



**Suruhanjaya Komunikasi dan Multimedia Malaysia**  
Malaysian Communications and Multimedia Commission

**COMMUNICATIONS AND MULTIMEDIA ACT 1998**

**COMMISSION DETERMINATION ON THE MANDATORY STANDARDS  
FOR QUALITY OF SERVICE (PUBLIC CELLULAR SERVICE)**

**DETERMINATION NO. 1 OF 2015**

Pursuant to the Ministerial Direction on Quality of Service, Direction No. 1 of 2002, and in exercise of the powers conferred by sections 55, 56 and 104(2) and 106 of the Communications and Multimedia Act 1998 [Act 588], the Commission hereby determines as follows:

**Citation and commencement**

- 1 This Determination may be cited as the **Commission Determination on the Mandatory Standards for Quality of Service (Public Cellular Service), Determination No. 1 of 2015**.
- 2 This Determination shall come into operation on 1 January 2016.

**Interpretation**

- 3 For the purpose of this Determination, unless the context otherwise requires,
  - (i) any term used in this Determination shall have the same meaning as in the Act or the regulations made under it;
  - (ii) words in the singular include plural and vice versa; and
  - (iii) the following terms used in this Determination shall have the stated meaning:

“ASP” means Applications Service Provider;

“business day” means a day in which commercial banks in the respective states in Malaysia are normally open for business, and excludes Gazetted public holidays;

“complaint” means any verbal or written expression of dissatisfaction by customer to service provider regarding the service provider’s service and product, which requires action by the service provider to address the issues raised. A request by customer for information or advice or an inquiry seeking clarification will not be classified as a complaint. However, if no or inadequate action is taken by the service provider on a request for information or advice or inquiry seeking clarification, the subsequent follow up to the service provider would be classified as a complaint;

“customer” means a person who, for consideration, acquires or subscribes to the public cellular service;

“designated routes and areas” means those routes and areas as specified by the Commission in the guidelines;

“end user” means a person who receives, requires, acquires, uses or subscribes to the public cellular service and may include a customer;

“guidelines” means a guidelines issued by the Commission pursuant to paragraph 8 of the Commission Determination on the Mandatory Standards for Quality of Service (Public Cellular Service);

“mobile switching centre” (MSC) means the switching centre that performs all the switching needed for public cellular service located in an associated geographical area;

“reporting period” means the calendar quarters ending 31 March, 30 June, 30 September and 31 December;

“resolved” in relation to a complaint means that the complaint was addressed and the problem was rectified; and

“public cellular service” means an applications service involving a network of base stations or cells for the delivery of voice and data communications.

#### **Licensees subject to these mandatory standards**

- 4 All ASPs providing public cellular service are subject to these mandatory standards. ASPs should ensure that other providers who can affect the quality of service provided

by the ASPs are bound by a service level agreement which enables the ASPs to meet these standards.

**Obligation to maintain Quality of Service records**

- 5 The relevant ASPs shall maintain complete and accurate performance records of all Quality of Service indicators stated in this Mandatory Standards.

**Quality of Service Performance Report Submission**

- 6 Quality of Service performance reports shall be submitted to the Commission no later than 30 days from the end of every quarterly reporting period. These reports shall be in the form and format as may be prescribed by the Commission from time to time. Each report shall be accompanied by a declaration signed by an officer of the service provider duly authorised by the board of directors, stating that each report is true and accurate.

**Audit and verification**

- 7 The Commission may from time to time conduct audits on the reports submitted, perform test calls or make service observations to verify ASPs' compliance with these mandatory standards.

**Applicable Guidelines**

- 8 The Commission may at any time issue guidelines on matters including, but not limited to, the testing procedures, examples of computations, reporting templates, explanatory notes and list of designated routes and areas in respect of any provision in this Determination.

**Network Performance Quality of Service**

	<b>Quality of Service Indicator</b>	<b>Description / Definition / Formula / Measurement / Reporting Requirement</b>	<b>Quality of Service Standard</b>
i.	Call setup success rate (CSSR)	Call setup success rate measures the percentage of calls successfully established between two cellular mobile	Call setup success rate must be not less than 95.0%, for intra-network

	Quality of Service Indicator	Description / Definition / Formula / Measurement / Reporting Requirement	Quality of Service Standard
		<p>devices which enable communication to proceed.</p> <p>Formula:</p> $\frac{\text{Number of successful call attempts}}{\text{Number of call attempts}} \times 100\%$ <p>Intra-network call means a call connection within the network service of the same provider.</p> <p>Inter-network call means a call connection between the network services of two providers.</p>	or inter-network calls.
ii.	Dropped call rate (DCR)	<p>A dropped call means a call where a connection succeeds (i.e. the network is accessed and set up is successful) but is disconnected due to abnormal call release. An abnormal call release occurs when the call is terminated other than by the command from the calling party or the called party.</p> <p>Formula:</p> $\frac{\text{Number of dropped calls}}{\text{Number of successful call attempts}} \times 100\%$	<p>The dropped call rate for Designated Routes and Areas must be not more than 2.0%, for intra-network or inter-network calls; and</p> <p>The dropped call rate for areas other than Designated Routes and Areas must be not more than 3.0%, for intra-network or inter-network calls.</p>
iii.	Advance notice of scheduled downtime	Service provider is required to inform customers and the Commission in advance in respect of any network service downtime planned and	Every session of scheduled downtime due to occur in a quarterly reporting period must be

	Quality of Service Indicator	Description / Definition / Formula / Measurement / Reporting Requirement	Quality of Service Standard
		<p>scheduled by the service provider for the purposes of maintenance and upgrading of the network.</p>	<p>notified to customers not less than 24 hours in advance; and</p> <p>Every session of scheduled downtime due to occur in a quarterly reporting period must be notified to the Commission in writing not less than 72 hours in advance.</p>
iv.	Service Disruption	<p>Service disruption means any unplanned interruption of the services that a customer subscribes to which does not include disruption of service from scheduled downtime. Service provider shall notify customers as soon as practicable in respect of any service disruption incident.</p> <p>A service provider is considered to have breached the service disruption standard where a Mobile Switching Centre (MSC) is out of service for 30 minutes or longer. A MSC is out of service when it is unable to perform the functions for which it is intended.</p> <p>If more than one Mobile Switching Centre is out of service for 30 minutes or longer in a quarterly reporting period, each and every one of such incidents are regarded as separate breaches of this standard.</p> <p>In the event a Mobile Switching Centre is out of service for 30 minutes or longer, the service provider must submit a comprehensive report to the Commission within 7 business days of the incident.</p>	<p>Any Mobile Switching Centre (MSC) must not be out of service for 30 minutes or longer.</p> <p>The service provider must notify the Commission within 60 minutes of any single service disruption incident that involves a Mobile Switching Centre (MSC) being out of service for any duration.</p> <p>The service provider must submit a comprehensive report to the Commission within 7 business days of the occurrence of any single service disruption incident that involves a Mobile Switching Centre (MSC) being out of service for 30 minutes or longer.</p>

**Customer Service Quality of Service**

	Quality of Service Indicator	Description / Definition / Formula / Measurement / Reporting Requirement	Quality of Service Standard
i.	Percentage of billing related complaints	<p>This indicator measures the percentage of billing related complaints to the number of customers per reporting period.</p> <p>A billing related complaint is any complaint related to the service provider's billing made or charges imposed on customers including, but is not limited to, complaints regarding payments made and wrongly credited or not credited, non-refund of deposits, late billing, non-receipt of bills, fraud, wrongly addressed bills and other billing errors. Bills issued by a service provider may include, but are not limited to, bills sent by postal service, email or accessible online by customer. Billings of pre-paid and post-paid services are included for this indicator.</p> <p>Formula:</p> $\frac{\text{Total number of billing related complaints received in the reporting period}}{\text{Total number of active customers at the end of the reporting period}} \times 100\%$	Percentage of billing related complaints must not be more than 1.0% per quarterly reporting period.
ii.	Non-billing related complaints per 1,000 customers	<p>This indicator measures the percentage of non-billing related complaints per 1,000 customers per reporting period.</p> <p>Non-billing related complaint means any complaint other than billing related complaint. It includes, but is not limited</p>	Non-billing related complaints must not be more than 6.0 complaints per 1,000 customers per quarterly reporting period.

	Quality of Service Indicator	Description / Definition / Formula / Measurement / Reporting Requirement	Quality of Service Standard
		<p>to, complaints received on service matters including late or no service activation after a report has been made, unprofessional staff or contractors and other complaints related to customer service.</p> <p>Formula:</p> $\frac{\text{Total number of non – billing related complaints received in the reporting period}}{\text{Total number of active customers at the end of the reporting period}} \times 1000$	
iii.	Promptness in resolving customer complaints	<p>This indicator measures the percentage of customer complaints resolved by the service provider within specified timeframes, measured from the day the complaint was received to the time the complaint was resolved.</p> <p>Formula:</p> $\frac{\text{Total number of complaints resolved within the specific timeframe}}{\text{Total number of complaints received within the reporting period}} \times 100\%$ <p>This Quality of Service indicator is to be separately measured and reported for</p>	<p>The standard on promptness in resolving customer complaints, separately measured for billing related complaints and non-billing related complaints, for every quarterly reporting period is:</p> <p>Not less than 60.0% must be resolved within 3 business days;</p> <p>Not less than 90.0% must be resolved within 5 business days; and</p> <p>Not less than 95.0% must be resolved within 15 business days.</p>

	Quality of Service Indicator	Description / Definition / Formula / Measurement / Reporting Requirement	Quality of Service Standard
		<p>billing related complaints and non-billing related complaints, where the same Quality of Service standard is applicable for both categories of complaints.</p> <p>Unresolved complaints due to the following reasons are excluded from the computation:</p> <p>(a) Damage to network facility due to force majeure or by third parties;</p> <p>(b) Customer premises inaccessible; or</p> <p>(c) Faulty Customer Premise Equipment (CPE), customer infrastructure or internal wiring.</p> <p>The Commission shall determine whether the service provider has taken steps to address the complaint and whether it is reasonable to conclude that such steps have addressed the dissatisfaction of the complainant.</p> <p>The service provider is required to inform customers of their right to refer any unresolved complaint to the Consumer Forum of Malaysia (CFM).</p>	
iv.	Promptness in answering calls to Customer Hotline	<p>This indicator measures the service provider's promptness in answering customer phone calls to the Customer Hotline, from the time when the customer presses the button opting for a human operator to the time it is answered by a human operator. The duration when the call is attended to by the interactive voice response system (IVRS) before being transferred to a human operator's phone is excluded.</p>	<p>At least 80.0% of calls to a Customer Hotline that opted for human operator in a quarterly reporting period must be answered within 20 seconds; and</p> <p>At least 90.0% of calls to a Customer Hotline that opted for human operator in a quarterly reporting period must be answered within 40 seconds.</p>



	Quality of Service Indicator	Description / Definition / Formula / Measurement / Reporting Requirement	Quality of Service Standard
		Formula:  $\frac{\text{Number of calls answered by human operator within the specific timeframe}}{\text{Total number of calls to Customer Hotline opting for human operator assistance in the reporting period}} \times 100\%$	

**Revocation**

- 9 The Commission Determination on the Mandatory Standards for Quality of Service (Public Cellular Service), Determination No 2 of 2002 and the Variation to Commission Determination on the Mandatory Standards for Quality of Service (Public Cellular Service) (Determination No. 2 of 2002), Determination No. 1 of 2013 shall be revoked with effect from 1 January 2016.

Made: \ July 2015



DATO' SRI DR. HALIM SHAFIE  
 Chairman  
 Malaysian Communications and Multimedia Commission