

# **Suruhanjaya Komunikasi dan Multimedia Malaysia**

*Malaysian Communications and Multimedia Commission*

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**COMMUNICATIONS AND MULTIMEDIA ACT 1998**  
**COMMISSION DETERMINATION ON THE MANDATORY STANDARDS FOR**  
**QUALITY OF SERVICE**  
**(PUBLIC SWITCHED TELEPHONE NETWORK SERVICE)**  
**DETERMINATION No.1 of 2002**

Pursuant to the Ministerial Direction on Quality of Service, Direction No. 1 of 2002, and in exercise of the powers conferred by sections 55 and 104(2) 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 Switched Telephone Network Service), Determination No. 1 of 2002.**
2. This Determination shall come into operation on 1 January 2003.

#### **Interpretation**

3. In this Determination unless the context otherwise requires:

"ASP" means an applications service provider;

"business day" means a day other than the weekly rest day, the day before the weekly rest day and a public holiday;

"busy hour" means any hour in a busy period;

"busy period" means the period between 9 a.m. to 12 p.m. and 2 p.m. to 5 p.m. on a business day;

"consumer" means a person who receives, requires, acquires, uses or subscribes to communications and multimedia services and includes a customer;

"customer" means a person who, for consideration, acquires or subscribes to the PSTN service;

"direct exchange lines" means the number of main telephone lines in operation (including suspended customer lines) connecting the customer equipment to a dedicated port of a PSTN switching centre;

"inter network call connection" means a call interconnection between the network service of two providers;

"intra network call connection" means a call connection within the network service of one provider;

"point of interconnect" means a point at which the network facilities and network services of two providers connect enabling communication to proceed;

"PSTN" means public switched telephone network which is an applications service involving a public circuit switched voice grade interface for delivery of voice and data communications.

4. Any term used in this Determination shall, unless the context otherwise requires, have the same meaning as in the Act or the regulations made under it.

5. Unless the context otherwise requires, words in the singular include the plural and vice versa.

#### **Licencees subject to these mandatory standards**

6. All ASPs providing PSTN shall be subject to these mandatory standards. ASPs are advised to ensure that other service providers who can affect the quality of service provided by the ASPs are bound by service level agreements which enable the ASPs to meet the standards.

#### **Standards on billing performance**

7. Billing performance means the integrity and reliability of the billing system as shown in billing accuracy and timeliness in resolving billing disputes, which will be reflected in the number of billing complaints. Billing complaints include payments made and wrongly credited or not credited, double charges, non-refund of deposits, late bills, non-receipt of bills, fraud, wrongly addressed bills and other billing errors.

8. The percentage of billing complaints in any one billing period shall not exceed 2% of the total number of bills issued during that billing period. For this purpose all billing complaints on one bill shall be taken as one complaint.

9. Billing complaints shall be resolved within the following time frames:

- (a) 90% of billing complaints shall be resolved within 15 business days of receipt of the complaint; and
- (b) 95% of billing complaints shall be resolved within 30 business days of receipt of the complaint.

10. The measurement is described by the ratio:

$$\frac{\text{Total number of billing complaints for a billing period} \times 100}{\text{Total number of bills issued over the billing period}}$$

11. Complete and accurate records of billing complaints shall be maintained. Such 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 the report is true and accurate. These reports shall be submitted to the Commission not later than six weeks after 30 June for reporting period January to June, and 31 December for reporting period July to December respectively.

#### **Standards on fulfilment of installation orders**

12. Fulfilment of installation orders means the time taken from the signing of the agreement for services on-line or at the ASP's business outlet to the time when the service is provided. This standard applies also in a situation where a customer moves his place of business or residence and wishes to utilise the same telephone number.

13. Installation orders shall be fulfilled in the following time frames:

- (a) 80% of all installation orders shall be fulfilled within 24 hours of receipt of the order; and
- (b) 90% of all installation orders shall be fulfilled within 48 hours of receipt of the order.

Notwithstanding the above 100% of installation orders shall be fulfilled within 7 business days.

14. The measurement is described by the ratio:

$$\frac{\text{Total number of installation orders met within a 12 month period} \times 100}{\text{Total number of installation orders for the 12 month period}}$$

15. When measuring the time taken to fulfil installation orders, installation orders not fulfilled within the requisite time due to the following reasons, may be excluded from the total number of installation orders for the 12 month period:

- (a) Wrong address given by the customer;
- (b) Damage to network facility due to force majeure;
- (c) Damage to network facility by third parties;
- (d) Customer premises inaccessible;
- (e) Customer premises internal wiring not ready at the committed or agreed time;
- (f) Customer cancels or defers agreed appointment; or
- (g) Network facility not available.

16. Complete and accurate records of installation orders shall be maintained. Such 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 the report is true and accurate. These reports shall be submitted to the Commission not later than six weeks after 30 June for reporting period January to June, and 31 December for reporting period July to December respectively.

#### **Standard on general customer complaint handling**

17. General customer complaint means any complaint received on service matters including late or no service restoration after a report has been made, poor line quality, unprofessional staff or contractors and other complaints related to customer services.

18. The number of general customer complaints shall not exceed 50 complaints per 1000 lines in a 12 month period.

19. The measurement is described by the ratio:

$$\frac{\text{Total number of complaints received over a 12 month period} \times 1000}{\text{Total number of direct exchange lines at the end of the reporting period}}$$

20. Complete and accurate records of all customer complaints shall be maintained. Such 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 the report is true and accurate. These reports shall be submitted to the Commission not later than six weeks after 30 June for reporting period January to June, and 31 December for reporting period July to December respectively.

#### **Standard on intra network call connection loss**

21. Intra network call connection loss means calls lost while trying to get through from an originating or trunk switch, to a terminating switch with a different trunk code within the network service of the same provider, due to network congestion or technical faults (excluding total network breakdown).

Not more than 6% of all intra network calls shall be lost calls

23. The measurement may be based on test call sampling or service observation, both of which are to be done during a busy hour. For the test call sampling method, the minimum sample size shall be 30 test calls per trunk code area. The maximum interval between two test calls shall be two minutes.

The measurement is described by the ratio:

$$\frac{\text{Number of lost calls} \times 100}{\text{Total number of calls sampled/ observed during a busy hour}}$$

#### **Standard on inter network call connection loss**

25. Inter network call connection loss means domestic calls lost while trying to get through a network from an originating point of interconnect to a terminating switch with a

different trunk code in the network service of a different provider due to network congestion or technical faults (excluding total network breakdown).

26. Not more than 6% of all inter network calls shall be lost calls.

27. The measurement may be based on test call sampling or service observation, both of which are to be done during a busy hour. For the test call sampling method, the minimum sample size shall be 30 test calls per trunk code area. The maximum interval between two test calls shall be two minutes.

28. The measurement is described by the ratio:

$$\frac{\text{Number of lost calls} \times 100}{\text{Total number of calls sampled/ observed during a busy hour}}$$

**Standard on operator speed of answer**

29. Operator speed of answer means the speed in which a call is answered by the ASP's telephonist for emergency services.

30. The operator speed of answer shall be as follows:

- (a) 90% of all operator assisted calls for emergency services shall be answered in not more than 10 seconds; and
- (b) 100% of all operator assisted calls for emergency services shall be answered in not more than 20 seconds.

31. The measurement is described by the ratio:

$$\frac{\text{Emergency calls answered within the time frame} \times 100}{\text{Total number of emergency calls received by the operator during the test period}}$$

32. In any one busy hour, less than 1% of calls to the operator should encounter a busy signal.

33. The measurement is described by the ratio:

$$\frac{\text{Calls which encounter a busy signal during a busy hour} \times 100}{\text{Total number of calls during the busy hour}}$$

34. The measurement may be based on test call sampling or service observation over any two consecutive hours on any day. For the test call sampling method, the minimum sample size shall be 30 test calls. The maximum interval between two test s shall be two minutes.

**Standard on inter network post dialling delay**

35. Post dialling delay means the interval between the time a customer completes dialling a domestic destination number from an originating point of interconnect to a terminating switch with a different trunk code in the network service of a different provider, and the time a customer receives a network service response.

36. Inter network call connection post dialling delay for 95% of calls attempted should be less than 13 seconds.

37. The measurement may be based on test call sampling or service observation, both of which are to be done during a busy hour. For the test call sampling method, the minimum sample size shall be 30 test calls per trunk code area. The maximum interval between two test calls shall be two minutes.

#### **Standard on intra network post dialling delay**

38. Post dialling delay means the interval between the time the customer completes dialling a domestic destination number from an originating or trunk switch, to a terminating switch with a different trunk code within the network service of the same provider, and the time the customer receives a network service response.

39. Intra network call connection post dialling delay for 95% of calls attempted should be less than 10 seconds.

40. The measurement may be based on test call sampling or service observation, both of which are to be done during a busy hour. For the test call sampling method, the minimum sample size shall be 30 test calls per trunk code area. The maximum interval between two test calls shall be two minutes

#### **Standard on service restoration performance**

41. Service restoration performance means the time taken to restore a service from the time the fault was reported by the customer to the time of restoration. The restoration time is calculated from the time of report to the time of restoration, including weekends and public holidays.

42. Service restoration shall be effected within the following time frames:

- (a) 80% of all service restoration requests shall be fulfilled within 24 hours of receipt of request; and
- (b) 90% of all service restoration requests shall be fulfilled within 48 hours of receipt of request.

43. The measurement is described by the ratio:

$$\frac{\text{Total number of service requests fulfilled within the time frame} \times 100}{\text{Total number of service requests received over a 12 month period}}$$

44. When measuring the time taken to restore service, service not restored within the requisite time due to the following reasons, may be excluded from the total number of service restoration requests received over the 12 month period:

- (a) Faulty customer equipment;
- (b) Network facility damage due to third parties;
- (c) Fault due to other service providers;
- (d) Customer premises inaccessible;
- (e) Damage to network facility due to force majeure;

- (f) Faulty customer infrastructure or internal wiring; and
- (g) Deferment of service restoration request by customers.

45. Complete and accurate records of all service restoration requests shall be maintained. Such 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 the report is true and accurate. These reports shall be submitted to the Commission not later than six weeks after 30 June for reporting period January to June, and 31 December for reporting period July to December respectively.

#### **Standard on service trouble report rate**

46. Service trouble report means complaints of faults on the PSTN service by customers.

47. The number of service trouble reports for every 1000 lines shall not exceed 500 reports over a 12 month period.

48. The measurement is described by the ratio:

$$\frac{\text{Total number of service trouble reports over a 12 month period} \times 1000}{\text{Total number of direct exchange lines at the end of the 12 month period}}$$

49. When measuring the service trouble report rate, service trouble reports due to the following reasons, may be excluded from the total number of service trouble reports received over the 12 month period:

- (a) Trouble with customer equipment or internal wiring;
- (b) Cable cuts not due to service provider;
- (c) Faults due to other service providers;
- (d) Calls received which are not a service trouble report.

50. Complete and accurate records of all service trouble reports shall be maintained. Such 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 the report is true and accurate. These reports shall be submitted to the Commission not later than six weeks after 30 June for reporting period January to June, and 31 December for reporting period July to December respectively.


#### **Audit and verification**

51. The Commission may from time to time conduct an audit on the report(s) submitted, perform test call sampling and/or service observation to verify compliance with these mandatory standards.

**Revocation**

52. The Telecommunications Regulatory Framework For Service Quality in the Fixed Telephone Service, REG-Q 002 is revoked.

Made 28 June 2002



TAN SRI NURAIZAH ABDUL HAMID  
*Chairman*  
*Malaysian Communications and Multimedia  
Commission*