



**MALAYSIAN COMMUNICATIONS AND
MULTIMEDIA COMMISSION**

**RECORD KEEPING RULES FOR THE
COMMUNICATIONS AND MULTIMEDIA
SECTOR**

PUBLIC CONSULTATION PAPER

August 2003

RECORD KEEPING RULES FOR THE COMMUNICATIONS AND MULTIMEDIA SECTOR

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MALAYSIAN COMMUNICATIONS AND MULTIMEDIA COMMISSION

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-PUBLIC CONSULTATION PAPER-

Preface

1. The Minister of Energy, Communications and Multimedia proposes to make record-keeping rules (RKR) in accordance with section 268 of the *Communications and Multimedia Act 1998* (the Act) which reads:

The Minister may make rules, to be published in the Gazette, to provide for record-keeping and to require one or more licensees or persons to keep and retain records

2. Under RKR the Minister would require holders of all licences issued by the Malaysian Communications and Multimedia Commission (MCMC) by virtue of Part IV of the Act as well as any person who holds a spectrum, apparatus or class assignment issued under Part VII Chapter 1 of the Act; to record a set of core information that they must retain for reporting to the MCMC on a specified basis. This set of core information appears as a schedule of records to be provided by licensees in the RKR.

3. In pursuance of the consultative process, industry workshops are scheduled for the various licensees according to type of licence held and type of service provided. You and/or your representative(s) of such stature as to be able to make decisions and speak for the company are invited to participate in the said workshops.

4. The Industry workshops will focus on the following:

- Background and objectives of the RKR
- Issues
- The RKR
- The schedule of records to be kept

5. In these workshops, MCMC welcomes feedback from interested parties with regard to the provisions of the subsidiary legislation. Specifically, it seeks views on the proposed schedule of records that are to be kept. The issues contained in this paper are not intended to limit comment on other issues considered relevant to the development of RKR's, rather, the intention of this paper is to stimulate consideration of the issues associated with identifying and developing RKR's.

6. These and the comments received on issues raised will assist the MCMC in deciding whether to go ahead with the RKR's and, if so, what form the RKR's may take in order to meet the MCMC's and industry's needs.

Background and objectives of the RKR

1. The development of RKR is closely associated with the mandate of the MCMC to develop and regulate the communications and multimedia industry in Malaysia overseeing continuing expansion of the industry and consolidation of competition in the industry. In an increasingly competitive environment it is imperative that regulator has access to reliable and comparable information on industry performance. One potential mechanism supporting the achievement of this mandate is to oblige licensees to record, retain and report data to the MCMC in relation to core elements of the industry and of service provision.

2. Through subsequently making selected data available in the public domain, while being mindful of data confidentiality concerns of the licensees, the MCMC can substantially

- assist the process of informed consumer choice on service provision;
- assist the formulation of telecommunications policy for regional, state and national planning as Malaysia moves forward to achieve developed nation status in 2020;
- benchmark against other countries as we strive towards attaining the Global hub status as enunciated in the Ten National Policy Objectives;
- assist in planning for the economic and social well-being of Malaysia and quality of life for Malaysians;
- assist in and enable a broader analysis of competitive trends and outcomes in the telecommunications industry.
- assist in identifying and measuring USP/CCDP objectives.
- assist industry players themselves who might find these data useful in charting their strategies.

3. The MCMC reports on various aspects of the performance of the industry in its annual *Industry Performance Report*. This report is in accordance with the provisions of Chapter 15 Part V of the Act and gives an overview of the performance of not just the various industry players from economic, technical, social and quality perspectives but also provide an overview of the advancements made by the MCMC in the implementation of the CMA. Additionally, the MCMC publishes the quarterly *Communications and Multimedia, Selected Facts and Figures*. The MCMC routinely asks licensees to provide data to enable it to report on the matters contained in these reports.

4. Historically, some licensees have encountered difficulties in providing the requested data to the MCMC in the required format and within the requested timeframes. The establishment of RKR could assist licensees by codifying the core data requirements associated with these reports. Codification of core reporting requirements should enable better forward planning and minimise

discussion and negotiation time between licensees and the MCMC when data is required, which would also benefit the MCMC. The development of RKR's would therefore provide a clear direction to industry on the core information it must maintain to fulfil its reporting responsibilities to the MCMC.

Issues

The MCMC has identified a number of issues that relate directly to record keeping and seeks the views of the licensees on these issues as appear below. Views may be submitted either in softcopy or hardcopy. Softcopies should be in MS Word format and must be emailed to rkr@cmc.gov.my while hardcopies must be addressed to:

Malaysian Communications and Multimedia Commission
Level 11, Menara Dato' Onn, PWTC
45, Jalan Tun Ismail
50480 Kuala Lumpur

marked "Record Keeping Rules" in the top left hand corner of the envelope.

The issues are as follows:-

Development and amendment of RKR

1. It is expected that following any implementation of an initial RKR framework the MCMC may need to specify new RKR or need to amend existing RKR. In such a circumstance, were the MCMC to consider that a new RKR needs to be developed or an existing RKR requires amendment, it is proposed that the following process be followed:

- the MCMC will draft the amendment to the RKR instrument;
- the draft amendment to the instrument will be released for public consultation, including information on the proposed date that the new or amended RKR will come into effect;
- the MCMC will finalise the amendment, paying due regard to comments received; and
- the MCMC will nominate the date the new or amended RKR will come into effect.

Question

- Do you consider the proposed procedure for the implementation of new or modification of existing RKR to be adequate?
- If not, how do you think it should be done and why?

Stock data

2. Stock data refer to data as at a particular date as opposed to flow data which refers to a particular period such as a month, quarter or year. It is envisaged that stock data, in particular pertaining to subscriber bases will be required in some detail to fill data needs of economic planning and studies at state level often requiring inputs at sub-state levels. To provide meaningful data to meet these ends, necessitates the reworking of existing subscriber bases, to give breakdowns by age, gender, state and district for instance. It is important that this issue be resolved as it would otherwise result in

- inability to report at worst or
- data of value so diminished as to render it unusable

This however may not be as onerous as it seems as new ID numbers implemented by the National Registration Department have some of these details encoded.

Question

- Do you see any problem in reworking existing subscriber bases so that they may be reported as per RKR specifications?
- How long do you think it will take to carry out this exercise so that the existing customer bases conform to RKR specifications?
- Can you provide any indication as to the costs that will be incurred?

Implementation schedule

3. Should the MCMC proceed with the development of RKRs, it is anticipated that the RKR instrument will be finalised by August 2003. The instrument will specify the commencement date of each RKR. If developed, the majority of RKRs proposed in this document would come into effect from 1 October 2003. It is anticipated that reporting would commence for the December 2003 quarter (1 October 2003 to 31 December 2003).

Question

- In so far as your company is concerned, do you think that you could be ready by 1 October 2003 to commence keeping records as stipulated in the RKRs?
- Will it be easier to comply for some records and harder for other records?
- Should a staggered approach be adopted?
- If so, which are the records that can be kept with immediate effect and which are the records that need to be staggered and what are the timelines proposed?

Format of records and delivery

4. The required format of reports provided from data recorded under the RKR will be specified by MCMC in the form of guidelines. The format although not included for the present discussion is not expected to present a problem in so far as its completion is concerned especially with the enforcement of the RKRs. It is anticipated that data will generally be required in either Microsoft Word 97 or Microsoft Excel 97 format.

5. The MCMC may also require licensees to make available online to the MCMC the records kept under these rules through a secure system

Question

- Would your organization have any problem with the method of submission suggested above?
- If an online submission is to be subsequently proposed, what aspects would be of greatest concern to you and why?

How regularly will records need to submitted?

6. Should the MCMC proceed with RKRs, it is anticipated that the certain data would need to be reported on a monthly basis while others on a quarterly basis or an annual basis.

7. It is proposed that

- data relating to a particular month be provided to the MCMC within one week of the end of the month.
- data relating to a particular quarter would be provided to the MCMC within 3 weeks of the end of the quarter
- data relating to a particular year would be provided to the MCMC within six weeks following the end of the financial year.

Question

What do you think on the the proposed regularity of reporting?

Which are the records that you think can be reported on a monthly, quarterly or annual basis?

Do you think the proposed timeframe for provisioning of data following the end of a relevant month, quarter or year is achievable?

How long will data need to be retained?

8. The MCMC envisages that each record for each month, quarter and year be retained for two years from the end of the relevant reporting period.

Question.

- Will this stipulation impose a strain on your system resources?

The RKR

1. The RKR instrument appears below

COMMUNICATION AND MULTIMEDIA ACT 1998

COMMUNICATIONS AND MULTIMEDIA (RECORD KEEPING)

RULES 2003

IN exercise of the powers conferred by section 268 of the Communications and Multimedia Act 1998 [Act 588], the Minister makes the following rules:-

Citation and Commencement

1. (1) These rules may be cited as the Communications and Multimedia (Record Keeping) Rules 2003.
- (2) These Rules shall come into operation on

Interpretation

2. In these Rules, unless the context otherwise requires-

“record” includes, in addition to a record in writing—

- (a) any photograph;
- (b) any disc, tape, sound-track or other device in which data or voice are embodied so as to be capable of being reproduced (with or without the aid of some other instrument); and
- (c) any film, disc, tape or other device in which visual images are embodied so as to be capable of being reproduced (with or without the aid of some other instrument).

“writing” includes typewriting, printing, lithography, photography, electronic storage or transmission or any other method of recording information or fixing information in a form capable of being preserved.

Application

3. SUBJECT TO SUCH EXEMPTIONS AS MAY BE DETERMINED BY THE MINISTER ACCORDING TO RULE 4 BELOW, THESE RULES SHALL APPLY TO—

- (a) any licensee licensed under the Act; and
- (b) any person who holds a spectrum or apparatus assignment issued under the Act.

Exemption

- 4. (1) A licensee or person may apply to the Minister for:
 - (a) an exemption from complying with these Rules;
 - (b) an exemption from complying with certain provisions of these Rules; or
 - (c) a variation of an existing exemption;in relation to any service provided by the licensee or person.
- (2) The Minister must decide whether to grant the exemption requested, and must inform the licensee or person in writing of his decision.
- (3) The Minister may notify in writing a licensee or person in relation to whom an exemption applies that he is of the opinion that circumstances relevant to the granting of the exemption may have changed and that the exemption is to be revoked.
- (4) The decision of the Minister in relation to sub-rule (2) and sub-rule (3) is final.

Records to be kept

- 5. The following records are to be kept and retained and provided to the Commission under these Rules–
 - (a) Records as set out in the Schedule; and
 - (b) Such other record that the Minister may require in writing.

Commission to publish guidelines

- 6. (1) The Commission may publish guidelines pertaining to the manner and form in which the records are to be kept.
- (2) The guidelines may specify the, the following-
 - (a) the general appearance of the Record;
 - (b) the definition of a particular record;

- (c) the length of time a particular record must be kept;
- (d) the update or review cycle applicable for any particular record;
- (e) clarification of any issues arising from these rules; and
- (f) any other matters which the Commission is satisfied are relevant.

Offence

7. ANY PERSON WHO FAILS TO COMPLY WITH THESE RECORD KEEPING RULES COMMITS AN OFFENCE AND SHALL ON CONVICTION BE LIABLE TO A FINE NOT EXCEEDING ONE HUNDRED THOUSAND RINGGIT OR TO IMPRISONMENT FOR A TERM NOT EXCEEDING SIX MONTHS OR BOTH.

MCMC would like to have your considered opinion on the ramifications of the above subsidiary legislation and welcomes comments and suggestions

The schedule of records to be kept

1. The schedule to the RKR as presented here has been rearranged for the purposes of this discussion paper. The original form is a part of and should be read together with the Record Keeping Rules.

For each numbered item appearing below please give your views with particular regard to any difficulty in recording, that you anticipate, confidentiality concerns, as well as any other relevant remarks

Schedule

{ Rule 4(a) }

WHERE APPLICABLE, THE FOLLOWING RECORDS ARE TO BE KEPT UNDER THESE RULES-

NFP / NSP

1. Network facilities

- 1.1. Trunk fiber optic cables and ducting:
 - 1.1.1. Longitude & latitude of starting point of cable
 - 1.1.2. Longitude & latitude of ending point of cable
 - 1.1.3. Distance in km
 - 1.1.4. Cable type
 - 1.1.5. Total cores
 - 1.1.6. Spare cores
 - 1.1.7. Total duct/sub duct
 - 1.1.8. Spare duct/sub duct

- 1.2. For each Switches stations:
 - 1.2.1. Switch station identification
 - 1.2.2. Detailed address of location
 - 1.2.3. Building type
 - 1.2.4. Switch type
 - 1.2.5. Longitude & latitude (in degrees, minutes and seconds)
 - 1.2.6. Line capacity for each switch

- 1.3. For each trunk microwave stations:
 - 1.3.1. Microwave station identification
 - 1.3.2. Detailed address of location
 - 1.3.3. Building type
 - 1.3.4. Longitude & latitude (in degrees, minutes and seconds)
 - 1.3.5. Site Elevation in meters above sea level
 - 1.3.6. Microwave station height in meters

- 1.4. Base stations of mobile network
 - 1.4.1. Site identification
 - 1.4.2. Detailed address of location
 - 1.4.3. Longitude & latitude (in degree, minute, second)
 - 1.4.4. Sharing arrangement
 - 1.4.5. Structure type
 - 1.4.6. Structure height in meters
 - 1.4.7. Building height in meters (if rooftop structure)
 - 1.4.8. Local authority permit number
 - 1.4.9. Line capacity for each stations

2. Autonomous System Numbers (ASNs) and Peering Information

- 2.1. Autonomous System Numbers (ASNs) allocated by APNIC to licensees
- 2.2. The ASNs of local peering partners.
- 2.3. The ASNs of international peering partners.
- 2.4. The identity of upstream connectivity provider for ASNs.
- 2.5. The bandwidth of each ASN connectivity arrangements.

3. IP Address

- 3.1. IPv4
 - 3.1.1. IPv4 address blocks allocated by APNIC
 - 3.1.2. IPv4 address blocks allocated by APNIC that have been distributed and assign and to whom assigned.
 - 3.1.3. IPv4 addresses that have been allocated to local users and to whom allocated.
 - 3.1.4. IPv4 addresses that have yet to be distributed
- 3.2. IPv6
 - 3.2.1. IPv6 address blocks allocated by APNIC
 - 3.2.2. IPv6 address blocks allocated by APNIC that have been distributed and assign and to whom assigned
 - 3.2.3. IPv6 addresses that have been allocated to local users and to whom allocated.
 - 3.2.4. IPv6 addresses that have yet to be distributed

ASP

4. Public Switched Telephone Network (PSTN) - Direct Exchange Line

- 4.1. Number of residential subscribers by gender, age, district and state as follows:
 - 4.1.1. Previous month nett
 - 4.1.2. New
 - 4.1.3. Suspension
 - 4.1.4. Disconnection
 - 4.1.5. Nett for this month
- 4.2. Number of business subscribers by district and state as follows:
 - 4.2.1. Previous month nett
 - 4.2.2. New
 - 4.2.3. Suspension
 - 4.2.4. Disconnection
 - 4.2.5. Nett for this month
- 4.3. Number in waiting list for connection residential
- 4.4. Number in waiting list for connection business.
- 4.5. Number of subscribers by type of customer (residential or business) for:
 - 4.5.1. Equal Access
 - 4.5.2. Fixed wireless
- 4.6. Number of International gateway exchange:
 - 4.6.1. Incoming
 - 4.6.2. Outgoing
 - 4.6.3. Bothways
- 4.7. Point of Interconnection (POI)
 - 4.7.1. Incoming
 - 4.7.2. Outgoing
 - 4.7.3. Bothways
- 4.8. Call conveyance
 - 4.8.1. Number of minutes of local calls on-net
 - 4.8.2. Number of minutes of local calls off-net
 - 4.8.3. Number of minutes of national calls on-net
 - 4.8.4. Number of minutes of national calls off-net
 - 4.8.5. Number of minutes of international calls outgoing
 - 4.8.6. Number of minutes of international calls incoming
 - 4.8.7. Number of minutes of local calls to mobile
 - 4.8.8. Number of minutes of adjacent calls to mobile
 - 4.8.9. Number of minutes of non-adjacent calls to mobile

- 4.8.10. Number of minutes of internet access calls (ISPs)
- 4.8.11. Number of minutes of internet access calls (others)

- 4.8.12. Revenue from local calls on-net
- 4.8.13. Revenue from local calls off-net

- 4.8.14. Revenue from national calls on-net
- 4.8.15. Revenue from national calls off-net

- 4.8.16. Revenue from international calls outgoing
- 4.8.17. Revenue from international calls incoming

- 4.8.18. Revenue from local calls to mobile
- 4.8.19. Revenue from adjacent calls to mobile
- 4.8.20. Revenue from non-adjacent calls to mobile

- 4.8.21. Revenue from internet access calls (ISPs)
- 4.8.22. Revenue from internet access calls (others)

4.9. Network origination

For each of the following:

- fixed network-to-fixed network
- fixed network-to-mobile network
- fixed network-to-international outgoing

Volume and revenue to be recorded as follows:

- 4.9.1. Number of minutes of single tandem calls originating from 1-800 services
- 4.9.2. Number of minutes of single tandem calls originating from 1-300 services

- 4.9.3. Number of minutes of double tandem calls originating from 1-800 services
- 4.9.4. Number of minutes of double tandem calls originating from 1-300 services

- 4.9.5. Number of minutes of double tandem with submarine calls originating from 1-800 services
- 4.9.6. Number of minutes of double tandem with submarine calls originating from 1-300 services

- 4.9.7. Revenue from single tandem calls originating from 1-800 services
- 4.9.8. Revenue from single tandem calls originating from 1-300 services

- 4.9.9. Revenue from double tandem calls originating from 1-800 services
- 4.9.10. Revenue from double tandem calls originating from 1-300 services

- 4.9.11. Revenue from double tandem with submarine calls originating from 1-800 services
- 4.9.12. Revenue from double tandem with submarine calls originating from 1-300 services
- 4.10. Network termination
 - 4.10.1. Number of minutes of local calls from fixed line network terminated
 - 4.10.2. Number of minutes of local calls from cellular network terminated
 - 4.10.3. Number of minutes of single tandem calls from fixed line network terminated
 - 4.10.4. Number of minutes of single tandem calls from cellular network terminated
 - 4.10.5. Number of minutes of double tandem calls from fixed line network terminated
 - 4.10.6. Number of minutes of double tandem calls from cellular network terminated
 - 4.10.7. Number of minutes of double tandem with submarine calls from fixed line network terminated
 - 4.10.8. Number of minutes of double tandem with submarine calls from cellular network terminated
 - 4.10.9. Revenue from local calls from fixed line network terminated
 - 4.10.10. Revenue from local calls from cellular network terminated
 - 4.10.11. Revenue from single tandem calls from fixed line network terminated
 - 4.10.12. Revenue from single tandem calls from cellular network terminated
 - 4.10.13. Revenue from double tandem calls from fixed line network terminated
 - 4.10.14. Revenue from double tandem calls from cellular network terminated
 - 4.10.15. Revenue from double tandem with submarine calls from fixed line network terminated
 - 4.10.16. Revenue from double tandem with submarine calls from cellular network terminated

- 4.11. Deposit and fees
 - 4.11.1. Deposit upon registration
 - 4.11.2. Registration fee
 - 4.11.3. Connection fee
 - 4.11.4. Monthly subscription for exchanges
 - 4.11.4.1. Exceeds 1000 lines
 - 4.11.4.2. 500 to 1000 lines
 - 4.11.4.3. Less than 500 lines

- 4.12. Charges for:
 - 4.12.1. Itemized billing
 - 4.12.2. Numbering charges
 - 4.12.3. Call forwarding services
 - 4.12.4. Three-way calling services
 - 4.12.5. Hotline services
 - 4.12.6. Voicemail services
 - 4.12.7. Change number service
 - 4.12.8. Relocation service
 - 4.12.9. CLIP service
 - 4.12.10. Call waiting
 - 4.12.11. Reconnection

Separately for residential and business
Separately for peninsular, Sabah and Sarawak

- 4.13. Call rates:
 - 4.13.1. Direct local calls
 - 4.13.2. Direct national calls
 - 4.13.2.1. $\leq 50\text{km}$
 - 4.13.2.2. $50, \leq 150\text{km}$
 - 4.13.2.3. $\geq 150\text{km}$
 - 4.13.3. Direct international calls
 - 4.13.3.1. Rates for all countries
 - 4.13.4. Operator assisted local calls
 - 4.13.5. Operator assisted national calls
 - 4.13.5.1. $\leq 50\text{km}$
 - 4.13.5.2. $50, \leq 150\text{km}$
 - 4.13.5.3. $\geq 150\text{km}$
 - 4.13.6. Operator assisted International calls.
 - 4.13.6.1. Rates for all countries
 - 4.13.7. Calls to mobile
 - 4.13.7.1. Local
 - 4.13.7.2. Adjacent
 - 4.13.7.3. Non-adjacent
 - 4.13.8. Directory service calls
 - 4.13.9. Audiotext hosting service calls
 - 4.13.10. Tollfree and freephone calls
 - 4.13.11. Internet access calls (short code/other)
 - 4.13.12. Other short code calls
 - 4.13.13. Border calls

Separately for residential and business, and full rate and reduced rate.

Separately also by type of customer such as business, learning institution, residential, handicapped customers, government agencies and students.

Periodic promotional rates and charges relating to above.

- 4.14. Indicator of accounting rate
 - 4.14.1. Revenue (RM/SDR) for traffic generated to and from all countries.
 - 4.14.2. Number of minutes for inbound international traffic
 - 4.14.3. Number of minutes for inbound international traffic from top 10 countries.
 - 4.14.4. Number of minutes for outbound international traffic
 - 4.14.5. Number of minutes for outbound international traffic from top 10 countries.
 - 4.14.6. Number of minutes for traffic generated to overseas correspondent (top 10 countries)
 - 4.14.7. Number of minutes for traffic generated from overseas correspondent (top 10 countries)

- 4.15. QoS
 - 4.15.1. Billing Performance
 - 4.15.1.1. Number of billing complaints for a reporting period.
 - 4.15.1.2. Number of bills issued over the reporting period.
 - 4.15.1.3. Number of billing complaints resolved within 15 business days of receipt of the complaint.
 - 4.15.1.4. Number of billing complaints resolved within 30 business days of receipt of the complaint.
 - 4.15.1.5. % of billing complaints resolved within 15 business days of receipt of the complaint.
 - 4.15.1.6. % of billing complaints resolved within 30 business days of receipt of the complaint.

 - 4.15.2. Fulfillment of Installation Orders
 - 4.15.2.1. Number of installation orders for a reporting period.
 - 4.15.2.2. Number of installation orders fulfilled within 24 hours of receipt of the order for a reporting period.
 - 4.15.2.3. Number of installation orders fulfilled within 48 hours of receipt of the order for a reporting period.
 - 4.15.2.4. Number of installation orders fulfilled within 7 business days of receipt of the order for a reporting period.
 - 4.15.2.5. % of installation orders fulfilled within 24 hours of receipt of the order of the total installation orders for a reporting period.

- 4.15.2.6. % of installation orders fulfilled within 48 hours of receipt of the order of the total installation orders for a reporting period.
 - 4.15.2.7. % of installation orders fulfilled within 7 business days of receipt of the order of the total installation orders for a reporting period.
 - 4.15.2.8. Installation orders that are not fulfilled within the requisite time due to the following reasons, may be excluded from the total number of installation orders for the reporting period:
 - 4.15.2.8.1. Wrong address given by the customer;
 - 4.15.2.8.2. Damage to network facility due to force majeure;
 - 4.15.2.8.3. Damage to network facility by third parties;
 - 4.15.2.8.4. Customer premises inaccessible;
 - 4.15.2.8.5. Customer premises internal wiring not ready at the committed or agreed time;
 - 4.15.2.8.6. Customers cancels or defers agreed appointment; or
 - 4.15.2.8.7. Network facility not available.
- 4.15.3. General Customer Complaint Handling
- 4.15.3.1. Number of complaints per 1000 lines in a reporting period
 - 4.15.3.2. Number of direct exchange line at the end of the reporting period.
 - 4.15.3.3. Number of complaints received for a reporting period
- 4.15.4. Service Restoration Performance
- 4.15.4.1. Number of service restoration request received for a reporting period.
 - 4.15.4.2. Number of service restoration request fulfilled within 24 hours of receipt of the request for a reporting period.
 - 4.15.4.3. Number of service restoration request fulfilled within 48 hours of receipt of the request for a reporting period.
 - 4.15.4.4. % of service restoration request fulfilled within 24 hours of receipt of the request for a reporting period.
 - 4.15.4.5. % of service restoration request fulfilled within 48 hours of receipt of the request for a reporting period.
 - 4.15.4.6. Service not restored within the requisite time due to the following reasons, may be excluded from the total number of service restoration request for the reporting period:
 - 4.15.4.6.1. Faulty customer equipment;
 - 4.15.4.6.2. Network facility damage due to third parties;
 - 4.15.4.6.3. Fault due to other service providers;
 - 4.15.4.6.4. Customer premises inaccessible;

- 4.15.4.6.5. Damage to network facility due to force majeure;
- 4.15.4.6.6. Faulty customer infrastructure or internal wiring; and
- 4.15.4.6.7. Deferment of service restoration request by customers.

4.15.5. Service Trouble Report Rate

- 4.15.5.1. Number of service trouble report received for a reporting period.
- 4.15.5.2. Number of direct exchange line at the end of the reporting period.
- 4.15.5.3. Number of service trouble report for every 1000 lines.
- 4.15.5.4. Service trouble reports due to the following reasons, may be excluded from the total number of service trouble report for the reporting period:
 - 4.15.5.4.1. Trouble which are not service trouble reports.

5. Public Cellular Service

- 5.1. Number of personal subscribers by gender, age, payment mode (postpaid or prepaid), district, and state as follows :
- 5.1.1. Previous month nett
 - 5.1.2. New
 - 5.1.3. Suspension
 - 5.1.4. Disconnection
 - 5.1.5. Nett for reported month

Separately for each network technology (e.g. GSM, PCN, ETACS, ATUR etc.)

- 5.2. Number of business subscribers by payment mode (postpaid or prepaid), district, and state as follows :
- 5.2.1. Previous month nett
 - 5.2.2. New
 - 5.2.3. Suspension
 - 5.2.4. Disconnection
 - 5.2.5. Nett for reported month

Separately for each network technology (e.g. GSM, PCN, ETACS, ATUR etc.)

- 5.3. Network origination
For each of the following :
- mobile network-to-mobile network
 - mobile network-to- fixed network
 - mobile network-to-international outgoing

The volume and revenue to be recorded as follows :

- 5.3.1. Number of minutes of local calls originating from 1-800 services
- 5.3.2. Number of minutes of local calls originating from 1-300 services
- 5.3.3. Number of minutes of adjacent calls originating from 1-800 services
- 5.3.4. Number of minutes of adjacent calls originating from 1-300 services
- 5.3.5. Number of minutes of non-adjacent calls originating from 1-800 services
- 5.3.6. Number of minutes of non-adjacent calls originating from 1-300 services
- 5.3.7. Revenue from local calls originating from 1-800 services
- 5.3.8. Revenue from local calls originating from 1-300 services
- 5.3.9. Revenue from adjacent calls originating from 1-800 services
- 5.3.10. Revenue from adjacent calls originating from 1-300 services
- 5.3.11. Revenue from non-adjacent calls originating from 1-800 services
- 5.3.12. Revenue from non-adjacent calls originating from 1-300 services
- 5.4. Network termination
 - 5.4.1. Number of minutes of local calls from fixed line network terminated
 - 5.4.2. Number of minutes of local calls from cellular network terminated
 - 5.4.3. Number of minutes of adjacent calls from fixed line network terminated
 - 5.4.4. Number of minutes of adjacent calls from cellular network terminated
 - 5.4.5. Number of minutes of non-adjacent calls from fixed line network terminated
 - 5.4.6. Number of minutes of non-adjacent calls from cellular network terminated
 - 5.4.7. Number of minutes of international calls from fixed line network terminated
 - 5.4.8. Number of minutes of international calls from cellular network terminated
 - 5.4.9. Revenue from local calls from fixed line network terminated
 - 5.4.10. Revenue from local calls from cellular network terminated
 - 5.4.11. Revenue from adjacent calls from fixed line network terminated
 - 5.4.12. Revenue from adjacent calls from cellular network terminated

- 5.4.13. Revenue from non-adjacent calls from fixed line network terminated
- 5.4.14. Revenue from non-adjacent calls from cellular network terminated
- 5.4.15. Revenue from international calls from fixed line network terminated
- 5.4.16. Revenue from international calls from cellular network terminated
- 5.5. Call conveyance
 - 5.5.1. Number of minutes of local calls on-net
 - 5.5.2. Number of minutes of local calls off-net
 - 5.5.3. Number of minutes of adjacent calls on-net
 - 5.5.4. Number of minutes of adjacent calls off-net
 - 5.5.5. Number of minutes of non-adjacent calls on-net
 - 5.5.6. Number of minutes of non-adjacent calls off-net
 - 5.5.7. Number of minutes of international calls outgoing
 - 5.5.8. Number of minutes of international calls incoming
 - 5.5.9. Number of minutes of local calls to fixed network
 - 5.5.10. Number of minutes of adjacent calls fixed network
 - 5.5.11. Number of minutes of non-adjacent calls fixed network
 - 5.5.12. Number of minutes of internet access calls (ISPs)
 - 5.5.13. Number of minutes of internet access calls (others)
 - 5.5.14. Number of minutes of roaming calls outgoing
 - 5.5.15. Number of minutes of roaming calls incoming
 - 5.5.16. Number of SMS outgoing on-net (basic rate and commercial rate)
 - 5.5.17. Number of SMS outgoing off-net (basic rate and commercial rate)
 - 5.5.18. Number of MMS outgoing on-net (basic rate and commercial rate)
 - 5.5.19. Number of MMS outgoing off-net (basic rate and commercial rate)
 - 5.5.20. Revenue from local calls on-net
 - 5.5.21. Revenue from local calls off-net
 - 5.5.22. Revenue from adjacent calls on-net
 - 5.5.23. Revenue from adjacent calls off-net

- 5.5.24. Revenue from non-adjacent calls on-net
- 5.5.25. Revenue from non-adjacent calls off-net
- 5.5.26. Revenue from international calls outgoing
- 5.5.27. Revenue from international calls incoming
- 5.5.28. Revenue from local calls to fixed network
- 5.5.29. Revenue from adjacent calls to fixed network
- 5.5.30. Revenue from non-adjacent calls to fixed network
- 5.5.31. Revenue from internet access calls (ISPs)
- 5.5.32. Revenue from internet access calls (others)
- 5.5.33. Revenue from roaming calls outgoing
- 5.5.34. Revenue from roaming calls incoming
- 5.5.35. Revenue from SMS outgoing on-net (basic rate and commercial rate)
- 5.5.36. Revenue from SMS outgoing off-net (basic rate and commercial rate)
- 5.5.37. Revenue from MMS outgoing on-net (basic rate and commercial rate)
- 5.5.38. Revenue from MMS outgoing off-net (basic rate and commercial rate)
- 5.6. Deposit and fees
 - 5.6.1. Deposit upon registration
 - 5.6.2. Registration fee
 - 5.6.3. Connection fee
 - 5.6.4. Monthly access fee
- 5.7. Charges for:
 - 5.7.1. Itemized billing
 - 5.7.2. Numbering charges
 - 5.7.3. Call forwarding services
 - 5.7.4. Three-way calling services
 - 5.7.5. Hotline services
 - 5.7.6. Voicemail services
 - 5.7.7. Change number service
 - 5.7.8. Reconnection fee

Separately for postpaid and prepaid
- 5.8. Call rates for :
 - 5.8.1. Domestic voice calls
 - 5.8.1.1. Local
 - 5.8.1.2. Adjacent

- 5.8.1.3. Non-adjacent
- 5.8.2. International voice calls
 - 5.8.2.1. Rate for all countries
- 5.8.3. Directory services calls
- 5.8.4. Audiotext hosting service calls
- 5.8.5. Toll free and freephone calls
- 5.8.6. Short code calls
- 5.8.7. SMS
- 5.8.8. WAP services
 - 5.8.8.1. Registration/Connection fees
 - 5.8.8.2. Per minute
- 5.8.9. GPRS services
 - 5.8.9.1. Registration/Connection fees
 - 5.8.9.2. Per minute
- 5.8.10. UMTS services (3G)
 - 5.8.10.1. Registration/Connection fees
 - 5.8.11. Per minute

Separately for postpaid and prepaid.

Separately also by type of customer such as business, learning institution, residential, handicapped customers, government agencies and students.

Periodic promotional rates and charges relating to the above.

- 5.9. Indicator of accounting rate
 - 5.9.1. Revenue (RM/SDR) for traffic generated to and from all countries.
 - 5.9.2. Number of minutes for inbound international traffic
 - 5.9.3. Number of minutes for inbound international traffic from top 10 countries by country.
 - 5.9.4. Number of minutes for outbound international traffic
 - 5.9.5. Number of minutes for outbound international traffic from top 10 countries by country.
 - 5.9.6. Number of minutes for traffic generated to overseas correspondent (top 10 countries)
 - 5.9.7. Number of minutes for traffic generated from overseas correspondent (top 10 countries)
- 5.10. QoS
 - 5.10.1. Billing Performance
 - 5.10.1.1. Number of billing complaints for a reporting period.
 - 5.10.1.2. Number of bills issued over the reporting period.
 - 5.10.1.3. Number of billing complaints resolved within 15 business days of receipt of the complaint.
 - 5.10.1.4. Number of billing complaints resolved within 30 business days of receipt of the complaint.

- 5.10.1.5. % of billing complaints resolved within 15 business days of receipt of the complaint.
- 5.10.1.6. % of billing complaints resolved within 30 business days of receipt of the complaint.
- 5.10.2. General Customer Complaint Handling
 - 5.10.2.1. Number of complaints received for a reporting period.
 - 5.10.2.2. Number of customers at the end of the reporting period.
 - 5.10.2.3. Number of complaints per 1000 customers in a reporting period.

6. Internet Service

- 6.1. Number of residential subscribers by gender, age, type of customer (individual, student,) payment mode (postpaid and prepaid), district, and state as follows:
 - 6.1.1. Previous month nett
 - 6.1.2. New
 - 6.1.3. Suspension
 - 6.1.4. Disconnection
 - 6.1.5. Nett for this month

Separately for each connection (Dial-up (modem), ISDN, Leased line, ADSL, SDSL, Fibre optic, Cable modem, Satellite, MMDS/LMDS Terrestrial Wireless Service, T-Carriers and Others

- 6.2. Number of institutional subscribers by type of customer (business, organization, learning institution, government) payment mode (postpaid and prepaid), district, and state as follows:
 - 6.2.1. Previous month nett
 - 6.2.2. New
 - 6.2.3. Suspension
 - 6.2.4. Disconnection
 - 6.2.5. Nett for this month

Separately for each connection (Dial-up (modem), ISDN, Leased line, ADSL, SDSL, Fibre optic, Cable modem, Satellite, MMDS/LMDS Terrestrial Wireless Service, T-Carriers and Others

- 6.3. Payment
 - 6.3.1. Registration
 - 6.3.2. Installation
 - 6.3.3. Connection
 - 6.3.4. PSTN call
 - 6.3.5. Access
 - 6.3.6. Flat rate
 - 6.3.7. Variable rate
 - 6.3.8. Time of day and distance pricing
 - 6.3.9. Combination of aforesaid rates

6.3.10. Reconnection

Separately for postpaid and prepaid.

Separately also by type of customer such as business, learning institution, individual, handicapped customers, government agencies and students.

Periodic promotional rates and charges relating to the above.

6.4. Total number of hosts

6.5. Number of dial-up modem ports

6.6. Bandwidth of international circuit connections (Mbps)

6.7. Subscription revenue

6.8. Access revenue

6.9. QoS

6.9.1. Billing Performance

6.9.1.1. Number of billing complaints for a reporting period.

6.9.1.2. Number of bills issued over the reporting period.

6.9.1.3. Number of billing complaints resolved within 15 business days of receipt of the complaint.

6.9.1.4. Number of billing complaints resolved within 30 business days of receipt of the complaint.

6.9.1.5. % of billing complaints resolved within 15 business days of receipt of the complaint.

6.9.1.6. % of billing complaints resolved within 30 business days of receipt of the complaint.

6.9.2. General Customer Complaint Handling

6.9.2.1. Number of complaints received for a reporting period.

6.9.2.2. Number of customers at the end of the reporting period.

6.9.2.3. Number of complaints per 1000 customers in a reporting period.

7. **Leased Line services**

7.1. Number of leased line subscribers

7.2. Rate by:

7.2.1. Capacity

7.2.2. Distance

8. **Payphone services**

8.1. Number of payphones

8.2. Number of card phones

8.3. Number of coin phones

- 8.4. Number of combination card and coin phones
- 8.5. Number in working order

Separately for urban areas and rural areas.

- 8.6. Call rates:
 - 8.6.1. Operator assisted calls
 - 8.6.2. Domestic voice calls
 - 8.6.3. International voice calls
 - 8.6.4. Calls to mobile
 - 8.6.4.1. Local
 - 8.6.4.2. Adjacent
 - 8.6.4.3. Non-adjacent
 - 8.6.5. Calls to fixed (without operator assistance)
 - 8.6.6. Directory service calls
 - 8.6.7. Audiotext hosting service calls
 - 8.6.8. Tollfree and freephone calls
 - 8.6.9. Other short code calls

9. VoIP Services

- 9.1. Number of VoIP subscribers by type of customer (residential/business):
 - 9.1.1. Postpaid
 - 9.1.2. Prepaid
- 9.2. Rates
 - 9.2.1. Deposit upon registration
 - 9.2.2. Registration fee
 - 9.2.3. Connection/installation fee
 - 9.2.4. Monthly subscription
- 9.3. Charges for:
 - 9.3.1. Itemized billing
 - 9.3.2. Numbering charges
 - 9.3.3. Hotline services
 - 9.3.4. Reconnection

Separately for residential and business

- 9.4. Call rates
 - 9.4.1. Domestic voice local call
 - 9.4.2. Domestic voice national call
 - 9.4.2.1. Not exceeding 50km
 - 9.4.2.2. Exceeds 50 but does not exceed 150km
 - 9.4.2.3. Exceeds 150km
 - 9.4.3. International voice calls
 - 9.4.3.1. List of all countries rate
 - 9.4.4. Calls to mobile
 - 9.4.4.1. Local
 - 9.4.4.2. Adjacent

9.4.4.3. Non-adjacent

Separately for residential and business.

Separately also by type of customer such as business, learning institution, residential, handicapped customers, government agencies and students.

Periodic promotional rates and charges relating to above.

- 9.5. Traffic
 - 9.5.1. Number of minutes of outgoing traffic
- 9.6. Gateways:
 - 9.6.1. Number of gateways registered
 - 9.6.2. Number of active gateways

10. **Paging Services**

- 10.1. Number of subscribers by type of customer (individual and business), alphanumeric, numeric and state.
- 10.2. Rates
 - 10.2.1. Deposit upon registration
 - 10.2.2. Processing fee
 - 10.2.3. Monthly subscription:
 - 10.2.3.1. Local coverage
 - 10.2.3.2. Peninsular wide
 - 10.2.3.3. Sabah
 - 10.2.3.4. Sarawak
- 10.3. Traffic:
 - 10.3.1. Number of messages

Separately by state, type of customer (individual or business) and alphanumeric or numeric.

11. **Public Mobile Radio Services**

- 11.1. Number of subscriber
- 11.2. Number of sets

Separately by government, service industry and transport/courier service provider.

- 11.3. Rates
 - 11.3.1. Deposit upon registration
 - 11.3.2. Access fee
 - 11.3.3. Rental

- 11.4. Coverage:
 - 11.4.1. Nationwide
 - 11.4.2. Regional
 - 11.4.3. State
 - 11.4.4. Specific area

12. Telex Services

- 12.1. Number of subscribers
- 12.2. Rates
 - 12.2.1. Deposit upon registration
 - 12.2.2. Subscription fee
- 12.3. Transmission rate

13. ISDN Services

- 13.1. Number of subscribers:
 - 13.1.1. Basic rate interface (2B+D)
 - 13.1.2. Primary rate interface (30B+20D)
- 13.2. Rates
 - 13.2.1. Deposit upon registration
 - 13.2.2. Registration fee
 - 13.2.3. Connection fee
 - 13.2.4. Monthly subscription for exchanges
 - 13.2.4.1. Exceeds 1000 lines
 - 13.2.4.2. 500 to 1000 lines
 - 13.2.4.3. Less than 500 lines
- 13.3. Charges for:
 - 13.3.1. Itemized billing
 - 13.3.2. Numbering charges
 - 13.3.3. Call forwarding services
 - 13.3.4. Three-way calling services
 - 13.3.5. Hotline services
 - 13.3.6. Voicemail services
 - 13.3.7. Change number service
 - 13.3.8. Relocation service
 - 13.3.9. CLIP service
 - 13.3.10. Call waiting
 - 13.3.11. Reconnection

Separately for residential and business
Separately for peninsular, Sabah and Sarawak

- 13.4. Call rates:
 - 13.4.1. Direct local calls
 - 13.4.2. Direct national calls
 - 13.4.2.1. $\leq 50\text{km}$
 - 13.4.2.2. $50, \leq 150\text{km}$

- 13.4.2.3. $\geq 150\text{km}$
- 13.4.3. Direct international calls
 - 13.4.3.1. Rates for all countries
- 13.4.4. Operator assisted local calls
- 13.4.5. Operator assisted national calls
 - 13.4.5.1. $\leq 50\text{km}$
 - 13.4.5.2. $50, \leq 150\text{km}$
 - 13.4.5.3. $\geq 150\text{km}$
- 13.4.6. Operator assisted International calls.
 - 13.4.6.1. Rates for all countries
- 13.4.7. Calls to mobile
 - 13.4.7.1. Local
 - 13.4.7.2. Adjacent
 - 13.4.7.3. Non-adjacent
- 13.4.8. Directory service calls
- 13.4.9. Audiotext hosting service calls
- 13.4.10. Tollfree and freephone calls
- 13.4.11. Internet access calls (short code/other)
- 13.4.12. Other short code calls
- 13.4.13. Border calls

Separately for residential and business.

Separately also by type of customer such as business, learning institution, residential, handicapped customers, government agencies and students.

Periodic promotional rates and charges relating to above.

14. Equal Access Services

- 14.1. Number of minutes of single tandem origination calls
- 14.2. Number of minutes of double tandem origination calls
- 14.3. Number of minutes of double tandem with submarine origination calls
- 14.4. 02Revenue from single tandem origination calls
- 14.5. Revenue from double tandem origination calls
- 14.6. Revenue from double tandem with submarine origination calls

CASP

15. Subscription TV And Free-To-Air TV Broadcast Programming

- 15.1. Complete daily programming or transmission schedule (include advertisements, programmes/shows, fillers, promo etc).
- 15.2. Breakdown of content purchased (value- RM and minute) on a monthly basis:
 - 15.2.1. Local or foreign
 - 15.2.2. Language
- 15.3. Broadcast minutes for the month broken into:
 - 15.3.1. Local or foreign production in turn broken into
 - 15.3.1.1. Bahasa Melayu
 - 15.3.1.2. English
 - 15.3.1.3. Chinese
 - 15.3.1.4. Indian
 - 15.3.1.5. Others (to be specified by licensee)
- 15.4. Advertising:
 - 15.4.1. The complete list of all commercial advertisements and their schedules on a daily basis.
 - 15.4.2. The complete list of proper approval and approval number for the advertisements.
 - 15.4.3. Copy of each advertisement aired.
 - 15.4.4. Number and minutes of advertisement broken into: Interruptive and non interruptive in turn broken into:
 - 15.4.4.1. Bahasa Melayu
 - 15.4.4.2. English
 - 15.4.4.3. Chinese
 - 15.4.4.4. Indian
 - 15.4.4.5. Others (to be specified by licensee)Separately by hours.
- 15.5. Public service announcements
 - 15.5.1. The complete list of public service announcements and schedules on a daily basis.
 - 15.5.2. The list of names of the producers of the public service announcements.
 - 15.5.3. A copy of each public service announcement aired. Number and minutes of public service announcements broken into:
 - 15.5.3.1. Bahasa Melayu
 - 15.5.3.2. English
 - 15.5.3.3. Chinese
 - 15.5.3.4. Indian
 - 15.5.3.5. Others (to be specified by licensee)
- 15.6. Live/Delayed telecast
 - 15.6.1. The complete list of live or delayed telecast programs

- 15.6.2. The copy of approval from the relevant authority for the live or delayed telecast programs
- 15.7. Number of subscribers
 - 15.7.1. Residential
 - 15.7.2. Commercial

16. Free-To-Air Radio Programming Report

- 16.1. Complete daily programming and transmission schedule (include advertisements, programmes/shows, fillers, promo etc).
- 16.2. Breakdown of content purchased (value- RM and minute) on a monthly basis:
 - 16.2.1. Local or foreign
 - 16.2.2. Language
- 16.3. Broadcast minutes for the month broken into;
 - 16.3.1. Local or foreign production in turn broken into :
 - 16.3.1.1. Bahasa Melayu
 - 16.3.1.2. English
 - 16.3.1.3. Chinese
 - 16.3.1.4. Indian
 - 16.3.1.5. Others (to be specified by licensee)
- 16.4. Advertising
 - 16.4.1. The complete list of all commercial advertisements and their schedules on a daily basis.
 - 16.4.2. The complete list of proper approval and approval number for the advertisements.
 - 16.4.3. A copy of each advertisement aired.
 - 16.4.4. Number and minutes of advertisement broken into :
 - 16.4.4.1. Bahasa Melayu
 - 16.4.4.2. English
 - 16.4.4.3. Chinese
 - 16.4.4.4. Indian
 - 16.4.4.5. Others (to be specified by licensee)
 Separately by hours.
- 16.5. Public service announcements
 - 16.5.1. The complete list of public service announcements and schedules on a daily basis.
 - 16.5.2. The list of names of the producers of the public service announcements.
 - 16.5.3. A copy of each public service announcement aired.
 - 16.5.4. Number and minutes of public service announcements broken into:
 - 16.5.4.1. Bahasa Melayu
 - 16.5.4.2. English
 - 16.5.4.3. Chinese
 - 16.5.4.4. Indian
 - 16.5.4.5. Others (to be specified by licensee)

- 16.6. Live/Delayed telecast
 - 16.6.1. The complete list of live or delayed telecast programs
 - 16.6.2. The copy of approval from the relevant authority for the live or delayed telecast programs

17. QoS FOR SUBSCRIPTION TV AND FREE-TO-AIR TV BROADCAST PROGRAMMING AND FREE-TO-AIR RADIO PROGRAMMING REPORT

- 17.1. Annual Service Availability
 - 17.1.1. Total time of transmission over a reporting period.
 - 17.1.2. Total downtime over a reporting period.
 - 17.1.3. Ratio of the total transmission time minus the downtime of the reporting period over the total transmission time of the reporting period.
- 17.2. Billing Performance
 - 17.2.1. Number of billing complaints for a reporting period.
 - 17.2.2. Number of bills issued over the reporting period.
 - 17.2.3. Number of billing complaints resolved within 15 business days of receipt of the complaint.
 - 17.2.4. Number of billing complaints resolved within 30 business days of receipt of the complaint.
 - 17.2.5. % of billing complaints resolved within 15 business days of receipt of the complaint.
 - 17.2.6. % of billing complaints resolved within 30 business days of receipt of the complaint.
- 17.3. General Customer Complaint Handling
 - 17.3.1. Number of complaints received for a reporting period.
 - 17.3.2. Number of customers at the end of the reporting period.
 - 17.3.3. Number of complaints per 1000 customers in a reporting period.