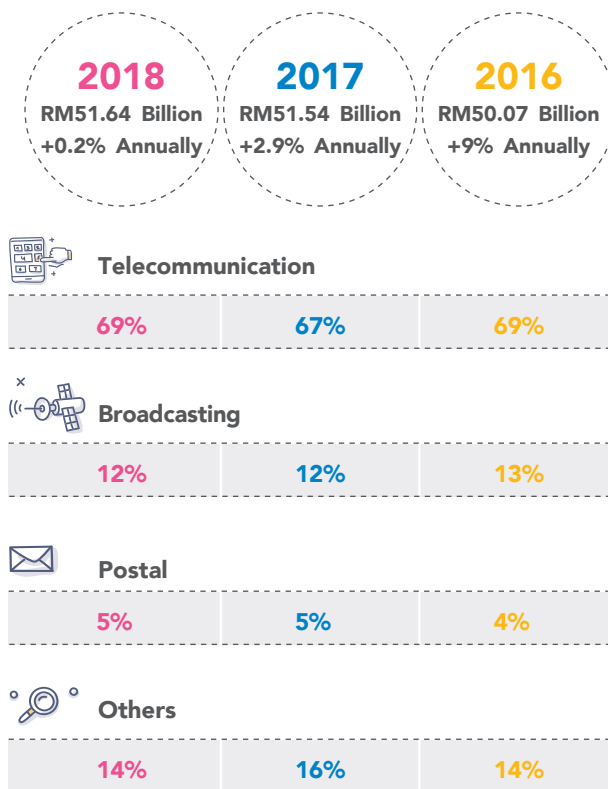
Being largely technology-based, the communications and multimedia industry constantly evolves and undergoes changes that affect the end-users. Also, besides offering ground-breaking opportunities, these rapid changes pose a challenge to MCMC'S equilibrium in its role as the industry's regulator and developer. At MCMC, we fully support the nation's digital economy agenda that aims to revitalise and revamp the communications and multimedia industry, aligned with the Shared Prosperity Vision 2030 to provide Malaysians with the latest and high quality services.

COMMUNICATIONS AND MULTIMEDIA INDUSTRY (C&M)

The local C&M industry generated RM51.6 billion revenue in 2018 (up 0.2% from 2017). The telecommunications sector accounted for 69% (RM35.9 billion) of the total revenue, the broadcasting sector 12% (RM6.4 billion), the postal sector 5% (RM2.4 billion), while the ACE1 market and non-public listed licensees represented 14% of the total revenue.

The industry saw a 3.5-fold increase in its revenue, increasing from RM13 billion in 1999 to RM45 billion in 2018. This sharp growth is largely due to the strategic regulatory interventions that facilitate the provision of diversified communications and multimedia services by new industry entrants for the benefit of consumers that concurrently contributed to increased revenue margins.

LOCAL COMMUNICATIONS AND MULTIMEDIA INCOME 2016-2018*



¹ The Access, Certainty and Efficiency (ACE) Market is an alternative market that serves as a platform to raise capital for business entities from the business and economic sectors. It provides a channel for relatively smaller companies with growth potential to source funds for future expansion.

* Estimates

Notes:

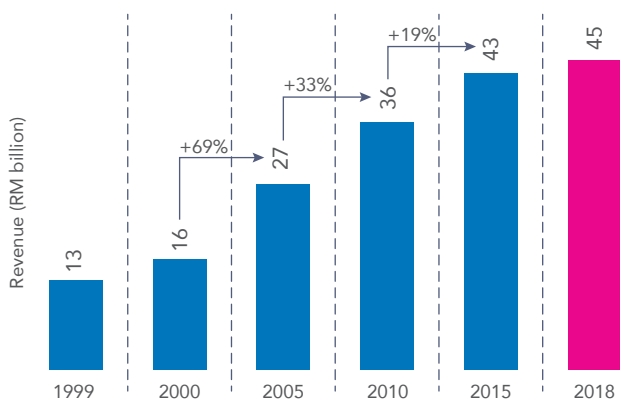
1. Excludes Axiata's foreign operations revenue
2. Excludes Media Prima print revenue
3. Revenue for ASTRO and Pos Malaysia adjusted according to calendar year
4. "Others" include non-public listed CMA licensees such as U Mobile Sdn Bhd, Mobile Virtual Network Operators (MVNOs) and ACE Market listed licensees
5. Revenue for 2018 adjusted for the accounting changes driven by adoption of new Malaysian Financial Reporting Standard (MFRS 9 Financial Instruments and MFRS 15 Revenue from Contract with Customers), effective beginning 1 January 2018.

Source: MCMC's 2018 Industry Performance Report

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Chairman's Message

Domestic Communications and Multimedia Industry Revenue 1999 – 2018

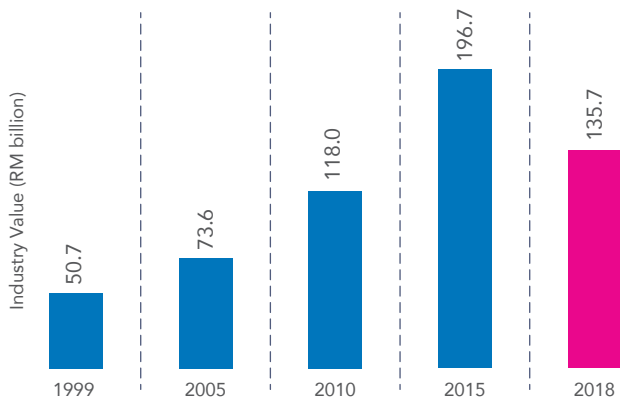


Note: Revenue consists of telecommunications (excluding Axiata foreign operations), broadcasting and postal sectors

Source: MCMC Industry Performance Report 2018

01 The C&M industry represents 8% or RM135.7 billion of Bursa Malaysia total market capitalisation in 2018, recording a threefold increase in market capitalisation as compared to RM50.7 billion in 1999. Concurrently, the C&M industry market capitalisation represents 76% of the total ICT companies' market capitalisation of RM178 billion or 10.5% of Bursa Malaysia. It is evident that the communications and multimedia sector not only contributes towards a vibrant and competitive industry, it also accelerates the growth and transformation of other sectors within the economy.

Communications and Multimedia Industry Market Capitalisation 1999 - 2018



Note: Capital market as stated is the final trading day for the year.

Sumber: Bloomberg, MCMC

BROADBAND PENETRATION AND SUBSCRIPTION²

Broadband subscription in Malaysia doubled over the last five years to reach 39.4 million in 2018 and has increased 20-fold over the last decade (2008: 1.9 million). Of the total subscriptions, fixed broadband subscriptions increased by 2.7% to 2.66 million subscriptions (2017: 2.59 million). These subscriptions include the surge in new subscribers during the three-month call by the Government for a price reduction. Mobile broadband subscriptions also recorded an impressive 90-fold increase over the 10 years to 36.79 million subscriptions in 2018 (2008: 0.4 million). There were 1.53 million new mobile broadband subscriptions in this year alone (2017: 35.26 million). Factors motivating the subscriptions include the Government's "Double the Speed, Half the Price" initiative; improved network coverage; the increasing use of connected devices for a digital lifestyle; and the growing demand for Internet accessibility in areas without fixed broadband services.

In terms of broadband penetration per 100 inhabitants, Malaysia recorded a commendable 121.11% in 2018 compared to 68.3% in 2014, which is equivalent to 15.4% of average annual growth compared to the penetration rate of 117.3% in 2017. Mobile broadband represents 113% of the overall national broadband penetration rate per 100 inhabitants while fixed broadband stands at 8.2%, indicating a drop of 1.9% compared to 10.1% in 2014. The upsurge in the overall national broadband penetration is primarily factored by wider access to 3G and 4G/LTE coverage, improved network quality and increased competition in the broadband market. The population coverage of 3G and 4G LTE networks have also grown to 94.7% and 79.7% respectively in 2018.

A test conducted by The Speedtest Global Index in October 2018 indicates that Malaysia has surpassed the global mean download speeds of 50.88 Mbps and achieved a mean download speed over fixed broadband of 61.97 Mbps compared to 22.26 Mbps in the previous year.

Various initiatives have been implemented to increase the country's broadband penetration rate. On the fixed broadband front, we completed the installation of submarine fibre optic cables between mainland Peninsular Malaysia and Tioman Island, Pangkor Island and Perhentian Island spanning a total distance of 99km. The penetration rate is further increased with the provision of fixed broadband service in suburban and rural areas. We also successfully completed the Sub-Urban Broadband (SUBB) initiative a year ahead of the targeted completion date. The SUBB, initiated in 2015, has upgraded 431 exchanges, exceeding its initial target of 421 exchanges. Port installation in 2018 marked a 24 per cent increase equivalent to 91,104 ports. To date, there are 457,398 ports or exchanges installed under the SUBB initiative in suburban areas.

² Subscriptions and penetration rates are based on cumulative data.



Conversely, the Rural Broadband (RBB) initiative, involved the installation of 102,692 broadband service ports with speed up to 20 Mbps and upgrades to 317 exchanges in rural areas nationwide.

The efforts to increase the country's broadband penetration rate also include the expansion of mobile broadband service through the construction of new communication towers and the upgrading of the transmission system at existing towers. In 2018, a total of 1,833 out of 2,000 newly constructed towers under the Time 3 (T3) and Time 3 Extension (T3E) projects and 4,895 existing towers nationwide were upgraded from 2G services to 3G/4G, enabling higher speed mobile broadband Internet access.

THE NATIONAL FIBERISATION AND CONNECTIVITY PLAN (NFCP)

Y.B. Gobind Singh Deo, in his address to the participants of **Malaysia: A New Dawn Investors Conference**, stated that "Access to the Internet is not a privilege nor a luxury; it is a necessity and a survival tool". Based on this forward thrust, the Government's ongoing primary initiative to enhance the digital infrastructure is modelled through the National Fiberisation and Connectivity Plan (NFCP). MCMC is entrusted to lead and execute the NFCP five-year plan (2019 - 2023) with an estimated cost of RM21.6 billion to enable sustainable, holistic, high quality and affordable digital connectivity. We require the continuous cooperation and support from all parties including relevant service providers, state governments, ministries and relevant agencies in ensuring the success of NFCP. The efforts of relevant parties combined with initiatives driven by strategic policies will greatly facilitate the accessibility and construction of the vital digital infrastructure.

The development of digital infrastructure requires rights-of-way over land base across the country, and matters relating to land are subject to regulations and processes of the respective states. Hence, the cooperation from relevant authorities such as state governments and local authorities to expedite the development of digital infrastructures is much appreciated. Their support and cooperation enables the cost-effective implementation of NFCP and directly benefits state governments through investments, job creation and enhancement of the state's overall economic status.

Other policies such as passive infrastructure sharing, including poles and fibre optic infrastructure, will optimise existing expenditure and expedite the provision of services, while optimal spectrum utilisation ensures improved quality of service, coverage and speed of mobile broadband service.

The building blocks of a comprehensive digital infrastructure encompass the utilisation of various technologies such as fibre optics, wireless technology and satellite communication. These measures aim to bridge the digital divide among Malaysians and enable accessibility to higher quality of broadband service, particularly those living in rural and suburban areas. It will also encourage the involvement of the people and businesses in building a digital economy to welcome the Industrial Revolution 4.0, as well as providing a conducive environment for new technologies such as the fifth generation or 5G mobile networks.

5G TECHNOLOGY

The world is currently experiencing the fourth Industrial Revolution or IR 4.0 which will bring about profound changes in industries, economies and the social paradigm. In preparation for this future digital revolution, our Government has taken proactive measures in its efforts to adequately prepare the country to face the far-reaching changes of the digital age and IR 4.0 through the adoption of 5G technology. As a result, a 5G Task Force was established in November 2018 to review and submit recommendations for a holistic 5G implementation strategy to the government. The Task Force, chaired by MCMC, comprises industry players, technology providers, government agencies, academia and stakeholders from the public and private sectors. The Task Force is expected to submit a comprehensive report by the fourth quarter of 2019. One thing is certain: the advent of 5G technology will redefine our lives forever. Faster data speeds will positively impact Malaysia's economic status while presenting opportunities for the people to enjoy an elevated quality of life. Among the economic sectors that will benefit from the implementation of 5G technology include transportation, media and entertainment, agriculture, education, manufacturing and processing as well as health industries.

Chairman's Message

MANDATORY STANDARD ON ACCESS PRICING (MSAP)

MCMC achieved an enviable milestone when it regulated wholesale prices for fixed broadband service through the Mandatory Standard on Access Pricing or MSAP. The regulation took effect on 1 January 2018 and all licensees were fully compliant by June 2018. As a result, in October 2018, MCMC announced that entry-level high-speed broadband packages recorded more than 30% price reduction surpassing the initial target of 25% to be achieved by 31 December 2018. Overall, high-speed broadband subscription prices dropped by 49% over the same month with telcos offering higher speeds at lower or similar prices aligned with the Double the Speed, Half the Price initiative. The implementation of MSAP enabled service providers such as Maxis, Celcom and Digi to subscribe wholesale high-speed broadband service from fixed network operators such as Telekom Berhad, TIME dotCom Berhad, SACOFA and Celcom Timur (Sabah) Sdn Bhd, at lower prices and subsequently offering fixed broadband service to consumers.

Successively, broadband speeds have also increased significantly. The World Bank Report on Reenergising the Public Service, published on 30 June 2019, recognizes MSAP's success in accelerating broadband speeds to threefold and ensuring affordable broadband connectivity for the people. Apart from that, the number of fixed broadband subscriptions with download speed of more than 100 Mbps increased by eight-fold to 1.2 million subscribers in 2018 compared to 150,000 in 2017, underlining the effectiveness of MCMC's initiative, policy and actions.

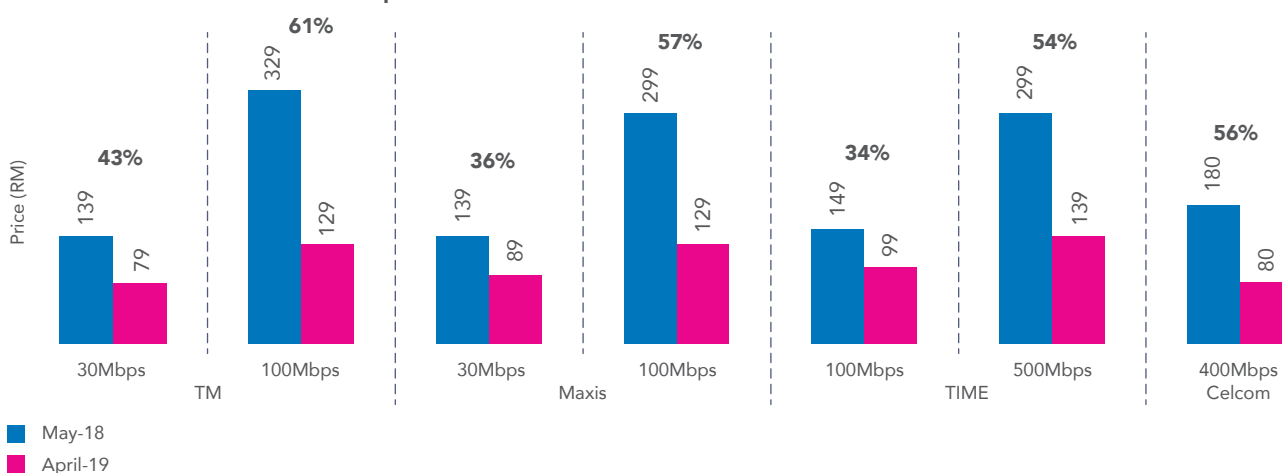
CONSUMER PROTECTION

Even as Malaysia progresses toward a rapidly expanding digital environment, consumer protection remains a priority in all of MCMC's actions and decision-making processes. Several campaigns have been implemented to advocate consumer rights and protection, mainly "Klik Dengan Bijak" (KDB) with an emphasis on self-regulation among consumers. In addition to advocacy campaigns, legal actions in the form of prosecution in court and restrictions on access to websites that violate federal law provisions have also been effected. In 2018, a total of 8,407 complaints concerning network violations and 410 complaints regarding false or misleading content were received from the public; a total 3,490 websites were blocked including 640 phishing sites; 53 cases have been filed in court and 12 of those have been adjudicated with fines up to RM32,000. The remainder of the pending cases were brought forward to 2019. Of the total complaints this year, 8,188 have been resolved.

COMMUNITY EMPOWERMENT

As part of MCMC's ongoing commitment towards empowering the living standards of the community, MCMC organised a Malaysia ICT Volunteer (MIV) Excellence Award ceremony in recognition of those who have achieved the ICT volunteerism programme targets. Throughout the year, the programme successfully enrolled 755 volunteers. MCMC's community empowerment efforts were given due recognition when five (5) of its projects were nominated as finalists at the World Summit on Information Society (WSIS), including three (3) Smart Community projects. It was indeed a proud moment when one (1) of the Smart Community projects, E-Majalah, emerged as champion under Category 3: Access to Information and Knowledge. As an extension of our initiatives to inculcate community empowerment awareness amongst businesses, the Malaysia Developers' Day (MYDD 2018) programme was organised in collaboration with US-based telco AT&T to foster innovation and entrepreneurship among local mobile application developers.

Comparison Between Wholesale Price Before and After MSAP





MYFREEVIEW DIGITAL TERRESTRIAL TV (DTTV) SERVICE

Initiatives to drive the transition from analogue TV to digital TV broadcast through awareness and education campaigns were intensified in 2018. The transition to digital TV broadcast will enable Malaysians to enjoy various TV channels, radio, and new lifestyle choices such as online shopping, interactive learning and much more for free through myFreeview digital TV broadcast, which offers 13 TV channels including TV1, TV2, TV3, NTV7, 8TV, TV9, Al Hijrah and Bernama, and six (6) radio channels. Apart from providing new income sources of income through fresh applications, the introduction of myFreeview can be utilised to meet the country's economic, social and educational needs. In addition, digital TV broadcast also creates greater opportunities for the creative industry, producers and artists to generate a broader bandwidth of content.

NATIONAL DIGITAL ID

Y.B. Gobind Singh Deo in his speech at the **Malaysia: A New Dawn Investors Conference** in October 2018, announced his plan to provide an 'identity verification platform' at a national level to curtail the risks of online forgery and fake identity crimes. If given the mandate, MCMC is fully committed to lead this initiative that we believe will increase the digital economy's contribution to the country's Gross Domestic Product (GDP). Recommendations based on a comprehensive study will be tabled to the Government as well as directions on establishing a future-friendly, user-centric National Digital ID framework for Malaysians to best meet the expansiveness of the digital age. Subsequently, this will be followed by the development of a National Digital ID platform that will benefit multiple service sectors through close collaborations with the main stakeholders in the National Digital ID ecosystem.

EMPOWERING THE NATIONAL POSTAL AND COURIER SERVICE

Various initiatives to empower the country's postal and courier service have been implemented to meet current challenges such as e-commerce and other new world applications. Among the initiatives that have been carried out include Address for All project, Community Postmen Service Programme under the Postal Transformation Plan for Sabah and Sarawak (PTPSS) and the Postal and Courier Road Safety Championship. These initiatives yielded positive results as evidenced through Malaysia's postal services, via Pos Malaysia, being ranked 25th among 170 countries in the Universal Postal Union's (UPU) Integrated Index for Postal Development (IIPD) Report 2018. Malaysia has also been elected as a member of the UPU Council of Administration for the period 2017-2020 and has been given the mandate to co-chair Committee 1 (Finance, Human Resources and Governance) with Switzerland.

APPRECIATION

Looking ahead, MCMC's primary focus for 2019 will be in NFCP, 5G, National Digital ID and the progression to Digital TV broadcast in line with transitioning Malaysia as a fully digitalised nation in the ASEAN region. Simultaneously, MCMC is committed towards developing the nation's communications and multimedia industry to enhance living standards and to boost the country's economic growth.

Clearly, MCMC's strength is dependent on the commitment of its management and personnel as well as the undivided support from industry players and stakeholders. I would like to record my gratitude to the past chairman, Tan Sri Dr Halim Shafie, for his contributions and loyal service during his tenure. On behalf of the management, I would like to express my sincere thanks to the members of the Commission and its agencies for their cooperation rendered throughout the year. It is my greatest hope that the commitment and dedication shown throughout 2018 will continue to grow and flourish in the coming year.

Al-Ishsal Ishak

Chairman, Malaysian Communications and Multimedia Commission

Commission Members



Tan Sri Dr. Sharifah Zarah Syed Ahmad
14 August 2016 – 13 August 2018



Puan Sri Datuk Rohani Abdullah
11 April 2016 – 11 April 2018



Datuk Bridget Lai
12 April 2018 – 8 October 2018



Tan Sri Dr. Madinah Mohamad
11 April 2016 – 11 April 2018



Dr. Fadhlullah Suhaimi Abdul Malek
1 January 2017 – 1 July 2018



Dato' Dr. Mohd Ali Mohamad Nor
6 July 2018 – 18 March 2019



Datuk Hj. Mohamed Hasnan Che Hussin
25 July 2017 – 27 April 2018

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Dr. Chin Yoong Kheong
25 March 2017 – 21 March 2019
22 March 2019 – 21 March 2021



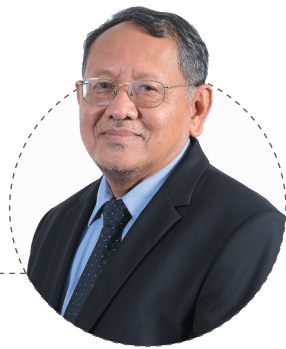
Pushpa Nair
12 September 2018 – 11 September 2020



Datuk Md Afendi Datuk Hj. Hamdan
1 September 2017 – 12 September 2018



Dr. Zaidi Razak
1 December 2017 – 12 September 2018



Prof. Dr. Tharek Abd Rahman
12 September 2018 – 11 September 2020



Dato' Wei Chuan Beng
1 October 2018 – 30 September 2020



For the People

INTRODUCTION

The Malaysian Communications and Multimedia Commission (MCMC) is steadfast in its aspirations to ensure that Malaysians enjoy technological advances and maximise the benefits of ICT services positively and holistically. As such, various initiatives have been constantly developed to realise MCMC's aspirations.

One such programme is Klik Dengan Bijak®, an advocacy programme implemented to encourage awareness on internet safety amongst Internet users. Other initiatives include improving communications infrastructure and service coverage in five (5) smart community districts as well as strengthening and encouraging the development of postal and courier sectors to keep pace with the country's e-commerce as well as economic development.





- 1 "Membeli kemuda capaian internet ke koneksi lapangan"
- 2 "Membeli pengetahuan kepada masyarakat tentang teknologi komputer dan internet"

PC08

Click to enable Adobe Flash Player



- 1 If you like to color pictures online, you're looking for a coloring page. To find a coloring page, just type in "color" from the search bar then, click on the picture and you're ready to go!
- 2 To make your best work, click on the picture that you like. The coloring page is right there, click and drag down on the screen with...
- 3 To print out a book and when coloring is done, use the printer to print out the picture. Then, you can color it with your markers or crayons!

Featured Coloring

- Coloring Page #123
- Coloring Page #123
- Coloring Page #123
- Coloring Page #123

Advocacy



NURTURING DIGITAL CITIZENS

MCMC's vision is to nurture digitally literate citizens who are capable of using the Internet wisely. The Klik Dengan Bijak® (KDB) and Malaysia ICT Volunteer (MIV) programmes are initiatives to enable Malaysians to understand the media industry as well as its content and impact, distinguish between reality and perception, understand oneself as well as inculcate the ability to filter and integrate meaningful information.



Proceeding this, MCMC in 2018 further implemented 63 outreach programmes nationwide, attracting 320,982 participants. These programmes have been carried out in collaboration with 35 strategic partners including government agencies, NGOs and higher learning institutions.

MCMC has also successfully recruited 755 participants for its MIV programme.

MCMC's advocacy initiatives were supplemented by 56 media events, these include 435 media articles that were published in various mediums including print, electronic and new media. Key advocacy messages to target groups were realised through KDB's on-the-ground programmes and activities implemented through six (6) Regional Offices, seven (7) State Offices and Internet Centre nationwide.

ADVOCACY PROGRAMMES IMPLEMENTED

Sebenarnya.my Roadshow

The Sebenarnya.my Roadshow, which was ongoing until April 2018, visited 134 locations nationwide to reach out to local communities. This initiative was undertaken to inculcate the importance of selecting information and verifying its contents before sharing.

The launch of Sebenarnya.my Mobile Application

The Sebenarnya.my portal was expanded to include mobile application to ensure that people have access to fast and accurate information. This gives netizens the ability to check the validity of certain information before sharing them through their respective social media platforms.

This application is available free via Google Play Store and Apple AppStore. Sebenarnya.my mobile app was launched by former Minister of Communications and Multimedia Malaysia, Datuk Seri Dr Salleh Said Keruak at Auditorium MCMC Tower 1, Cyberjaya on 20 March 2018.





SEBENARNYA.MY
Tidak Pasti Jangan Kongsi




Muat turun aplikasi **Sebenarnya dot my** secara percuma di **Apple AppStore**

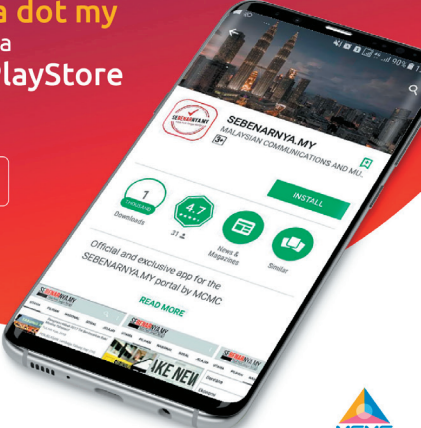
 App Store




SEBENARNYA.MY
Tidak Pasti Jangan Kongsi

Muat turun aplikasi **Sebenarnya dot my** secara percuma di **Google PlayStore** sekarang







Since its launch in 2017, Sebenarnya.my portal has received close to 50 million hits with an average of 2.5 million hits monthly.

Klik Dengan Bijak Roadshow



MCMC together with its strategic partners, Royal Malaysian Police and Kolej Unikop explored throughout the Sandakan district to deliver internet safety and cyber security advocacy messages through the “Klik Dengan Bijak” programme to police personnel and their families.

2018 MIV Excellence Award



On 23 February 2018, MCMC organised the MIV Excellence Award ceremony in recognition of those who have achieved the ICT volunteerism programme targets. The ceremony was held at the Auditorium MCMC Tower 1, Cyberjaya.

A total of 15 winners were selected under six categories including MIV with School 2016 and 2017, MIV with Community 2016 and 2017, and a Special MIV Award were given to volunteers whose work and contributions have inspired the community.

FOR THE PEOPLE

Smart Community



THE SMART COMMUNITY INITIATIVE FORMS THE BASIC BUILDING BLOCK TOWARDS CREATING A SMART NATION. THESE INITIATIVES ARE ALSO A PART OF THE EFFORTS UNDER THE ELEVENTH MALAYSIA PLAN (MP11), AIMED AT IDENTIFYING FOCUS AREAS IN OUTLINING THE FRAMEWORK FOR THE DEVELOPMENT OF SMART CITIES. THE SUCCESSFUL MIGRATION TOWARDS SMART CITIES WILL ESSENTIALLY DEPEND ON BUILDING SMART COMMUNITIES. FROM MCMC STANDPOINT, THE SMART COMMUNITY INITIATIVE IS AIMED AT ENHANCING THE QUALITY OF LIFE AS WELL AS SOCIO-ECONOMIC STANDING OF THE LOCAL COMMUNITY THROUGH EFFICIENT USE OF ICT AND SPEEDIER ACCESS TO INFORMATION. THE PILOT PROJECT OF THE SMART COMMUNITY INITIATIVE WAS LAUNCHED IN KEMAMAN, TERENGGANU IN 2015. THUS FAR THE SMART COMMUNITY INITIATIVE HAS BEEN EXPANDED TO FOUR (4) OTHER DISTRICTS, NAMELY KOTA BELUD, LUNDU AND PUTRAJAYA IN 2016 AND LANGKAWI IN 2017.

04

Various programmes have been developed and implemented in all five (5) targeted Smart Community districts. These initiative were streamlined towards upgrading communications infrastructure and expanding service coverage especially in rural areas as well as developing applications that target local needs and issues.

06

COMMUNICATIONS INFRASTRUCTURE: THE FOUNDATION FOR DEVELOPING A SMART COMMUNITY

07

Since the implementation of this initiative in 2015, mobile services coverage and quality have improved in Smart Community districts, as depicted in the table below:

District	2G		3G		LTE	
	Before	After	Before	After	Before	After
Kemaman	95.3%	96.4%	89.0%	95.4%	8.4%	73.4%
Kota Belud	86.9%	93.8%	76.9%	93.8%	17.0%	51.4%
Putrajaya	100%	100%	100%	100%	78.1%	100%
Lundu	78.2%	84.6%	55.6%	79.1%	5.9%	36.7%
Langkawi	97.7%	96.0%	90.6%	97.7%	71.2%	82.1%

Status of mobile services in Smart Community districts as at 30 November 2018



Since the beginning, MCMC applied the "Supply-Demand" principle in promoting the usage of telecommunications service to ensure that demand for the service is determined by market forces. This approach goes a long way in ensuring that investments by the government and service providers are purposeful and that the telecommunications service and network provided are fully optimised.

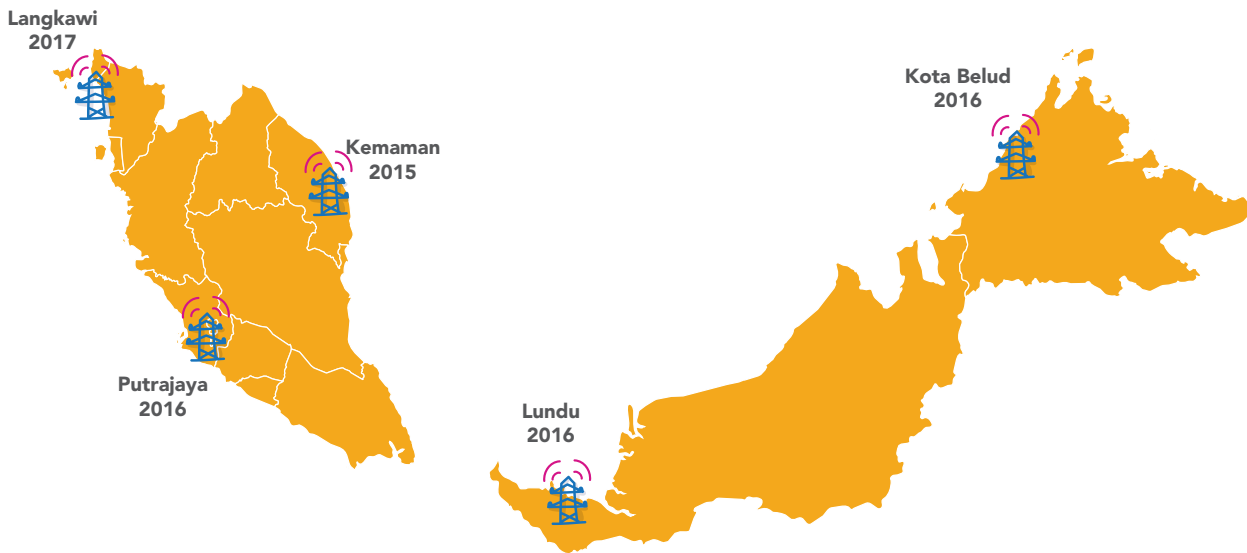
SMART COMMUNITY: DIGITAL SOLUTIONS GEARED TOWARDS A MORE SUSTAINABLE FUTURE

The upgrading of communications infrastructure under the Smart Community initiatives also serves as a platform to further promote ICT usage within the community, as numerous programmes were implemented to increase ICT empowerment skills within the community.

The Smart Community initiative also exposes the community to new innovative applications and services such as smart solutions, e-Learning, e-Commerce, e-Government and others. Thus, the availability of widespread and rapidly evolving communications infrastructure will enable and facilitate the development of new applications and services that will meet community needs and subsequently improve living standards.

Several programmes were developed to promote innovative ideas and address local community issues. These programmes encompass numerous aspects that correlates with the community's everyday needs and it is hoped that these initiatives can be replicated in districts across Malaysia.

The selection of a smart community district is based on each district's unique settings. Concurrently, programmes developed are also district-centric and is in line with its community's needs, problems and issues. A key component in the sustainability of the Smart Community programme is strong cooperation between the public and private sectors. Institutional support at district, state and federal levels is also important in implementing the 'quick-win' project to enhance communications service coverage and applications development. At its core, the Smart Community development in every district is identified and driven by local community needs, enabling the community to address its unique issues. Moving forward, the localised implementation of the Smart Community initiatives facilitate the building of a community that is smart city ready. This is in line with the current framework of the Ministry of Housing and Local Government (KPKT) under MP11.



Enhancement of Infrastructure and Coverage	Smart Integrated System	Development of Local Content	Entrepreneurship	Tourism	Postal Service
<ul style="list-style-type: none"> • Wireless 2G, 3G, LTE • Fixed Line HSBB • Internet Centre 	<ul style="list-style-type: none"> • Flood Management System • Water and Safety Monitoring System (SAIFON) • Integrated Operations Command Centre • Smart CCTV 	<ul style="list-style-type: none"> • Mykif • Robotic Logo • Mymaker • eMajalah 	<ul style="list-style-type: none"> • Workshop and Training 	<ul style="list-style-type: none"> • Mycribbooking 	<ul style="list-style-type: none"> • Address for All • Pos-On-Wheels • Smart Postmen • Postal Agents

Smart Community Initiative Flagship Programmes

Smart Community

LAUNCH OF KOTA BELUD 2.0 SMART COMMUNITY

Following the success of the initial Kota Belud Smart Community programme, the second phase of the programme called Kota Belud Smart Community 2.0 was developed. Some of its objectives include:

- a. Establishing a Smart Safety Solution system in collaboration with Kota Belud Royal Malaysia Police (PDRM) through the construction of new control room at Kota Belud IPD;
- b. Upgrading of the existing SAIFON system (upgrading CCTV and increasing water level detection); and
- c. A programme to improve communications access in Kota Belud through high-speed fixed and wireless broadband access.

SUCCESS STORY: BROADBAND EXPANSION INCREASES PASSING RATE

The increase of communications infrastructure in Mantanani Island, Kota Belud, Sabah through the Smart Community programme created a huge impact on the community, not only in terms of expansion of cellular and broadband service, but also played a key role in the achievement of one of its local schools, Sekolah Kebangsaan Pulau Mantanani (SKPM).

Based on records of Kota Belud District Education Office, SKPM has never achieved its target passing rate for UPSR examinations. However, the expansion of broadband service in Kota Belud has opened opportunities for students to obtain information and education materials more effectively and helped teachers to incorporate ICT based learning tools for their students. As a result, the school's UPSR passing rates have improved in 2018 compared to previous years.

COMMUNITY INVOLVEMENT THROUGH SMART COMMUNITY PROGRAMMES

Since 2015, a key factor in the successful implementation of the Smart Community initiative is the collaboration between MCMC and its stakeholders. Among the Smart Community programmes involving local communities implemented through collaboration with stakeholders are as follows:

1. eMajalah 2018

The Digital School Magazine Development (eMajalah) programme is a collaboration with the Ministry of Education (MoE) dan UMP Consultancy and Training (UCT).

This programme is aimed at providing ICT exposure to students and teachers in view of enhancing innovation and promoting creativity through digital publication.

eMajalah 2018 introduced a new approach to the publication of school magazines using a Content Management System (CSM) platform that is easily accessible by students and teachers alike.

2. eMasjid 2018

The eMasjid 2018 programme is a collaboration with Langkawi District Religious Office, Kedah Religious Affairs Department (JHEAIK) and Langkawi Development Authority (LADA).

This programme emphasises the use of social media as a medium of communication between the community and mosques across Langkawi Island. Masjid Al-Hana, for example, has uploaded 60 various contents, attracting a total of 2,077 likes, with the content being shared 305 times.

Digital School Magazine Development Programme 2018 (eMagazine)

In collaboration with:

In a Glance

- Implementation period from 4 September until 31 October 2018
- 16 Locations Nationwide
- 726 Participants (347 Teachers, 359 Students)
- 358 Schools (124 Primary Schools, 234 Secondary Schools)

Snapshot of eMajalah Programme 2018

E-MASJID COMPETITION

In collaboration with:

18 participating mosques

20 Feb 2018 - 31 Apr 2018

WINNER:

- 1st Masjid Al-Hana
- 2nd Masjid Al-Aman
- 3rd Masjid Ar-Rahman Gelam Kedawang

MONTHLY WINNER:

- February Masjid Nurul Islam Sg. Itau
- March Masjid Jaami' Al-Jadid
- April Masjid Jaami' Al-Jadid

Snapshot of eMasjid Programme 2018



3. Putrajaya Open Innovation Terminal (POINT)

POINT is a joint flagship programme between MCMC and Putrajaya Corporation under the Putrajaya Smart initiative. POINT premises were developed with the concept of providing space for communities to engage in activities by utilising ICT. The programme consists of two (2) workshops as shown below:

a. Awareness Workshop and Showcase on Maker and IoT Technology

This workshop was held on 1 November 2018, aimed at developing interest among school students to explore future technological needs and skills as well as inculcate critical, creative and innovative thinking skills to enable them to be globally competitive.

b. IoT Training Workshop & Putrajaya Young Inventor Challenge 2018

This 10-day programme was a sequel to the IoT Technology Awareness and Exhibition Workshop and was held from 26 November to 7 December 2018. A total of 40 students were selected to participate in the workshop.

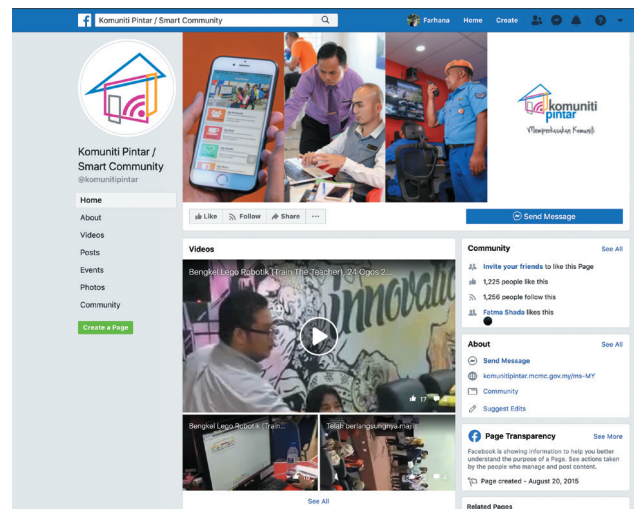
At the end of the workshop, students vied for the Putrajaya Young Inventor title. They had to produce a mini project based on Smart City concept and present it to a panel of judges.

SMART COMMUNITY IN SOCIAL MEDIA

To inform the public on Smart Community activities, a website and Facebook page was created in 2017. To date, both sites have attracted 11,233 visitors while the Facebook page received 1,184 likes. For further information, visit the Smart Community website at <http://komunitipintar.mcmc.gov.my/ms-MY/> or The Smart Community Facebook page by typing "Komuniti Pintar/ Smart Community" for further information.



Main page of Smart Community's website



Smart Community Facebook Page

Programme Overview

AWARENESS WORKSHOP AND SHOWCASE ON MAKER AND INTERNET OF THINGS (IoT) TECHNOLOGY

1
November 2018

Dewan Seri Siantan, Putrajaya

254
Participants
221 Students
33 Teachers

TRAINING WORKSHOP ON INTERNET OF THINGS (IoT) & PUTRAJAYA YOUNG INVENTOR CHALLENGE 2018

10
Days
(26 Nov - 7 Dec 2018)

Dewan Seri Melati, Putrajaya

40
Participants
10 Group

Snapshot of POINT Programme 2018

DIGITAL LITERACY

Smart Community

INTERNET CENTRE: EMPOWERING A DIGITAL COMMUNITY

Internet Centre is an initiative under the Universal Service Provision programme aimed at providing broadband access to rural communities in an effort to bridge the urban-rural digital divide.

The activities carried out by Internet Centres nationwide is made possible through the participation of local communities and strategic partnerships between various stakeholders such as government and non-governmental entities and higher learning institutions. Through these efforts, Internet Centres now act as ICT centres for the rural community. The varied efforts to empower the community via collaborations are detailed below:



ACTIVITIES & SERVICES AT INTERNET CENTRES

<ul style="list-style-type: none"> PNM eLibrary portal (free access to online reading material) E-Magazine Workshop Entrepreneurship Basic training Book Reading Program Maxis eKelas Workshop English Learning Class 	<p>DIGITAL LITERACY</p> <p>eLearning Modules</p> <p>IOT & STEM Modules</p> <p>Online Tuition</p> <p>Online Reading Material</p>	<p>1</p>	<p>2</p>	<p>ENTREPRENEURSHIP & E-COMMERCE</p> <p>eFulfillment</p> <p>eMarket Place Network</p> <p>Online Job Market</p> <p>ePayment Gateway</p>	<ul style="list-style-type: none"> Postal Services Online & product profile development training Agrobazaar online marketing training Agrobazaar online marketing training Agrobazaar online marketing training MDEC e-Rezeki Workshop
<ul style="list-style-type: none"> Online Radio Amateur (ORAE) Examination Centre Script writing and Video making Workshop Digi Petrosains Robotic Workshop My Maker Workshop (Robotic/Drone/3D Printing) 	<p>STEM & IOT *</p> <p>Script Writing & Video Making</p> <p>Coding Tutorials (Robotic 3D Printing)</p> <p>Online Exams Certification</p>	<p>4</p>	<p>3</p>	<p>COMMUNITY OUTREACH</p> <p>Online Health Screening</p> <p>Community Day</p> <p>Advocacy & Awareness</p> <p>ICT Volunteers Program</p>	<ul style="list-style-type: none"> Malaysia ICT Volunteers KOSPEN Health Screening Electronic Recycle Program MCMC Advocacy & Outreach Awareness Program Community Day

Note:
 *Science Mathematic & Engineering (STEM)
 Internet of Things (IOT)



Internet Centre Strategic Collaborative Network

INTERNET CENTRE STRATEGIC PARTNERSHIP NETWORK

The function and scope of the Internet Centres are constantly expanding, from providing basic ICT skills to organising various programmes to improve socio-economic status and well-being of the rural community. Some of the programmes include ICT, e-learning, social media, entrepreneurship & e-Commerce, Science, Technology, Engineering and Mathematics (STEM), IoT and various other community-centric applications and programmes.



The various initiatives and programmes implemented through strategic partnerships at Internet Centres to increase the skills, expertise, experience and competitiveness of the local community are detailed below:

No.	Initiatives/Programme	Strategic Partner	Description								
1.	E-Commerce for Rural Entrepreneurship in Sarawak	Ministry of International Trade and e-Commerce Sarawak (MITEC)	<p>The objective of this programme is to help managers of Internet Centres in Sarawak to help entrepreneurs develop their product profiles and sell them on Sarawak's e-commerce platform.</p> <p>This programme is one of the digital economy agenda implemented by Sarawak state government through the use of the Internet Centre facility.</p> <p> 2018 TRAINING</p> <hr/> <p>Location: 124 Internet Centres in Sarawak</p> <table border="1"> <thead> <tr> <th>Target</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Training of Trainers (ToT) Course</td> <td></td> </tr> <tr> <td>• Manager and Assistant Manager of Internet Centres</td> <td>124</td> </tr> <tr> <td>Training session</td> <td>5</td> </tr> </tbody> </table>	Target	Total	Training of Trainers (ToT) Course		• Manager and Assistant Manager of Internet Centres	124	Training session	5
Target	Total										
Training of Trainers (ToT) Course											
• Manager and Assistant Manager of Internet Centres	124										
Training session	5										
2.	Agrobazaar Online Entrepreneurship Training Programme	Federal Agriculture Marketing Authority (FAMA)	<p>This programme conducts training for entrepreneurs and Internet Centres supervisors for utilisation of Agrobazaar and e-Commerce platform developed by FAMA.</p> <p> 2018 TRAINING</p> <hr/> <p>Regions: Four (4) Districts under Smart Community</p> <table border="1"> <thead> <tr> <th>Target</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Local entrepreneurs</td> <td>92</td> </tr> <tr> <td>Training session</td> <td>6</td> </tr> </tbody> </table>	Target	Total	Local entrepreneurs	92	Training session	6		
Target	Total										
Local entrepreneurs	92										
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3.	Kemaman Open Innovation Challenge	Kemaman Land and District Office (PDTK), Telekom Malaysia Berhad and Trendnexus Sdn Bhd	<p>This programme complements the 11th Malaysia Plan agenda to encourage the development of digital economy in rural areas.</p>								
4.	Orang Asli Entrepreneurship Training Programme	Federal Agriculture Marketing Authority (FAMA) and Department of Orang Asli Development (JAKOA)	<p>A total of 18 Orang Asli entrepreneurs in Bentong District of Pahang undergone training on the basics of online business development and e-commerce mechanism through the Agrobazaar platform. The trainings were conducted in Felda Lurah Bilut and Simpang Pelangai Internet Centres.</p>								

Smart Community

No.	Initiatives/Programme	Strategic Partner	Description												
5.	Hands on Training by Lazada	LAZADA	<p>MCMC and LAZADA Malaysia joined forces to train rural entrepreneurs on basic e-commerce using LAZADA platform. The sessions covered issues such as packaging, courier charges and how to become online merchants using LAZADA platform.</p> <table border="1"> <thead> <tr> <th>Location</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>Kemaman Open Innovation Lab, Terengganu</td> <td>29 September 2018</td> </tr> <tr> <td>Napoh Internet Centre, Jitra, Kedah</td> <td>13 October 2018</td> </tr> <tr> <th>Target</th> <th>Total participants</th> </tr> <tr> <td>Local entrepreneurs</td> <td>55</td> </tr> <tr> <td>Training session</td> <td>2</td> </tr> </tbody> </table>	Location	Date	Kemaman Open Innovation Lab, Terengganu	29 September 2018	Napoh Internet Centre, Jitra, Kedah	13 October 2018	Target	Total participants	Local entrepreneurs	55	Training session	2
Location	Date														
Kemaman Open Innovation Lab, Terengganu	29 September 2018														
Napoh Internet Centre, Jitra, Kedah	13 October 2018														
Target	Total participants														
Local entrepreneurs	55														
Training session	2														
6.	Internet Centres As Radio Amateur Examination (E-RAE) Centre	MCMC	Radio Amateur Examination (E-RAE) is now offered at 14 selected Internet Centres nationwide. By the end of 2018, 28 online examination sessions were conducted and a total of 280 candidates sat for the E-RAE.												
7.	Internet Centres as Registered Postal & Courier Agents	Pos Malaysia Berhad & GDEX	<p>This partnership was designed to strengthen the postal, courier and e-Commerce services in rural areas. The year 2018 concluded with 39 Internet Centres registered as postal agents offering various postal and courier facilities and services.</p> <p>In addition, 15 Internet Centres registered as GDEX representatives through the GDEX "Kampungku" programme that offers similar services.</p>												
8.	Internet Centres As KOSPEN (Komuniti Sihat Pembina Negara) Agents	Ministry of Health Malaysia (KKM)	<p>An MCMC and Ministry of Health Malaysia partnership aimed at creating personal health care awareness within the community through the utilisation of Internet Centres.</p> <p>The pilot project was held throughout October 2017 to April 2018 across Selangor involved 26 Internet Centres acting as KOSPEN agents.</p>												
9.	Internet Centres as eRezeki Agents	Malaysia Digital Economy Corporation (MDEC)	<p>eRezeki is a programme that offers after-work-hours jobs opportunities that encourage lower-income groups to pursue part-time job using digital platform in and out of the country.</p> <p>Internet Centres act as eRezeki agents providing access to computers and internet access to perform jobs that are assigned to them. As at end 2018, 250 Internet Centres serve as eRezeki agents nationwide with more than 10,000 individuals registered as eRezeki job-seekers.</p>												



No.	Initiatives/Programme	Strategic Partner	Description
10.	eKelas	Maxis	<p>Maxis eKelas is an after school digital learning initiative aimed at improving academic performance amongst students in rural and urban communities.</p> <p>eKelas focuses on three subjects, namely Science, Mathematics and English Language for Forms 1, 2 dan 3 students. This online application offers direct tutorials, group study and interactive digital content such as quizzes, competitions and motivational talks.</p>

RECOGNITION AT THE WORLD SUMMIT ON INFORMATION SOCIETY (WSIS PRIZES 2018)

MCMC's community empowerment efforts received due recognition when five (5) of its projects were nominated as finalists at the World Summit on Information Society or WSIS Prizes 2018. They include three (3) Smart Community projects. *E-Majalah*, one of MCMC's Smart Community projects was named champion under Category 3: Access to Information and Knowledge. On hand to receive the winner's certificate was the Permanent Representative of Malaysia to the United Nations in Geneva.



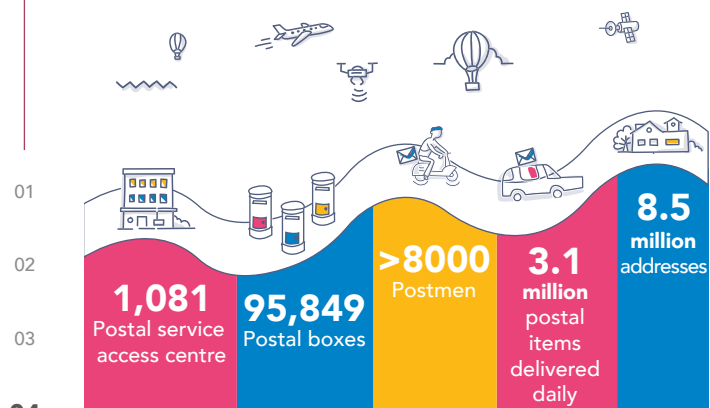
Malaysian delegation receiving the Winner's Certificate on 20 March 2018 at the Headquarters of the International Telecommunication Union or ITU in Geneva, Switzerland

Postal and Courier

UNIVERSAL SERVICE PROVISION FOR ALL USERS IN MALAYSIA

Malaysia's postal services, through Pos Malaysia has received numerous international recognition. Amongst them is being ranked 25th among 170 countries in the Universal Postal Union's (UPU) Integrated Index for Postal Development (IIPD) Report 2018, which encompasses four (4) dimensions of integrated development, namely Reliability, Reach, Relevance and Resilience.

As of October 2018, there are 689 post offices, 154 mini-post offices and 32 mobile post offices, with an additional of 160 such service branches being recently added. This exceeds the minimum requirement of 1000 branches as regulated by the provisions of the Postal Services (Universal Service) Regulation 2015.



Postal Services Data as of October 2018

Source: Pos Malaysia Berhad

Expanding the reach of home delivery to facilitate the development of the postal services industry in line with the country's e-Commerce aspirations

The postal services in Malaysia has nationwide coverage of 94.8%. Approximately, a total of 3 million postal items are shipped daily by Pos Malaysia to 8.5 million addresses by over 8,000 active postmen. There are 22 mail processing centres and 333 shipping outlets with 94,981 external post boxes across Malaysia, these include 110 Ezibox Poslaju, which is a 24-hour service for customers to receive packages if they are not at their receiving address and 100 EziDrop terminals, which are self-service machines that allow customers to post their prepaid Poslaju items.

Enhancing integrated efforts towards improving the efficiency of the delivery industry through improved service quality

Based on surveys conducted, the quality of the courier industry's delivery services efficiency for next day (D + 1) and two-day (D + 2) was satisfactory, recording an industry average of 67% which interprets as seven (7) out of 10 packages were received on time in major cities in Malaysia. Reliability testing of the quality of the delivery service's performance for the three-day delivery standard (D + 3) recorded an impressive 87%, which translates to nine (9) out of 10 packages delivered timely.

The quality of over the counter customer service was also rated as good with an average waiting time of three (3) minutes while for delivery service, the wait time averaged 5-10 minutes at the counter. As for call centres, on average, customer service for courier services was rated as "Good".

450 Community Postmen were appointed under the Postal Transformation Plan for Sabah and Sarawak or PTPSS, with 225 each in Sabah and Sarawak. Besides their primary function which is to deliver mail, their services were up-scaled to deliver parcels to enable e-commerce activity for the rural community. In addition, a total of 18 Pos-on-Wheels were created under PTPSS to support postal services for communities in these rural areas.

Meanwhile, the Address for All project, a national address initiative to mitigate and reduce the number of premises with incomplete address, created more than 100,000 premises with new addresses across approximately 1000 villages since 2016. A total of 53,069 premises have been given full addresses in 2018, as follows:

- 1 Pulau Langkawi, Kedah **15,900** premises
- 2 Kuala Ketil, Kedah **6,311** premises
- 3 Bagan Datok, Perak **3,366** premises
- 4 Tambun Tulang, Arau, Perlis **1,513** premises
- 5 Bario, Sarawak **430** premises
- 6 Putatan, Sabah **656** premises
- 7 Kudat, Sabah **1,239** premises
- 8 Sandakan, Sabah **7,297** premises
- 9 Keningau, Sabah **2,853** premises
- 10 Serian, Sarawak **13,504** premises



THE DEVELOPMENT OF COURIER AND POSTAL SERVICES

Encouraging healthy competition and safeguarding consumer interests

As at December 2018, there are 119 licensed courier service companies, consisting of 43 Class A, 50 Class B and 26 Class C licenses. Also, 11 new courier service licenses comprising of six (6) Class A, four (4) Class B and one (1) Class C have been issued. Based on business plans and projected 5-year accumulated growth submitted by the applicants, it is estimated that 11,000 new jobs will be created and revenue of more than RM150 million could be generated through issuance of new licenses.

DRIVING THE COUNTRY'S DELIVERY INDUSTRY TOWARDS ACHIEVING THE NATION'S E-COMMERCE ASPIRATIONS

e-Commerce Delivery Awards 2018

The e-Commerce Delivery Awards is the most prestigious award ceremony for postal and courier service industry. The awards ceremony which was held for the second year running was jointly organised by MCMC, KKMM, Association of Malaysian Express Carriers (AMEC) with the full support of industry stalwarts.

The list of e-commerce award recipients are as follows:

- Best Delivery Industry Employee Award – Nationwide Express Courier Services Berhad
- Best Innovation Award – GD Express Sdn Bhd
- Best Delivery Award – City-Link Express (M) Sdn Bhd
- Best Customer Service Award (Counter) – DHL Express (M) Sdn Bhd
- Best Customer Service Award (Call Centre) – United Parcel Service (M) Sdn Bhd
- Best Corporate Social Responsibility Award – NCT Forwarding & Shipping Sdn Bhd
- Excellence in Road Safety Award – Yamato Transport (M) Sdn Bhd

Postal and Courier Road Safety Championship 2018

This competition was held for the fifth consecutive year as an ongoing effort to reduce road accidents and fatalities as well to encourage drivers and riders to take a more safe and professional approach on the road.

In 2018, 53 drivers and riders from 16 courier companies participated in the competition, marking it the highest involvement by service providers since its inception. Among the winners are:

1. Nationwide Express Courier Services Berhad emerged as the champion under the Malaysia's First Best Female Motorcycle Rider Category
2. Pos Malaysia won both the Motorcycle Rider Category (Male) and the Van Driver Category
3. City-Link Express (M) Sdn Bhd emerged winners under the Lorry Driver Category
4. Nationwide Express Courier Services Berhad were crowned Overall Championship for 2018.

DIGITAL SIGNATURE

Development of Certification Authority

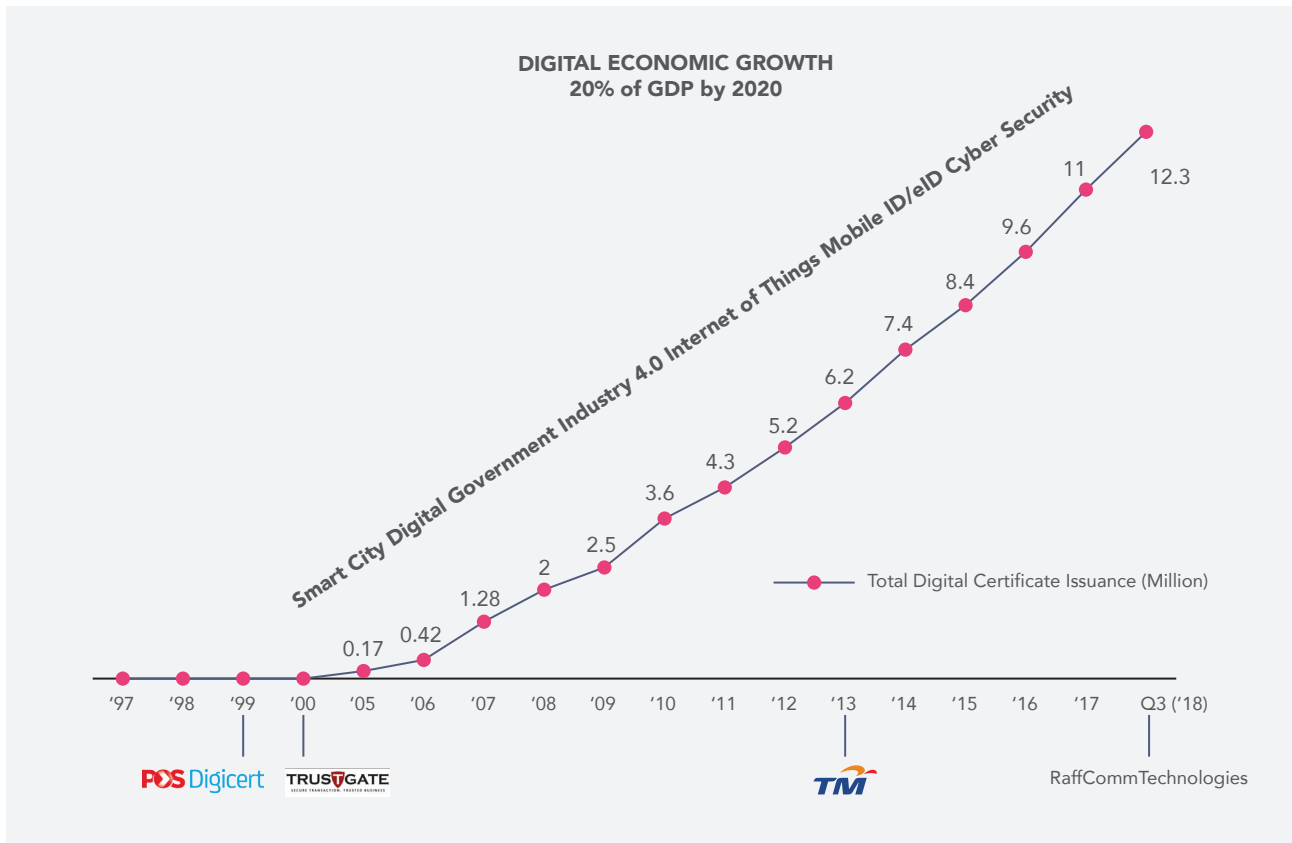
Malaysia is one of the earliest countries in Asia to establish Public Key Infrastructure (PKI) to support the Government's initiative to spur growth in the field of ICT for public and private sectors. PKI not only involved in the development of infrastructure for distributing and managing public key and digital certificates, but also provided a framework for ensuring safe Internet communications. Among the initiatives to enhance ICT is the development of cyber laws, this includes the Digital Signature Act (DSA) 1997, which is in its 20th year of enforcement.

The PKI established by the Certification Authority (CA), is part of the digital ecosystem that is widely used to protect consumers, data and critical business systems. In addition to the three (3) existing licensed Certification Authority (CA), Raffcomm Technologies Sdn Bhd was appointed as the fourth licensed CA by MCMC on 1 May 2018. The three (3) existing licensed CAs include Pos Digicert Sdn Bhd, MSC Trustgate.com Sdn Bhd and Telekom Applied Business Sdn Bhd.

Postal and Courier

Increase in Digital Certification

The majority usage of digital certificates in Malaysia comes from the public sector which makes up 96.9% of total certificates issued. The Government’s digital application services are supported by the usage of digital certificates to secure online transmission of data via the Internet. The remaining 2.9% digital certificates was issued to corporate sectors such as banking, healthcare and other industries, while 0.2% have been issued to individuals.



Total Digital Certificate Issuance 2013-2018 (Million)

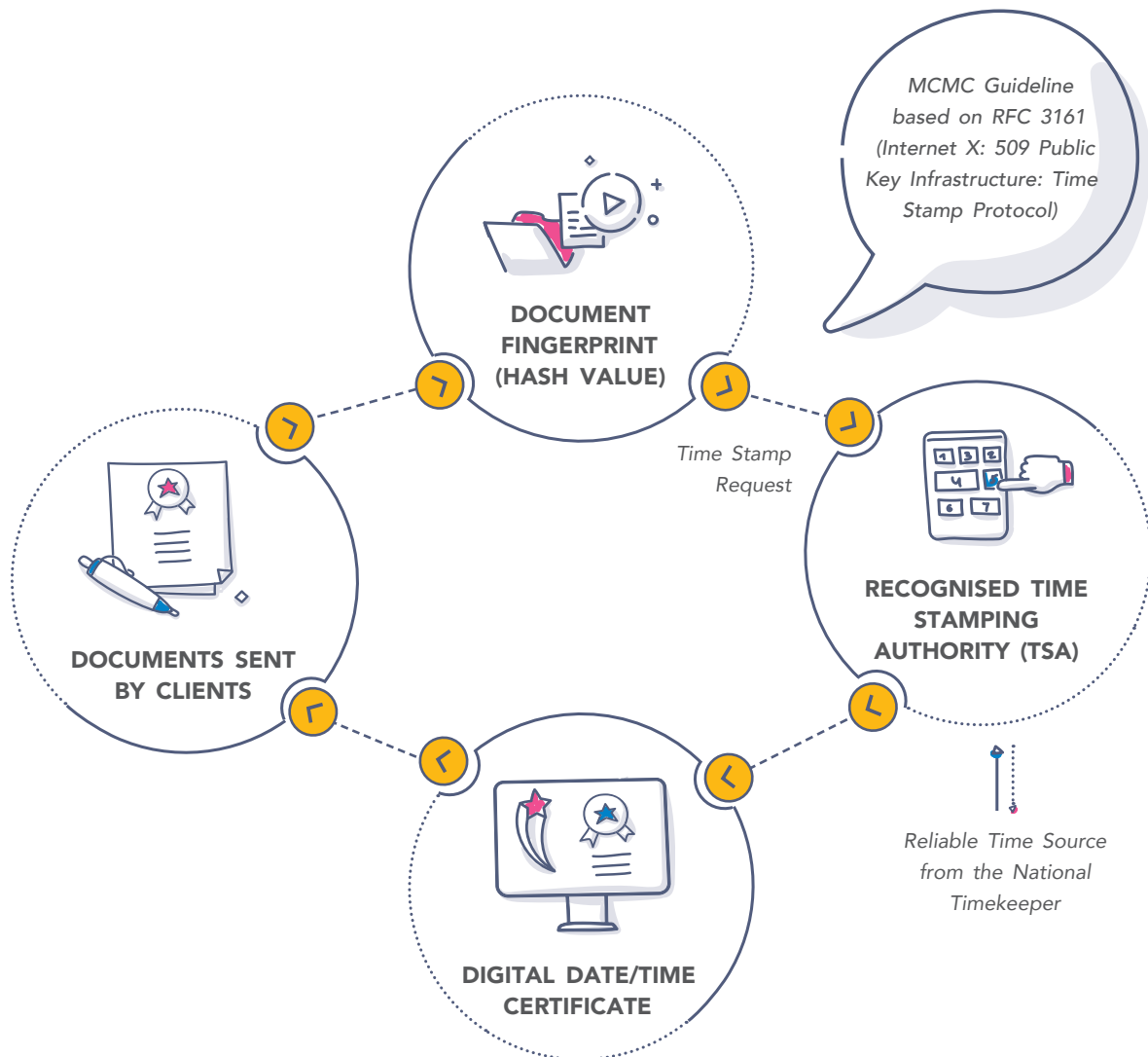
INNOVATION IN DIGITAL CERTIFICATION

Establishment of Digital Date/Time-Stamping (DTS) Authority

Digital Date/Time Stamping (DTS) combines electronic documents with date and time information to verify the existence and establish the integrity of information or data at a particular time. The accurate date/time source from a recognised party is important in legal and commercial use where the existence of digital information is proved based on a recognised DTS as well as ensuring the reliability of digital information.

A recognised DTS is a digital-based service using PKI system that is regulated under DSA 1997 and Digital Signature Regulations 1998 (DSR 1998). On 1 February 2018, MCMC issued a Certificate of Recognition of DTS (Establishment Stage) to three (3) CAs in Malaysia namely Pos Digicert Sdn Bhd, MSC Trustgate.com Sdn Bhd and Raffcomm Technologies Sdn Bhd, to establish a trusted DTS system based on international RFC 3161 standards.

Through the RFC 3161 standard framework, the trusted DTS is a timeline marker issued by Time Stamping Authority (TSA). TSA uses cryptography and PKI technology, and reliable time source from accredited parties, namely the National Metrology Institute of Malaysia, SIRIM Berhad (NML-SIRIM), as the National Timekeeper in Malaysia.



Digital Initiative and Implementation of Public Key Infrastructure with State Governments of Sabah and Sarawak

MCMC as the regulatory body responsible for governing and developing PKI based on DSA 1997, has collaborated with Sabah and Sarawak state governments to transform the states' conventional system to a digital-based system. This collaboration may provide operational cost savings of public services to the people, similar to that implemented by the Malaysian Administrative Modernisation and Management Planning Unit (MAMPU) through the Federal Government's PKI service.

Through the Sarawak State PKI Implementation Plan, the state Government in collaboration with MCMC organised a PKI Master Plan workshop with stakeholders in the public sector on 20 – 21 September 2018. This workshop was conducted to evaluate the State Government's readiness towards digital transformation and concurrently outlining the state' PKI Implementation Plan.

Digital initiative for PKI in Sabah began in 2015 with the Sabah Certification Authority, whereby several programmes were successfully organised under the Sabah PKI Plan, such as the MCMC-sponsored PKI Plan workshop in 2016. Subsequently, the State Government successfully initiated a digital marriage certificate system, known as *ePerkahwinan* on 6 April 2018, to replace physical certification thus enhancing the public service delivery system. *ePerkahwinan* was officially launched on 11 September 2018 at the state's Ma'al Hijrah celebration 1440H.



Industry Development

INTRODUCTION

The fourth Industrial Revolution or IR 4.0 is upon us, and inevitably it will bring about challenges in the digital era. As such, proactive measures such as research along with new policies needs to be implemented to facilitate industry development. This includes expert consultation to stimulate the growth of telecommunications infrastructure and broadband services in the country.

To meet some of these challenges, the Ministry of Communications and Multimedia Malaysia (KKMM) through MCMC has formulated the National Fiberisation and Connectivity Plan (NFCP). The success of NFCP will require cooperation from relevant stakeholders such as state governments, local authorities as well as adequate investment to ensure the objectives of the NFCP which is to provide a sustainable, holistic, high quality and affordable digital connectivity are met.

Apart from the above, the year 2018 also emphasised on industry development through various initiatives such as introduction of 5G Technology, National Digital ID, Cashless Payment Systems, Standard Radio System Plan (SRSP), installation of submarine fibre optic cables between mainland Peninsular Malaysia and selected islands as well as joint organisation of Malaysia Developers' Day (MYDD 2018) with US-based telco giant AT&T Communications.



Policy Development

DEVELOPING POLICY THAT STIMULATES GROWTH

National Fiberisation and Connectivity Plan (NFCP)

Y.B. Gobind Singh Deo, in October 2018 during his address at the Malaysia: A New Dawn Investors Conference, stated that "Access to the Internet is not a privilege nor a luxury, it is a necessity and a survival tool." He also announced the initial targets needed to increase the availability and access to digital infrastructure, which formed the basis for the preparation of the National Fiberisation and Connectivity Plan (NFCP). The initial targets include increased broadband coverage, gigabit speed as well as Test Beds for 5G networks.

Policy Division conducted an industry consultation session with more than 247 attendees on 29 October 2018 to ensure that issues, challenges and targets to implement NFCP can be understood and addressed. Additionally, MCMC also held consultation sessions with other stakeholders such as small and medium enterprises, financiers, analysts, as well as related interest groups.

01 Among the challenges in developing digital infrastructure which have been identified from the consultation sessions include:

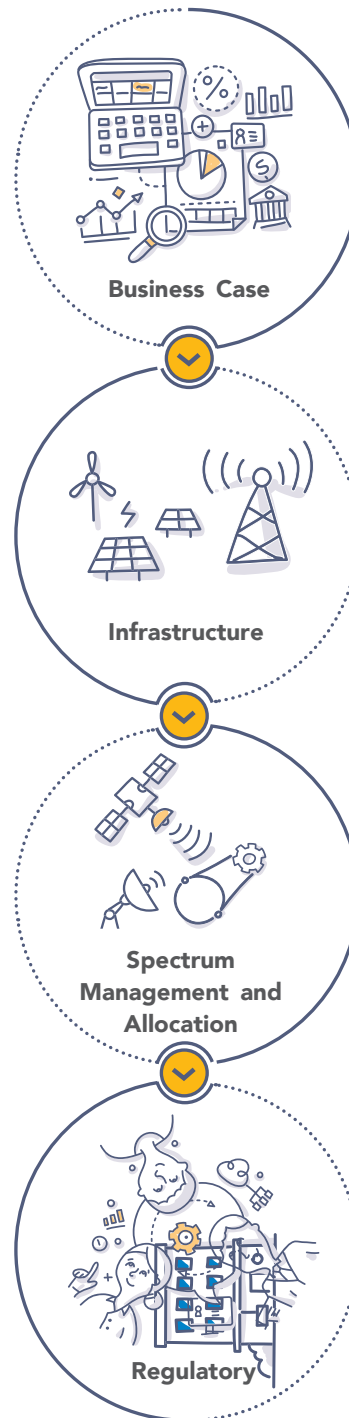
- 02 (i) Ensuring high quality broadband service.
- 03 (ii) The cooperation of stakeholders such as state governments and local authorities to not only facilitate the deployment of digital infrastructure in a cost effective manner but also to expedite the development to ensure the targets are met.
- 04
- 05 (iii) Adequate financial support to ensure that the broadband infrastructure can be deployed and affordable broadband service can be provided.
- 06

07 National 5G Task Force

Based on the NFCP consultation, there are also requirements to develop a holistic approach for the 5G implementation in Malaysia by 2019. Additionally, the Minister also announced that Cyberjaya and Putrajaya have been identified as 5G test bed locations. The National 5G Task Force was then established on 21 November 2018 to review and submit recommendations to the Government on 5G implementation.

Members of the National 5G Task Force comprise representatives from the public and private sectors, academia, organisations, non-governmental bodies, relevant ministries and agencies that represent supply and demand divisions in the communications sector ecosystem.

The National 5G Task Force is responsible for reviewing and recommending a comprehensive strategy for the implementation of 5G technology and ecosystem in Malaysia by the end of 2019, focusing on four (4) key areas:



Infrastructure Development

THE DEVELOPMENT OF COMMUNICATIONS INFRASTRUCTURE

Submarine Cable System To The Islands

MCMC marked another significant milestone through the implementation of domestic submarine cables which began in 2017. It involves the installation of submarine cables between mainland to Tioman Island, Pangkor Island and Perhentian Island that spans a total distance of 99km with a capacity of 100 Gbps.

The initiative was fully completed in 2018 to upgrade existing communications infrastructure network with submarine cables to supply high-speed broadband access to the local communities which will consequently improve their socio-economic status as well as to meet the demands of the tourism industry in these islands.

The breakdown of cable length of these islands are as follows:

Submarine Cable System To The Islands			
	Pangkor Island	Perhentian Island	Tioman Island
Timeline	2017 – 2018		
Capacity	100 Gbps		
Total Cable Distance (km)	4	21	74

Submarine Cable System To The Islands

HIGH SPEED BROADBAND DEVELOPMENT FOR FIXED BROADBAND SERVICES


The Suburban Broadband (SUBB) and Rural Broadband (RBB) initiatives were implemented since 2015 to increase the national fixed broadband penetration rate by providing fixed broadband services to users in suburban and rural areas.

In 2018, the SUBB initiative, involving the upgrading of core networks, connecting 431 exchanges to the cabinets and connections to residences or premises had exceeded its set targets. To date, there were 457,398 ports installed under the SUBB initiative in suburban areas.


The Rural Broadband (RBB) initiative, on the other hand, involves the installation of 102,692 broadband service ports with speeds of up to 20 Mbps and upgrades of 317 exchanges in rural areas across the country.

High Speed Broadband Phase 1 and Phase 2 (HSBB 1 & 2) are aimed to improve the quality of broadband services and enable users in major cities and high-impact economic areas throughout the country to enjoy better broadband experience with speeds of up to 100Mbps.

As of 31 December 2018, there are 2.15 million ports installed under HSBB 1 and 565,914 ports installed under HSBB 2. Both initiatives have contributed to the increase of high speed broadband subscriptions rate in the country.




102,692
ports installed in rural areas
under RBB initiative



457,398
ports installed in
suburban areas under
SUBB initiative

ports installed under

2.7 million **HSBB 1** and **HSBB 2**



Infrastructure Development

Table below shows the total ports installed under fixed broadband expansion initiatives as of 31 December 2018.

Fixed Broadband Expansion Initiatives				
	HSBB 1	HSBB 2	SUBB	RBB
Timeline	2008 – 2012	2015 – 2017	2015 – present	2015 – present
Ports Installed	2.15 million	565,914	457,398	102,692

Fixed Broadband Expansion Initiatives

MOBILE BROADBAND COVERAGE EXPANSION

In line with the objectives of the 11th Malaysia Plan (11MP) to improve broadband coverage, quality of network services and the affordability to subscribe to digital services, MCMC is responsible for improving broadband infrastructure across the country primarily through the expansion of mobile broadband coverage. Mobile broadband service has become an important communication medium for Malaysians, especially in rural and remote areas.

The mobile broadband coverage expansion plan involves the construction of new communications towers and the upgrading of the base stations at existing communications towers. The construction of new communications towers were implemented through two (2) major projects, namely the Time 3 (T3) and Time 3 Extension (T3E) projects, involving 1,000 towers under the T3 project and an additional 1,000 towers under the T3E project, bringing the total to 2,000 towers nationwide.

In addition to the above, MCMC also upgraded base stations at existing communications towers from 2G to 3G/4G services to provide mobile broadband services at higher speeds.

As of 31 December 2018, a total of 1,833 new towers were constructed and 4,895 base stations at existing communications towers have been upgraded nationwide to provide 3G/4G services. These initiatives have significantly increased mobile broadband quality and coverage nationwide.

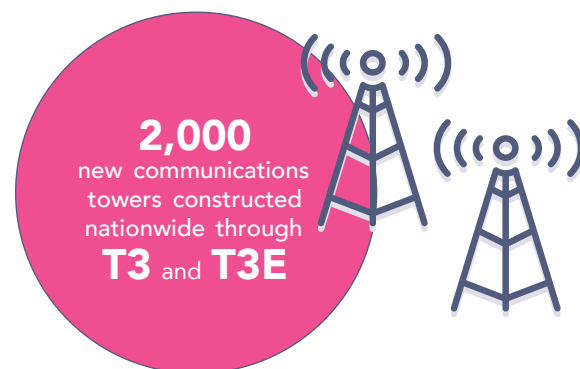
PILOT PROJECT IN JASIN, MELAKA

In September 2018, Tenaga Nasional Bhd (TNB) initiated a pilot project in Jasin, Melaka to evaluate TNB's fibre optic infrastructure capabilities from a technical, security and commercial viability perspective. This project is in line with the objectives of the NFCP to provide faster, broader and affordable internet access.

The pilot project which was completed in December 2018 offers high speed broadband service packages with speeds of up to 1Gbps to 1,100 homes in three (3) areas namely Taman Merbau Perdana, Taman Maju and Felda Tun Ghafar Kemendor, including post office and City Council in Jasin.

This pilot project will serve as a platform to test the concept of open access network to users' premises. This concept is expected to encourage more participation from new retail service providers subsequently providing consumers with more choices of broadband services based on individual needs. This concept will ultimately benefit the public by creating healthy competition in the fixed broadband market, consequently lowering the broadband subscription price. Moving forward, the outcome of the pilot project would determine TNB's direction in provisioning broadband services in future.

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Digital Development

NATIONAL DIGITALISATION BROADCASTING PROJECT

Digital Terrestrial Television (DTT) Broadcasting Deployment

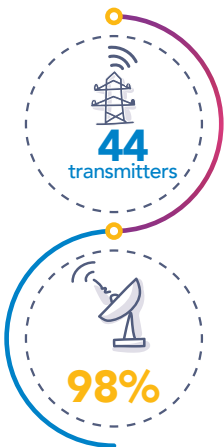
Initiatives to spearhead the transition from analogue TV to digital TV broadcast were intensified in 2018 and is now actively implemented and running smoothly.

MYTV as the Common Integrated Infrastructure Provider (CIIP) is currently providing digital TV services in Malaysia branded as myFreeview across the nation. With the number of transmitters increasing to 35 by the end of December 2018, DTT services currently reach 93% of the population.

MYTV targets to reach 95% of the population by the end of March 2019 with the construction of additional nine (9) transmitters, bringing the total to 44 DTT transmitters nationwide.

MYTV will subsequently launch the Direct to Home (DTH) service to ensure digital TV service coverage would be available at remote areas. DTH utilises satellite to complement DTT service coverage in blind spot areas.

COVERAGE



DTT Transmission

An additional nine (9) transmitters to be built by March 2019, bringing the total to 44 DTT transmitters nationwide, expanding coverage up to 95% of populated areas.

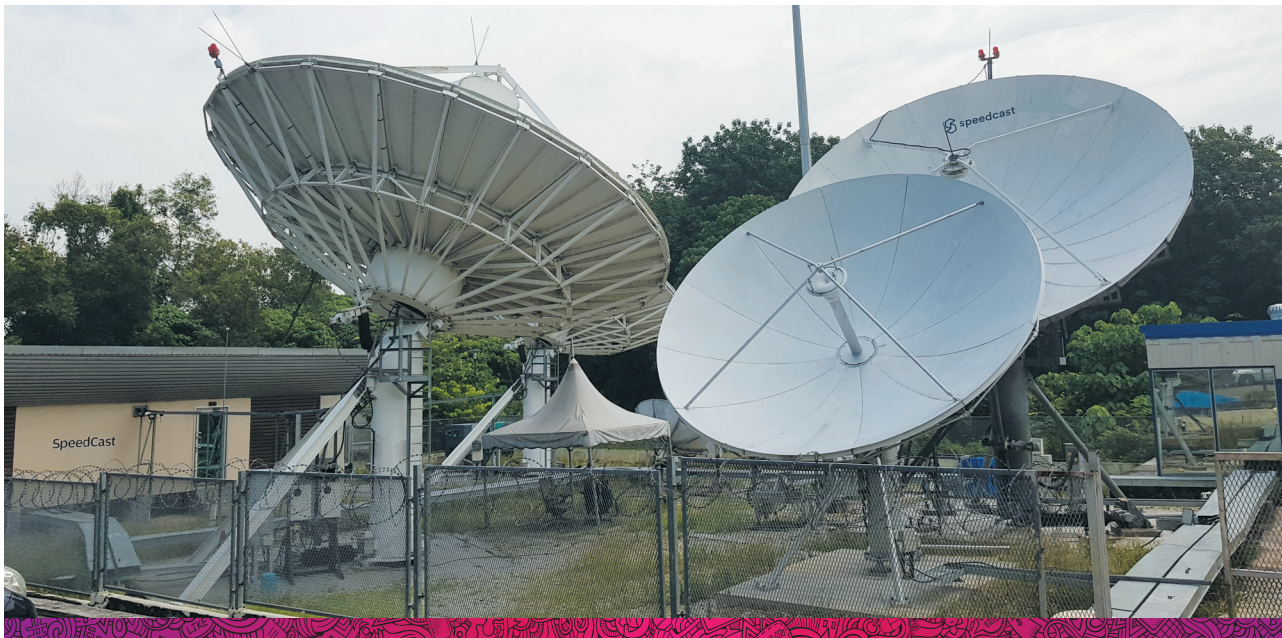
DTH

98% populated coverage by the end of March 2019.



DTT transmitters

Digital Development



DTH satellite earth station

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With the forthcoming Analogue Switch Off (ASO), the DTH services will provide 100% coverage nationwide for viewers to enjoy free digital TV services via myFreeview.

03

04

The DTH solution has already been adopted across many countries, such as United Kingdom, Chile, Finland, France and Italy which have already succeeded in implementing DTH solution to complement DTT coverage.

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Digital Multimedia Receivers

07

MYTV is responsible for distributing 2 million free Set-Top Box (STB) to eligible Bantuan Sara Hidup Rakyat (BSHR) households. An estimated 348,667 DTH STBs will be allocated to BSHR households in the DTH coverage areas.

As of 31 December 2018, MYTV has distributed 482,384 free STBs to 12 states nationwide, namely Kelantan, Pahang, Terengganu, Kedah, Perak, Pulau Pinang, Johor, Negeri Sembilan, Melaka, Kuala Lumpur, Sabah and Putrajaya. The remainder 1,517,616 million STBs is targeted to be distributed prior to ASO. Consumers who are not eligible to receive free STBs from MYTV are still able to enjoy myFreeview by purchasing digital multimedia receivers that are available in the market, such as:

- Integrated Digital TV (iDTV) sets with the DTTV label certified by SIRIM that comes with a built-in digital tuner which is able to receive myFreeview directly without DVB-T2 decoders. As at 31 December 2018, 18 iDTV brands namely, Sony,

Toshiba, Panasonic, Samsung, Sharp, Singer, LG, Philips, Hisense, Daewoo, Skyworth, Haier, TCL, A & S, iSONIC, Daema, HITEC and Pensonic are available in the market;

- MYTV Advanced STB are available for purchase at electrical outlets and online. (<https://estore.pensonic.com/product/mytvbroadcasting-advance-decoder-ir-9410>); and
- Other STB brands certified by SIRIM will also be available in the market in 2019.



Decoder and iDTV



Siaran Digital
myFreeview

myFreeview for All Malaysians

myFreeview is the brand name for digital TV broadcast and it allows Malaysians to enjoy numerous Free-To-Air (FTA) content and programmes without monthly subscription fee.

The increase of new TV channels on the myFreeview platform are as follows:

- RTM HD Sports: a dedicated sports TV channel was launched as a trial channel in June 2018;
- Channel W: a TV channel focusing on news, business, entertainment and talk shows was launched for trial in August 2018; and
- RTM BES HD: a dedicated channel for news broadcasting was launched as a trial channel in December 2018.

To date, 13 TV channels and six (6) radio channels are aired on myFreeview platform which offers numerous interesting contents and quality programmes for Malaysian viewers.

RTM HD Sports: a dedicated sports TV channel was launched as a trial channel in June 2018;

Channel W: a TV channel focusing on news, business, entertainment and talk shows was launched for trial in August 2018;

RTM BES HD: a dedicated channel for news broadcasting was launched as a trial channel in December 2018.

Trust: A Key Strategy Towards Empowering A Digital Economy

The year 2018 has witnessed MCMC steer its focus on developing Digital Identity and Cashless Payment initiatives, collaborating with the telecommunications sector and local authorities as well as strengthening engagements with public and private sector agencies.

Malaysian Communications and Multimedia Minister, Y.B. Gobind Singh Deo on 12 October 2018, officially announced the Government's intention to implement the National Digital ID initiative to facilitate the verification of the identity of users of digital services as well as to prevent online fraud and identity theft.



Digital Development

The focus on the National Digital Identity initiative is in line with the strategy of enhancing the nation's digital economy whilst achieving a key agenda in the 11th Malaysia Plan (MP11) which is "Transforming Public Services for Productivity". This in large is to create a "Digital Government" based on a single sign-on and mobile platforms to ensure increased use and access to all segments of society, including education, health, welfare, transportation, trade and security. The National ID initiative is also envisaged to support other initiatives such as the Government Online Services 2.0 (GOS 2.0) by the Malaysian Administrative Modernisation and Management Planning Unit (MAMPU), Financial Sector Blueprint 2011-2020 by Bank Negara Malaysia (BNM), the use of e-KYC by the banking sector; and in line with the National e-Commerce Strategic Roadmap by the Ministry of International Trade and Industry (MITI) and the Sharing Economy Roadmap by the Malaysian Digital Economy Corporation (MDEC).

Activities To Support The Digital Identity Initiative

MCMC anticipates the benefits that the three (3) key stakeholders i.e. government, people/consumers and digital service providers would reap through the implementation of the National Digital Identity. These benefits include:

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Stakeholders	Benefits
GOVERNMENT	<p>Intensify digital economy and drive the country towards digital transformation by increasing consumer confidence and security for digital transactions.</p> <p>Increase the efficiency of digital services delivery and economise service delivery.</p>
PEOPLE/ CONSUMERS	<p>Enjoy a seamless, secure and guaranteed data privacy digital service experience.</p> <p>Save time and money as opposed to transacting at the counter.</p>
DIGITAL SERVICE PROVIDERS	<p>Increase efficiency and cost savings in terms of user KYC process and authentication of online identity.</p> <p>Promote new digital services offerings such as fintech, platform economy, apps economy and others.</p>

Some of the activities undertaken by MCMC through the Department of Digital Platform Services (JPPD) to support the Digital Identity initiatives throughout 2018 include:

1. MCMC Delegation Official Visit to Estonia; 26 February – 28 February 2018

Estonia is dubbed as the most advanced digital society in the world. MCMC sent a delegation on a three-day official visit from 26 to 28 February 2018, to gain insights and share knowledge on the plans adopted by the Estonian Government, which is recognised as a leader in National Digital ID initiatives and considered as one of the leading references for Digital Identity internationally. MCMC gained insight knowledge through shared experiences and understanding the processes and strategies that were implemented in realising an e-Estonian nation and the blueprint that is needed to build a fully digital community.

2. Digital ID Engagement Session with E-Governance Academy (eGA), Estonia; 14 May – 18 May 2018

Subsequent to the official visit of MCMC to Estonia in February 2018, MCMC invited experts from Estonia's e-Governance Academy to share their experiences and expert views in implementing the National Digital Identity in Estonia with several key stakeholders in Malaysia such as MAMPU, Bank Negara Malaysia (BNM), PayNet, MIMOS, as well as representatives from the local telecommunications and banking industries.

3. Development of a Cabinet Paper for Implementation of Digital Identity in Malaysia

MCMC briefed the Malaysian Communications and Multimedia Minister Y.B. Gobind Singh Deo on the Digital Identity initiative, based on international models, current trends and the benefits of implementation. Subsequently, MCMC developed a Cabinet Paper on the proposed Implementation of the National Digital Identity Initiative and submitted to Cabinet through the KKMM for reconciliation and distribution.

4. Workshop Session on Coordination of Digital Identity Implementation at MCMC, Cyberjaya, 9 November 2018

The purpose of this workshop was to identify the application of Digital Identity in support of the direction of MyKad's utilisation and to refine the tender specifications of the MyKad card upgrade by the National Registration Department (NRD). The workshop was attended by the representatives of MCMC, MAMPU, JPN and the Immigration Department of Malaysia.

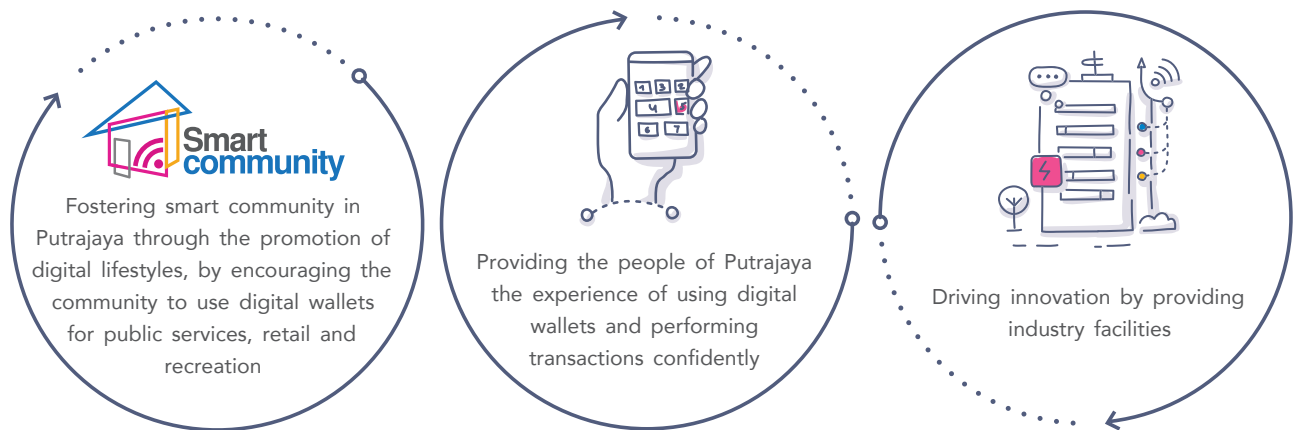
5. Establishment of Working Committee for Proof of Concept (PoC) for Digital Identity for Public Sector Services Through KKMM's Thematic Focus Group of Digital Economy Cluster

The National Digital Identity initiative is also identified as a key enabling platform to support the growth of the digital economy which is expected to contribute more than 20% to the nation's GDP by 2020 and it is one of the strategic initiatives under KKMM's Thematic Focus Group of Digital Economy Cluster. Among the representatives of agencies involved in the Proof of Concept (PoC) for Digital Identity for Public Sector Services are MCMC, MAMPU, JPN, National CyberSecurity Agency (NACSA), Cyber Security Malaysia, Malaysian Institute of Microelectronic Systems (MIMOS) and MDEC.



Activities That Support The Cashless Payment Initiative

The cashless payment initiative is one of the three (3) key enablers identified for implementing digital services, with its main objective being to encourage online payment transactions for all public and private services in the country. To achieve this goal, the JPPD has implemented various activities that involve cashless initiatives within the government agencies, local authorities and industry players under the MCMC's Smart Community program, with a focus on *Smart Putrajaya*.



Digital Identity and Digital Mobile Wallet Aspirations for Smart Putrajaya

Putrajaya The Cashless City Initiative in collaboration with Putrajaya Corporation and industry player, PrimeKeeper Malaysia Sdn Bhd

The Smart City development agenda spearheaded by MCMC has given JPPD the opportunity to develop the Mobile Digital Wallet initiative for Smart Putrajaya, which is a joint collaboration by MCMC with Putrajaya Corporation and industry player, PrimeKeeper Malaysia Sdn Bhd. It encompasses the development of an online payment platform and online bill payment facilities, through the use of mobile applications which benefits not only the residents of Putrajaya but also traders and merchants. Through this pilot project, the processes and strategies required for the successful implementation of Smart Cities across Malaysia can be identified.

These measures help identify and design the best models for project implementation to be replicated in any of the smart cities across the country. The learning outcomes of the project also provided insights into the challenges of using digital services as well as identifying their effect on the regulatory framework.

The year 2018 has also witnessed the successful launch of Putrajaya Cashless Pilot Project under the Smart Putrajaya MCMC program. This cash payment sandboxing project was launched on 30 March 2018, by former MCMC Chairman YBhg. Tan Sri Dr Halim Shafie along with former President of Putrajaya Corporation, YBhg. Dato' Hj. Hasim Ismail at the Precinct 9 Neighbourhood Complex, Putrajaya; and implemented in collaboration with Putrajaya Corporation (PPj) with the cooperation of PrimeKeeper Malaysia Sdn Bhd as the technology provider. PPj aims to fully utilise the platform for all 1,500 merchants registered under PPj in the first quarter of 2019 with cashless payments via QR code in shopping malls and business premises within Putrajaya and Cyberjaya.

Digital Identity technology is also incorporated into the registration process for participation. The JPPD supports the objective of the Smart Community aspirations championed by MCMC through the Smart Putrajaya project which has seen encouraging participation from local businesses and residents in Putrajaya.

INDUSTRY DEVELOPMENT

Digital Development

The following measures were put in place by JPPD to ensure the success of the Putrajaya Cashless City programme:

- Ensure the implementation of cashless operations at the Alamanda Putrajaya Shopping Centre, Precinct 9 Food Court and D'Pulze Shopping Centre at Cyberjaya;
- Organise exhibitions and seminars that highlight the effectiveness of a cashless platform;
- Support and facilitate the planning, coordinating and monitoring of cashless payment performance at selected business premises;
- Provide input and facilitate video content for Putrajaya Cashless City promotional campaign; and
- Organised a launching ceremony for Putrajaya Cashless City initiative on 30 March 2018, with over 300 guests in attendance.

The following are some of the activities conducted to promote Putrajaya Cashless City Programme:

No.	Programme	Date	Venue
1	PutrajayaGoCashless Roadshow @ Malaysia FinTech Expo 2018	05 & 06 March 2018	KL Convention Centre (KLCC)
2	PutrajayaGoCashless Roadshow @ Alamanda Shopping Centre	08 – 18 March 2018	Alamanda Shopping Centre, Putrajaya
3	PutrajayaGoCashless Roadshow @ DPULZE Shopping Centre	26 March – 01 April 2018	DPULZE Shopping Centre, Cyberjaya
4	PutrajayaGoCashless Roadshow @ Presint 9	28 – 31 March 2018	Food Court Presint 9, Putrajaya
5	Launch Ceremony of Putrajaya Mobile Application & Putrajaya Cashless City	30 March 2018	Kompleks Kejiranan, Presint 9, Putrajaya
6	Putrajaya Ramadan Bazaar & Festival 2018	17 May – 14 June 2018	Presint 3, Putrajaya

A total of 400 merchants registered using the Prime Keeper cashless payment platform during the launch. The breakdown is as follows:

No.	Location	Total
1	Kompleks Perbadanan Putrajaya	5
2	Alamanda Putrajaya Shopping Centre	7
3	Medan Selera Presint 9	30
4	Putrajaya Merchants	58
5	D'Pulze Shopping Centre	39
6	Shaftsbury Square	4
7	IOI City Putrajaya	2
8	KLCC	2
9	Bazar Ramadan Putrajaya	154
10	Laman Iftar	3
11	Food Truck	9



Majlis Pelancaran Aplikasi Putrajaya Mobile & Putrajaya Bandar Raya Tanpa Tunai

Snapshots of promotional campaign during Putrajaya Mobile & Putrajaya Cashless City launching ceremony



Highlights of Putrajaya Cashless City launch activities on 30 March at Presint 9, Putrajaya

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Highlights of Putrajaya Cashless City launch activities on 30 March at Presint 9, Putrajaya

Technology Development

CONTINUOUS ADVANCEMENTS IN THE INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) INDUSTRY HAVE SPURRED DEVELOPMENT FOR VARIOUS TECHNOLOGIES AROUND THE GLOBE. TECHNOLOGICAL CONVERGENCE ERA HAS REVOLUTIONISED EXISTING SECTORS BY CREATING MORE SOPHISTICATED NEW SECTORS.

GREEN ICT AND INNOVATIVE TECHNOLOGY

Proof-of-Concept (POC) projects under the Green ICT, Internet of Things (IoT) and New Technologies Grants

In 2015, MCMC established the Industry Promotion and Development Grants for Green ICT, Internet of Things (IoT) and New Technologies. It provides funding for proof-of-concept (POC) projects, test-bed projects, and other related projects outlined in the Grant. In the year 2018, five (5) projects have been identified and approved through grants ranging from RM80,000.00 to RM160,000.00.

By the end of 2018, three (3) projects were successfully completed through grants totalling RM275,173.00; two of the projects are from grants awarded in 2018, while one was granted in 2017. There are three (3) more 2018 grants which are scheduled for completion in 2019.

The projects completed in the year 2018 are listed in the table below:

No.	Project	Value of Grant	Project Description
1.	Internet of Things (IoT) in Ketutu Fish Farming Company: Sophic Automation Sdn Bhd	RM107,800.00 (2017 Grant)	The Marble Goby is a freshwater fish that is highly valued across Asian countries. However, specific expertise and skills are required to farm this breed. Subsequently, the majority of operators have switched to advanced and high-tech farming methods. Through this grant, a system was developed to collate readings and monitor 12 parameters namely pH, Dissolved Oxygen (DO), Temperature, Salinity, Conductivity, Total Dissolved Solids (TDS), Ammonium, Ammonia, Nitrate, Biological Oxygen Demand (BOD), Chemical Oxygen Demand (COD) and Total Suspended Solids (TSS). These parameters need to be continuously monitored for the Marble Goby to grow and breed at an optimum environment.
2.	Smart Factory (Industrial IoT) Company: Solnovation Analytics Sdn Bhd	RM80,000.00 (2018 Grant)	Smart Factory is a project that applies the Internet of Things (IoT) to the manufacturing industry. It is a collaboration with Malaysian Rubber Development Corporation (MARDEC) to develop the Energy and Production Information Management & Analytics system. The system monitors and displays the Energy and Production Performance Indicator (EnPI) via a dashboard to ensure efficient use of energy and monitor the production rate at the factory. Several sensors are installed for monitoring and the accumulated data is then analysed in a cloud-based system before being displayed on the dashboard.
3.	E-Padi – An IoT Based Paddy Productivity Monitoring and Advisory System Company: Universiti Malaysia Perlis (UniMAP)	RM87,373.00 (2018 Grant)	The project aims to produce a system capable of monitoring environmental parameters such as pH (soil acidity), paddy field's water levels, temperature, and humidity to generate maximum rice yield. A total of 20 sets of sensors was placed in paddy fields in Kuala Nerang, Kedah Darul Aman. Through these sensors, data is collated and displayed in real-time through a mobile phone application. This project is in collaboration with the Kedah State Department of Agriculture and is endorsed by the Higher Education Department (JPT).
TOTAL		RM275,173.00	

List of Completed Projects Through Green ICT, Internet of Things (IoT) and New Technology Grants completed in 2018. Three more projects with grants valued at RM411,500 are expected to be completed in 2019.

Technology Development

IoT Technical Report: Technical Regulatory Aspects and Key Challenges

The IoT Task Force was formed by MCMC to generate a report that serves as a technical reference for stakeholders in launching IoT applications and services in Malaysia.

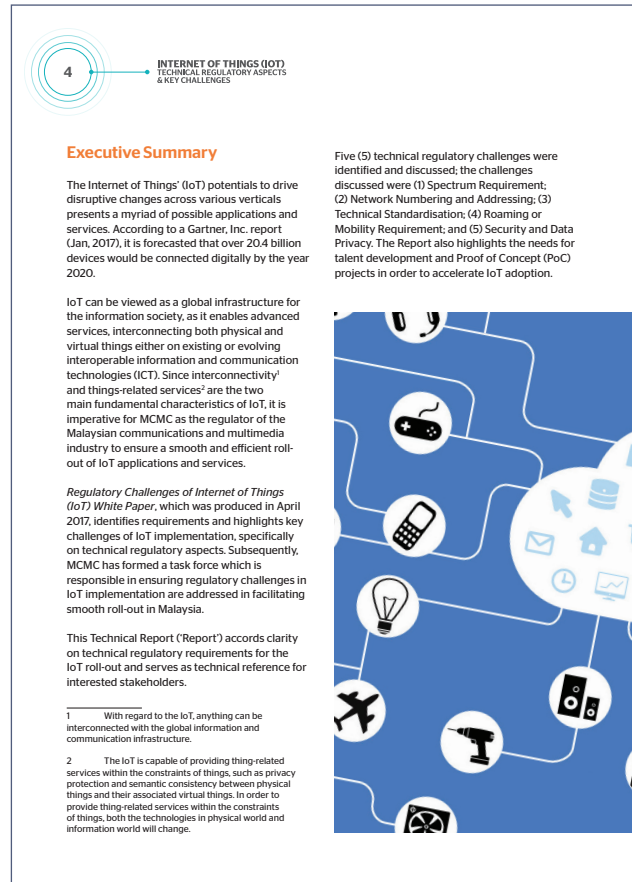
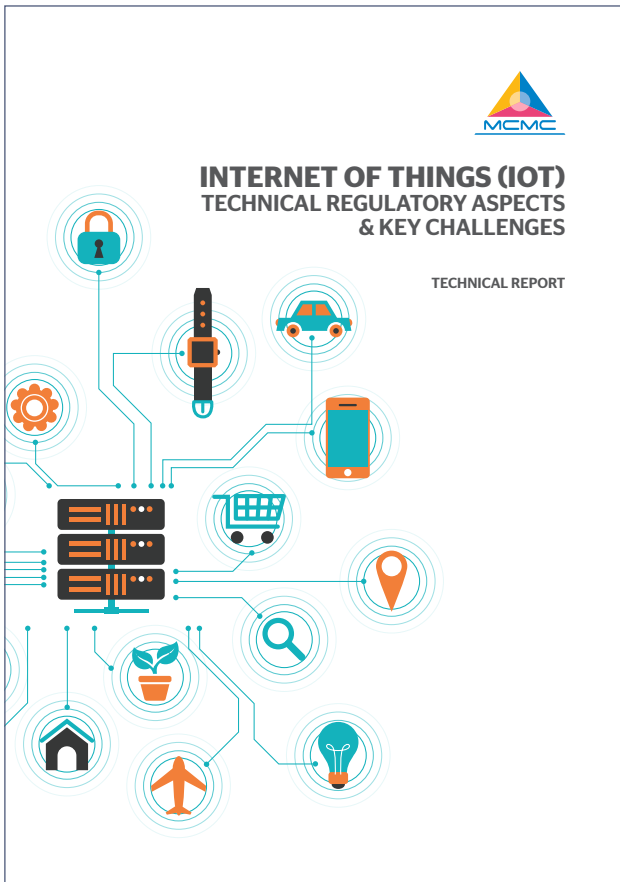
In summary, this report aims to provide a clear understanding of the technical regulatory challenges and requirements in Malaysia addressing the five (5) key aspects of technical regulation under the jurisdiction of MCMC, as detailed below:



This document is available on MCMC’s website via the following link:

<https://www.mcmc.gov.my/resources/publications/technology-and-society>

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Internet of Things (IoT) Technical Report: Technical Regulatory Aspects & Key Challenges Document

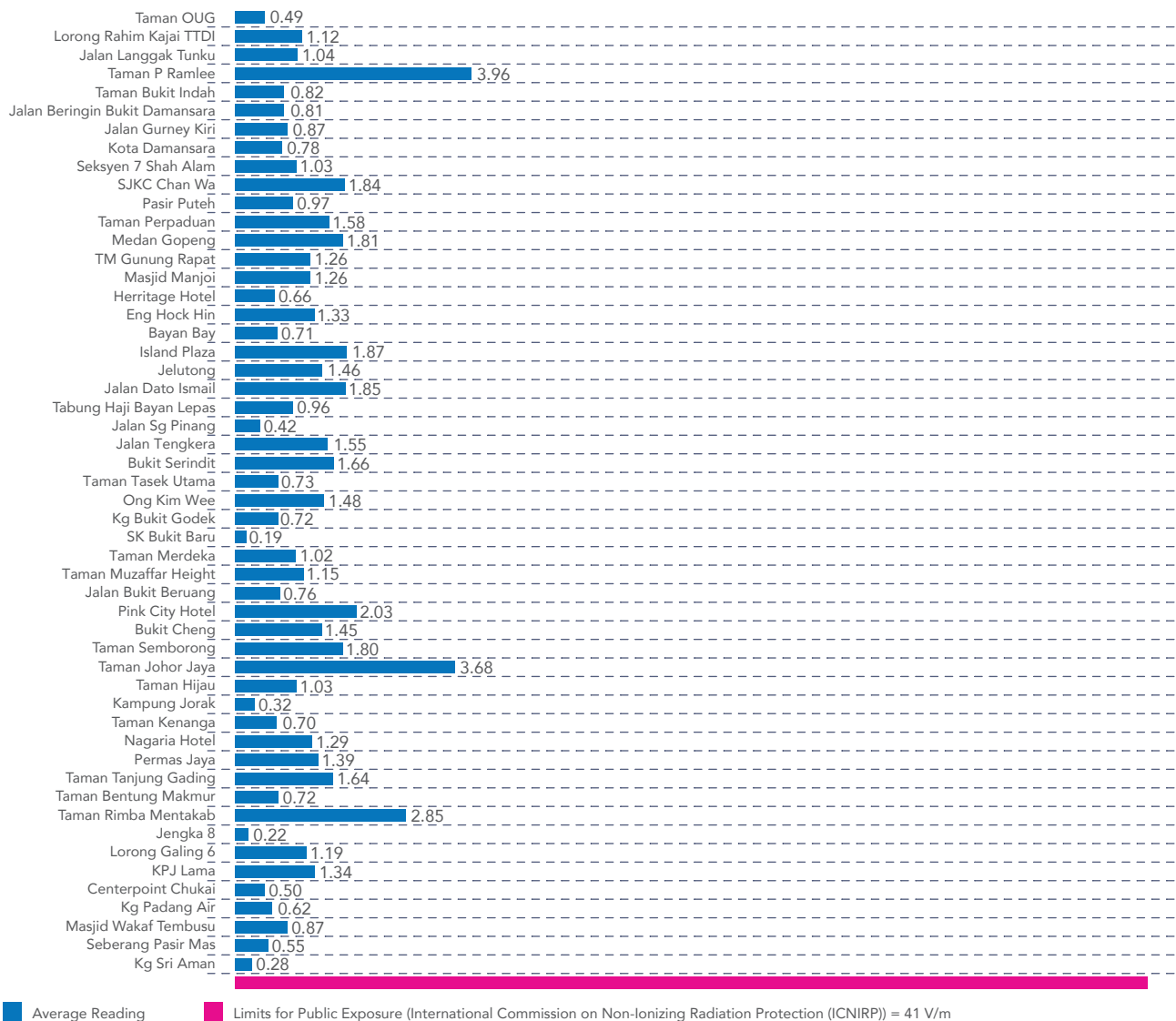


Radio Frequency-Electromagnetic Fields (RF-EMF) Emission Measurement

In the first quarter of 2018, MCMC’s Technology Development Department conducted Radio Frequency-Electromagnetic Fields (RF-EMF) emission measurements at 52 selected sites across four (4) regions:

- i. Central (Kuala Lumpur, Selangor, Negeri Sembilan);
- ii. North (Perak, Penang);
- iii. South (Johor, Melaka); and
- iv. East (Pahang, Kelantan, Terengganu).

RF-EMF measurements are conducted to inspect industry compliance with the Mandatory Standard for Electromagnetic Field Emission from Radiocommunications Infrastructure (MS for EMF). These measurements also provide reassurance to the public that radiocommunications infrastructure is safe and does not cause adverse health effect on the surrounding communities.



Results on long term Radio Frequency-Electromagnetic Field (RF-EMF) emission monitoring in Central, Northern, Southern and Eastern regions

The diagram above shows results from the long term monitoring of RF-EMF transmission in Central, Northern, Southern (Melaka), Southern (Johor) and Eastern regions. The results indicate that the overall RF-EMF emission from radio communication infrastructure in public places is very low. The highest average reading recorded is below 10% of the exposure limit of 41 V/M, and adheres to MCMC’s MS for EMF.

Technology Development

Mobile Phone Recycling Campaign

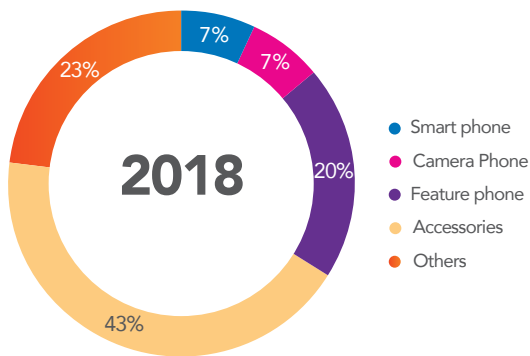
Mobile e-Waste

MCMC, along with its strategic partners, continued in their efforts to minimise electronic wastes to mitigate the hazards arising from used telecommunication or ICT equipment through the Mobile e-Waste programme. This programme has received massive traction in 2018 since its launch in August 2015, with the addition of new collaborations and implementation of several advocacy programmes throughout the year.

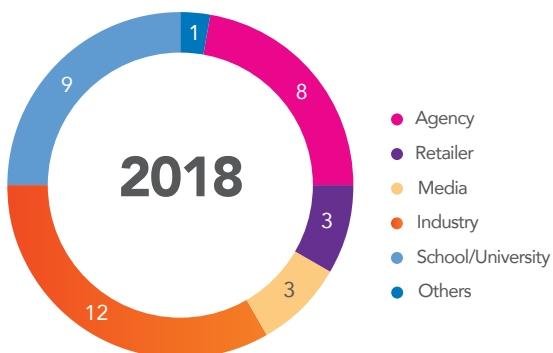
The campaigns and activities conducted have raised public awareness on the importance of recycling their electronic waste, especially mobile phones, in a safe and environmentally friendly manner.

Mobile e-Waste collection trend shows an encouraging rate of growth since 2015. Total collection increased by over 76% (1,261.23kg) to 3,107.009kg in 2018 (2017: 1,762.47kg). Out of which, mobile phone accessories recorded the highest percentage of e-waste collected, followed by other devices such as feature phones, smartphones and camera phones, as follows:

Mobile Phones and Accessories Collection 2018



Mobile e-Waste Partners By Categories



The programme started off with only six (6) partners from the telecommunications industry in 2015. Currently, there are more than 30 active participating partners contributing to placement of more than 150 collection boxes throughout Peninsular Malaysia, Sabah and Sarawak.

DIGITAL LIFESTYLE AND COMMUNITY

The myMaker Initiative

myMaker is an initiative by MCMC to raise public awareness in the realm of Science, Technology, Engineering and Mathematics (STEM). The initiative incorporates IoT development towards Fourth Industrial Revolution (IR 4.0) for technology enthusiasts, start-ups, educators, intellectuals and students.

Among the activities and programmes implemented through the myMaker initiative include:

(a) myMaker IoT Lab

The myMaker IoT Lab is a collaborative space where ideas come to life, where “makers” of different disciplines come together to create, ideate and collaborate in Science, Technology, Engineering and Mathematics (STEM) and Entrepreneurship. The Lab provides training and support to all “makers”, especially to students who are interested in venturing into STEM and IoT.

The myMaker initiative is further expanded with MCMC building more laboratories together with local industry leaders such as Universiti Sains Malaysia, Universiti Malaysia Perlis, Universiti Utara Malaysia, and Sabah State Library.



Tuanku Syed Faizuddin Putra Ibni Tuanku Syed Sirajuddin Jamalullail officially launches the MCMC-UniMAP Makerspace

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myMaker Robotics Competition (MRC)

(b) Education and Outreach Programme

The programme is aimed at promoting and creating awareness about IoT and STEM education towards IR 4.0 among students and the community.

Among the programmes organised:

- Robotics and basic programming workshop in cooperation with MCMC Internet Centres (IC);
- Awareness and Exhibition Programmes such as Kuala Lumpur Engineering Science Fair (KLESF); and
- Community Programmes within the Hindu community, Kelabit Bario and Kampung Baru communities.



Basics of Drone Technology Community Workshop with the Sarawak Bario community

(c) IoT Events/Competitions/Challenges

The programme is aimed at creating awareness and interest among students and the community about STEM towards IR 4.0. Among the competitions held:

- Digital Lifestyle Seminar at Iskandar Space, Johor and Universiti Teknikal Malaysia (UTeM) Melaka;
- myMaker Robotics Challenge (MRC) 2018; and
- Virtual Reality Hackathon 2018.

(d) Cooperation/Engagement with Local Advocators

This engagement is to strengthen community makers' Internet of Things (IoT) content for Malaysia Internet Centres (IC) in collaboration with the public and private higher learning institutions as well as local advocators, involving:

- i. Universiti Sains Malaysia (USM);
- ii. Universiti Malaysia Perlis (UniMAP);
- iii. Universiti Utara Malaysia (UUM);
- iv. University College of Technology Sarawak (UCTS);
- v. Kinabalu Coders;
- vi. Sabah State Library; and
- vii. Sarawak State Library.

Standards Development

REGISTRATION OF TECHNICAL CODE

IN 2018, MCMC HAD REGISTERED SEVEN (7) TECHNICAL CODES AS VOLUNTARY INDUSTRY CODES UNDER SECTION 95 OF THE COMMUNICATIONS AND MULTIMEDIA ACT 1998 (CMA 1998). THIS REGISTRATION REITERATES MCMC'S COMMITMENT TOWARDS ESTABLISHING AN INDUSTRY SELF-REGULATION FRAMEWORK AND STANDARDS THAT OUTLINE SPECIFICATIONS AND REQUIREMENTS TO ENSURE SYSTEMS, SERVICES AND PRODUCTS THAT ARE SAFE AND INTEROPERABLE

Details of the registered Technical Codes are listed in the table below:

No.	Technical Code
1.	MCMC MTSFB TC G012:2018 – Digital Terrestrial Television (DTT) – Content Contribution, Encoding and Multiplexing Performance
2.	MCMC MTSFB TC G013:2018 – Internet of Things (IoT) – Security Management
3.	MCMC MTSFB TC G014:2018 – Business Continuity Management (BCM) – Requirements
4.	MCMC MTSFB TC G015:2018 – Information and Network Security – Incident Management
5.	MCMC MTSFB TC G016:2018 – Information and Network Security – Security Posture Assessment (SPA)
6.	MCMC MTSFB TC G017:2018 – Information and Network Security (INS) – Cloud Service Provider Selection
7.	MCMC MTSFB TC G018:2018 – Information and Network Security – Code of Practice for Broadcasting

List of Technical Codes registered in 2018

Computer-aided RAE (e-RAE) at MCMC's Internet Centres

In 2018, MCMC had begun operating 14 computer-aided Radio Amateur Examination (e-RAE) centres. The e-RAE are conducted once a month and will replace the written examinations starting from 2019 onwards.

No.	Internet Centre	District	State
1.	PI PPR Kerinchi	Kuala Lumpur	Kuala Lumpur
2.	PI Semenyih	Semenyih	Selangor
3.	PI Putrajaya Presint 9 Fasa 3	Putrajaya	Putrajaya
4.	PI Taman Klebang Utama	Ipoh	Perak
5.	PI Kelang Lama	Kulim	Kedah
6.	PI RTC Napoh	Jitra	Kedah
7.	PI Taman Murai Jaya	Melaka	Melaka
8.	PI Kg. Sri Jaya	Kota Tinggi	Johor
9.	PI Peramu Jaya	Pekan	Pahang
10.	PI Kuala Berang	Hulu Terengganu	Terengganu
11.	PI PPR Sri Titingan	Tawau	Sabah
12.	PI Kg. Muhibbah	Putatan	Sabah
13.	PI Kampung Luak	Miri	Sarawak
14.	PI Tanjung Budong	Kota Samarahan	Sarawak

e-RAE Examination Centres at Internet Centres 2018

Check Your Label Campaign

In an effort to further intensify the Check Your Label's promotional campaign, MCMC in 2018 collaborated with eight (8) major industry partners, namely Celcom, Maxis, Digi, UMobile, Altel, Webe, Telekom Malaysia and Motorola Solutions. These partners have agreed to promote Check Your Label initiative at their selected stores throughout Malaysia.



Check Your Label is an awareness campaign to educate the public on the importance of purchasing communications equipment that has a valid MCMC label to verify the equipment is certified and safe for users. The public is also advised to verify the MCMC label to ensure the validity of the label on the communication equipment sold using the Check Your Label mobile app that can be downloaded from Apple Apps Store or Google Play Store.

Promotional materials for the Check Your Label program that has been distributed to industry partners include handbooks, brochures, posters, acrylic standees, buntings, and video clips. In addition, MCMC has also shown video clips and displayed wrapped screen frames with Check Your Label promotional materials at 13 selected R&R stops along the PLUS highway.



Video clips and wrapped screen frames with Check Your Label promotional materials at selected R&Rs along PLUS highway.

Spectrum Management

SPECTRUM PLANNING

Spectrum resources are considered national assets. MCMC is tasked to regulate and ensure the use of spectrum is in accordance with the Communications and Multimedia Act 1998 (“CMA”) and the Communications and Multimedia (Spectrum) Regulations 2000. Spectrum management generally entails the following:

- (i) Assignment of spectrum issued by the MCMC in the form of spectrum assignment, apparatus assignment and class assignment;
- (ii) Planning and policies on spectrum use through Spectrum Plan and Standard Radio System Plan (SRSP) documents;
- (iii) Technical coordination with neighbouring countries and globally; and
- (iv) Domestic bilateral coordination with Government agencies.

ACTIVITIES THROUGHOUT 2018

Spectrum management entails planning, maintenance and regulation to ensure that it is free of interruptions and guaranteed service quality.

As such, MCMC has implemented several activities in 2018 to enable the optimum utilisation of spectrum.

Standard Radio System Plan (SRSP)

Standard Radio System Plan (SRSP) serves as a guide on technical and regulatory requirements for use of specific frequency bands. The SRSP provides guidance on the type of assignment, list of frequency channels, coordination requirements with neighbouring countries and equipment usage specifications. When necessary, the SRSP will be reviewed and updated to ensure that the content of the SRSP meets the current requirements for the use of specific frequency bands.

In 2018, MCMC reviewed two (2) SRSP as follows:

- (i) SRSP FS 14.40 – Requirements for Fixed Wireless Systems operating in the frequency band 14.40 GHz – 15.35 GHz; and
- (ii) SRSP MS 2100 – Requirements for International Mobile Telecommunications (IMT) System in the frequency bands 1915 MHz – 1980 MHz, 2010 MHz – 2025 MHz and 2110 MHz – 2170 MHz.

Border Technical Coordination

Border technical coordination is essential to ensure harmonised use of spectrum with neighbouring countries at common border areas to ensure the efficient use of frequency and to overcome interference occurrences. This is carried out in accordance with relevant national regulations as well as international conventions and regulations.

Throughout 2018, there are four (4) technical border coordination committees:

- (i) Frequency Assignment Committee of Singapore, Malaysia and Brunei Darussalam (FACSMAB);
- (ii) Joint Technical Committee on Coordination and Assignment of Frequencies along Malaysia – Thailand Common Border (JTC);
- (iii) Joint Committee on Communications between the Republic of Indonesia and Malaysia (JCC); and
- (iv) Trilateral Coordination Meeting between the Republic of Indonesia, Malaysia and Singapore.

Among the activities carried out by the committees are radio spectrum usage planning, agreement on coordination specification, coordinate border frequencies registration and resolve reported interference cases.

Orbital Satellite System Coordination

Bilateral satellite coordination agreements have been reached with related countries to coordinate Malaysian satellite networks and minimise interference. This agreement will ensure that the Malaysian satellite network can operate at the specified frequencies and coverage areas without interfering with each other.

In 2018, two (2) satellite coordination meetings were held between Malaysia-Republic of Indonesia and Malaysia-France to reach an understanding to coordinate the use of allocated frequency.

As of 2018, Malaysia has four (4) operational communications satellites to provide services such as broadband and Direct-To-Home (DTH) broadcasting.

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RADIO SPECTRUM ASSIGNMENT DEPARTMENT, LICENSING AND ASSIGNMENT DIVISION – ANNUAL REPORT 2018

Frequency Assignment

MCMC is responsible for issuing assignments that authorise the use of radio frequencies. It incorporates the use of radio frequencies under the Spectrum Assignment and Apparatus Assignment categories. This section reports on the tasks and activities undertaken by the Radio Spectrum Assignment Department (RSAD) under the Licensing and Assignment Division (LAD) for 2018.

TYPE OF ASSIGNMENTS

Spectrum Assignment (SA)

Effective 2 April 2018, the spectrum assignment (SA) for the 2100 MHz band has been reissued for a period of 16 years to Celcom Axiata Berhad, Digi Telecommunications Sdn Bhd and UMS (Malaysia) Sdn Bhd, which has transferred its SA to Maxis Broadband Sdn Bhd.

The list of SA holders for three spectrum bands – 900 MHz, 1800 MHz and 2100 MHz is listed below:

SA Band (MHz)	SA Holders
900	CELCOM AXIATA BERHAD
	DIGI TELECOMMUNICATIONS SDN BHD
	MAXIS BROADBAND SDN BHD
	U MOBILE SDN BHD
1800	CELCOM MOBILE SDN BHD
	DIGI TELECOMMUNICATIONS SDN BHD
	MAXIS BROADBAND SDN BHD
	U MOBILE SDN BHD
2100	CELCOM AXIATA BERHAD
	DIGI TELECOMMUNICATIONS SDN BHD
	MAXIS BROADBAND SDN BHD
	U MOBILE SDN BHD

**List of SA holders for 900 MHz, 1800 MHz
and 2100 MHz bands**

Apparatus Assignment – AA

A total of **88,168** Apparatus Assignment (AA) have been issued as of 31 December 2018. Details of the assignments are listed in the table below:

Type of Service	Re-Application of AA	New Application of AA	Total Application
Aeronautical Service	589	165	754
Amateur Service	2,862	1,243	4,105
Broadcasting Service	704	41	745
Fixed Service	42,029	7,396	49,425
Mobile Service	17,466	4,156	21,622
Maritime Service	2,211	3,448	5,659
Radiodetermination Service	257	17	274
Satellite Service	5,119	465	5,584
Total	71,237	16,931	88,168

INTRODUCTION OF ESPECTRA.MCMC.GOV.MY TO CLIENTS

Espectra.mcmc.gov.my (e-SPECTRA) is a site designed to help clients manage their apparatus assignment applications online and also monitor the status of their applications submitted to the Commission.

Registration for access to this site is open to existing clients as well as new clients who wish to apply for apparatus assignments only.

The e-SPECTRA portal site offers assistance pertaining to new applications for apparatus assignments for the benefit of existing apparatus assignment holders as well as to new applicants. This portal allows apparatus assignment holders to apply for variation of apparatus assignments, cancellation of apparatus assignments as well as applications for certified true copies of apparatus assignments.

An introductory session to the e-SPECTRA site was planned and implemented in stages for the Commission's clients with the first of these sessions held on 4-7 April, 2018. The introductory session was conducted for existing assignment holders who are familiar with the previous e-Spectrum site. Introductory sessions to other clients were also conducted periodically at the request of existing assignment holders or new applicants.

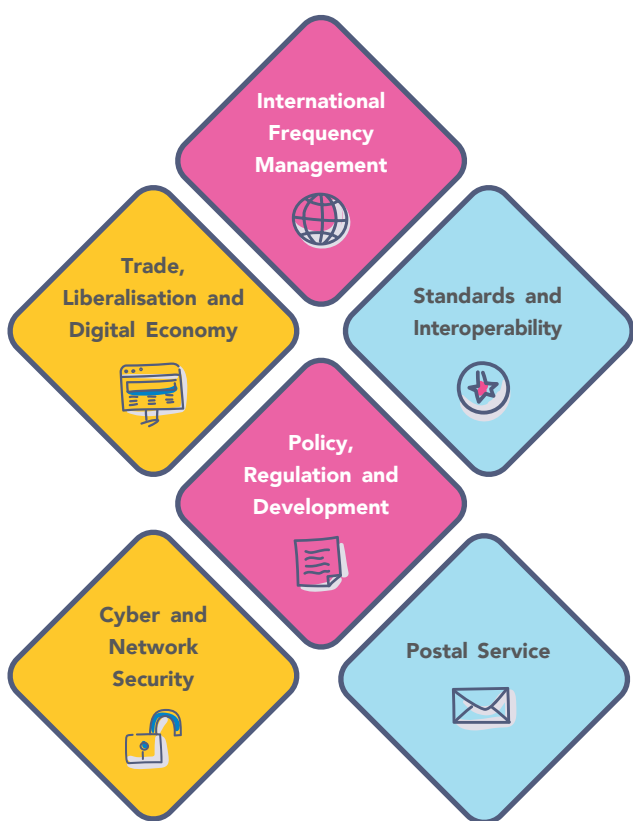
International Coordination

POSITIONING MCMC GLOBALLY

MCMC seeks to promote Malaysia's leadership in the development of the Communications and Multimedia Industry and to elevate the country's profile through effective participation in international activities.

In 2018, MCMC participated in a total of 90 international meetings, forums and activities as well as receiving 13 working visits from overseas delegations, which cover:

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MCMC'S INTERNATIONAL ENGAGEMENTS

ASEAN

The ASEAN Economic Community is an embodiment of various sectoral bodies working in tandem towards regional economic integration. The Commission and KKMM played an important and active role in ASEAN's ICT initiatives through the following forums:

- (i) ASEAN Telecommunications Regulators' Council (ATRC),
- (ii) ASEAN Telecommunications and IT Senior Officials' Meeting (TELSOM)
- (iii) ASEAN Telecommunications and IT Ministers Meeting (TELMIN) and meetings related to ASEAN dialogue partners.

TELSOM-ATRC Joint Working Group Meetings

Malaysia was given the honour of hosting the ASEAN TELSOM-ATRC Joint Working Group and related meetings in 2018 in Kuala Lumpur from 27-29 June 2018. The JWG was attended by the ASEAN Member States as well as ASEAN dialogue partners from China, Japan, Korea, India, the United States, the European Union and representatives from the International Telecommunications Union.

The JWG Meeting approved 14 Projects based on the ASEAN ICT Master Plan 2020 to be implemented in 2019. Among the projects put forth by Malaysia and has garnered the support of ASEAN countries are:

- (i) ATRC Stakeholders Consultative Dialogue
- (ii) 2019 ASEAN Makerthon

OTT DIALOGUE

Malaysia was also selected to host the ATRC OTT (Over-the-top) Dialogue 2018, held from 25-26 June 2018 in Kuala Lumpur, Malaysia. The dialogue serves as a platform for ASEAN telecommunication regulators, OTT service providers and network service providers to exchange views on the topic of OTT service management and regulation.

Following the industry discussion, members concurred that a framework needs to be adopted and implemented by ASEAN regulators, industry players and OTT service providers encompassing issues related to OTT services and regulations such as user data protection, cybersecurity, user-generated content and taxation.

ITU Plenipotentiary Conference 2018

The ITU Plenipotentiary Conference 2018 (ITU PP-18) is the supreme decision-making organ of the International Telecommunications Union ITU, which meets once in four (4) years to decide on the Union's overall strategic and financial plans, leadership and direction for the next four (4) years.

The 20th Conference of the ITU-PP was held in Dubai, United Arab Emirates from 29 October to 16 November 2018. The conference was attended by 2,300 registered delegates from 180 ITU Member Countries, 700 observers and sectorial officials and more than 85 Minister, Deputy Ministers, Ambassadors and High Commissioners.



The Malaysian delegation was represented by officials from KKMM and MCMC led by the Minister of Communications and Multimedia Malaysia; Y.B. Gobind Singh Deo. In his high-level statement, Y.B. Minister called for ITU to take practical, concerted measures to deal with cybersecurity and for the Members of the ITU to collaborate with industry experts in addressing the challenges of cybersecurity.

Malaysia introduced 10 proposals at the ITU-PP encompassing digital economy, IP-based networks, bridging the digital divide and standards, cybersecurity, Internet of Things, broadband and connectivity and ICT development in rural areas. Malaysia's proposals were well received and successfully incorporated into the resolutions and reflected in the outcomes of the Conference.

Malaysia's Developers' Day 2018 (MYDD 2018)

Malaysia Developers' Day (MYDD 2018) is a ground breaking programme organised by MCMC in collaboration with US-based telco AT&T, which serves to foster innovation and entrepreneurship among local mobile application developers.

MYDD 2018 consists of three (3) main programs, namely the Coding 101 Workshop, which is open to local high school students interested in mobile application development; AT&T

Inc. IoT Security Workshop for government officials, industry players and students of local institutions of higher learning; and the Hackathon Competition, an Internet of Things (IoT) based application development competition.

The MYDD2018 Hackathon which lasted for 24 hours produced 14 new mobile applications. Top honours along with a cash prize of US\$10,000.00 went to the Team WA-SE-AI which developed an AI-enabled waste recycling app, a solution that enables trash bins to automatically identify waste materials for recycling. Winners of the second and third places respectively developed AI-based mobile applications to generate heat maps to identify the movement of endangered animals and mobile application to detect traffic violations aimed at reducing road accidents.

POSTAL SERVICE

Malaysia has also been elected as a member of the Universal Postal Union (UPU) Council of Administration (CA) from 2017 to 2020, in addition to being given the mandate to serve as a member of CA Management Meeting and entrusted to co-chair Committee 1 (Finance, Human Resources and Governance) with Switzerland.



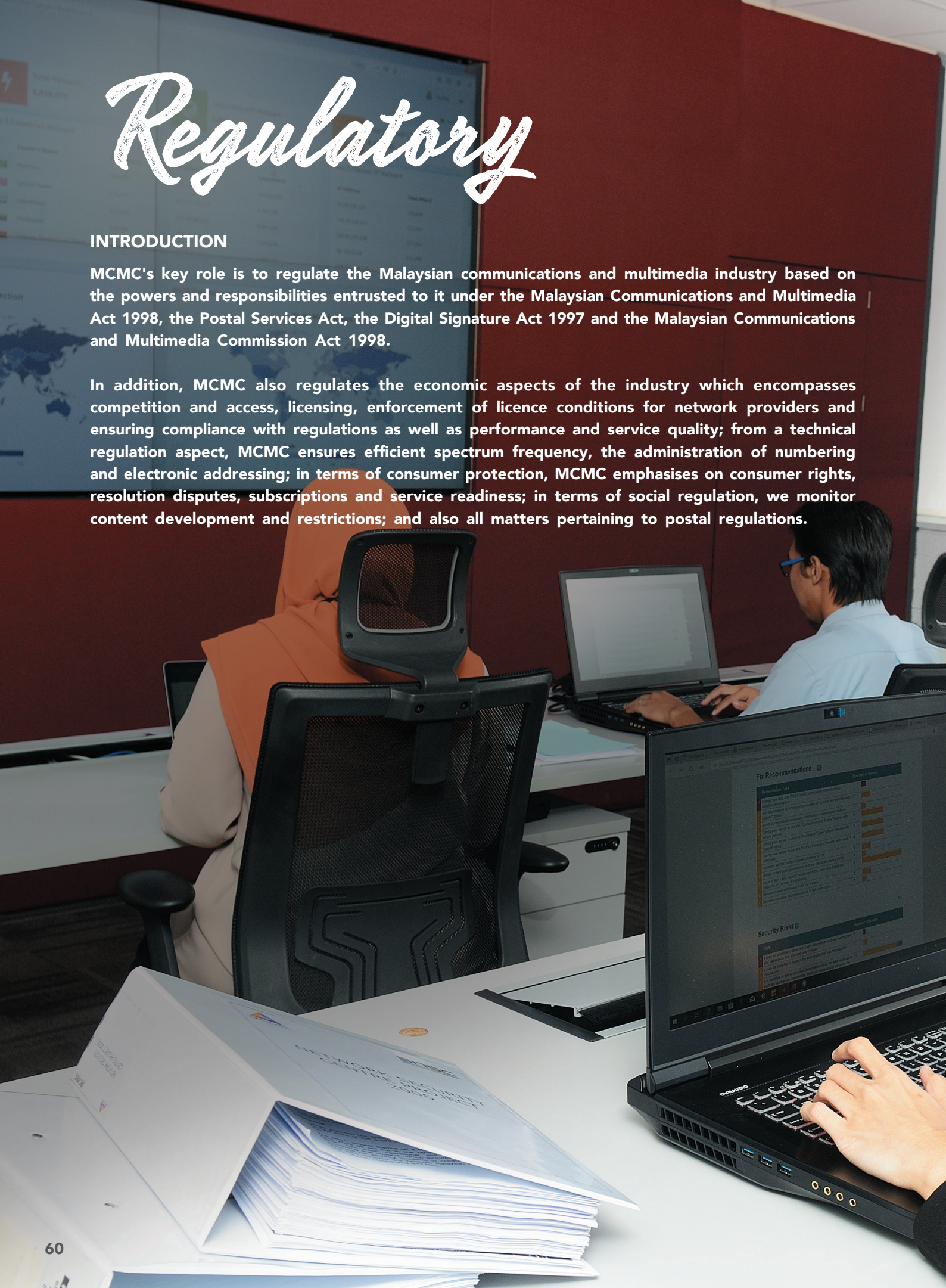


Regulatory

INTRODUCTION

MCMC's key role is to regulate the Malaysian communications and multimedia industry based on the powers and responsibilities entrusted to it under the Malaysian Communications and Multimedia Act 1998, the Postal Services Act, the Digital Signature Act 1997 and the Malaysian Communications and Multimedia Commission Act 1998.

In addition, MCMC also regulates the economic aspects of the industry which encompasses competition and access, licensing, enforcement of licence conditions for network providers and ensuring compliance with regulations as well as performance and service quality; from a technical regulation aspect, MCMC ensures efficient spectrum frequency, the administration of numbering and electronic addressing; in terms of consumer protection, MCMC emphasises on consumer rights, resolution disputes, subscriptions and service readiness; in terms of social regulation, we monitor content development and restrictions; and also all matters pertaining to postal regulations.





Licensing

As at 31 December 2018, Minister of Communications and Multimedia Malaysia had approved a total of 76 applications relating to Individual licence under the Communications and Multimedia Act 1998 (CMA 1998). Type of applications are illustrated below:

Type of Application	Number of Application
New application of Individual licence	37
Renewal application of Individual licence	29
Variation of Individual licence	9
Transfer of Individual licence	1
Total	76

Type of Applications relating to Individual Licence

NEW APPLICATION OF INDIVIDUAL LICENCE

With regard to new application for Individual licence, Minister had approved a total of 37 applications as follows:

- 18 Network Facilities Provider Individual NFP (I) licence;
- 14 Network Service Provider NSP (I) licence; and
- Five (5) Content Applications Service Provider Individual CASP (I) licence.

The applications for the NFP (I) and NSP (I) licences were mainly to provide high speed broadband services and facilities in order to support the Long Term Evolution (LTE) cellular network in Malaysia.

In addition, Minister had approved five (5) applications of CASP (I) licence, details as follows:

- Two (2) for subscription and non-subscription broadcasting services via IPTV platform;
- One (1) for terrestrial radio broadcasting services; and
- Two (2) for non-subscription broadcasting services via Digital Terrestrial Television Broadcasting (DTTB) platform provided by MYTV Broadcasting Sdn Bhd.

INDIVIDUAL LICENCE – RENEWAL OF LICENCE

Minister had approved a total of 29 renewal applications of Individual licence comprised of the following:

- 14 for Network Facilities Provider Individual NFP (I) licence;
- 14 for Network Service Provider NSP (I) licence; and
- One (1) for Content Applications Service Provider Individual CASP (I) licence.

INDIVIDUAL LICENCE – VARIATION OF SPECIAL LICENCE CONDITION

As at 31 December 2018, Minister had approved a total of nine (9) applications to vary special licence condition whereby three (3) applications for NFP (I) licence, one (1) application for NSP (I) licence and five (5) applications for CASP (I) licence.

INDIVIDUAL LICENCE – SURRENDER AND TRANSFER OF INDIVIDUAL LICENCE

At the same period of time, five (5) licence holders had surrendered their Individual licences, namely:

- Khadra Ventures Sdn Bhd for NFP (I) licence;
- Direct-Field Resources Sdn Bhd for NFP (I) licence;
- Skyline Technology (M) Sdn Bhd for NSP (I) licence;
- Broadnet Network Sdn Bhd for NFP (I) licence and NSP (I) licence; and
- NAFAS Media Sdn Bhd for CASP (I) licence.

Nonetheless, only one (1) Individual licence holder name Genmedia Sdn Bhd applied for transfer of CASP (I) licence to Radio Kita Sdn Bhd.

REGISTRATION OF CLASS LICENCE UNDER THE CMA 1998

As at 31 December 2018, 444 applications were registered under Class licence, as shown below:

Type of Class Licence	Number of Registration
NFP	10
NSP	10
CASP	11
ASP	413
Total	444

Number of Class Licence registered by MCMC

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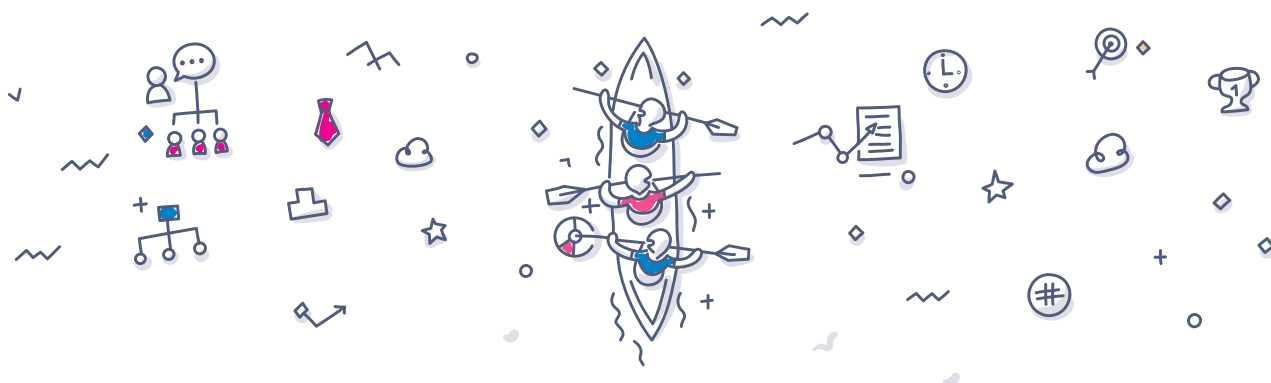
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Competition and Access



INTRODUCTION

The provisions for General Competition Practices, Access to Services and Rate Regulation, are stipulated in Part VI, Chapter 2, Chapter 3 and Part VIII, Chapter 4 of the Communications and Multimedia Act 1998 (CMA 98), respectively. The Competition and Access Department is responsible for monitoring, developing and implementing regulatory policies and instruments, as well as investigating and resolving complaints on anti-competitive conduct, rate regulation and access-related issues.

COMPETITION

Anti-Competitive Conduct Complaints

On 24 September 2014, MCMC had issued a Guideline on Substantially Lessening of Competition. This Guideline outlines some examples of anti-competitive conducts in a communications market and the steps the Commission will be taking in carrying out its assessment. Throughout 2018, a total of 25 complaints were received, mainly on exclusivity. From our assessment, we noted that exclusivity is usually provided either by the housing developer or the building management, and this does not fall within the purview of the CMA 98. We had also received complaints on margin squeeze following the implementation of the Standard Mandatory Access Pricing (MSAP). MCMC has conducted an investigation to determine if the said anti-competitive conduct had resulted in substantial lessening of competition in the communications market.

Accounting Separation

To further enhance operational transparency in the communications and multimedia industry, beginning 2013, vertically integrated service providers were required to provide separate accounts for wholesale and retail services that have been identified in the Guidelines on Implementation of Accounting Separation in Malaysia, issued on 1 November 2016. In 2018, seven (7) licensees submitted their financial statements based on historical cost accounting. MCMC examined all the regulatory financial statements as well as the auditor's reports to determine if there were any elements of anti-competitive practices such as price discrimination or excessive margins for some of the services provided.

Rate Regulation

(a) Retail Rate Monitoring

Beginning 2018, all licensees are required to submit their monthly retail packages to the Competition and Access Department. These packages are used to monitor the pricing trends and the level of competitiveness in the market. In 2018, a total of 54 licensees had submitted a wide range of retail packages offered by them. MCMC's review indicates that the level of competition was healthy in the mobile telephony and mobile broadband markets, while competition in the fixed telephony, fixed broadband and pay-TV was limited. Nevertheless, following the implementation of the MSAP, for the first time, MCMC had regulated wholesale prices for high-speed fixed broadband service, which were much lower than the commercially negotiated prices previously. The lower wholesale prices stimulated competition for high-speed fixed broadband services which translated to lower retail prices, higher speed or both, driving healthy competition in the high-speed fixed broadband market.

Competition and Access

In June, the Minister of Communications and Multimedia, Y.B. Gobind Singh Deo had announced that the Government expects the prices of high speed broadband services to be reduced by at least 25% by 31 December 2018. By October 2018, four major operators, namely Telekom Malaysia Bhd, Maxis Berhad, TT dotCom Sdn Bhd and Celcom Axiata Bhd had announced lower prices and/or higher speeds for high-speed fixed broadband services. Prior to the price reduction, prices of entry level packages ranged from RM119 to RM79 for 10Mbps but with the price reduction, the prices of entry level packages ranged from RM79 to RM89 for 30Mbps. On average, retail prices for high-speed fixed broadband services declined by about 49%. In terms of speed, TIME led the way by introducing the first Gigabit package in Malaysia i.e. 1Gbps at RM199. Taking the lead from major fixed operators, several other smaller operators had also begun to reduce broadband prices and/or increasing increase speeds at the same price.

As a result of MSAP, as of December 2018, over 1 million subscribers were enjoying either lower prices or higher speeds or both. The number of subscribers on 100Mbps and above increased from 150,000 in 2017 to 1.2 million users in 2018. In October 2018, Speedtest Global Index report showed that Malaysia had moved up 10 notches to 26th position for its fixed broadband global average speed.

With these price reductions, Malaysia's position in the ASEAN region in terms of broadband pricing has improved. The prices of 30Mbps packages in Malaysia are the cheapest in the region, while Malaysia ranked second after Thailand for the 100Mbps package.



Speedtest Global Index in October 2018 indicated that Malaysia has **moved up 10 notches to 26th position globally**

(b) Monitoring Affordability of Broadband Services

Under the 11th Malaysia Plan, entry-level broadband packages are targeted to achieve 1% of the Gross National Income (GNI) per capita by 2020. Thus, MCMC is also monitoring affordability of entry-level packages to ensure this target is achieved. As of 2018, based on entry-level fixed broadband packages at RM38 for 1Mbps with a data quota of 1GB per month, we had achieved an affordability of 1.10% of GNI per capita.

ACCESS

The regulatory instruments that governs access to facilities and services in Malaysia are as follows:

- (a) Commission Determination on Access List (Determination No. 2 of 2015), registered on 25 August 2015 and came into force on 1 September 2015;
- (b) Commission Determination on Mandatory Standards on Access (Determination No. 3 of 2016), registered on 8 December 2016 and came into force on 1 January 2017; and
- (c) Commission Determination on Mandatory Standards on Access Pricing (Determination No. 1 for 2017), registered on 20 December 2017 and came into force on 1 January 2018.

Following the Commission Determination on Mandatory Standards on Access above, all Access Providers are required to produce a Reference Access Offer (RAO). As at 30 June 2018, a total of 64 RAOs had been published on the Access Providers' respective websites. These RAOs were reviewed by MCMC to ensure compliance to the determinations issued.

In addition, in view of the revised instruments mentioned above, service providers are also required to amend their existing access agreements or to enter into new access agreements. These agreements are then submitted to the Commission, and if they comply to the determinations issued, the said agreement will be registered. As at 31 December 2018, MCMC has received a total of 57 access agreements for registration.

MCMC constantly reviews the RAOs and access agreements to ensure that they are in compliance with the Communications and Multimedia Act 1998 and its subsidiary legislations.

Network Security

REINFORCING NETWORK SECURITY

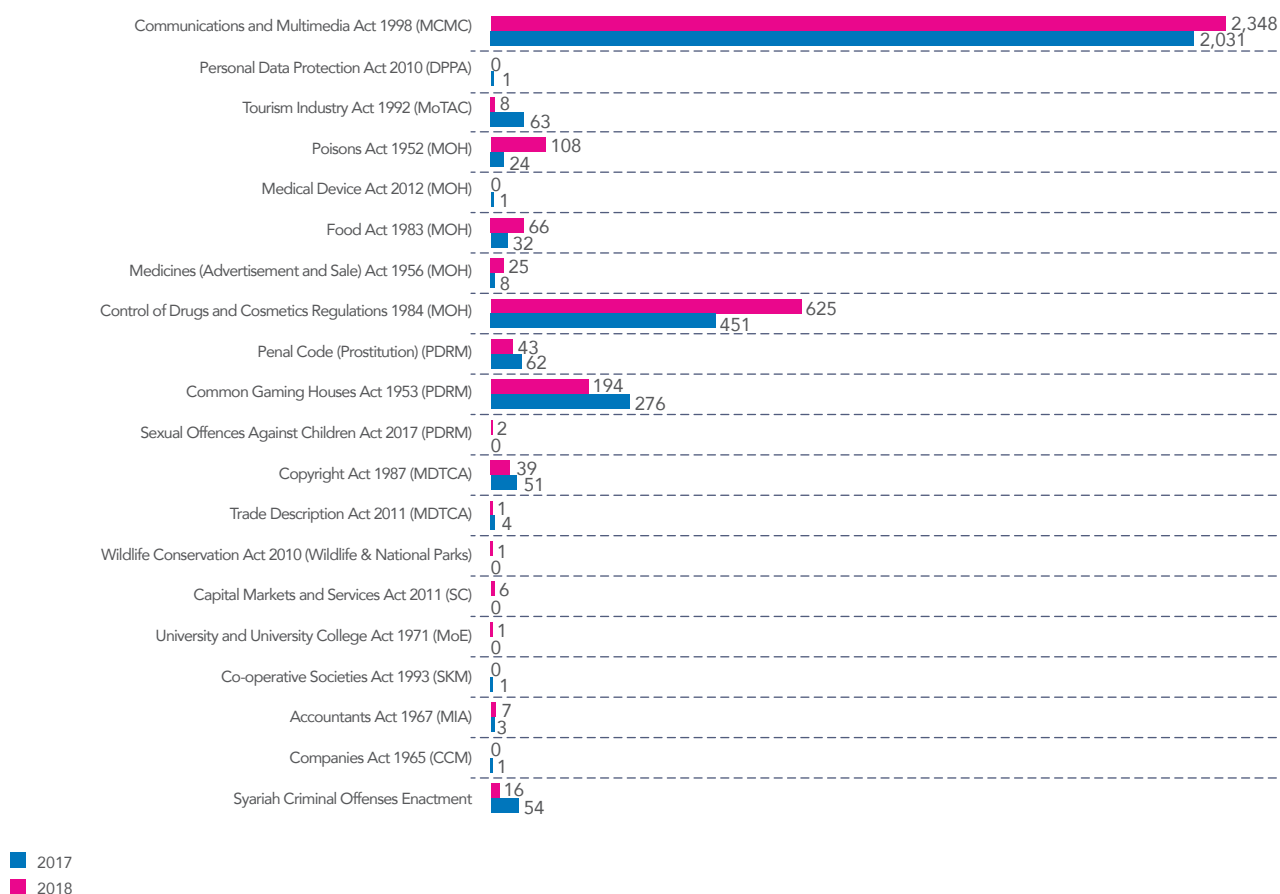
To ensure information security and network reliability and integrity is one of the tenets of the National Policy Objectives as embedded in the Communications and Multimedia Act 1998 (CMA 1998). As the body that effectuates the CMA 1998, MCMC strives towards ensuring these goals are achieved by implementing planned activities focused on digital security, particularly in the communications and multimedia sectors in Malaysia.

NETWORK MEDIA CONTENT REGULATION

One of the measures implemented by MCMC to protect consumers in Malaysia is by preventing access or blocking websites that are harmful and in violation of the provisions of the country's written laws.

The following are the statistics on blocking measures for websites from 2017 to 2018, categorised according to applicable provisions of the written law.

Blocked Websites Statistics (2017-2018)



Pornographic websites as defined by the Communications and Multimedia Act 1998 (CMA1998) registered the highest number of blocks, totalling **1,579** websites in 2018. The actions taken by MCMC are in accordance with standard operating procedures for website blocks, which are accredited with ISO 9001: 2015.

Network Security

SEBENARNYA.MY

Tidak Pasti Jangan Kongsi

SEBENARNYA.MY PORTAL

The Sebenarnya.my portal serves as a one-stop portal for the public to review and share information on unverified news received online.

Sebenarnya.my was well received by the public with the portal registering **50.90 million** hits from March 2017 to December 2018, with approximately **2.4 million** hits per month. The portal also receives information about unverified news from the public, which is then referred to relevant Government agencies for further inspection and action.

Aplikasi Sebenarnya.my

01 The Sebenarnya.my mobile application was launched on 20
02 March 2018 to further empower and inculcate the habit of
03 verifying before sharing amongst the public.

04 The mobile application is available on both Android and iOS
05 platforms serves as an additional channel for disseminating
06 information available on Sebenarnya.my portal with the public.
07



Launching of Sebenarnya.my Mobile Application on 20 March 2018

DEVELOPMENT OF INFORMATION AND NETWORK SECURITY STANDARDS

MCMC, with the cooperation of MTSFB had formed the Information and Network Security Working Group (INS WG) for the purpose of evaluating and examining current needs and issuing guidelines pertaining to information, network security and business continuity, for the communications and multimedia sector.

A total of five (5) new guidelines have been developed in the year 2018. The guidelines are as follows:

1. Requirements for Security Posture Assessment;
2. Requirements for Business Continuity Management;
3. Requirements for Cloud Service Provider Selection;
4. Requirements for Information Security Management for Broadcasting Sector; and
5. Requirements for Incident Management.

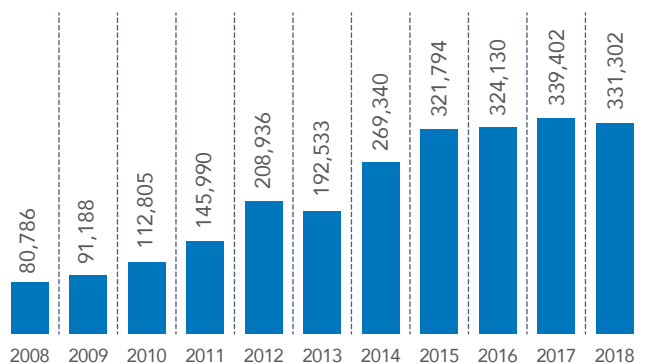
ELECTRONIC ADDRESSING

Pursuant to Section 179 of the Communications and Multimedia Act 1998 (CMA 1998), MCMC is entrusted with the control, planning, administration, management and assignment of the numbering and electronic addressing of network and application services.

Concurrently, and based on the powers vested under Section 181(1), MCMC appointed MYNIC Berhad (MYNIC) as the administrator to manage and maintain the integrated electronic address database in Malaysia.

As at December 2018, there were a total of 331,302 registered domain names, which indicate a decrease of 8,100 compared to the previous year (as at December 2017), where a total of 339,402 domain names were registered. The following are the statistics on the total number of domain names registered from 2008 until December 2018.

Statistics on the total number of domain names, 2008 – 2018



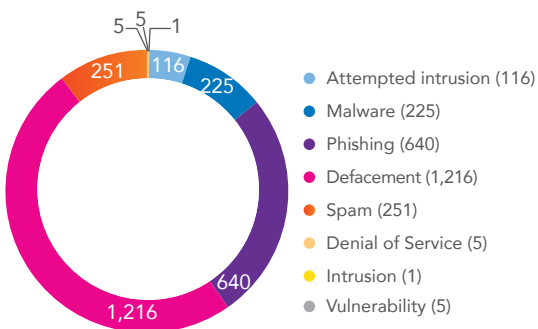


INCIDENT HANDLING

MCMC's Network Security Center (NSC) which is a unit under the Network Surveillance Department (NSD) managed a total of 2,459 incidents in 2018.

From this overall figure, website defacement recorded the highest number of cases (1,216), followed by phishing (640 cases). The categories and the number of incidents are as shown below:

Total incident management statistics (2018)



DIGITAL FORENSICS

MCMC offers expert consultancy and advice on digital forensics analysis, on-field technical assistance, data conservation, digital restoration and advisory services pertaining to electronic evidence.

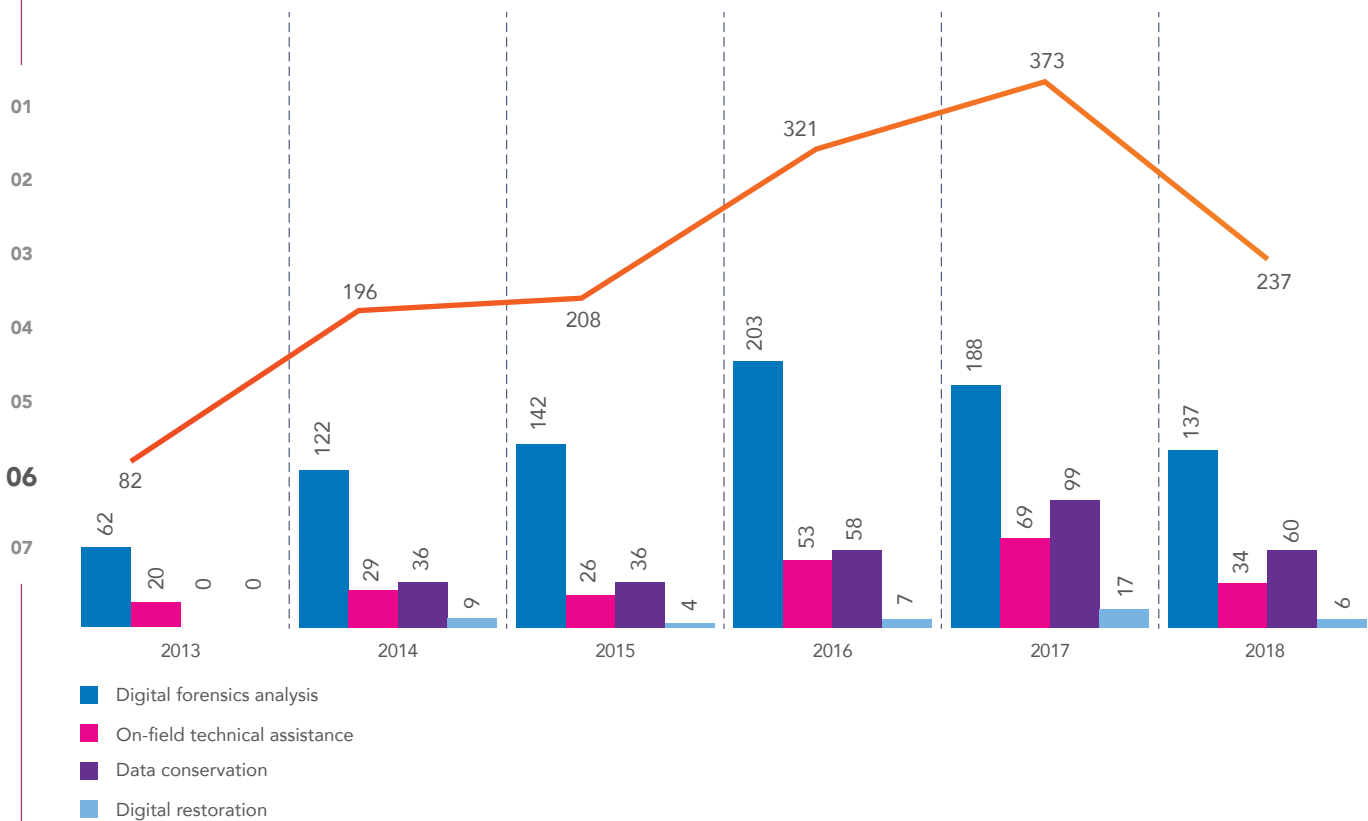


Network Security

A total of **237** cases received in 2018, these include cases under the jurisdiction of MCMC's Enforcement and Investigation Department as well as those submitted by other legal external enforcement agencies, namely the Royal Malaysian Police (PDRM), the Ministry of Domestic Trade and Consumer Affairs, the Malaysian Maritime Enforcement Agency and the Royal Malaysian Navy. The type of cases varied from service network abuse, social media abuse, sedition, sexual crimes against children, threats on national security, dissemination of subversive ideologies, copyright infringement and dissemination of confidential government information.



Case Statistics According to Digital Forensic Service from 2013 till 2018



The total number of cases managed by category include; forensic analysis, 137 cases (57.9%); on-field technical assistance, 34 cases (14.3%); data conservation, 60 cases (25.3%) and digital restoration, six (6) cases (2.5%).



SPECTRUM ENGINEERING AND CAPACITY BUILDING DEPARTMENT (SECBD)

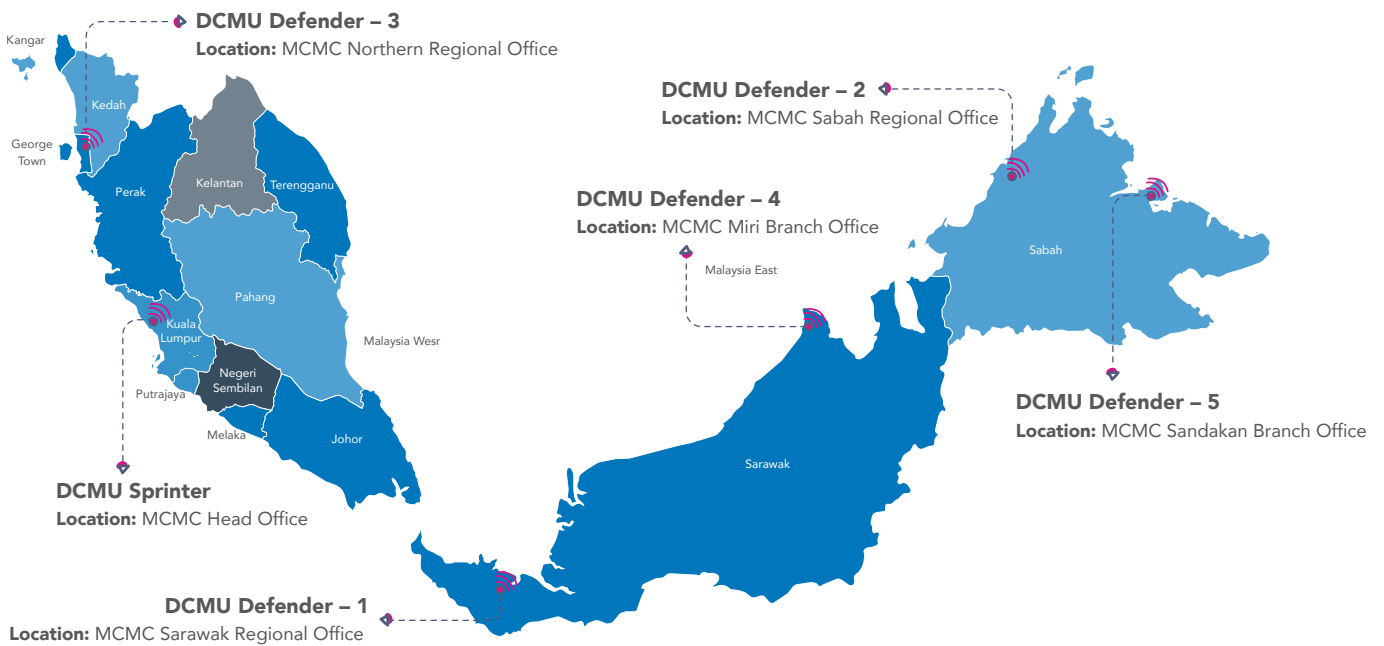
Refurbishment of Six (6) Data Collection Mobile Unit (DCMU) Project

In 2018, the Department of Spectrum Engineering and Capacity Building commenced the project of refurbishing six (6) of its Data Collection Mobile Units (DCMU). The DCMU is a vehicle equipped with frequency monitoring equipment.

The refurbishment project which began on 5 May 2017 was expected to be completed by the first quarter of 2019. The project involves the installation of new antenna for frequency monitoring and Direction Finding by integrating two (2) separate antennas, new antenna controller device, more efficient switches as well as the latest frequency monitoring receiver due to obsolesces of the previous receiver.



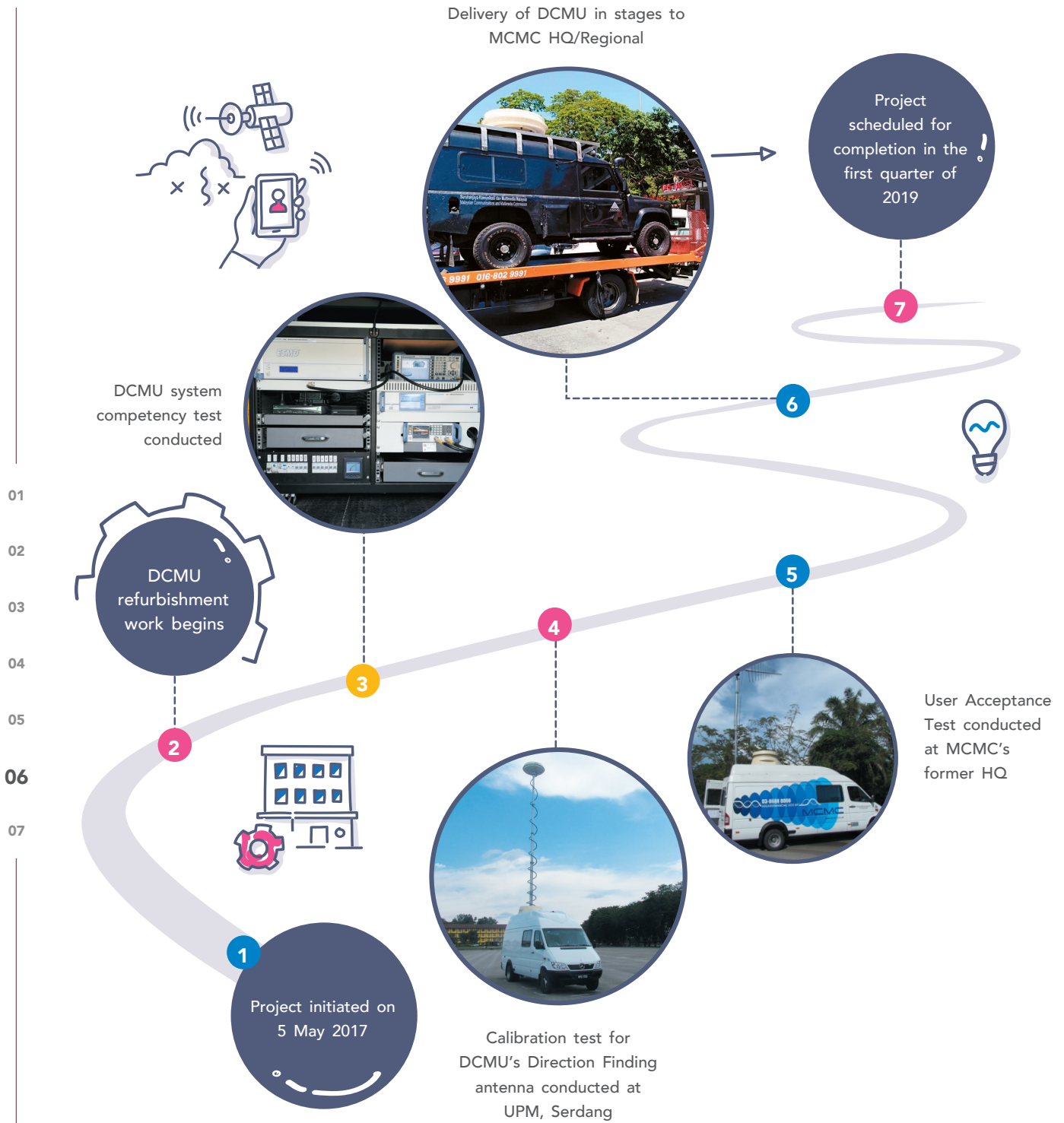
Frequency monitoring system installed inside the DCMUs, Land Rover Defender (left) and Mercedes Sprinter (right)



Six (6) DCMUs stationed at MCMC Headquarters, Regional and Branch Offices

Network Security

Delivery of DCMU in stages to MCMC HQ/Regional



Summary of work scope of DCMU refurbishment project

Following the refurbishment project, all DCMUs are now equipped with the latest frequency monitoring system, capable to optimize the implementation of frequency monitoring works for MCMC across Malaysia.

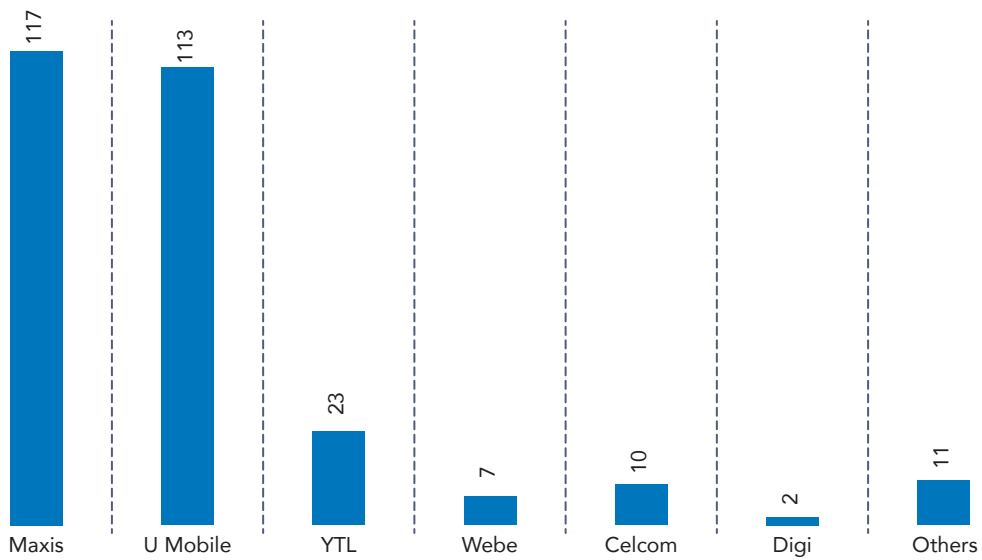


SPECTRUM MONITORING AND INTERFERENCE RESOLUTION DEPARTMENT (SMIRD)

Radio Frequency Interference (RFI) Report

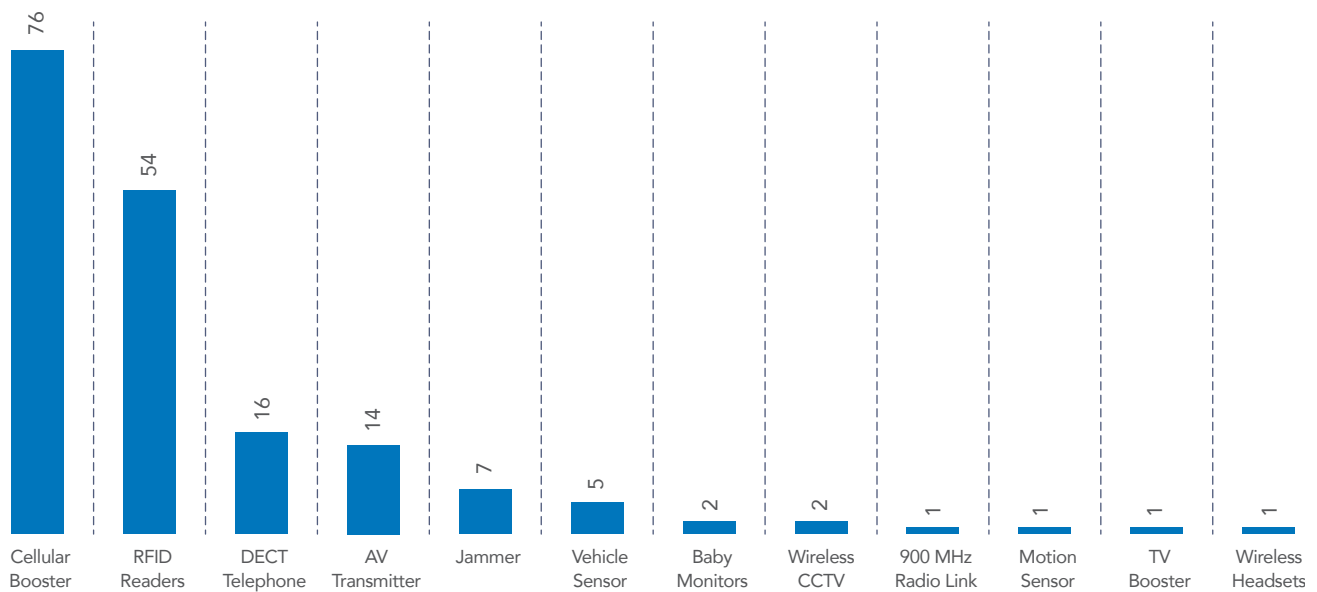
In 2018, a total of 283 RFI cases were resolved by the Spectrum Monitoring and Resolution Interference Department (SMIRD). U Mobile RFI cases increased to 113 compared to 62 cases in 2017. This significant increase can be attributed to its aggressive roll out on the newly acquired 900 MHz spectrum as well as the continuous usage of non-standard long distance Ultra High Frequency (UHF) RFID reader for barrier gates by consumers.

RFI cases resolved according to Licencees in 2018



RFI cases under mobile services continued to rise in 2018 and are largely due to non-standard devices such as cellular boosters and RFID UHF readers. The diagram below reveals 180 interruptions from devices throughout the country.

Source of Interferences in 2018



Network Security

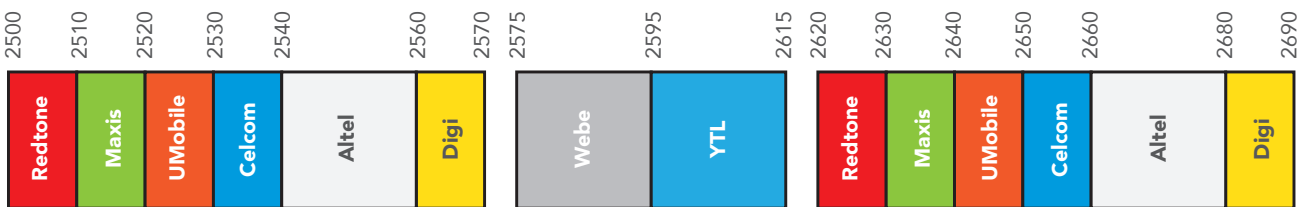


Cellular Boosters

Spectrum Occupancy Measurement for 2.6 GHz Band in Central Region

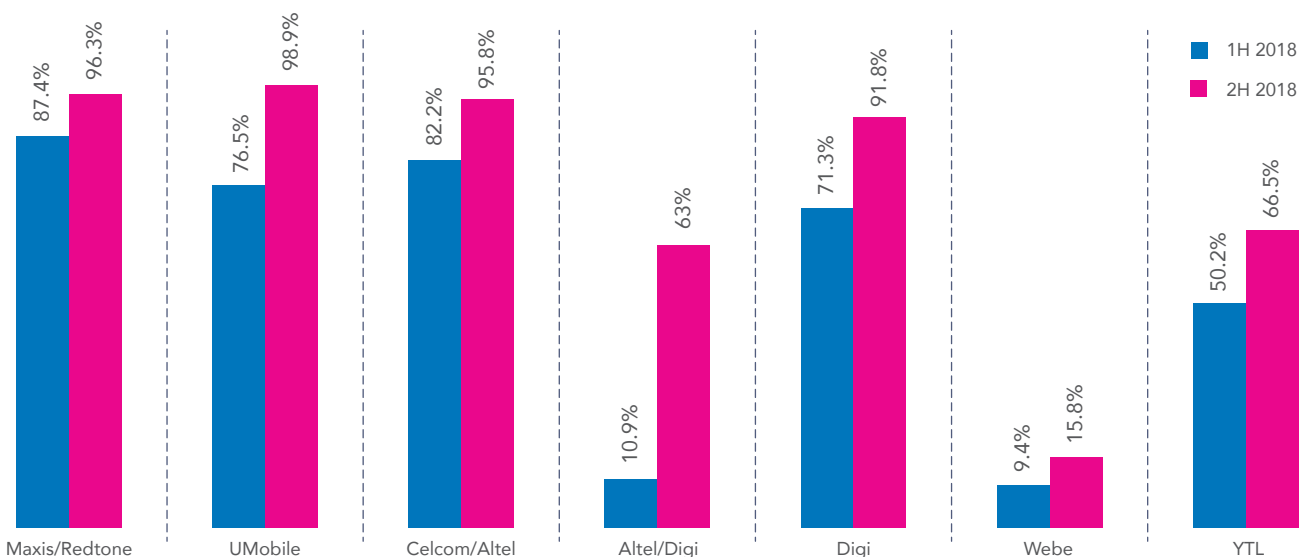
MCMC continued with its 2.6 GHz spectrum occupancy measurement in Kuala Lumpur, Selangor and Negeri Sembilan for 2018.

2.6GHz Spectrum Allocation



The result of spectrum occupancy measurement amongst the eight service providers for the first and second half of 2018 is summarised below:

2.6 GHz Spectrum Use in Central Region





This result serves as a benchmark for utilisation of 2.6 GHz spectrum among the eight service providers. The data collected will be used to ensure that the country’s limited spectrum resource is allocated efficiently to the service providers.

Digital Terrestrial Television (DTT) Signal Measurement

Conducting DTT signal measurements is a continuous process undertaken by MCMC. The following pictures were taken during the installation of the MCMC Mobile Monitoring System for DTT signal measurement in Gemencheh, Negeri Sembilan in July 2018. Two antennas were installed for measurement purposes i.e. a log-periodic antenna for field strength measurement and a typical household Yagi antenna to verify coverage.



DTT signal measurement in Gemencheh, Negeri Sembilan

QUALITY OF SERVICE (QoS)

Quality of Service (QoS) performance measurement on public cellular service, wireless broadband service and wired broadband service for service providers are measured nationwide based on Mandatory Standards implemented by MCMC. The principal objective of QoS is to ensure that service providers adhere to the Mandatory Standards, which were designed to protect consumers and promote the enhancement of network quality in the telecommunications industry.

The performance measurement is based on three (3) Mandatory Standards issued by the Commission, and has the following criteria:

Public Cellular Service Mandatory Standard (Determination No. 1 of 2015)			Wireless Broadband Access Services Mandatory Standard (Determination No.1 of 2016)		Wired Broadband Access Services Mandatory Standard (Determination No.1 of 2016)	
Dropped Call Rate, DCR		Call Setup Success Rate, CSSR	Average Download Speed ≥1 Mbps not less than 80% time		Average Download Speed	Network Latency ≤85 ms not less than 95% time
Nation-wide Route	Protocol Route	Nationwide Route & Protocol Route	Network Latency ≤250 ms not less than 70% time	Loss of data packet ≤3%	Digital Subscriber Line (DSL) – Copper network: ≥70% of the subscribed speed, not less than 90% time	Loss of data packet ≤1%
<3%	<2%	>95%			Fibre optic network: ≥90% subscription speed, not less than 90% time	

REGULATORY

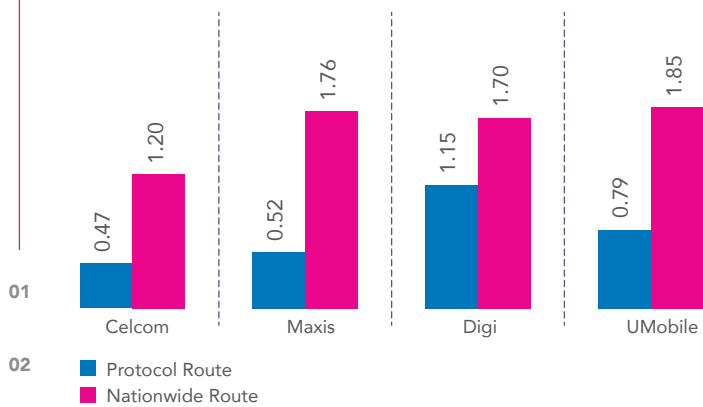
Network Security

Public Cellular Service

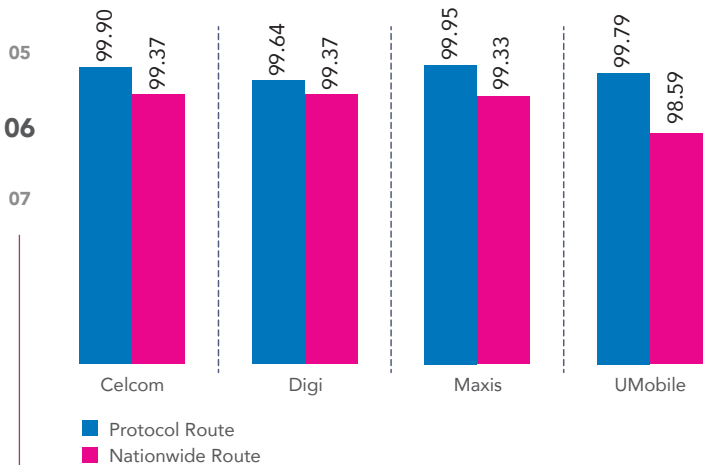
Public cellular service performance measurement is carried out nationwide as well as through designated routes. Designated routes include Putrajaya, Cyberjaya, MEX Expressway, KLIA to Subang Airport via ELITE Expressway and Subang Airport to Jalan Duta via NKVE Expressway.

The following chart indicates that the maximum measurement for Dropped Call Rate (DCR) is less than 2% for designated and nationwide routes.

% Dropped Call Rate (DCR)



% Call Setup Success Rate (CSSR)



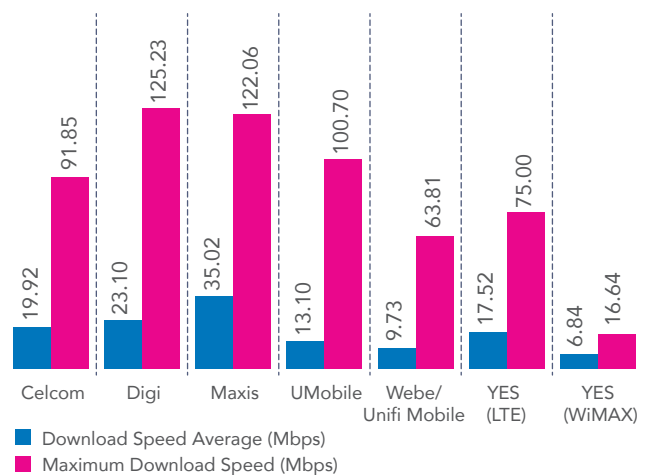
The diagram above indicates that CSSR performance is not less than 98%. All service providers have complied with the Mandatory Standards.

Wireless Broadband Service

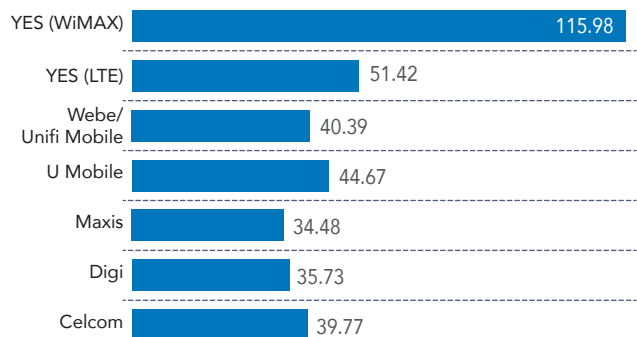
The increased utilisation of online smartphone application correlates with the increased demand for wireless broadband service quality. As such, broadband speeds play a key role in consumer satisfaction. Taking into account that network latency also affects real-time applications such as video calls and online games, MCMC conducts performance measurements of wireless broadband by selecting test sites that meet the Mandatory Standards' guidelines.

The charts below indicate the download speed performance and network latency measurement results.

Wireless Broadband Download Speed (Mbps)



Average Network Latency (ms)





The table below indicates performance ratings based on Mandatory Standards. All service providers have complied with the Mandatory Standards for Wireless Broadband Service.

Service Provider	Download speed average	% download speed time \geq 1 Mbps	% network latency time \leq 250 ms	Data packet loss
Celcom	19.92 Mbps	96.91%	99.83%	0.12%
Digi	23.10 Mbps	98.49%	99.36%	0.12%
Maxis	35.02 Mbps	99.89%	99.94%	0.02%
U Mobile	13.10 Mbps	89.07%	98.69%	0.39%
Webe/Unifi Mobile	9.73 Mbps	87.90%	99.01%	0.53%
YES (LTE)	17.52 Mbps	99.51%	99.51%	0.03%
YES (WiMAX)	6.84 Mbps	88.83%	98.29%	0.65%

Wireless Broadband Service Performance

Wired Broadband Service

The wired broadband performance assessment is based on fibre optics network or the copper-based Digital Subscriber Line (DSL) technology. Network performance measurement of wired broadband is also measured against customers' subscription package. Measurements are limited to customers who have given consent for measurement activities to be performed at their premises.

The table below indicates that all service providers have complied with the Mandatory Standards except for Telekom Malaysia (TM) which has failed to comply with network latency requirements for DSL networks.

Service Provider	Fibre Optics			
	% time			% data packet loss
	Upload speed average \geq 90% from subscription package	Download speed average \geq 90% from subscription package	\leq 85 ms Latency, for \geq 95% of the time	
Maxis	95.63%	97.68%	98.34%	0.34%
Time	95.63%	96.20%	100.00%	0.00%
TM	98.92%	95.12%	97.36%	0.69%
Service Provider	DSL			
	% time			% data packet loss
	Upload speed average \geq 70% from subscription package	Download speed average \geq 70% from subscription package	\leq 85 ms Latency, for \geq 95% of the time	
Maxis	100.00%	100.00%	99.08%	0.00%
Time	N/A	N/A	N/A	N/A
TM	100.00%	99.98%	88.62%	0.47%

Wired Broadband Service Performance



REGULATORY

Monitoring and Enforcement

AS PART OF ITS ROLE IN MONITORING AND ENFORCEMENT, MCMC HAS TAKEN FIRM ACTION AGAINST INDIVIDUALS AND ENTITIES THAT HAVE VIOLATED THE LEGISLATIVE PROVISIONS OF THE COMMUNICATIONS AND MULTIMEDIA INDUSTRY VIA INVESTIGATIONS, PROSECUTIONS AND THE ISSUING OF COMPOUNDS.

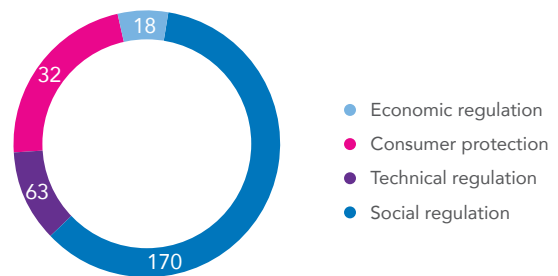
To this end, MCMC has fulfilled its charge in ensuring that all enforcement activities have been implemented effectively and efficiently in accordance with the provisions of the Communications and Multimedia Act 1998, the Digital Signature Act 1997, the Postal Services Act 2012 and the Strategic Trade Act 2010 and its ancillary laws.

INVESTIGATIONS

MCMC through the Enforcement and Investigation Division (EID) will conduct thorough investigations on all complaints to ascertain if there were any offences committed, in particular to that regarding service quality, compliance with licensing requirements and guidelines set by MCMC.

The following are cases investigated according to categories under the investigation unit in EID:

Type of offences investigated in 2018



01

PROSECUTIONS

02

A total of 69 cases were brought to trial, and of these, 28 cases or 40.5% have been sentenced with damages amounting to RM159,500.00. As of 31 December 2018, a total of 41 cases are still in trial.

03

04

Offence Status/Provision	p.15 PPKM (ST) 2000	p.16 PPKM (ST) 2000	s.233 AKM 1998	s.238 AKM 1998	s. 5(1) AKJ 1997	Total
Proceeding	–	–	41	–	–	41
Completed/Fined	2	9	9	1	1	22
Acquitted and Discharged	–	3	–	–	–	3
Jailed	–	–	3	–	–	3
Total charges	2	12	53	1	1	69

06

07

Status of Court Action in 2018



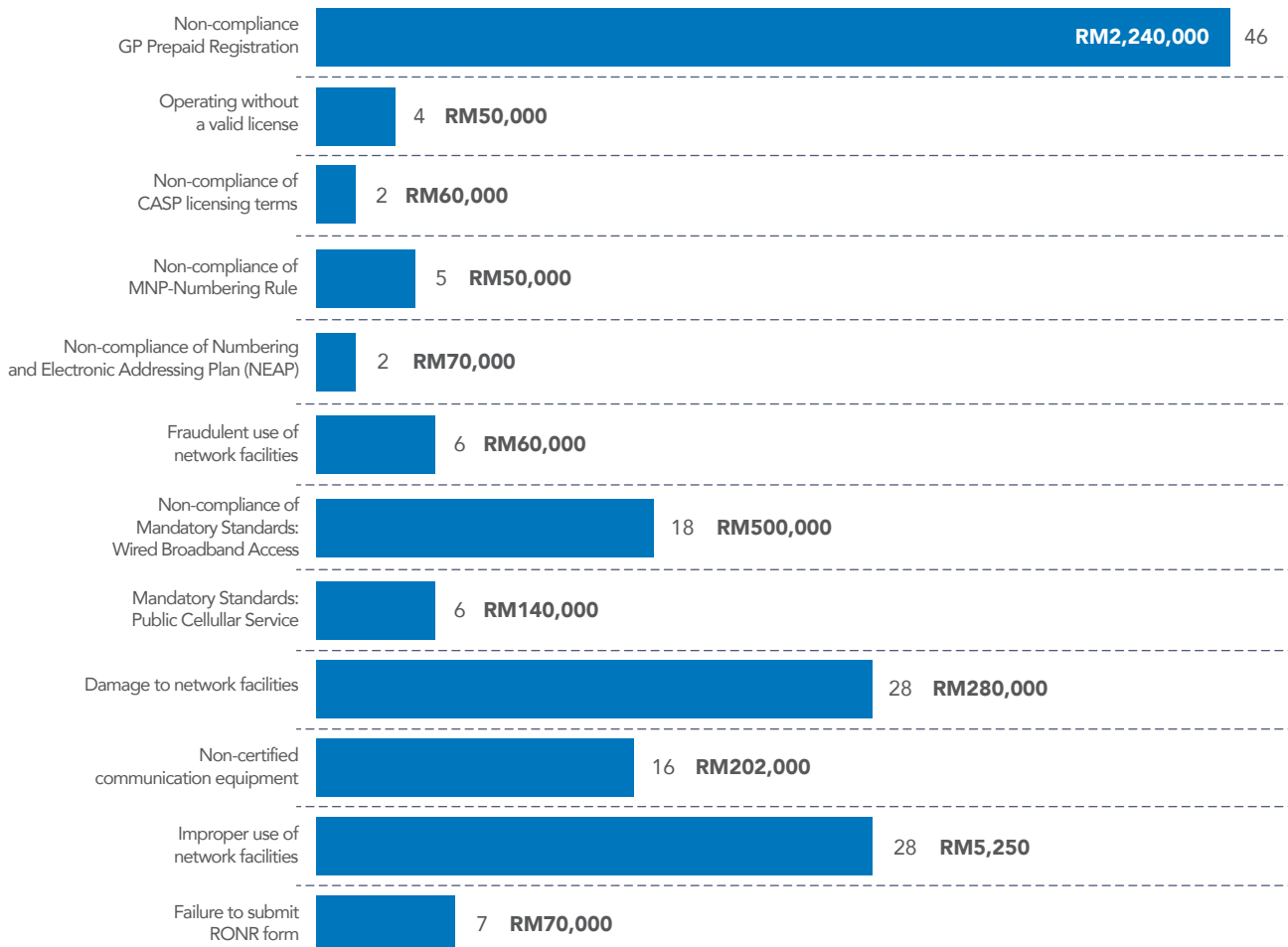
28 CASES or **40.5%**
 prosecuted in court and sentenced with fines totalling
RM159,500.00

OFFER TO COMPOUND OFFENCES

The total number of compound offers issued in 2018 was 168 with a total value of RM3,727,250.00. The number of compound offers increased by 33% compared to 2017; of which 112 compound offers were issued for various offences that breached the provisions of the CMA 1998 and its ancillary laws.

YEAR	2016	2017	2018
Number of investigation papers	94	99	95
Number of compounds	94	112	168
Total compound offered	RM3,452,000	RM3,755,000	RM3,727,250


Comparison of compound offers issued between 2016 – 2018



Statistics on the number of compound offers issued and compound value based on offences throughout 2018

Monitoring and Compliance (Broadcasting)

MCMC's Monitoring and Compliance (Broadcasting) Department (MCBD) is steadfast in its commitment in ensuring that individual Content Applications Service Providers (CASP-I) licensees are compliant with applicable legislative provisions. MCBD actively monitors the broadcasting content of private TV and radio stations as stipulated in the Communications and Multimedia Act 1998 (CMA 1998). Among the primary activities of the MCBD include:




Content Complaints Management



Content Forum



Public Service Announcement (PSA)



Content Compliance Report



Monitoring and Compliance



Industry's Capacity Building Programme



Review of Content Code



Approval of Live/Delayed Telecast

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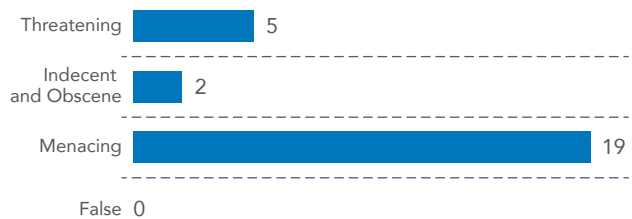
CONTENT COMPLAINTS MANAGEMENT

A total of 26 complaints concerning TV and radio content broadcasting were received and investigated by MCMC in 2018, which represents a 45% decrease compared to the 47 complaints received in 2017. The decrease in complaints is largely attributable to the success and effectiveness of content compliance workshops organised by MCMC that were held throughout the year in an effort to increase awareness amongst the licensees i.e. TV and Radio stations, in particular advertisements relating to health claims.

Based on categories of complaints received in 2018, there were 19 cases categorised as menacing, 2 as indecent and obscene, 5 were deemed threatening and none for the false category. The source of complaints are related to content that are religiously sensitive, against cultural and moral values, threats and complaints on frequent airing of advertisements.

Comparison of Complaints According to Category	
False	0
Menacing	19
Indecent & Obscene	2
Offensive	5
Total	26

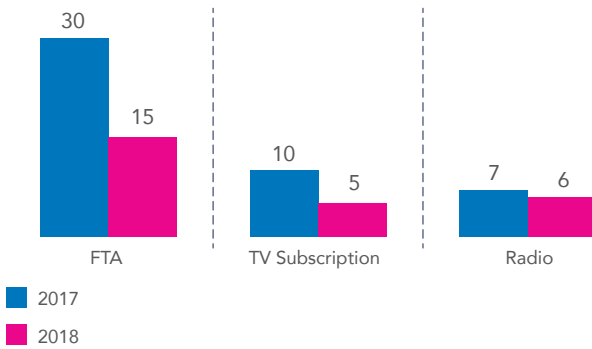
Comparison of Complaints according to Category in 2018





Complaint Comparison Through Platform from 2017 – 2018		
Platform	2017	2018
FTA TV	30	15
TV Subscription	10	5
Radio	7	6
Total Complaints	47	26

Trend of Complaints Received from 2017 – 2018



CONTENT FORUM

The Communications and Multimedia Consumer Forum (CMCF) was established in 2001 premised on the concept of self-regulation. CMCF is guided by the Malaysian Communications and Multimedia Act 1998 (CMA 1998) and is responsible for enacting and developing Content Code for industry players as well as public users. MCMC is tasked to monitor and ensure that CMCF meets all the Key Performance Indicators (KPIs) through its actions and initiatives in promoting and fostering industry growth and development through self-regulation.

As stipulated in CMA 1998, MCMC has the power and authority in determining if an existing industry body designated as an industry forum is no longer a forum if it is satisfied that the body no longer meets the criteria of CMA 1998.

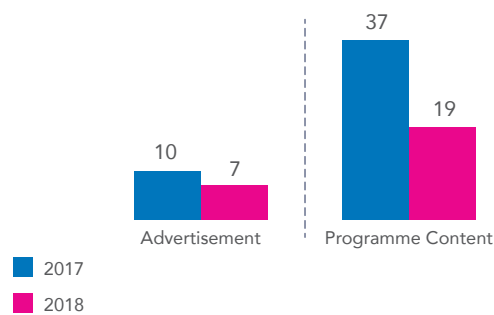
PUBLIC SERVICE ANNOUNCEMENT (PSA)

The CASP-I licence conditions stipulate that private TV and radio stations are required to broadcast public service announcements (PSAs) for a minimum of two (2) minutes for every hour of broadcasting, be it for government announcements or in the interests of the public or the country.

PSA is a community initiative and a tool that serves to educate and raise public awareness, therefore broadcast stations have a duty of care to disseminate content provided by ministries or government agencies. To this end, MCMC acts as the focal point for dissemination of PSA content to private TV and radio stations for broadcast to the public. Content of PSA comprises of current issues such as, fake news, entrepreneurship, phone scams, National Day themes and road safety.

Broadcast Content Complaint Based on Category (2017 – 2018)		
Category	2017	2018
Advertisement	10	7
Programme Content	37	19
Total Complaints	47	26

Trend of Broadcast Content Complaint Received (2017 – 2018)



CONTENT COMPLIANCE REPORT

In addition to monitoring broadcast content through the Content Monitoring Center (CMC), monitoring is also done by means of report submissions on content compliance as stipulated in Special licence Conditions of the CASP-I, in which licensees are required to submit their reports on a quarterly basis. The reports are submitted via the Broadcasting Compliance Report (BCR) System since 2017, replacing the manual system. BCR facilitates CASP-I licensees in the submission of their reports, as well as eases the process of evaluating compliance of licence conditions efficiently and accurately.

Monitoring and Compliance (Broadcasting)

MONITORING AND COMPLIANCE

Via CMC, scheduled and random monitoring activities utilising state of the art technology can be conducted. In addition to content searches pertaining to TV and radio complaints, CMC's current wide range of equipment allows content to be recorded and retrieved. In addition, live broadcasting is also monitored.

INDUSTRY'S CAPACITY BUILDING PROGRAMME

Throughout the years, MCMC has collaborated with relevant agencies in industry capacity building by organising high impact programmes and producing industry references that serve as a guide for the broadcasting industry. This references provide the best practices in establishing standards and ensuring a harmonised level and quality of content across all TV and radio stations. Among the programs organised are as follows:

(a) Compliance Workshop on Health Claims Advertisements

MCMC collaborated with the Ministry of Health Malaysia (MoH) in organising a workshop session entitled Health Claims Advertisements. The main goal of the workshop was to help broadcasters enhance their understanding in interpreting health claims content.

To this end, an industry reference entitled Industry Reference for Health Claims Advertisements was distributed as a guide and reference to promote self-regulation in ascertaining appropriate content relating to health claims advertisements as well as best practices in the broadcasting industry.

(b) Joint Session with the Broadcasting Industry: Implementation of Policy Prohibiting Advertisements of Food and Beverages with High Content of Fat, Salt and Sugar

The joint session between MoH and the broadcasting industry was held to provide clarity and methodology on the implementation of policy that will prohibit advertisements of food and beverages that have high content of fat, salt and sugar; and to obtain feedback from the broadcasting industry to ensure that this policy could be implemented effectively to support healthy lifestyle choices. The feedback received from this session was submitted to MoH for further action.



16 Januari 2018 – Auditorium of MCMC Old HQ Building



(c) Engagement with Broadcasting Industry: Consumer Satisfaction Survey (CSS) 2017: Television Broadcasting Industry, 17 – 18 July 2018

A joint session with private TV broadcasting stations was conducted to share and review the results of MCMC's consumer satisfaction survey of private TV broadcasting services in Malaysia. The CSS aims to measure the perception/experience and level of consumer satisfaction with the quality of private TV broadcasting services. This serves as a tool/mechanism to assist and identify the weaknesses and advantages of the respective TV broadcasting stations as well as help them to plan their strategies accordingly.

REVIEW OF CONTENT CODE

Content Forum or CMCF has presented a revised draft of Content Code to MCMC. An internal working group was created to review draft of Content Code, identify any recent issues on content as well as provide feedback and recommendations in accordance with the provisions of CMA 1998. The Content Code evaluation report will subsequently be submitted to the management for approval.

APPROVAL OF LIVE/DELAYED TELECAST (LDTA)

MCMC is responsible for approving the live and delayed telecast as stipulated in the CASP-I licence Condition. The application and approval process for live and delayed broadcast is done via Live and Delayed Telecast Application system (e-LDTA). In 2018, a total of 245 live and delayed telecast applications were received from CASP-I Licensees compassing free-to-air TV, subscription TV and radio.

Of the total applications evaluated, 22% (54 applications) were from subscription TV stations, 49% (121 applications) from free-to-air TV stations and the remaining 29% (70 applications) were from radio stations. All e-LDTA applications submitted are reviewed and evaluated prior to approval. To minimise errors and non-compliance of broadcasting stations during live events, MCMC has adopted the following proactive measures:

(a) Presentation sessions by broadcasting stations

Presentation sessions and discussions are held between MCMC and broadcasting stations, whereby MCMC will be given a comprehensive briefing on the particular application for live broadcasting.

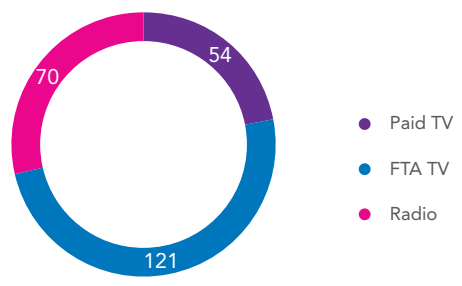
(b) Compliance visits to broadcasting stations

Periodical visits to broadcasting stations are conducted where compliance and advisory status reports are shared with the stations to improve and address any non-compliance with the applicable licence condition.

(c) Site visits of live programmes

Site visits allow the opportunity for a more detailed monitoring of the live programmes broadcasted such as Anugerah Juara Lagu 32 (AJL32), Wanita Hari Ini (WHI), Anugerah Skrin 2018 (ASK2018) and the 5th Konsert Gegar Vaganza Muzik.

Number of Live and Delayed Telecast Applications for 2018



Total Applications: 245

Monitoring and Compliance (Communications)



01
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STAR RATING AWARD 2018 WORKSHOP FOR TELECOMMUNICATIONS SERVICE PROVIDERS

The Star Rating Award Workshop 2018 is a strategic initiative to raise the level of compliance for telecommunications service providers in Malaysia. The workshop was organised by MCMC on 10 April 2018 and attended by the leading telecommunications companies in the country.

Among the main objectives of the Star Rating Award are as follows:

To evaluate the services provided by the telecommunications service providers in line with the changes in the industry landscape that are consumer oriented.

To promote healthy competition among service providers.

To provide recognition and foster a culture of compliance among telecommunications service providers.



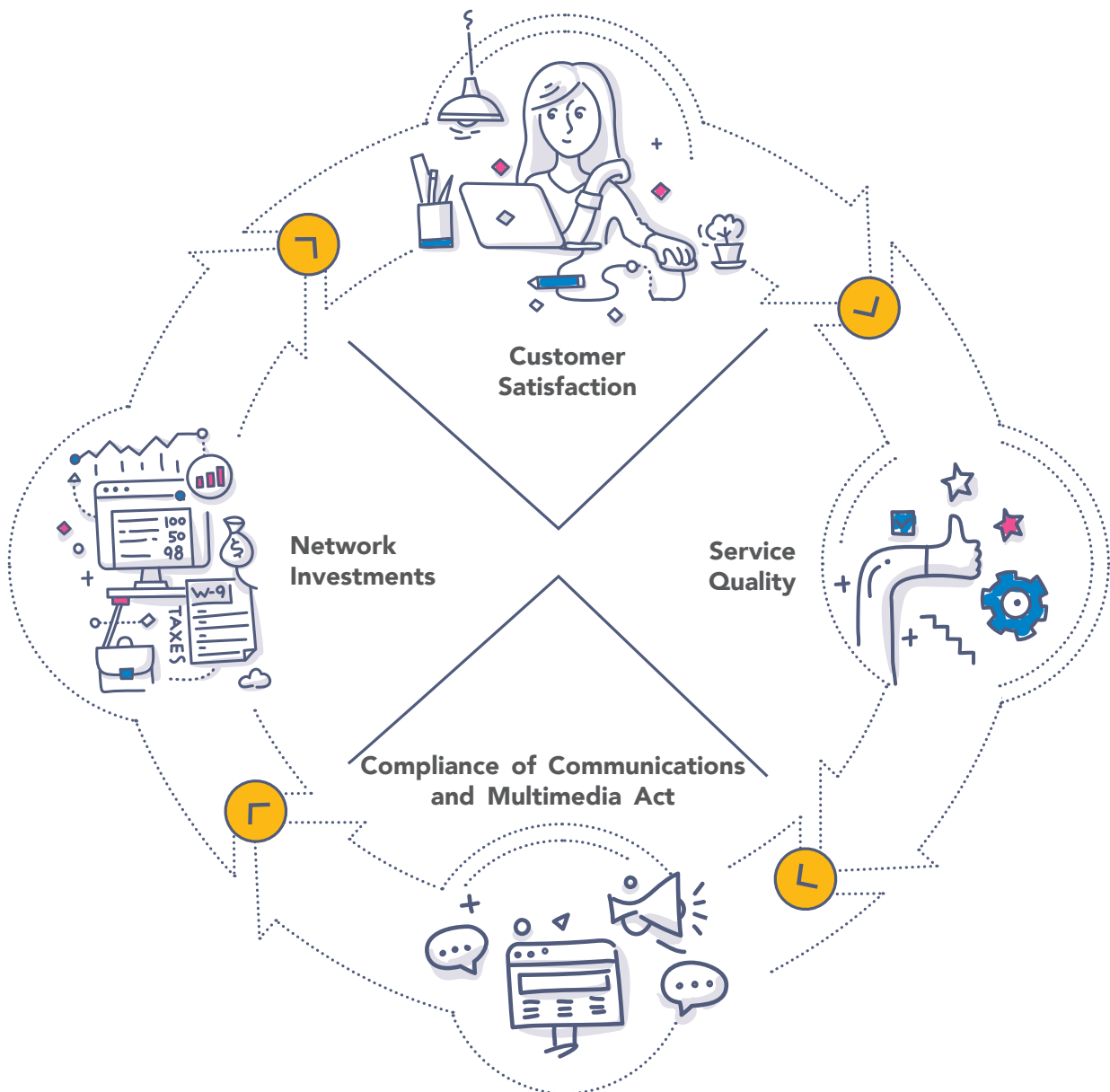
Telecommunications service providers must meet the selection criteria to participate in the Star Rating Award, which is to have a minimum of 250,000 active subscriptions for cellular services and 50,000 active subscriptions for broadband services as of December 31, 2017. A total of 12 telecommunications service providers met the eligibility criteria for 2018 and competed for top honours.

During the workshop, MCMC briefed the participants on the guidelines that will be used for assessment which was conducted from 1 January to 31 December 2018.

The selected telecommunications service providers are divided into two (2) main categories i.e. Cellular Service Providers and Broadband Service Providers. In addition, the service providers will also be assessed in one (1) additional category, which is Corporate Social Responsibility (CSR). The assessment parameters are as follows:

The telecommunications company with the highest scores in all the parameters assessed will be named the winner and awarded the titles; Best Cellular Service Provider and Best Broadband Service Provider of 2018.

The winners of the Star Rating Award 2018 will be announced in the fourth quarter of 2019.



Numbering and Electronic Addressing

NUMBERING ASSIGNMENT

MCMC is vested with the control, planning, administration, management and assignment of the numbering and electronic addressing of network services and applications services.

This section details the tasks and activities conducted by the Numbering and Electronic Addressing Management Department ('NEAMD') under the Licensing and Assignment Division ('LAD') in 2018.

NUMBERING ASSIGNMENT CATEGORY

The following is the numbering assignment categories used by network systems and application services in Malaysia:

- Geographic numbers;
- Non-geographic Numbers; and
- Other numbers.

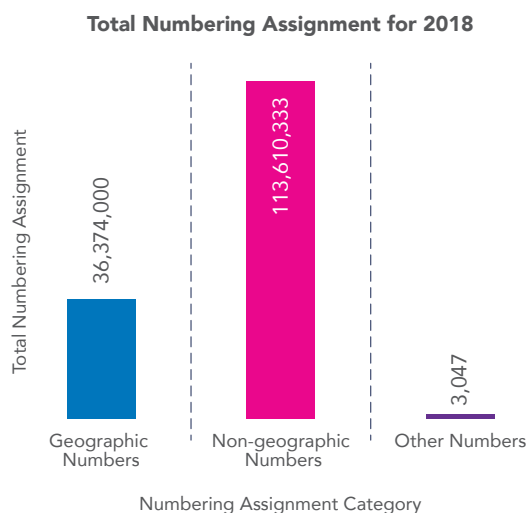
A total of **149,987,380** numbering assignment had been approved for 2018. The details of the allocation are indicated in the table below:

Numbering Assignment Category	Type of Numbers		Existing Assignment	New Assignment	Total Assignment
Geographic Number	Public Switched Telephone Network ("PSTN")		36,321,000	53,000	36,374,000
Non-Geographic Numbers	Short Numbers	Commonly Known Short Code ("CKSC")	9	–	9
		Common Intercarrier Short Code ("CISC")	14	1	15
		Independent Short Code ("ISC")	206	–	206
		Carrier Selection Code ("CSC")	3	–	3
	Special Service Numbers	Toll Free Service Numbers (1-300)	100,000	–	100,000
		Freephone Service Numbers (1-800)	130,000	–	130,000
		Premium Service Numbers (1-600)	100	–	100
		Call Forwarding Service Numbers (1-700)	20,000	–	20,000
	Mobile Numbers		105,960,000	7,400,000	113,360,000
	Other numbers	International Mobile Subscriber Identity	Mobile Network Code ("MNC")	96	1
Signalling Point Codes		International Signalling Point Codes ("ISPC")	41	–	41
		National Signalling Point Codes ("NSPC")	2,884	18	2,902
Routing Number		7	–	7	
Total					149,987,380

Details of Numbering Assignment for 2018



The graph below indicates the total numbering assignment by category in 2018:



There are two (2) types of fees imposed on numbering assignment holders. The fees are as follows:

- Application fee; and
- Assignment fee.

The application fee is the payment imposed on every application for numbering assignment. The assignment fee is imposed annually under various categories of numbering assignment. For new assignment, on the other hand, the fee is imposed on a prorated basis depending on the approval date of the assignment for the year.

A total of RM18,619,950 worth of fees were received in 2018. The table below indicates the total collection according to type of fees:

Type of Fee	Assignment Fee	Total (RM)
Application Fee	New Application	22,050
	Assignment Fee	
	New Numbering Assignment	776,700
	Yearly Numbering Assignment	17,821,200
Total (RM)		18,619,950

TOTAL NUMBERING ASSIGNMENT FEES

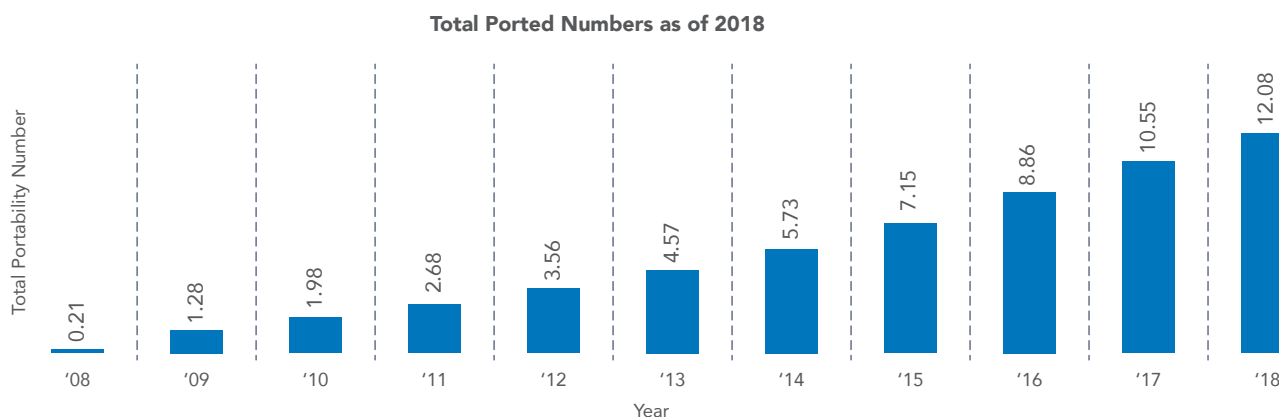
Beginning January 2017, MCMC had imposed fees on holders of numbering assignment under the Communications and Multimedia (Numbering) Regulations 2016.

Total Collection of Numbering Assignment Fee in 2018

MOBILE NUMBER PORTABILITY (MNP)

Since the implementation of the MNP service in 2008, it has continuously benefitted mobile service users in Malaysia with the flexibility and convenience of comparing rates and call plans and switching service providers without the hassle of changing their existing mobile numbers.

As of 2018, a total of **12.08** million numbers have successfully been ported. The graph below indicates the accumulative ported subscribers of mobile numbers from 2008 to 2018.



Total Ported Mobile Numbers as of 2018

Numbering and Electronic Addressing

INTERNET PROTOCOL VERSION 6 (IPV6) COMPLIANCE AUDIT

In 2018, IPv6 compliance audits were conducted on 22 Network Service Providers (Individual) ("NSP"(I)) licensees who provide wired internet, wireless internet and data centre services. These audits were conducted to ensure that these licensees comply with Commission Directive No.2/2015 regarding the implementation of IPv6 in Malaysia to provide IPv6 services to customers.

The table below indicates the audits conducted in 2018:

No.	Type of Service	Location	Network Service Provider	Number of Location
01 02 03 04 05 06 07	Wired internet service	Central Region	Maxis Broadband Sdn Bhd	4
			Digi Telecommunications Sdn Bhd	1
			Macro Lynx Sdn Bhd	1
			Setia Haruman Technology Sdn Bhd	1
			Redtone Engineering and Network Services Sdn Bhd	1
		Eastern Region	Maxis Broadband Sdn Bhd	2
			Telekom Malaysia Berhad	4
			GITN Sdn Bhd	1
		Sarawak	Maxis Broadband Sdn Bhd	1
			Telekom Malaysia Berhad	2
			GITN Sdn Bhd	1
		Sabah	Telekom Malaysia Berhad	2
			Maxis Broadband Sdn Bhd	2
Celcom Axiata Berhad	2			
2.	Wireless internet service	Central Region	Maxis Broadband Sdn Bhd	1
			Celcom Axiata Berhad	1
			Webe Digital Sdn Bhd	1
			U Mobile Sdn Bhd	1
			YTL Communications Sdn Bhd	1
			Digi Telecommunications Sdn Bhd	1
			Altel Communications Sdn Bhd	1



No.	Type of Service	Location	Network Service Provider	Number of Location
		Eastern Region	Maxis Broadband Sdn Bhd	3
			Celcom Axiata Berhad	3
			Webe Digital Sdn Bhd	3
			U Mobile Sdn Bhd	3
			YTL Communications Sdn Bhd	3
			Digi Telecommunications Sdn Bhd	3
		Sarawak	Maxis Broadband Sdn Bhd	1
			Celcom Axiata Berhad	3
			Webe Digital Sdn Bhd	1
			U Mobile Sdn Bhd	1
			YTL Communications Sdn Bhd	1
			Digi Telecommunications Sdn Bhd	1
		Sabah	Maxis Broadband Sdn Bhd	1
			Celcom Axiata Berhad	3
			Webe Digital Sdn Bhd	1
			U Mobile Sdn Bhd	1
			YTL Communications Sdn Bhd	1
			Digi Telecommunications Sdn Bhd	1
3.	Total location	Central Region	Clear-Comm Sdn Bhd	1
			Macro Lynx Sdn Bhd	1
			Mykris Asia Sdn Bhd	1
			NTT MSC Sdn Bhd	1
		Sabah	Sabah Net Sdn Bhd	2
Total of Locations				72

IPv6 audit activity by location



Financial Statements

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Statement by the Members of the Malaysian Communications and Multimedia Commission

We, Al-Ishsal Ishak and Chin Yoong Kheong, being two of the Members of the Malaysian Communications and Multimedia Commission, do hereby state that in the opinion of the Members of the Commission, the financial statements set out on pages 94 to 124 are drawn up in accordance with Malaysian Financial Reporting Standards and International Financial Reporting Standards so as to give a true and fair view of the financial position of the Commission as of 31 December 2018 and of its income and expenditure and cash flows for the financial year then ended.

Signed in accordance with a resolution by the Members of the Malaysian Communications and Multimedia Commission:



Al-Ishsal Ishak



Chin Yoong Kheong

Cyberjaya, Selangor
3 July 2019



FINANCIAL STATEMENTS

Statutory Declaration of the Malaysian Communications and Multimedia Commission

I, Cho Shi Chong, the officer primarily responsible for the financial management of Malaysian Communications and Multimedia Commission, do solemnly and sincerely declare that the financial statements set out on pages 94 to 124 are, to the best of my knowledge and belief, correct and I make this solemn declaration conscientiously believing the same to be true, and by virtue of the provisions of the Statutory Declarations Act, 1960.

Subscribed and solemnly declared by the above named at Putrajaya, Wilayah Persekutuan on 25 July 2019.

Cho Shi Chong

Before me:
Malaysian Commissioner of Oaths
No: A-W 322
Zulaikha binti Kamal

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Independent Auditors' Report to the Members of Malaysian Communications and Multimedia Commission

REPORT ON THE FINANCIAL STATEMENTS

Opinion

We have audited the financial statements of Malaysian Communications and Multimedia Commission (the "Commission"), which comprise the statement of financial position as at 31 December 2018, and statement of income and expenditure and recognised gains and losses and statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, as set out on pages 94 to 124.

In our opinion, the accompanying financial statements give a true and fair view of the financial position of the Commission as at 31 December 2018, and of its financial performance and cash flows for the year then ended in accordance with Malaysian Financial Reporting Standards and International Financial Reporting Standards.

Basis of opinion

We conducted our audit in accordance with approved standards on auditing in Malaysia and International Standards on Auditing. Our responsibilities under those standards are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Independence and other ethical responsibilities

We are independent of the Commission in accordance with the By-Laws (on Professional Ethics, Conduct and Practice) of the Malaysian Institute of Accountants ("By-Laws") and the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants ("IESBA Code"), and we have fulfilled our other ethical responsibilities in accordance with the By-Laws and the IESBA Code.

Information other than the financial statements and auditors' report thereon

The members of the Commission are responsible for the other information. The other information comprises the annual report, but does not include the financial statements of the Commission and our auditors' report thereon. We expect the annual report to be made available to us after the date of the auditors' report.

Our opinion on the financial statements of the Commission does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements of the Commission, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements of the Commission or our knowledge obtained in the audit or otherwise appears to be materially misstated.

When we read the annual report, if we conclude that there is a material misstatement therein, we are required to communicate the matter to the members of the Commission and take appropriate action.

Independent Auditors' Report to the Members of Malaysian Communications and Multimedia Commission

Responsibilities of the members for the financial statements

The members of the Commission are responsible for the preparation of financial statements of the Commission that give a true and fair view in accordance with the Malaysian Financial Reporting Standards and International Financial Reporting Standards. The members are also responsible for such internal control as the members determine is necessary to enable the preparation of financial statements of the Commission that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements of the Commission, the members are responsible for assessing the Commission's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the members either intend to liquidate the Commission or to cease operations, or have no realistic alternative but to do so.

Auditors' responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements of the Commission as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with approved standards on auditing in Malaysia and International Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with approved standards on auditing in Malaysia and International Standards on Auditing, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements of the Commission, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Commission's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the members.
- Conclude on the appropriateness of the members' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Commission's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements of the Commission or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Commission to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements of the Commission, including the disclosures, and whether the financial statements of the Commission represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the members of the Commission regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.



Report on other legal and regulatory requirements

In accordance with the requirements of the Malaysian Communications and Multimedia Commission Act 1998, we also report that, in our opinion, the accounting and other records and the registers required by the Act to be kept by the Commission have been properly kept in accordance with the provisions of the Malaysian Communications and Multimedia Commission Act 1998.

Other matters

This report is made solely to the members of the Commission, as a body, in accordance with Section 47(2) of the Malaysian Communications and Multimedia Commission Act 1998 and for no other purpose. We do not assume responsibility to any other person for the content of this report.

Ernst & Young
AF: 0039
Chartered Accountants

Ong Chee Wai
No. 02857/07/2020 J
Chartered Accountant

Kuala Lumpur, Malaysia
3 July 2019

FINANCIAL STATEMENTS

Statement of Financial Position

AS AT 31 DECEMBER 2018

	Note	2018 RM'000	2017 RM'000
ASSETS			
Non-current assets			
Property, plant and equipment	3	309,420	373,290
Investment properties	4	337,690	344,198
Intangible assets	5	10,041	13,203
		657,151	730,691
Current assets			
Fees and other receivables	7	71,379	68,163
Contract assets	12	12,096	–
Other investments	6	3,431,471	2,641,304
Cash and cash equivalents	8	68,976	119,924
		3,583,922	2,829,391
Total assets		4,241,073	3,560,082
01 Represented by:			
Accumulated funds	9	633,916	739,133
02 LIABILITIES			
03 Non-current liability			
Contract liabilities	10	2,265,279	–
04 Deferred income	10	–	2,103,139
		2,265,279	2,103,139
05 Current liabilities			
06 Contract liabilities	10	443,943	–
Deferred income	10	–	413,990
07 Other payables	11	891,925	298,128
Current tax payable		6,010	5,692
		1,341,878	717,810
Total liabilities		3,607,157	2,820,949
Total accumulated funds and liabilities		4,241,073	3,560,082

The notes form an integral part of these financial statements.

Statement of Income and Expenditure and Recognised Gains and Losses

FOR THE YEAR ENDED 31 DECEMBER 2018

	Note	2018 RM'000	2017 RM'000
Income			
Operating licence fees	12	126,967	124,660
Spectrum fees	12	857,004	685,359
Numbering assignment fees	12	18,637	18,058
Interest income		117,307	104,425
Gain on disposal of property, plant and equipment		24	113
Bad debts recovered		–	5
Rental income	4	17,620	16,735
Other income	13	15,676	19,084
		1,153,235	968,439
Expenditure			
Employee benefit expenses	14	109,795	119,056
Administrative expenses		83,493	119,398
Special projects expenses	22	73,015	80,805
GST rebates expenses	21	669,429	571
Industry development grant expenses		1,080	1,683
Audit fee		120	130
Rental expenses		7,074	7,252
Depreciation of property, plant and equipment	3	64,223	58,821
Depreciation of investment properties	4	6,508	11,802
Amortisation of intangible assets	5	6,081	3,224
Provision for expected credit loss	7	2,686	850
Property, plant and equipment written off		–	1,839
Rebate entitlement expenses		18,542	12,419
Other expenses		6,457	8,794
		1,048,503	426,644
Net operating surplus			
		104,732	541,795
Less: Payments made under Ministerial Direction(s)	19	(140,714)	(273,979)
(Deficit)/surplus before tax			
		(35,982)	267,816
Tax expense	15	(28,677)	(27,025)
(Deficit)/surplus after tax representing total recognised gains			
	9	(64,659)	240,791

The notes form an integral part of these financial statements.

FINANCIAL STATEMENTS

Statement of Cash Flows

FOR THE YEAR ENDED 31 DECEMBER 2018

	Note	2018 RM'000	2017 RM'000
Cash flows from operating activities			
(Deficit)/surplus before tax		(35,982)	267,816
Adjustments for:			
Depreciation of property, plant and equipment		64,223	58,821
Depreciation of investment properties		6,508	11,802
Amortisation of intangible assets		6,081	3,224
Gain on disposal of property, plant and equipment		(24)	(113)
Provision for expected credit loss		2,686	850
Bad debts recovered		-	(5)
Property, plant and equipment written off		-	1,839
Interest income		(117,307)	(104,425)
Operating (deficit)/surplus before changes in working capital		(73,815)	239,809
Changes in working capital:			
Contract liabilities/deferred income		192,093	(232,931)
Contract assets		(12,096)	-
Fees and other receivables		11,826	(10,535)
Other payables and accrued expenses		593,408	(64,095)
Cash generated from/(used in) operations		711,416	(67,752)
Payments made to Consolidated Fund pursuant to Section 38(3) of Malaysian Communications and Multimedia Commission Act 1998 (Act 589)		(50,000)	(200,000)
Tax paid		(28,359)	(22,847)
Net cash generated from/(used in) operating activities		633,057	(290,599)
Cash flows from investing activities			
Acquisition of property, plant and equipment	(i)	(2,884)	(24,277)
Acquisition of intangible assets		(24)	-
Interest received		109,021	83,272
Proceeds from disposal of property, plant and equipment		49	113
Placement in other investments		(790,167)	(11,304)
Net cash (used in)/generated from investing activities		(684,005)	47,804
Net decrease in cash and cash equivalents		(50,948)	(242,795)
Cash and cash equivalents at 1 January		119,924	362,719
Cash and cash equivalents at 31 December	8	68,976	119,924

(i) Acquisition of property, plant and equipment

During the year, the Commission acquired property, plant and equipment in the following manner:

	2018 RM'000	2017 RM'000
Property, plant and equipment		
Satisfied by cash payments	2,884	24,277
Payable to suppliers	389	14,706
	3,273	38,983

The notes form an integral part of these financial statements.

Notes to the Financial Statements

FOR THE YEAR ENDED 31 DECEMBER 2018

1. Corporate Information

The principal activities of the Malaysian Communications and Multimedia Commission ("Commission") are to implement and to enforce the provisions of the communications and multimedia laws as stipulated in the Communications and Multimedia Act 1998 (Act 588) ("CMA") and the Malaysian Communications and Multimedia Commission Act 1998 (Act 589) ("MCMCA").

The Commission is a statutory body established under the MCMCA. The registered office of the Commission is located at MCMC Tower 1, Jalan Impact Cyber 6, 63000 Cyberjaya, Selangor Darul Ehsan.

The financial statements were approved and authorised for issue by the Commission's Members on 3 July 2019.

2. Summary of significant accounting policies

The principal accounting policies applied in the preparation of these financial statements are set out below. These policies have been consistently applied to the years presented unless otherwise stated.

2.1 Basis of preparation

The financial statements of the Commission have been prepared in accordance with Malaysian Financial Reporting Standards ("MFRSs") and International Financial Reporting Standards ("IFRSs").

The financial statements have been prepared on the historical cost basis except as disclosed in the accounting policies below.

The financial statements are presented in Ringgit Malaysia ("RM") which is also the functional currency of the Commission and all values are rounded to the nearest thousand ("RM'000") except otherwise indicated.

2.2 Changes in accounting policies

On 1 January 2018, the Commission adopted the following new and amended MFRSs mandatory for annual financial periods beginning on or after the dates stated below:

Description	Effective for annual periods beginning on or after
MFRS 9 Financial Instruments	1 January 2018
MFRS 15 Revenue from Contracts with Customers	1 January 2018
Annual Improvements to MFRS Standards 2014-2016 Cycle	1 January 2018

The nature and effect of the changes as a result of adoption of the above MFRSs on the financial performance and position of the Commission are described below.

(a) MFRS 9 Financial Instruments

MFRS 9 Financial Instruments replaces MFRS 139 Financial Instruments: Recognition and Measurement for annual periods beginning on or after 1 January 2018, bringing together all three aspects of the accounting for financial instruments: classification and measurement, impairment, and hedge accounting.

The Commission has adopted the modified retrospective approach, without restating comparatives.

Notes to the Financial Statements

FOR THE YEAR ENDED 31 DECEMBER 2018

2. Summary of significant accounting policies (contd.)

2.2 Changes in accounting policies (contd.)

(a) MFRS 9 Financial Instruments (contd.)

The Commission has identified the change in the impairment loss model from the existing incurred loss model to the Expect Credit Loss model ("ECL"). Under the incurred loss model, the Commission assesses for impairment loss only when an indicator of impairment arises. With the ECL model, the Commission assesses the expected level of credit loss arising from its receivables at the point of recognition, by estimating the expected loss using a recovery rate.

The Commission applies the simplified approach in assessing the impairment of its receivables.

The financial assets of the Commission were previously classified as loans and receivables under MFRS 139. Upon adoption of MFRS 9, the financial assets are classified as financial assets at amortised costs. There are no changes to the classification of financial liabilities arising from the adoption of MFRS 9.

As the Commission does not apply hedge accounting, the principles of hedge accounting under MFRS 9 will not be applicable to the Commission. Other than the above, there is no further impact to the financial assets and liabilities of the Commission upon adoption of MFRS 9.

The effect of adopting MFRS 9 is as follows:

	As previously stated RM'000	Adjustments RM'000	As restated RM'000
1 January 2018			
Statement of financial position			
Fees receivables			
– Provision for expected credit loss:	(2,658)	(1,716)	(4,374)
Accumulated funds	(1,879,133)	1,716	(1,877,417)

The adjustment relates to additional provision arising from change in impairment model from incurred loss to the expected credit loss model.

(b) MFRS 15 Revenue from Contracts with Customers

MFRS 15 supersedes MFRS 118 Revenue, MFRS 111 Construction Contracts, and related Interpretations and it applies, with limited exceptions, to all revenue arising from contracts with its customers. MFRS 15 establishes a five-step model to account for revenue arising from contracts with customers and requires that revenue be recognised at an amount that reflects the consideration to which an entity expects to be entitled in exchange for transferring goods or services to a customer.

MFRS 15 requires entities to exercise judgement, taking into consideration all of the relevant facts and circumstances when applying each step of the model to contracts with their customers. The standard also specifies the accounting for the incremental costs of obtaining a contract and the costs directly related to fulfilling a contract. In addition, the standard requires extensive disclosures.

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2. Summary of significant accounting policies (contd.)

2.2 Changes in accounting policies (contd.)

(b) MFRS 15 Revenue from Contracts with Customers (contd.)

The Commission has adopted the modified retrospective approach, without restating comparatives.

Under MFRS 15, an entity recognises revenue when (or as) a performance obligation is satisfied, i.e. when "control" of the goods or services underlying the particular performance obligation is transferred to the customer.

The Commission has undertaken analysis of how MFRS 15 should be implemented and has taken tentative accounting policy decisions. The key outcome of the Commission's analysis of the impact of MFRS 15 on its revenue are as follows:

- (i) The Commission enters into contracts with parties that are interested in providing services regulated by the Commission by awarding them specific licenses in exchange for cash consideration as specified in the MCMCA and the CMA. The Commission has identified that the parties entering into such contracts as its licensees;
- (ii) The Commission has assessed that each promise included in the contract is to be considered as a separate performance obligation, as each promise is considered to be a separate promise to transfer services to the licensee which is distinct;
- (iii) The Commission has determined that cash consideration to be received from its customers, as stated in the contracts to be the transaction price;
- (iv) The transaction price of the revenue is clearly stated in the CMA;
- (v) The Commission has concluded that there are no significant changes to the timing of revenue recognition of each performance obligation; and
- (vi) There are no significant changes needed to its current processes and information systems.

The effect of adopting MFRS 15 is as follows:

	As previously stated RM'000	Adjustments RM'000	As restated RM'000
1 January 2018			
Statement of financial position			
Contract assets	-	11,158	11,158
Accumulated funds	(1,879,133)	(11,158)	(1,890,291)

FINANCIAL STATEMENTS

Notes to the Financial Statements

FOR THE YEAR ENDED 31 DECEMBER 2018

2. Summary of significant accounting policies (contd.)

2.3 Standards issued but not yet effective

The standards that are issued but not yet effective up to the date of issuance of the Commission's financial statements are disclosed below. The Commission intends to adopt these standards, if applicable, when they become effective.

Description	Effective for annual periods beginning on or after
MFRS 16 Leases	1 January 2019
Amendments to MFRS 3 Business Combinations	1 January 2020
Amendments to MFRS 9 Prepayment Features With Negative Compensation	1 January 2019
Amendment to MFRS 14 Regulatory Deferral Accounts	1 January 2020
Amendments to MFRS 101 Presentation of Financial Statements	1 January 2020
Amendments to MFRS 108 Accounting Policies, Changes in Accounting Estimates and Errors	1 January 2020
Amendments to MFRS 119 Plan Amendment, Curtailment or Settlement	1 January 2019
Amendments to MFRS 128 Long-term Interests in Associates and Joint Ventures	1 January 2019
Amendments to MFRS 138 Intangible Assets	1 January 2020
Annual Improvements to MFRS Standards 2015 - 2017 Cycle	
– MFRS 112 Income Taxes	1 January 2019
– MFRS 123 Borrowing Costs	1 January 2019
MFRS 17 Insurance Contracts	1 January 2021

The Members expect that the adoption of the above standards will have no material impact on the financial statements in the period of initial application except as stated below.

MFRS 16 Leases

MFRS 16 will replace MFRS 117 Leases, IC Interpretation 4 Determining whether an Arrangement contains a Lease, IC Interpretation 115 Operating Lease-Incentives and IC Interpretation 127 Evaluating the Substance of Transactions Involving the Legal Form of a Lease. MFRS 16 sets out the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to account for all leases under a single on-balance sheet model similar to the accounting for finance leases under MFRS 117.

At the commencement date of a lease, a lessee will recognise a liability to make lease payments and an asset representing the right to use the underlying asset during the lease term. Lessees will be required to recognise interest expense on the lease liability and the depreciation expense on the right-of-use asset.

Lessor accounting under MFRS 16 is substantially the same as the accounting under MFRS 117. Lessors will continue to classify all leases using the same classification principle as in MFRS 117 and distinguish between two types of leases: operating and finance leases.

The Commission is currently assessing the financial impact that may arise from the adoption of MFRS 16. The Commission intends to complete the assessment and report the financial impact in the financial statements for the financial year ending 31 December 2019.



2. Summary of significant accounting policies (contd.)

2.4 Financial assets

Initial recognition

Financial assets are classified, at initial recognition, as subsequently measured at amortised cost, fair value through other comprehensive income ("OCI") or fair value through profit or loss.

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Commission's business model for managing them. With the exception of fees receivables that do not contain a significant financing component or for which the Commission has applied the practical expedient, the Commission initially measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, directly attributable transaction costs. Fees receivables that do not contain a significant financing component or for which the Commission has applied the practical expedient are measured at the transaction price determined under MFRS 15. Please refer to the accounting policies stated in Note 2.13.

Purchases or sales of financial assets that require delivery of assets within a time frame established by regulation or convention in the market place (regular way trades) are recognised on the trade date, i.e., the date that the Commission commits to purchase or sell the asset.

In order for a financial asset to be classified and measured at amortised cost or fair value through OCI, it needs to give rise to cash flows that are 'solely payments of principal and interest ("SPPI")' on the principal amount outstanding. This assessment is referred to as the SPPI test and is performed at an instrument level.

The Commission's business model for managing financial assets refers to how it manages its financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both.

Subsequent measurement

For purposes of subsequent measurement, financial assets are classified into four categories:

- (i) Financial assets at amortised cost (debt instrument);
- (ii) Financial assets at fair value through OCI with recycling of cumulative gains and losses (debt instruments);
- (iii) Financial assets designated at fair value through OCI with no recycling of cumulative gains and losses upon derecognition (equity instruments); or
- (iv) Financial assets at fair value through profit or loss.

The Commission measures financial assets at amortised cost if both of the following conditions are met:

- (i) The financial asset is held within a business model with the objective to hold financial assets in order to collect contractual cash flows; and
- (ii) The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets at amortised cost are subsequently measured using the effective interest ("EIR") method and are subject to impairment. Gains and losses are recognised in profit or loss when the asset is derecognised, modified or impaired.

The Commission's fees and other receivables are categorised as financial assets at amortised cost.

Notes to the Financial Statements

FOR THE YEAR ENDED 31 DECEMBER 2018

2. Summary of significant accounting policies (contd.)

2.4 Financial assets (contd.)

Derecognition

A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is primarily derecognised (i.e., removed from the Commission's statement of financial position) when:

- (i) The rights to receive cash flows from the asset have expired; or
- (ii) The Commission has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement; and either (a) the Commission has transferred substantially all the risks and rewards of the asset, or (b) the Commission has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

When the Commission has transferred its rights to receive cash flows from an asset or has entered into a pass-through arrangement, it evaluates if, and to what extent, it has retained the risks and rewards of ownership. When it has neither transferred nor retained substantially all of the risks and rewards of the asset, nor transferred control of the asset, the Commission continues to recognise the transferred asset to the extent of its continuing involvement. In that case, the Commission also recognises an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Fund has retained.

01 2.5 Financial liabilities

Initial recognition

02 Financial liabilities are classified according to the substance of the contractual arrangements entered into and the
03 definitions of a financial liability.

04 Financial liabilities are recognised in the statement of financial position when, and only when, the Commission becomes
05 a party to the contractual provisions of the financial instrument. The Commission's financial liabilities are classified as
subsequently measured at amortised cost. The Commission has not designated any financial liabilities as at fair value
through profit or loss.

06 Subsequent measurement

07 Trade and other payables are recognised initially at fair value plus directly attributable transaction costs and subsequently
measured at amortised cost using the effective interest method.

Derecognition

A financial liability is derecognised when the obligation under the liability is extinguished. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognised in profit or loss.

2.6 Property, plant and equipment

All items of property, plant and equipment are initially recorded at cost. The cost of an item of property, plant and equipment is recognised as an asset if, and only if, it is probable that future economic benefits associated with the item will flow to the Commission and the cost of the item can be measured reliably.



2. Summary of significant accounting policies (contd.)

2.6 Property, plant and equipment (contd.)

Subsequent to recognition, property, plant and equipment except for freehold land are measured at cost less accumulated depreciation and accumulated impairment losses. When significant parts of property, plant and equipment are required to be replaced in intervals, the Commission recognises such parts as individual assets with specific useful lives and depreciation, respectively. Likewise, when a major inspection is performed, its cost is recognised in the carrying amount of the property, plant and equipment as a replacement if the recognition criteria are satisfied. All other repair and maintenance costs are recognised in profit or loss as incurred.

The present value of the expected cost for the dismantling and decommissioning of the asset after its use is included in the cost of the respective asset if the recognition criteria for a provision are met and is depreciated over the lease term.

Depreciation is calculated on a straight-line basis over the estimated useful lives of the assets as follows:

- | | |
|--------------------------------------|-------------|
| • Office and communication equipment | 6 – 7 years |
| • Computer equipment | 3 years |
| • Furniture and fittings | 6 – 7 years |
| • Motor vehicles | 5 years |
| • Buildings | 50 years |
| • Renovation | 3 years |

Work-in-progress assets are not depreciated as these assets are not yet available for use and will be transferred to the relevant category of assets and depreciated accordingly when the assets are completed and ready for their intended use.

The carrying values of property, plant and equipment are reviewed for impairment when events or changes in circumstances indicate that the carrying values may not be recoverable.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss on derecognition of the asset is included in the profit or loss in the year the asset is derecognised.

The residual value, useful life and depreciation method are reviewed at each reporting date, and adjusted prospectively, if appropriate.

2.7 Investment property

Investment property is property which is owned to earn rental income or for capital appreciation or for both, but not for sale in the ordinary course of business, use in the production or supply of goods or services or for administrative purposes.

Investment property is stated at cost less any accumulated depreciation and any accumulated impairment losses.

Depreciation is recognised in the statement of income and expenditure on a straight-line basis at 2.5% per annum.

An investment property is derecognised on its disposal, or when it is permanently withdrawn from use and no future economic benefits are expected from its disposal. The difference between the net disposal proceeds and the carrying amount is recognised in profit or loss in the period in which the item is derecognised.

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FOR THE YEAR ENDED 31 DECEMBER 2018

2. Summary of significant accounting policies (contd.)

2.8 Intangible assets

Intangible assets acquired separately are measured on initial recognition at cost. Following the initial recognition, intangible assets are carried at cost less accumulated amortisation and any accumulated impairment losses. Intangible assets with finite useful lives are amortised on a straight line basis over the estimated economic useful lives and assessed for impairment whenever there is an indication that the intangible assets may be impaired. The amortisation period and the amortisation method for an intangible asset are reviewed at each reporting date, and adjusted prospectively, if appropriate.

The useful lives of intangible assets are assessed as either finite or indefinite. Intangible assets with finite useful lives are amortised on a straight-line basis over the economic useful lives and assessed for impairment whenever there is an indication that the intangible may be impaired. The amortisation period and method are reviewed at least at each financial year end. Changes in the expected useful lives or the expected pattern of consumption of future economic benefits embodied in the asset are accounted for by changing the amortisation period or method and treated as changes in accounting estimates. The amortisation expense on intangible assets with finite lives is recognised in profit or loss.

2.9 Operating lease

A lease is recognised as a finance lease if it transfers substantially to the Commission all the risks and rewards incident to ownership. All other leases are classified as operating leases.

Operating lease payments are recognised as an expense in the profit or loss on a straight-line basis over the term of the relevant lease.

2.10 Cash and cash equivalents

Cash and cash equivalents consist of cash on hand, balances and deposits with banks and highly liquid investments which have an insignificant risk of changes in fair value with original maturities of three months or less, and are used by the Commission in the management of their short term commitments.

2.11 Impairment of financial assets

The Commission recognises an allowance for expected credit loss ("ECL") for all debt instruments not held at fair value through profit or loss. ECL is based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Commission expects to receive.

ECL is recognised in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECL is provided for credit losses that result from default events that are possible within the next 12-months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL).

For fees receivables, the Commission applies a simplified approach in calculating ECL. Therefore, the Commission does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECL at each reporting date. The Commission has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the licensees and the economic environment.

A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

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2. Summary of significant accounting policies (contd.)

2.12 Employee benefits

(i) Short-term employee benefits

Wages, salaries, bonuses and social security contributions are recognised as an expense in the year in which the associated services are rendered by employees of the Commission. Short term accumulating compensated absences such as paid annual leave are recognised when services are rendered by employees that increase their entitlement to future compensated absences. Short term non-accumulating compensated absences such as sick leave are recognised when the absences occur.

(ii) Defined contribution plans

Defined contribution plans are post-employment benefit plans under which the Commission pays fixed contributions into separate entities or funds and will have no legal or constructive obligation to pay further contributions if any of the funds do not hold sufficient assets to pay all employee benefits relating to employee services in the current and preceding financial years. Such contributions are recognised as an expense in profit or loss as incurred. As required by law, entities in Malaysia make such contributions to the Employees Provident Fund ("EPF").

2.13 Revenue from contracts with customers

The Commission is the regulatory body of the communications and multimedia industry. Revenue from contracts with its licensees is recognised when control of the services are transferred to the licensees at an amount that reflects the consideration to which the Commission expects to be entitled in exchange for those services.

The nature and effect of the changes relating to revenue from contracts with licensees are provided in Note 2.2.

(i) Operating licence fees

Income relating to granting of operating licence are recognised when (or as) the Commission satisfies over time, a performance obligation by transferring a promised service (i.e. a license) to the licensee. The right to use the license is transferred when (or as) the licensee obtains control of that license.

Income relating to the application fee of individual license are recognised at the point in time when the Commission approves and processes the application of the interested licensees.

(ii) Spectrum fees

Spectrum fees consist of apparatus and spectrum assignment fees. There is a performance obligation by transferring a promised service (i.e. the right to operate in the spectrum) to the licensee and the income from apparatus and spectrum assignment fees are recognised over the license period (i.e. over time). An asset is transferred when the licensee obtains the control to operate in the spectrum.

Income relating to the application fee of apparatus assignments are recognised at the point in time when the Commission approves and processes the application of the interested licensees.

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FOR THE YEAR ENDED 31 DECEMBER 2018

2. Summary of significant accounting policies (contd.)

2.13 Revenue from contracts with customers (contd.)

(iii) Numbering assignment fees

There is a performance obligation by transferring a promised service (i.e. the right to use the number assignments) to the licensee and the income from numbering assignment is recognised over the agreed time frame (i.e. over time). An asset is transferred when the licensee obtains the control to use the number assignments.

Income relating to the application fee of numbering assignments are recognised at the point in time when the Commission approves and processes the application of the interested licensees.

(iv) Interest income

Interest income is recognised on a time proportion basis that reflects the effective yield on the asset, unless recoverability is in doubt, in which case, it is recognised on receipt basis.

2.14 Income tax

Income tax expense is in respect of tax on interest and rental income earned during the financial year. All other income is exempted from taxation as the Commission is tax exempt under Section 127(3)(b) of the Income Tax Act, 1967.

01 Income tax expense comprises current tax. Current tax is recognised in the statement of income and expenditure.

02 Current tax is the expected tax payable or receivable on the taxable income or loss for the year, using tax rates enacted or substantively enacted by the end of the reporting period, and any adjustment to tax payable in respect
03 of previous financial years.

2.15 Fair value measurement

04 The Commission measures financial instruments and non-financial assets at fair value at each reporting date.

05 Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction
06 between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either:

- 07
- (i) In the principal market for the asset or liability; or
 - (ii) In the absence of a principal market, in the most advantageous market for the asset or liability.

The principal or the most advantageous market must be accessible to or by the Commission.



2. Summary of significant accounting policies (contd.)

2.15 Fair value measurement (contd.)

The fair value of an asset or liability is measured using the assumptions that the market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participants that would use the asset in its highest and best use.

The Commission uses valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximising the use of relevant observable inputs and minimising the use of unobservable inputs.

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

- (i) Level 1 – the fair value is measured using quoted prices (unadjusted) in active markets for identical assets or liabilities.
- (ii) Level 2 – the fair value is measured using inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
- (iii) Level 3 – the fair value is measured using inputs for the asset or liability that are not based on observable market data (unobservable inputs).

For assets and liabilities that are recognised in the financial statements on a recurring basis, the Commission determines whether transfers have occurred between Levels in the hierarchy by re-assessing categorisation (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period.

2.16 Provisions

Provisions are recognised when the Commission has a present obligation as a result of a past event and it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate of the amount can be made. Provisions are reviewed at each reporting date and adjusted to reflect the current best estimate. Where the effect of the time value of money is material, provisions are discounted using a current pre-tax rate that reflects, where appropriate, the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage of time is recognised as finance cost.

Notes to the Financial Statements

FOR THE YEAR ENDED 31 DECEMBER 2018

2. Summary of significant accounting policies (contd.)

2.17 Impairment of non-financial assets

The Commission assesses, at each reporting date, whether there is an indication that an asset may be impaired. If any indication exists, or when annual impairment testing for an asset is required, the Commission estimates the asset's recoverable amount. An asset's recoverable amount is the higher of an asset's or cash-generating unit's ("CGU") fair value less costs to sell and its value in use. Recoverable amount is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. When the carrying amount of an asset or CGU exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount. For the purpose of impairment assessment, assets are grouped at the lowest level for which there is separately identifiable cash flows.

Impairment losses of continuing operation are recognised in statement of income and expenditure in those expense categories consistent with the function of the impaired asset.

An assessment is made at each reporting date to determine whether there is an indication that previously recognised impairment losses no longer exist or have decreased. If such indication exists, the Commission estimates the asset's or CGU's recoverable amount. A previously recognised impairment loss is reversed only if there has been a change in the assumptions used to determine the asset's recoverable amount since the last impairment loss was recognised. The reversal is limited so that the carrying amount of the asset does not exceed its recoverable amount, nor exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognised for the asset in prior years. Such reversal is recognised in profit or loss unless the asset is carried at a revalued amount, in which case, the reversal is treated as a revaluation increase.

2.18 Current and non-current classification

The Commission presents assets and liabilities in the statement of financial position based on current and non-current classification.

An asset is classified as current when it is:

- expected to be realised or intended to be sold or consumed in normal operating cycle;
- held primarily for the purpose of trading;
- expected to be realised within 12 months after the reporting period; or
- cash and cash equivalents unless restricted from being exchanged or used to settle a liability for at least 12 months after the reporting period.

All other assets are classified as non-current.

A liability is classified as current when:

- it is expected to be settled in normal operating cycle;
- it is held primarily for the purpose of trading;
- it is due to be settled within 12 months after the reporting period; or
- there is no unconditional right to defer the settlement of the liability for at least 12 months after the reporting period.

All other liabilities are classified as non-current.

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2. Summary of significant accounting policies (contd.)

2.19 Significant accounting judgements and estimates

The preparation of the Commission's financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities at the reporting date. However, uncertainty about these assumptions and estimates could result in outcomes that could require a material adjustment to the carrying amount of the asset or liability affected in the future.

(i) Critical judgements made in applying accounting policies

There were no critical judgements made in applying the accounting policies of the Commission which may have significant effects on the amounts recognised in the financial statements.

(ii) Key sources of estimation uncertainty

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

(a) Provision for expected credit losses ("ECL") for fees receivables

The Commission uses a provision matrix to calculate ECL for fee receivables. The provision rates are based on days past due for groupings of various licensees segments that have similar loss patterns.

The provision matrix is initially based on the Commission's historical observed default rates. The Commission will calibrate the matrix to adjust the historical credit loss experience with forward-looking information. For instance, if forecast economic conditions (i.e., gross domestic product) are expected to deteriorate over the next year which can lead to an increased number of defaults, the historical default rates are adjusted. At every reporting date, the historical observed default rates are updated and changes in the forward-looking estimates are analysed.

The assessment of the correlation between historical observed default rates, forecast economic conditions and ECL is a significant estimate. The amounts of ECL are sensitive to changes in circumstances and of forecast economic conditions. The Commission's historical credit loss experience and forecast of economic conditions may also not be representative of licensees actual default in the future.

However, the Commission concluded that licensees ECL does not have high correlation with forecast economic factors.

The information about the ECL on the Commission's fees receivables is disclosed in Note 7.

(b) Useful life of property, plant and equipment, investment properties and intangible assets

The Commission estimates the useful lives of property, plant and equipment, investment properties and intangible assets based on the period over which the assets are expected to be available for use. The estimated useful lives of property, plant and equipment, investment properties and intangible assets are reviewed periodically and are updated if expectations differ from previous estimate due to physical wear and tear, technical or commercial obsolescence and legal or other limits on the use of the assets. Changes in expected level of usage and economic development could impact the economic useful lives and the residual values of these assets, and hence future depreciation charges on such assets could be revised.

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3. PROPERTY, PLANT AND EQUIPMENT

	Office and communication equipment	Computer equipment	Furniture and fittings	Motor vehicles	Freehold land	Buildings	Renovation	Capital work-in progress	Total
	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000
Cost									
At 1 January 2018	16,309	341,695	4,973	13,629	10,873	260,229	6,257	27,949	681,914
Additions	195	771	38	1,534	-	404	-	331	3,273
Disposals	-	-	-	(147)	-	-	-	-	(147)
Reclassification	100	22,848	8	-	-	-	1,125	(24,081)	-
Transfer to intangible assets (Note 5)	-	-	-	-	-	-	-	(2,895)	(2,895)
At 31 December 2018	16,604	365,314	5,019	15,016	10,873	260,633	7,382	1,304	682,145
Accumulated depreciation									
At 1 January 2018	7,801	263,997	2,791	9,138	-	22,780	2,117	-	308,624
Charge for the year	2,180	52,467	508	1,481	-	5,206	2,381	-	64,223
Disposals	-	-	-	(122)	-	-	-	-	(122)
At 31 December 2018	9,981	316,464	3,299	10,497	-	27,986	4,498	-	372,725
Net carrying amount as at 31 December 2018	6,623	48,850	1,720	4,519	10,873	232,647	2,884	1,304	309,420

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3. PROPERTY, PLANT AND EQUIPMENT (CONTD.)

	Office and communication equipment	Computer equipment	Furniture and fittings	Motor vehicles	Freehold land	Buildings	Renovation	Capital work-in progress	Total
	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000	RM'000
Cost									
At 1 January 2017, as restated	20,673	301,288	7,435	12,095	10,873	260,229	5,781	48,724	667,098
Additions	808	4,388	59	1,798	-	-	476	31,454	38,983
Disposals	-	-	-	(714)	-	-	-	-	(714)
Write-offs	(5,429)	-	(2,521)	-	-	-	-	-	(7,950)
Reclassification	257	36,019	-	450	-	-	-	(36,726)	-
Transfer to intangible assets (Note 5)	-	-	-	-	-	-	-	(15,503)	(15,503)
At 31 December 2017	16,309	341,695	4,973	13,629	10,873	260,229	6,257	27,949	681,914
Accumulated depreciation									
At 1 January 2017, as restated	11,014	216,656	2,756	8,450	-	17,575	177	-	256,628
Charge for the year	2,173	47,341	760	1,402	-	5,205	1,940	-	58,821
Disposals	-	-	-	(714)	-	-	-	-	(714)
Write-offs	(5,386)	-	(725)	-	-	-	-	-	(6,111)
At 31 December 2017	7,801	263,997	2,791	9,138	-	22,780	2,117	-	308,624
Net carrying amount as at 31 December 2017	8,508	77,698	2,182	4,491	10,873	237,449	4,140	27,949	373,290

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FOR THE YEAR ENDED 31 DECEMBER 2018

4. INVESTMENT PROPERTIES

	2018 RM'000	2017 RM'000
Cost		
At 1 January/31 December	472,092	472,092
Accumulated depreciation		
At 1 January	29,672	17,870
Charge for the year	6,508	11,802
At 31 December	36,180	29,672
Accumulated impairment loss		
At 1 January/31 December	98,222	98,222
Net carrying amount		
At 31 December	337,690	344,198
Fair value of investment properties	356,000	356,000

01 The following is recognised in the statement of income and expenditure in respect of the investment property:

	2018 RM'000	2017 RM'000
03 Rental income	17,620	16,735
04 Rental related expenditure	(9,291)	(8,883)

05 4.1 Fair value information

06 Fair value of investment properties are categorised as follows:

	Level 3	
	2018 RM'000	2017 RM'000
07 Land and building	356,000	356,000

In financial year 2017, the Commission engaged an independent valuer with recognised qualifications and relevant experience in determining the fair values of the investment properties. The fair values were determined based on income approach method.

In assessing the fair values using the income approach, the independent valuer considered inputs such as monthly gross rental per square feet and monthly maintenance cost per square feet. These inputs were adjusted from its base value derived from existing rental agreements and historical information maintained by the Commission at rates ranging between +4% and +28%. The values were then discounted at a discount rate ranging between 6% to 6.25% to arrive at the fair value of the investment properties.

During the year, the Commission has assessed the condition and the property market surrounding the investment properties and concluded that the fair values derived previously by the independent valuer to remain appropriate.



4. INVESTMENT PROPERTIES (CONTD.)

4.1 Fair value information (contd.)

Sensitivity analysis

A significant increase or decrease in the unobservable inputs used in the valuation would result in a correspondingly higher or lower fair value of the investment property.

4.2 Impairment loss of investment properties

During the year, the Commission reviewed the investment properties for indication of impairment and concluded there was none. As such, no impairment loss was recognised during the year.

5. INTANGIBLE ASSETS – SOFTWARE

	Note	2018 RM'000	2017 RM'000
Cost			
At 1 January		16,508	1,005
Addition		24	–
Reclassified from property, plant and equipment	3	2,895	15,503
At 31 December		19,427	16,508
Accumulated amortisation			
At 1 January		3,305	81
Charge for the year		6,081	3,224
At 31 December		9,386	3,305
Net carrying amount			
At 31 December		10,041	13,203

6. OTHER INVESTMENTS

	2018 RM'000	2017 RM'000
Deposits placed with licensed banks	3,431,471	2,641,304

The weighted average effective interest rate and the average maturity of the deposits as at 31 December are as follows:

	Weighted average effective interest rate		Average maturity	
	2018 %	2017 %	2018 days	2017 days
Deposits placed with licensed banks	4.00	3.97	332	335

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FOR THE YEAR ENDED 31 DECEMBER 2018

7. FEES AND OTHER RECEIVABLES

	2018 RM'000	2017 RM'000
Fees receivables		
Fees receivables	17,711	16,255
Less: Allowance for ECL	(7,060)	(2,658)
Fees receivables, net	10,651	13,597
Other receivables		
Interest receivable	49,615	41,329
Deposits	2,085	1,989
Staff loans	711	604
Advances to staff	98	98
Others	8,219	10,546
	60,728	54,566
Fees and other receivables	71,379	68,163
Add: Cash and cash equivalents (Note 8)	68,976	119,924
Add: Deposits placed with licensed banks (Note 6)	3,431,471	2,641,304
Total financial assets at amortised cost	3,571,826	2,829,391
Provision for expected credit loss		
	2018 RM'000	2017 RM'000
At 1 January, as previously reported	2,658	1,808
Effect arising from adoption of MFRS 9	1,716	-
At 1 January, restated	4,374	1,808
Provision for ECL	2,686	850
At 31 December	7,060	2,658

An impairment analysis is performed at each reporting date using a provision matrix to measure expected credit loss ("ECL"). The provision rates are based on days past due for groupings of various licensees segments with similar loss patterns. The calculation reflects the probability-weighted outcome, the time value of money and reasonable and supportable information that is available at the reporting date about past events, current conditions and forecasts of future economic conditions. Generally, fees receivables are written-off if past due for more than one year and are not subject to enforcement activity.

7. FEES AND OTHER RECEIVABLES (CONTD.)

Set out below is the information of the credit risk exposure on the Commission's fees receivables using a provision matrix:

	Average ECL rate %	Gross carrying amount RM'000	Provision for ECL RM'000
1 to 30 days	6%	8,680	559
31 to 60 days	14%	1,291	185
61 to 90 days	29%	709	208
91 to 120 days	45%	150	68
121 to 365 days	60%	2,120	1,279
More than 365 days	100%	4,761	4,761
		17,711	7,060

8. CASH AND CASH EQUIVALENTS

	2018 RM'000	2017 RM'000
Cash and bank balances	19,317	61,317
Deposits placed with licensed banks	49,659	58,607
Cash and cash equivalents	68,976	119,924

The weighted average effective interest rate and the average maturity of the deposits as at 31 December are as follows:

	Weighted average effective interest rate		Average maturity	
	2018 %	2017 %	2018 days	2017 days
Deposits placed with licensed banks	3.10	2.90	3	3

9. ACCUMULATED FUNDS

	2018 RM'000	2017 RM'000
Accumulated surplus brought forward, as previously reported	1,879,133	1,638,342
Effect arising from adoption of MFRS 9	(1,716)	–
Effect arising from adoption of MFRS 15	11,158	–
Accumulated surplus brought forward, as restated	1,888,575	1,638,342
Initial fund	60,000	60,000
Accumulated payments made to the Consolidated Fund pursuant to Section 38(3) of the Malaysian Communications and Multimedia Act 1998 (Act 589)	(1,250,000)	(1,200,000)
(Deficit)/surplus after tax	(64,659)	240,791
	633,916	739,133

The initial fund has been utilised in the previous years to finance the working capital of the Commission.

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FOR THE YEAR ENDED 31 DECEMBER 2018

10. CONTRACT LIABILITIES/DEFERRED INCOME

	2018 RM'000	2017 RM'000
Current		
Spectrum fees		
3G spectrum assignment fees	61,706	79,244
Apparatus assignment fees	151,119	120,798
SA 900 fees	100,887	100,887
SA 1800 fees	112,872	112,872
Operating licence fees		
Class licence fees	204	189
Numbering assignment fees		
Numbering assignment fees	17,155	–
	443,943	413,990
Non-current		
Spectrum fees		
3G spectrum assignment fees	372,002	61,115
Apparatus assignment fees	761	705
SA 900 fees	923,264	995,999
SA 1800 fees	969,252	1,045,320
	2,265,279	2,103,139
Total contract liabilities/deferred income	2,709,222	2,517,129

Contract liabilities/deferred income relates to the amount of unearned income from payments made by licensees that will be recognised in future financial periods.

11. OTHER PAYABLES

	2018 RM'000	2017 RM'000
Sundry payables	22,412	26,220
Accrued expenses	869,513	271,908
Total financial liabilities at amortised cost	891,925	298,128

12. INCOME

Disaggregated income information

Types of services

	2018 RM'000	2017 RM'000
Operating licence fees	126,967	124,660
Spectrum fees	857,004	685,359
Numbering assignment fees	18,637	18,058
	1,002,608	828,077

Timing of revenue recognition

The Commission recognises income over time, with the exception of income from application fees, which is recognised at a point in time.

	2018 RM'000
Services transferred over time	995,580
Services transferred at a point in time	7,028
	1,002,608

Contract balances

(a) Fees receivables

Information relating to trade receivables balances arising from contracts with customers is disclosed in Note 7.

(b) Contract liabilities

The current portion contract liabilities balance as at 1 January 2018 of RM414.0 million was fully recognised as revenue during the year.

(c) Contract assets

Contract assets primarily relate to rights to consideration for operating licensees that should be recognised over the license period but have yet to be billed at the reporting date as invoice is only issued on the anniversary date. Contract assets are transferred to receivables when the rights become unconditional. As at 31 December 2018, the Commission has contract assets of RM12.1 million (2017: nil).

13. OTHER INCOME

	2018 RM'000	2017 RM'000
Licence application fees	–	4,692
Public cellular blocking service fees	–	5,294
Sundry income	15,676	9,098
	15,676	19,084

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FOR THE YEAR ENDED 31 DECEMBER 2018

14. EMPLOYEE BENEFIT EXPENSES

	2018 RM'000	2017 RM'000
Wages, salaries and allowances	77,683	77,875
Social security costs and employee insurance	4,612	3,925
Bonus	6,989	15,848
Defined contributions plan	13,214	13,822
Other staff related expenses	7,297	7,586
	109,795	119,056

Included in the employee benefit expenses are the allowances, expenses and ex-gratia of the Commission Members amounting to RM601,013 (2017: RM738,045).

15. TAX EXPENSE

	2018 RM'000	2017 RM'000
01 Current tax expense		
Current year	30,165	26,963
02 (Over)/underprovision in prior years	(1,488)	62
03 Total income tax expense	28,677	27,025

04 The Commission has been granted tax exemption from Year of Assessment 2000 onwards by the Ministry of Finance under Section 127(3)(b) of the Income Tax Act, 1967. The current tax expense is in respect of interest and rental income not exempted from tax.

05 A reconciliation of income tax expense applicable to (deficit)/surplus before tax at the statutory income tax rate to income tax expense at the effective income tax rate of the Commission is as follows:

	2018 RM'000	2017 RM'000
(Deficit)/surplus before tax	(35,982)	267,816
Income tax calculated using Malaysian tax rate of 24% (2017: 24%)	(8,636)	64,276
Expenses not deductible for tax purposes	283,127	166,011
Income not subject to tax	(244,326)	(203,324)
(Over)/underprovision of income tax expense in prior years	(1,488)	62
07 Total income tax expense	28,677	27,025

16. AUDIT FEES

The Commission's audit fee of RM120,000 (2017: RM130,000) is recognised in the statement of income and expenditure and recognised gains and losses. The Commission also bears the audit fees of the Universal Service Provision Fund amounting to RM60,000 (2017: RM65,000), which is recognised in the said statement.

17. CAPITAL COMMITMENT

	2018 RM'000	2017 RM'000
(a) Property, plant and equipment		
Authorised but not contracted for	86,935	286,951
(b) Operating lease		
Contracted but not provided for	–	84

(c) Non-cancellable operating lease commitments – as lessee

The Commission have entered into operating leases on premises and office space. These non-cancellable leases have remaining lease terms of 2 months to 58 months (2017: 1 month to 39 months).

Future minimum rentals payable under non-cancellable operating leases at the reporting date are as follows:

	2018 RM'000	2017 RM'000
Not later than 1 year	1,996	2,098
Later than 1 year but not later than 5 years	1,218	1,163
	3,214	3,261

(d) Non-cancellable operating lease commitments – as lessor

The Commission have entered into operating leases on its investment properties. These non-cancellable leases remaining lease terms of 3 months to 29 months (2017: 5 months to 32 months).

Future minimum rentals payable under non-cancellable operating leases at the reporting date are as follows:

	2018 RM'000	2017 RM'000
Not later than 1 year	16,867	13,067
Later than 1 year but not later than 5 years	15,435	16,943
	32,302	30,010

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18. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES

The Commission is exposed to financial risks arising from its operations and the use of financial instruments. The key financial risks include interest rate risk (both fair value and cash flow), liquidity risk and credit risk.

The Members of the Commission review and agree policies and procedures for the management of these risks, which are executed by the Chairman. The audit committee provides independent oversight to the effectiveness of the risk management process.

(a) Credit risk

The Commission's credit risk is primarily attributable to fees and other receivables and deposits placed with licensed banks. The maximum credit exposure on trade receivables is limited to the carrying amount of the receivables less provision for expected credit loss.

Details of expected credit loss in relation to fees and other receivables are disclosed in Note 7.

Management has a credit policy in place and the exposure to credit risk is monitored on an ongoing basis. Management has taken reasonable steps to ensure that receivables that are neither past due nor impaired are stated at their realisable values. A significant portion of these receivables are major licensees that have been transacting with the Commission. The Commission uses ageing analysis to monitor the credit quality of the fees receivables. Any receivables having significant balances past due more than 365 days, which are deemed to have higher credit risk, are monitored individually.

The credit risk of the Commission's other financial assets, which comprise of cash and cash equivalents, arises from default of the counterparty, with a maximum exposure equal to the carrying amount of these financial assets.

(b) Liquidity risk

Liquidity risk is the risk that the Commission will not be able to meet its financial obligations as they fall due. The Commission's exposure to liquidity risk arises principally from its various payables.

The Commission maintains a level of cash and cash equivalents deemed adequate by the management to ensure, as far as possible, that it will have sufficient liquidity to meet its liabilities when they fall due.

It is not expected that the cash flows included in the maturity analysis could occur significantly earlier, or at significantly different amount.

Maturity analysis

The financial liabilities of the Commission are all due within the next 12 months from the reporting date.

(c) Interest rate risk

The Commission is exposed to interest rate risk on its deposits placed with licensed banks. The Commission does not transact in any interest rate swaps.

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18. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (CONTD.)

(c) Interest rate risk (contd.)

Exposure to interest rate risk

The interest rate profile of the Commission's significant interest-bearing financial instruments, based on carrying amounts as at the end of the reporting period was:

	2018 RM'000	2017 RM'000
Fixed rate instruments		
Financial assets		
Deposits with licensed banks		
Money market investments	684,659	58,607
Fixed deposits	2,796,471	2,641,304
	3,481,130	2,699,911

Fair value sensitivity analysis for fixed rate instruments

The Commission does not account for any fixed rate financial assets and liabilities at fair value through statement of income and expenditure. Therefore, a change in interest rates at the end of the reporting period would not affect the statement of income and expenditure.

(d) Fair value information

The carrying amounts of other investments, cash and cash equivalents, fees and other receivables and other payables reasonably approximate their fair values due to the relatively short term nature of these financial instruments.

Information regarding the investment properties' fair values are disclosed in Note 4.

19. RELATED PARTIES

Identity of related parties

For the purposes of these financial statements, parties are considered to be related to the Commission if the Commission has the ability, directly or indirectly, to control or jointly control the party or exercise significant influence over the party in making financial and operating decisions, or vice versa, or where the Commission and the party are subject to common control. Related parties may be individuals or other entities.

Related parties also include key management personnel defined as those persons having authority and responsibility for planning, directing and controlling the activities of the Commission either directly or indirectly. The key management personnel includes all the Members of the Commission, and senior management of the Commission.

The Government of Malaysia ("GOM") including those entities controlled, jointly controlled or under significant influence by the GOM are considered as related parties of the Commission. All the transactions processed by the Commission for the GOM-related entities are conducted in the ordinary course of business.

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19. RELATED PARTIES (CONTD.)

Identity of related parties (contd.)

Related party transactions have been entered into the normal course of business. The related party transactions of the Commission during the year are shown below:

	2018 RM'000	2017 RM'000
Payments made under Ministerial Direction(s) (Note a)	140,714	273,979
Payments made to Consolidated Fund pursuant to Section 38(3) Malaysian Communications and Multimedia Commission Act 1998 (Act 589)	50,000	200,000
Key management personnel's compensation (Note b)	5,292	5,746

(a) Payments made under Ministerial Direction(s)

These payments made were in the form of contribution for the following:

	2018 RM'000	2017 RM'000
01 Tablets to teachers	52,644	207,235
02 Communication devices, equipment and application	25,620	10,517
03 Awareness programs	21,300	1,300
04 Content development	10,900	3,100
05 Cybersecurity system	30,000	-
06 Malaysian Fintech Expo 2018	250	-
07 Cybersecurity operations	-	36,827
Digital Free Trade Zone	-	10,000
Malaysia Cybergames	-	4,000
Broadband infrastructure development for Terengganu	-	1,000
	140,714	273,979

(b) Key management personnel compensation

	2018 RM'000	2017 RM'000
Wages, salaries and allowances	3,251	4,061
Bonus	1,257	890
Defined contributions plan	784	795
	5,292	5,746



20. FUND MANAGEMENT POLICY

The primary objective of the Commission's fund management is to ensure that it is able to meet its liabilities as and when it falls due and to achieve its operational objectives.

The Commission manages its accumulated funds by budgeting its funding needs ahead and adjust its expenditures as required. The Commission continuously monitors its budget against actual results and identifies efficiencies in its operations.

No changes were made in the objectives, policies or processes during the years ended 31 December 2018 and 2017.

21. GOODS AND SERVICES TAX REBATES ("GST REBATES") EXPENSES

This relates to the GST Rebates payable to eligible licensees in respect of the provision of prepaid cellular services to the Malaysian citizens which was announced in the Budget 2016 by the Finance Minister then. There was also an announcement made by the latter in 2017 that Malaysian prepaid cellular users will continue to enjoy GST Rebates. The Commission was then directed to pay the GST Rebates claims made by the eligible licensees. Upon clarification and approval of the Commission during the year, the GST Rebates payable will be borne by the Commission in implementing the policy announced in the Budget 2016. In the current year, a provision was made for such rebates for 2017 and 2018 amounting to RM669,429,000 (2017: RM571,000).

22. SPECIAL PROJECTS EXPENSES

The special projects expenses of the Commission during the year are shown below:

	2018	2017
	RM'000	RM'000
Public cellular blocking services fees*	64,863	64,996
Communications services	4,750	–
Corporate social responsibility programs by the then Y.B. Minister	3,679	4,668
Corporate social responsibility programs by the Commission	15	(1)
Contribution to the Creative Content Association Malaysia	1,000	–
Smart community programs	(1,292)	11,142
	73,015	80,805

* These claims are in dispute and currently under Arbitration at the Asian International Arbitration Centre.

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23. LEGAL PROCEEDINGS

(a) Nuemera (M) Sdn Bhd

Nuemera's solicitors has issued a letter of demand ("LOD") dated 19 January 2018 to the Commission demanding the settlement of the outstanding payments of RM57.1 million, under the Public Cellular Blocking Service ("PCBS") Agreement and Term Sheet. The Commission discovered an incident of the leakage of the subscribers' data of telecommunication companies which was made available at Lowyat.net.forum ("Data Breach") on 18 October 2017 and has withheld all payments to Nuemera under the PCBS Agreement and Term Sheet.

Noting the Data Breach which is said to be linked to the data in the PCBS System, the Commission responded to Nuemera via letter dated 26 January 2018 highlighting its concerns in respect of the Data Breach, and also the Commission's stance to suspend the arrangement in respect of the PCBS Agreement and Term Sheet, and the decision to withhold any payment to Nuemera pending the completion of the investigation by Polis Diraja Malaysia ("PDRM") and identification of the party responsible for the breach.

The Commission subsequently via its letter dated 9 February 2018 informed Nuemera that it did not accept Nuemera's position that the Commission is to make payment as demanded in the LOD due to Nuemera's failure to manage the PCBS Solution and the Data Breach, and the Commission is not relying on section 266 of the CMA 1998 (which is regarding the emergency position) but is instead relying on the contractual provisions between the parties.

Nuemera thereafter filed an application at the High Court on 3 April 2018 for an interim injunction to be given in favour of Nuemera following the Commission's act of suspending the arrangement under the PCBS Agreement and Term Sheet, which was dismissed by the High Court on 3 May 2018 with costs of RM10,000.

Nuemera then filed an appeal on 8 May 2018 at the Court of Appeal against the High Court's decision. The matter was fixed for case management on several occasions, the latest being scheduled on 22 April 2019 where Nuemera's request for the appeal heard before the same panel was duly rejected. The Appeal hearing date is scheduled on 3 July 2019.

Nuemera has also served the Commission with a Notice of Arbitration dated 27 February 2018 ("NOA") to resolve the dispute with regards to the outstanding payment. The Commission has responded to Nuemera's NOA by filing its response on 14 August 2018 with the Asian International Arbitration Centre (KL).

The oral hearing has been fixed by the Asian International Arbitration Centre (KL) from 24-27 February 2020 and from 2-5 March 2020.

As of the reporting date, the Commission has accrued for the cost of services received, pending outcome of the NOA.

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