MALAYSIAN COMMUNICATIONS AND MULTIMEDIA COMMISSION

SYSTEM OF UNIVERSAL SERVICE PROVISION

CONSULTATION PAPER

21 December 2000

Preface

On 1 June 2000, the Minister directed the Commission to determine a system to promote the widespread availability and usage of network services and/or applications services throughout Malaysia by encouraging the installation of network facilities and the provision for network services and/or applications services in underserved areas or for underserved groups within the community.

According to the Minister's direction, the system for Universal Service Provision (USP) should address the following matters:

- a) The scope of universal services including the types of services which should be subject to USP obligations;
- b) Definitions of 'underserved areas' and 'underserved groups within the community' including the criteria for identifying specific areas as 'underserved areas' and specific groups as 'underserved groups within the community';
- c) The control and operation of the Universal Service Provision Fund ('USP Fund');
- d) Contributions to the USP Fund including who should contribute to the USP Fund and how the contributions should be determined;
- e) The delivery of USP services including, where appropriate, competitive delivery mechanisms:
- f) Monitoring and compliance mechanisms;
- g) Determination of the cost of USP including, where appropriate, market-based mechanisms for determining the cost of USP.

However, the matters referred to above are not the only matters which the system for universal service provision may address.

The Commission is holding a public inquiry on a system of universal service provision for Malaysia and invites members of the public to participate in this inquiry by making written submissions on any matter they consider relevant to the inquiry.

Written submissions should be provided to the Commission by **12.00 noon**, **9 February 2001** and addressed to:

The Chairman Malaysian Communications and Multimedia Commission Level 11, Menara Dato' Onn, Putra World Trade Centre 45 Jalan Tun Ismail 50480 Kuala Lumpur The Universal Service Inquiry

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Attention:

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As this is a public inquiry, the Commission may make extracts or entire submissions available for others to read. Commercially sensitive material, which will not be made publicly available, should be provided under a separate cover and clearly marked 'COMMERCIAL IN CONFIDENCE'.

The Commission envisages preparing its report setting out the Commission's findings by the end of March 2001, and the period of the inquiry will therefore be up to the time when the report is prepared.

For further information regarding this inquiry, please direct your inquiries to usp@cmc.gov.my

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GLOSSARY

The Act The Communications and Multimedia Act 1998.

applications service A service provided by means of, but not solely by means of, one or more

network services.

basic telephony service

A service for the purpose of voice telephony which enables an end user using the service to communicate, by means of that service, with other end users who are supplied with the same service (or equivalent service) for the same purpose. More recent is the proposal that basic telephony should include the capability to support internet services.

collective access The notion that certain services should be reasonably available to a

collective group of target end users. Traditionally, collective access is achieved (at least in part) by establishing a reasonable number of public payphones in the target communities so that basic telephony services are available to these communities. More recently, it is argued that collective access should be extended to include internet services.

the Commission The Malaysian Communications and Multimedia Commission.

individual access The notion that certain services should be reasonably available to

individual end users (usually thought of as households) in the target area. Traditionally, individual access is achieved (at least in part) by making basic telephony services (usually through fixed line services) available to every household in the target area. More recently, it is argued that individual access should be extended to include internet

services.

national policy objectives

The national policy objectives for the communications and multimedia industry as set out in subsection 3(2) of the Act.

net universal service

cost

The loss incurred by a universal service provider from supplying services to a universal service area in the course of fulfilling the universal service

obligation.

network facilities Any element or combination of elements of physical infrastructure used

principally for, or in connection with, the provision of network services,

but does not include customer equipment.

network service A service for carrying communications by means of guided and/or

unguided electromagnetic radiation.

service improvement

plan

A plan that sets out how the universal service provider intends to progressively fulfill the universal service obligation in so far as the obligation relates to the universal service area for which the provider has

been designated as the universal service provider.

system of universal service provision

A system to promote the widespread availability and usage of network services and/or applications services throughout Malaysia by encouraging the installation of network facilities and the provision for network services and/or applications services in underserved areas or for underserved groups within the community.

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universal service obligation

The obligation to ensure that the universal service objectives in respect

of an area are eventually fulfilled.

universal service plan

A plan for achieving widespread collective access in a universal service area or a plan for achieving widespread individual access in a universal

service area.

universal service provider

A provider designated as a universal service provider in respect of an area by the Commission and having the responsibility to take all reasonable steps to fulfill the universal service obligation so far as it

relates to that area.

Universal Service Provision Fund or USP Fund A fund established under section 204 of the Act.

SECTION 1: INTRODUCTION

On 1 June 2000, the Minister directed the Commission to determine a system to promote the widespread availability and usage of network services and/or applications services throughout Malaysia by encouraging the installation of network facilities and the provision for network services and/or applications services in underserved areas or for underserved groups within the community.

According to the Minister's direction, the system for Universal Service Provision (USP) should address the following matters:

- h) The scope of universal services including the types of services which should be subject to USP obligations;
- Definitions of 'underserved areas' and 'underserved groups within the community' including the criteria for identifying specific areas as 'underserved areas' and specific groups as 'underserved groups within the community';
- j) The control and operation of the Universal Service Provision Fund ('USP Fund');
- k) Contributions to the USP Fund including who should contribute to the USP Fund and how the contributions should be determined;
- The delivery of USP services including, where appropriate, competitive delivery mechanisms;
- m) Monitoring and compliance mechanisms;
- n) Determination of the cost of USP including, where appropriate, market-based mechanisms for determining the cost of USP.

However, the matters referred to above are not the only matters which the system for universal service provision may address.

The Commission has developed, for the purposes of this inquiry, a proposed system of universal service provision as set out in a draft determination (see Appendix A of this paper). The Commission considers that by outlining a proposed system of universal service provision in detail, this would assist participants to this inquiry in addressing specific issues relevant to the inquiry. Nevertheless, **participants are invited to comment on any matter they consider relevant to the inquiry**, including proposing a different system of universal service provision, or suggesting amendments or variations to the system of universal service provision proposed in this paper.

Participants are encouraged to support their comments with reasons and, where appropriate, provide or refer to evidence or other relevant information in support of the comments.

This consultation paper is structured in the following manner:

Section 2 sets out background material on the provision of universal services in

Malaysia at present.

Section 3 sets out the legal context for a determination by the Commission of a system of universal service provision under the *Communications and Multimedia Act* 1998.

Section 4 identifies a number of issues that participants may wish to address in their submissions to the Commission.

SECTION 2: BACKGROUND

Telekom Malaysia has been, and currently is, the sole provider of universal services in Malaysia. Prior to 1999, Telekom Malaysia had been responsible for universal service provision without receiving any contributions from other industry operators in the communications sector.

The previous regulator, Jabatan Telekomunikasi Malaysia, issued a regulatory determination that (amongst others) provided for contributions by industry operators to the cost of providing universal service. At present, these industry operators are:

- Telekom Malaysia Bhd.
- Celcom (M) Sdn.Bhd.
- Maxis Communications Bhd.
- DiGi Telecommunications Sdn.Bhd.
- TT dotCom Sdn.Bhd. (formerly known as TIME Telecommunications Sdn.Bhd).
 and TIME Wireless Sdn.Bhd.

As the sole universal service provider, Telekom Malaysia is the only recipient of contributions to universal service cost.

Contributions to the cost of universal service is proportional to network revenues (net of payments to other Malaysian operators) weighted by services. The relative weight applied to different sources of income is related to the margins achieved on those revenues.

The formula for calculating the relative share of different operators is:

Operator payment weight

- = A x total revenue
- + B x long-distance and international revenues
- + C x mobile revenues
- + D x other revenues

where
$$A = 0$$
: $B = 1$: $C = 0.5$: $D = 1$

This formula reflects the lack of profit on local services, and the high margin on longdistance and international calls.

Local revenues include both rental and local call revenues, and mobile revenues include both rental and call revenues. Other revenues include all other revenues derived from telecoms services, and ancillary services related to those telecoms services such as data, leased lines, value added service but excludes sale of equipment and related services.

Jabatan Telekomunikasi Malaysia determined the cost of universal services for 1999 to be RM 300 million (inclusive of an RM 32 million for the provision of improved emergency service). The cost of universal services for 2000 is in the process of being determined.

Universal service costs are calculated based on the costs that would be avoided (avoidable costs) and revenues that would be foregone (revenues foregone) if Telekom Malaysia did not have the obligation to keep providing service to areas and subscribers which are uneconomic to serve.

In theory, this definition implies that any indirect costs and financial benefits of universal service provision are recognized in the costing. Such indirect costs might include, for example, the cost of maintaining plant installed in advance of subscriber demand so as to provide service on demand, which would not be required if the obligation did not exist. Indirect financial benefits of universal service might include, for example, the lower level of advertising expenditure required because the service is necessarily ubiquitous. These indirect costs and financial benefits include the additional costs and revenues associated with demand from economic areas and subscribers (for example, calls from areas and subscribers that are economic to serve to areas and subscribers that are uneconomic to serve).

Activities which are regarded as forming part of Telekom Malaysia's universal service obligation are:

- Provision of basic (voice) telephone services to all unprofitable areas;
- Provision of basic (voice) telephone service to unprofitable low-spending customers, in areas which are profitable overall;
- Provision of emergency call services; and
- Provision of public payphones in rural areas.

An 'area' refers to the area covered by a particular exchange or remote switch. An area is identified as uneconomic to serve when the avoidable costs of service (including an acceptable return on assets employed) are greater than the revenues that would be foregone if it were not served. For 1999, the total net cost of serving areas that are uneconomic to serve was estimated to be RM 141 million.

Individual customers are identified as being uneconomic to serve when the avoidable costs of serving that customer (including an acceptable return on assets employed) are greater than the revenues that would be foregone if they were not served.² In practice,

Revenues generated as a result of serving a subscriber include incoming call revenues. The costs, and assets employed, are calculated on the basis of those which would be

Revenues generated as a result of serving an area include revenues from customers outside the area that would be lost if the area were not served. Costs that would be avoided by not serving an area include the avoidable costs of transporting the calls in and out of that area as well as the costs of providing access to customers in that area.

the residential subscriber base is split into 20 classes, based on average monthly expenditure of the subscribers.³ The net cost of serving subscribers which are uneconomic to serve in economic areas was estimated to be RM 59 million for 1999.

The net cost of providing unprofitable rural payphones was estimated at RM 67.6 million for 1999.

avoided in the long run, as a result of not serving that individual customer (or rather the entire group of such customers).

The average expenditure on calls of different types for each customer class is calculated to determine the avoidable call costs, the avoidable access costs and also an estimate of the incoming call revenue per subscriber.

SECTION 3: LEGAL CONTEXT

Pursuant to subsection 202(1) of the Communications and Multimedia Act 1998, the Minister may direct the Commission to determine a system to promote the widespread availability and usage of network services and/or applications services throughout Malaysia by encouraging the installation of network facilities and the provision for network services and/or applications services in underserved areas or for underserved groups within the community.

The Minister may make regulations for the implementation of the system of universal service provision.⁴

A determination by the Commission under subsection 202(1) must include definitions of 'underserved areas' and 'underserved groups within the community'.⁵

In determining the definition of 'underserved areas', the Commission may have regard to⁶:

- The level of competition in particular areas or places;
- The availability of services in particular areas or places; and/or
- The commercial viability of installing network facilities or providing network services or applications services in particular areas or places.

In determining the definition of 'underserved groups within the community', the Commission may have regard to⁷:

- The availability of services to such groups; and/or
- Any barriers to the use of available services.

Pursuant to section 204, a 'Universal Service Provision Fund' (USP Fund) is established and it should be controlled and operated by the Commission. The Minister may make regulations regarding contributions by licensees to the USP Fund and any other matters related to or incidental to the establishment and operation of the USP Fund.

For background material on the regulatory framework established under the *Communications and Multimedia Act* 1998, please refer to Appendix B.

⁵ Subsection 203(1).

⁶ Subsection 203(2).

Subsection 203(3).

Subsection 202(2).

SECTION 4: ISSUES FOR CONSIDERATION

Participants to this inquiry are invited to comment on any matter they consider relevant to this inquiry. This section identifies a number of issues that participants may wish to address in their submissions to the Commission. However, participants should not feel obliged to address all or any of these issues in their submissions.

4.1 Problems to be addressed

The draft determination identifies two key problems which need to be addressed in the Malaysian environment:- (i) the need to provide services in areas which are currently underserved or have no service at all, and (ii) the need to ensure that for areas which are already served, the universal service provider is fairly compensated for the cost of providing any uneconomic services to these areas. The draft determination also notes that these problems should be addressed in a manner which minimizes the overall economic cost to the nation.

- a) What are the problems which should be addressed by a system of universal service provision?
- b) How are these problems best addressed?
- c) What effects is a system of universal service provision likely to have on consumer welfare?
- d) What economic costs are likely to arise from a system of universal service provision, and what principles should be followed to ensure that the economic costs are minimized?

4.2 Universal service objectives

The draft determination proposes two forms of access to services – collective access and individual access. The level of access should be 'reasonable', taking into account considerations of equity and economic efficiency (including the commercial viability of installing network facilities or providing network services in particular areas or places). Whether access is 'reasonable' needs to be assessed on a case by case basis, having regard to the particular circumstances of each case. Basic telephony services (having the capability of supporting internet services) should be provided on collective and individual bases. Collective access should have priority over individual access; voice telephony should have priority over internet services.

- a) What are the objectives of a system of universal service provision?
- b) What order of priority should be accorded to these objectives? What considerations are relevant to the order of priority?
- c) What services should be subject to universal service obligations?

- d) What types of access should end-users have to these services?
- e) How should these access be described?
- f) What considerations are relevant to assessing whether such access is reasonable?
- g) How should underserved areas be defined?
- h) How should underserved groups within the community be defined?

4.3 Delivery of universal services

The draft determination envisages that more than one universal service provider may be designated to provide universal services. However, universal service providers would in general be designated in respect of mutually exclusive geographic areas.

The draft determination proposes to designate Telekom Malaysia as the universal service provider for areas where Telekom Malaysia is in the best position to delivery universal services. For areas where other licensees are equally well-placed to deliver universal services, the draft determination proposes to invite expressions of interest from interested licensees to be designated as the universal service provider for those areas. Such expressions of interest must be accompanied by a draft service improvement plan, and may include proposals for a grant from the Universal Service Provision Fund.

Under the proposed system of universal service provision, a universal service provider is under an obligation to take reasonable steps to ensure that the universal service objectives are eventually fulfilled in areas for which the provider is designated as a universal service provider. The universal service provider must also lodge universal service plans to the Commission for approval. A universal service plan must, amongst others, include a statement of the provider's policy for collective access or individual access, and indicate for which areas the policy applies to. The universal service provider must consult the public in developing its universal service plan. An approved universal service plan must be published by the provider. The universal service provider must take all reasonable steps to comply with its approved universal service plan.

The proposed system of universal service provision also require the universal service provider to lodge service improvement plans with the Commission for approval. The universal service provider must take all reasonable steps to comply with its approved service improvement plan.

The draft determination envisages that Time Reach may be designated as a universal service provider for collective access.

Selection of universal service provider

- a) Who should be required to provide universal services?
- b) How should a provider of universal services be selected?

- c) Should Telekom Malaysia be designated as a universal service provider? For what areas should Telekom Malaysia be designated as the universal service provider?
- d) Should Time Reach be designated as a universal service provider for collective access only? For what areas should Time Reach be designated as the universal service provider for collective access?

Delivery of universal services

- e) What is the best way of providing services to areas which currently do not receive any services?
- f) How should the universal service obligation be specified?
- g) How should the boundaries of a universal service area be specified?
- h) Should universal service areas be mutually exclusive?
- i) Under what circumstances should more than one universal service provider be designated in respect of an area?
- j) Is vandalism of public payphones an issue in achieving universal service objectives? What measures can be taken to address this matter?

Universal service plans

- k) Should the universal service provider be required to prepare universal service plans for achieving widespread collective access and widespread individual access?
- I) What requirements, if any, should a universal service plan comply with?
- m) Should the requirements include quality of service specifications?
- n) Should a universal service plan include a policy statement for providing collective/individual access?
- o) What requirements, if any, should a collective access policy comply with?
- p) What requirements, if any, should an individual access policy comply with?
- q) Should approved universal service plans be published by the universal service provider? How should these be published?
- r) Under what circumstances should a service improvement plan be lodged?
- s) What requirements, if any, should a service improvement plan comply with?

Information requirements

t) Should a former provider of universal services be required to provide information

to the current provider of universal services?

- u) What information should the former provider provide to the current provider?
- v) Who else should be required to provide to provide information to the current provider?

4.4 Costing universal services

Under the proposed system of universal service provision, a universal service provider who incurs a loss from supplying services in the course of fulfilling the universal service obligation may be entitled to a payment to recoup the loss.

To receive payment, a universal service provider must lodge a claim in respect of its loss from providing uneconomic services within 180 days after the end of the calendar year in which the loss is incurred. A claim must be supported by an auditor's report or a qualified expert's report. If a claim overstates the provider's entitlement, the provider may be liable to a penalty up to three times the amount by which the claim is overstated.

The proposed system of universal service provision will include a methodology (called the forward looking avoidable cost methodology) for determining the losses from providing uneconomic services. However, the Commission may approve variations to this methodology, or may approve the use of an alternative methodology.

The proposed system of universal service provision will exclude compensation in respect of uneconomic customers on the basis that the priority of the system of universal service provision should be on underserved areas.

General

- a) Should a universal service provider receive compensation for losses incurred in providing uneconomic services?
- b) How should the amount of such compensation be determined?
- c) How should such compensation be paid?

Processes for making claims

- d) Should a claim for compensation be supported by an auditor's report?
- e) What other evidence should be given in support of a claim for compensation?
- f) What time frame, if any, should a claim for compensation be made within?
- g) Should a claim be made in a transparent manner? What transparency requirements should be stipulated?

Assessment of claims

- h) What powers should the Commission have in order to assess a claim?
- i) On what bases should a claim be assessed?
- j) What principles, if any, should be stipulated for assessing or adjusting a claim?
- k) What time frame, if any, should a claim be assessed within?
- If a claim is not assessed within the stipulated time frame, should the claim be automatically accepted?
- m) What levels of penalty, if any, should be imposed if a claim overstates the claimant's entitlement? How should the level of penalty be determined?

Methodologies for determining losses

- n) Should losses from providing uneconomic services be determined using a forward looking avoidable cost methodology?
- o) What other methodologies are available to determine losses from providing uneconomic services?
- p) Under what circumstances should a universal service provider be allowed to use a methodology other than the forward looking avoidable cost methodology for determining losses from providing uneconomic services?

Forward looking avoidable cost methodology

- q) Should losses from providing universal services be limited to the net cost of providing services in uneconomic areas only?
- r) Should losses from providing universal services exclude the net cost of providing services to uneconomic customers in economic areas?
- s) Should an uneconomic area be identified and defined by reference to exchange areas? If not, how should an uneconomic area be identified and defined for the purposes of determining the net cost of providing services to uneconomic areas?
- t) How should a customer or group of customers be identified and defined for the purposes of determining the net cost of providing services to uneconomic customers in economic areas?
- u) How should a public payphone service or group of public payphone services be identified and defined for the purposes of determining the net cost of providing public payphone services?
- v) Should the net cost of providing services to an uneconomic area or an uneconomic customer be determined taking into account life-cycle effects?

- w) How should the life-cycle effects be taken into account?
- x) Should the net cost of providing uneconomic services take into account indirect benefits?
- y) What classes of indirect benefits should be recognized?
- z) For each class of indirect benefits, how should the value of indirect benefits be determined?
- aa) Should the recognition of a class of indirect benefit be subject to a materiality test? How should such a test be applied?

Determination of avoidable costs

- bb) How should avoidable cost be determined?
- cc) Under what circumstances should a universal service provider be required to use activity based costing for the purposes of determining avoidable cost? What other costing bases should be allowed if activity based costing cannot be used?
- dd) Under what circumstances should a universal service provider be required to determine costs on a forward looking basis?
- ee) How should the value of assets be determined for the purposes of determining allowance for depreciation and the opportunity cost of capital?
- ff) Should costs be determined taking into account grants (or other forms of financial support) made by the government?
- gg) What depreciation methods are available to determine allowance for depreciation, and under what circumstances should each of these methods be used?
- hh) Should the method of straight line depreciation be taken as the default method of depreciation?
- ii) How should the amount of opportunity cost of capital be determined?

4.5 Funding universal service objectives

The Act envisages that the total cost of providing universal services will be funded, either in part or in full, by contributions from licensees to a Universal Service Provision Fund (USP Fund). The draft determination proposes that the USP Fund should consist of an Uneconomic Services Component relating to payments to universal service providers for losses in providing uneconomic services.

Contributions to the total net cost of providing uneconomic services are to be based on each contributing licensee's weighted net revenues from designated services.

In general, all licensees are required to file returns in respect of their weighted net revenues from designated services. Licensees whose annual turnover for a year does not exceed a threshold amount are exempted from lodging returns. Licensees who have lodged returns, but whose weighted net revenues for a year does not exceed a threshold amount are deemed not to have any weighted net revenues for the year. The Commission may also exempt specific licensees from the requirement to lodge returns.

Returns must be supported by an auditor's report. If a licensee's return understates the licensee's weighted net revenues for a year, the licensee may be liable to a penalty not exceeding the amount of the understatement.

Grants from USP Fund

- a) Under what circumstances should grants out of the USP Fund be made?
- b) Should the Commission make grants in respect of service improvement proposals?
- c) Should service improvement proposals be published by the Commission? What information regarding service improvement proposals should be published or withheld?
- d) What procedures should the Commission follow before making a grant?
- e) What conditions should be fulfilled before the Commission makes a grant?
- f) What conditions should be fulfilled before a grant is paid?

Liability to contribute to USP Fund

- g) Should all licensees be required to contribute to the USP Fund in respect of revenues from designated services?
- h) Who should be exempted from being required to contribute to the USP Fund, and under what circumstances should the exemption be given?
- i) What should be the threshold for making returns on weighted net revenues?
- j) What should be the threshold for the liability to contribute?

Designated services

- k) What services should be designated for the purposes of determining contributions to the USP Fund?
- What services should not be designated for the purposes of determining contributions to the USP Fund?
- m) What principles should apply when determining whether or not a service should be designated?

- n) Should designated services include the provision of network facilities, network services and/or applications services?
- Should all types of content applications services be excluded from designation or should only certain classes of content applications services be excluded from designation? If the latter, which classes should be excluded?
- p) Is the description of the proposed designated services in the draft determination sufficiently precise? What other services should be included in the proposed list of designated services? What services should be taken out of the proposed list?

Revenues from designated services

- q) Should revenues from designated services be recognized for contribution purposes only if they are provided on an arms length basis?
- r) Should designated services provided internally (i.e., by a licensee to itself) be subject to contributions? If so, how should the value of these services be determined?
- s) Should corporate licensees within a company group be allowed to submit returns and contribute on a group basis? If so, under what circumstances should licensees be recognized as forming a company group for the purposes of submitting returns and making contributions?
- t) Should deductions from revenues derived from designated services be allowed? If so, what deductions should be allowed and on what basis(es)?
- u) Should revenues from designated services be weighted?
- v) If so, what principles should apply in determining the weights for each designated service?

Capping universal service contributions

- w) Should contributions to the total net cost of providing uneconomic services be capped? At what level should contributions be capped?
- x) If the contributions to the total net cost of providing uneconomic services are capped, how should the deficit be accounted for?
- y) Should the proposed universal service levy be capped? At what level should the levy rate be capped?

Assessment of returns on weighted net revenues

- z) Within what time frame, if any, should returns on weighted net revenues be lodged?
- aa) What evidence should be given in support of a return on weighted net revenues?

- bb) What powers should the Commission have in order to assess a return?
- cc) On what bases should a return be assessed?
- dd) What principles, if any, should be stipulated for assessing or adjusting a return?
- ee) What time frame, if any, should a claim be assessed within?
- ff) What levels of penalty, if any, should be imposed if a return understates the licensee's weighted net revenues? How should the level of penalty be determined?
- gg) Under what circumstances should a licensee be required to obtain a performance bond or other guarantees in respect of a liability or an anticipated liability to pay a universal service levy or a debit payment?

Information disclosure

- hh) Should the Commission provide information in relation to assessments it makes on claims for credit payments? What types of information should be provided? Who should the information be provided to?
- ii) Should the Commission provide information in relation to assessments it makes on returns of weighted net revenues? What types of information should be provided? Who should the information be provided to?
- jj) What other information should the Commission provide to a licensee?
- kk) Should the Commission publish its assessment of claims for credit payment?
- II) Should the Commission publish its assessment of returns on weighted net revenues?
- mm) What other information should the Commission publish?

APPENDIX A: DRAFT DETERMINATION ON A PROPOSED SYSTEM OF UNIVERSAL SERVICE PROVISION

MALAYSIAN COMMUNICATONS AND MULTIMEDIACOMMISSION SYSTEM OF UNIVERSAL SERVICE PROVISION DRAFT DETERMINATION

1. Preamble

1.1. The national policy objectives for the communications and multimedia industry includes ensuring 'an equitable provision of affordable services over ubiquitous national infrastructure'⁸. Consistent with the national policy objectives, the Minister has given the Commission a direction to:

....determine a system to promote the widespread availability and usage of network services and/or applications services throughout Malaysia by encouraging the installation of network facilities and the provision for network services and/or applications services in underserved areas or for underserved groups within the community.

- 1.2. The government takes the view that all licensees in the communications and multimedia sector have a responsibility to support the objective of ensuring equitable provision of affordable services over ubiquitous national infrastructure. All licensees have a responsibility to participate in the system of universal service provision. This responsibility exists even if it is not explicitly expressed as part of an operator's license condition.
- 1.3. This determination sets out a system of universal service provision.

2. The problems to be addressed

- 2.1. There are two practical problems which a system of universal service provision in Malaysia must address:
 - First is the need to build out infrastructure in areas which are currently either underserved or have no service at all (referred to as 'unserved areas') so that eventually the entire population of Malaysia has some form of access to communications services;
 - Second is the need to ensure that for areas which are already served, the designated provider of universal services is fairly compensated for the cost of providing such services to uneconomic areas. This will help

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⁸ Subs 3(2), para (f) of the *Communications and Multimedia Act* 1998.

ensure that all areas (including uneconomic areas) receive communications services in an equitable manner.

- 2.2. An underlying premise of a system of universal service provision is that universal service objectives are unlikely to be achieved by industry on their own without regulatory intervention. Indeed, in a competitive environment, resources are likely to be diverted to areas which are economic to serve, whilst leaving uneconomic areas underserved or unserved. A system of universal service provision must therefore ensure that adequate resources are raised to address the requirements of uneconomic areas. To the extent that such resources come from industry, this effectively means that uneconomic areas are funded by economic areas. This diversion of resources necessarily represents a cost to the economy because resources are being diverted away from areas which value them the most.
- 2.3. Consequently, in addition to the two practical problems outlined above, a system of universal service provision must also ensure that universal service objectives are achieved in a manner which minimizes the overall economic cost to the nation.

3. Components of a system of universal service provision

- 3.1. In this determination, the system of universal service provision is described in relation to the following subject matters:
 - Universal service objectives;
 - Delivery of universal services, including monitoring and compliance;
 - Costing the provision of universal services to uneconomic areas; and
 - Funding universal service objectives.

Whilst this may be an economically efficient outcome (leaving aside market failure considerations), equity goals are not adequately addressed.

To be more precise, the economic costs can be analysed as falling within at least two categories. Under the first category, communications services which are provided below cost must necessarily be subsidized by raising prices for other services. This may have cost implications for downstream economic activities. Under the second category, the returns to investment in communications services is reduced, thereby leading to lower investment in the communications sector.

4. Universal service objectives

- 4.1. The objectives of a system of universal service provision need to be clearly defined. Indeed, the concepts 'underserved areas' and 'underserved groups within the community' imply that there is a basic level of services which society regards as desirable that all areas and community groups should receive. The universal service objectives will assist in developing programs for the delivery of universal services.
- 4.2. The Minister's direction to the Commission sets out, in very broad terms, the general objective of the system of universal service provision, namely:
 - ... to promote the widespread availability and usage of network services and/or applications services throughout Malaysia ...
- 4.3. The Commission regards 'the widespread availability and usage of network services and/or applications services throughout Malaysia' as a long term objective and notes that the Commission is to determine a system which 'promotes' this long term objective. The Commission proposes to define a more precise set of objectives which, as and when achieved, would lead to the widespread availability and usage of network services and/or applications services in Malaysia. The Commission's expectation is that this set of objectives would be reviewed from time to time, in consultation with the wider community, to ensure that the broader long-term objective is eventually met.
- 4.4. The Commission proposes to define two forms of 'availability and usage':
 - collective access; and
 - individual access.
- 4.5. **Collective access** refers to the notion that communications services (such as basic telephony and internet services) should be reasonably available to a collective group of target end users. Traditionally, collective access is achieved (at least in part) by establishing a reasonable number of public payphones in the target communities so that basic telephony services are available to these communities.¹¹
- 4.6. **Individual access** refers to the notion that communications services (such as basic telephony and internet services) should be reasonably available to individual end users (usually thought of as households) in the target area. Traditionally, individual access is achieved (at least in part) by making basic

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A more recent proposal is to extend the range of services available (for instance to include broadband access) by making these extended services available at a more limited number of community centers (such as libraries and schools).

- telephony services (usually through fixed line services) available to every household in the target area. 12
- 4.7. The assessment of whether access is 'reasonable' should be informed by considerations of equity and economic efficiency. Whether access is 'reasonable' needs to be assessed on a case by case basis, having regard to the circumstances of each case.
- 4.8. The Commission proposes to limit the scope of universal services to basic telephony and internet services at this stage. Equity considerations suggest that the goal of universal access (particularly collective access) to basic telephony services should be achieved before considering whether to extend the scope of universal services to include more advanced services.
- 4.9. In relation to internet services, the Commission proposes to include within the scope of universal services access to internet services only. In this regard, access to internet services refers to the provision of a telephone connection which has the capability to support internet services.
- 4.10. The Commission therefore determines the following universal service objectives:

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However, with the relatively recent availability of public mobile telephony services, it may be appropriate to consider whether the reliance on the fixed network is still the most effective manner of achieving individual access for basic telephony services.

Box 1: Universal Service Objectives

Collective access:

Objective 1: All communities in Malaysia should have reasonable collective access to basic

telephony services. Reasonable collective access to basic telephony services may be achieved by ensuring that each community has reasonable access to a

public payphone at which a basic telephony service is available.

Objective 2: All communities in Malaysia should have reasonable collective access to internet

services. Reasonable collective access to internet services may be achieved by ensuring that community centers (such as libraries and schools) receive (upon request within a reasonable time frame) a telephone connection with a minimum

data channel of 128 kbps.

Individual access:

Objective 3: All households (including businesses) in Malaysia should have reasonable

individual access to basic telephony services. Reasonable individual access to basic telephony services may be achieved by ensuring that each household (or business) receives (upon request within a reasonable time frame) a basic

telephony service.

Objective 4: All households (including businesses) in Malaysia should have reasonable

individual access to internet services. Reasonable individual access to internet services may be achieved by ensuring that each household (or business) receives (upon request within a reasonable time frame) a telephone connection

which has the capability to support internet services.

Basic telephony service:

Basic telephony service refers to a service for the purpose of voice telephony which enables an end user using the service to communicate, by means of that service, with other end users who are supplied with the same service (or equivalent service) for the same purpose.

Reasonable access:

Reasonable access is to be assessed having regard to considerations of equity and economic efficiency, including the commercial viability of installing network facilities or providing network services in particular areas or places.

Priority:

In general, collective access (objectives 1 and 2) will have priority over individual access (objectives 3 and 4) particularly in areas or for groups within the community which do not yet have any basic telephony services. In general, access to basic telephony services (objectives 1 and 3) will have priority over access to internet services (objectives 2 and 4). In general, objectives 1 and 2 should be achieved before objectives 3 and 4.

4.11. Subsection 203(1) requires the Commission to include definitions of 'underserved areas' and 'underserved groups within the community' in its determination of a system of universal service provision. The Commission proposes to define these terms by reference to the universal service objectives.

Box 2: Definition of 'underserved areas' and 'underserved groups within the community'

'*Underserved areas*' means areas in Malaysia where Universal Service Objectives (as defined from time to time) have not yet been achieved. For instance, areas with communities which do not yet have reasonable access to basic telephony services or internet services would be underserved areas. Similarly, areas with households which do not yet have reasonable access to basic telephony services or internet services would be underserved areas. An 'area' refers to a geographic area and may be identified by reference to political boundaries – for instance, state, district, division, jajahan, and/or mukim.

'Underserved groups within the community' means groups within the community in Malaysia for which Universal Service Objectives (as defined from time to time) have not yet been achieved. For instance, groups within the community which do not yet have reasonable access to basic telephony services or internet services (whether in the form of collective access or individual access as the case may be) would be underserved groups within the community. A 'group within the community' may be geographic or non-geographic.

5. Delivery of universal services

- 5.1. In Malaysia, universal services has traditionally been delivered by Telekom Malaysia in accordance with the government's objectives. This has meant that since 1999, only Telekom Malaysia has received funding for the cost of providing basic telephony services to uneconomic areas and uneconomic customers.
- 5.2. The Commission takes the view that Telekom Malaysia need not be the sole universal service provider, and other licensees willing to be designated as a universal service provider should also be entitled to receive funding for providing basic telephony services to uneconomic areas.
- 5.3. Conceptually, it might be possible to determine a system where more than one designated universal service provider competes with each other to provide basic telephony services in the same area. However, considerable work needs to be done to determine such a system, and the Commission is not yet in a position to do so.¹³ Consequently the Commission proposes that universal service providers would be designated in respect of mutually exclusive geographic areas.
- 5.4. The Commission proposes to distinguish between two types of areas:

It would be necessary to ensure that competition between universal service providers does not lead to inflated funding levels. For instance, areas which are otherwise profitable for a single provider to serve could quickly become unprofitable because of competition between universal service providers.

- Areas in which Telekom Malaysia is in the best position to deliver basic telephony services (including providing access to internet services). In general, these are likely to be areas where Telekom Malaysia already have infrastructure to provide basic telephony services to these areas, or is in a position to readily install infrastructure to provide such services to communities in these areas.
- Areas in which all licensees are equally well placed to provide basic telephony services (including providing access to internet services). In general, these are likely to be areas in which Telekom Malaysia does not have infrastructure to provide basic telephony services or is not in a position to readily install infrastructure to provide such services to communities in these areas.
- 5.5. In areas where Telekom Malaysia is in the best position to provide basic telephony services, the Commission proposes to designate Telekom Malaysia as the universal service provider for these areas. In areas where all licensees are equally well placed to provide basic telephony services, the Commission proposes to invite expressions of interest to be designated as universal service providers from licensees who are interested in providing basic telephony services in such areas.

Box 3: The universal service obligation

A designated universal service provider in respect of an area must take reasonable steps to ensure that the universal service objectives in respect of that area are eventually fulfilled. This is referred to as the **universal service obligation**

- 5.6. To ensure that all communities and households receive reasonable access to basic telephony services regardless of whether they are economic or not, a designated universal service provider in respect of an area will receive an annual credit payment in relation to the universal service provider's annual net cost of providing services to communities and households in that area in the course of fulfilling the universal service provider's universal service obligation.
- 5.7. A designated universal service provider must submit Universal Service Plans (for collective access and individual access) to the Commission for approval.
 - The Universal Service Plan for collective access must, amongst others:
 - Identify and define the areas which are covered by the Universal Service Plan;

- Include a Collective Access Policy which specifies the universal service provider's policy for providing collective access in respect of an area¹⁴;
- Identify and declare the areas to which the Collective Access Policy applies;
- For areas where the Collective Access Policy does not yet apply, indicate target time frames during which the Collective Access Policy is expected to eventually apply.
- The Universal Service Plan for individual access must, amongst others:
 - Identify and define the areas which are covered by the Universal Service Plan;
 - Include an Individual Access Policy which specifies the universal service provider's policy for providing individual access in respect of an area¹⁵;
 - Identify and declare the areas to which the Individual Access Policy applies;
 - For areas where the Individual Access Policy does not yet apply, indicate target time frames during which the Individual Access Policy is expected to eventually apply.
- Approved Universal Service Plans must be published by the universal service provider.
- 5.8. The Commission may direct a designated universal service provider to submit Service Improvement Plans for underserved areas and underserved groups within the community to the Commission for approval.
 - A Service Improvement Plan for an underserved area or an underserved group within the community is a plan that sets out how the universal service provider intends to progressively fulfill the

For instance, the Individual Access Policy could specify under what circumstances basic telephony services will be provided to a household and the time frames for providing basic telephony services upon request by a household. The Individual Access Policy could specify under what circumstances a telephone connection capable of supporting internet services will be available.

For instance, the Collective Access Policy could specify under what circumstances public payphones will be installed and the time frames for installing public payphones upon request by members of that community. The Collective Access Policy could also specify under what circumstances a minimum data channel of 128kbps will be provided to schools and libraries.

- universal service obligation in so far as the obligation relates to that underserved area or underserved group within the community.
- Approved Service Improvement Plans must be published by the universal service provider.
- 5.9. The Commission proposes to implement the system of universal service provision in the following manner:
 - For the calendar year 2001, Telekom Malaysia will continue to be designated as the sole universal service provider. Furthermore, Telekom Malaysia will be required to file a Universal Service Plan to the Commission in respect of the calendar year 2001.
 - Telekom Malaysia will be designated as a universal service provider for the calendar year 2002. Telekom Malaysia will be required to submit draft Universal Service Plans to the Commission for approval. Each draft Universal Service Plan must identify and define the areas which are covered by the Universal Service Plan.
 - The Commission will consult with Telekom Malaysia and other interested parties to identify and define the areas which are not covered by Telekom Malaysia's Universal Service Plan. This work is expected to be accomplished by April 2001.
 - The Commission will then seek expressions of interest from interested parties to be designated as universal service providers in areas which are not covered by Telekom Malaysia's Universal Service Plans. Expressions of interest may include proposals for grants from the Universal Service Fund or other sources to assist in financing capital expenditure to provide universal services in the relevant areas. Expressions of interest must be accompanied by draft Universal Service Plans and draft Service Improvement Plans for the relevant areas. The Commission will ensure that any grants from the Universal Service Fund will be subject to a competitive process before it is made.
- 5.10. The Commission is aware that Time Reach has, in the past, been supplying public payphone services on a non-commercial basis in accordance with its license conditions under the now repealed *Telecommunications Act* 1950. To the extent that Time Reach continues to be obliged to provide public payphone services on a non-commercial basis, the Commission's preliminary view is that Time Reach should receive compensation for the net cost of providing such services. In this respect, the Commission is inclined to designate Time Reach as a universal service provider, but only in relation to collective access for basic telephony services. This will require Time Reach to submit a Universal Service Plan for collective access for basic telephony services only to the Commission for approval. However, the Commission is also concerned to ensure that competition between Telekom Malaysia and Time Reach in providing public payphone services in Malaysia. In this respect, the Commission directs Telekom Malaysia

and Time Reach to consult with one another in relation to their Universal Service Plans for public payphone services with a view to ensuring that any future expansion of public payphone services does not lead to inefficient overprovision of public payphone services.

6. Costing the provision of universal services

- 6.1. If for a calendar year a universal service provider incurs a loss (called a net universal service cost) from supplying services (called universal services) in the course of fulfilling the universal service obligation, the universal service provider may be entitled to a payment (called a credit payment) to recoup the loss.
- 6.2. Unless an alternative methodology has been approved by the Commission, a universal service provider's net universal service cost will be determined in the following manner:
 - (1) The net cost of providing universal services (including public payphone services) to uneconomic areas in the relevant calendar year;
 - (2) *plus*: The net cost of providing public payphone services in economic areas in the relevant calendar year;
 - (3) *less*: The estimated value of indirect benefits, if any, which the universal service provider derives in the relevant calendar year from its designation as the universal service provider¹⁶;
 - (4) equals: The net cost of providing universal services in the relevant calendar vear.

7. Funding universal service objectives

7.1. The Act envisages that the total cost of providing universal services will be funded, either in part or in full, by contributions from licensees under the Act to a Universal Service Provision Fund (USP Fund).¹⁷

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However, the Commission has not, at this stage, formed a view on whether there are in fact material indirect benefits flowing from an operator's designation as a universal service provider. The Commission is also conscious that no objective methodology for measuring the monetary value of such benefits appears to have been developed to date. The Commission proposes to consult with interested parties on (i) whether material indirect benefits in fact exist; and (ii) what methodologies are available to estimate the monetary value of such benefits. Pending such consultations, the Commission is minded to assume that there are no material indirect benefits.

See section 204 of the Act.

- 7.2. The Commission is conscious that industry funding is effectively an additional cost levied on industry, and that this inevitably has distortionary effects on investment and consumption decisions. In this respect, the Commission's objective is to determine a system which minimizes these distortionary effects.
- 7.3. The Commission will also seek to minimize the administrative burden of complying with obligations to contribute to the USP Fund.

USP Fund component	Source of funds	Application of funds
Uneconomic Services Component	Universal service contributions from each licensee (who are not exempted) in respect of a calendar year will be determined as a share of the total net universal service cost for the year based on each licensee's weighted net revenues from designated services for that year. The universal service contribution will apply in relation to the year 2002 and beyond.	For each calendar year (or part thereof) where a provider has been designated as a universal service provider in respect of an area, the provider may submit a claim for credit payment in respect of the provider's net universal service cost for that calendar year. Payment from the USP Fund will be made retrospectively.

- 7.4. Economic efficiency considerations suggest that the base for funding universal service objectives should be as broad as possible so that the effective additional cost levied on industry revenues is kept as low as possible. Consequently the Commission takes the view that all licensees should be required to contribute to the USP Fund in respect of revenues derived from services (excluding content applications services) provided in a communications market. For administrative purposes, the Commission will determine a list of designated services and contributions to the USP Fund will be based on revenues derived from the designated services.
- 7.5. The list of designated services will initially comprise of the following classes of services:
 - National long distance call services;
 - International call services;
 - Call termination services provided to overseas operators;
 - International roaming services provided to subscribers of overseas operators roaming in Malaysia;
 - Mobile services;
 - Operator assisted call services;
 - Toll-free services;

- Information services;
- ISDN services;
- Leased line services;
- Other services which are close substitutes to any of the above services (regardless of the technologies used to deliver the services).
- 7.6. The Commission will review the list of designated services from time to time with a view to including other services in the list as appropriate.
- 7.7. All licensees (unless exempted) will be required to submit to the Commission a return of the licensee's revenues derived from designated services during each calendar year, beginning with the calendar year 2002. With a view to minimizing the administrative burden, a licensee will be exempted from submitting a return if the licensee's total audited revenues (including revenues derived from services which are not designated services) for the licensee's last financial year (which need not end on 31 December) does not exceed a threshold level (the **return threshold**) as determined by the Commission from time to time. The return threshold level is initially determined at RM 500,000 a financial year.
- 7.8. Again with a view to minimizing the administrative burden, a licensee who has submitted a return to the Commission will nevertheless be deemed not to have derived any revenues from designated services if the licensee's total revenues derived from designated services during a calendar year does not exceed a threshold level (the **liability threshold**) as determined by the Commission from time to time. The liability threshold is initially determined at RM 500,000 a calendar year.
- 7.9. The Commission may also specifically exempt specific licensees from having to submit annual returns to the Commission subject to an undertaking by the licensee to file a return with the Commission in respect of a calendar year if the licensee has reasonable grounds to believe that the licensee's total revenues derived from designated services during the calendar year is likely to exceed the liability threshold as determined by the Commission from time to time.¹⁸

Chairman
Malaysian Communications and Multimedia Commission (date)

lt is anticipated that specific exemptions are likely to be provided to licensees with large amounts of revenues derived from services which are not designated services.

APPENDIX B: THE REGULATORY FRAMEWORK

The Communications and Multimedia Act 1998 (the Act) covers communications over the electronic media but not the print media. The Act came into effect on 1 April 1999, with the repeal of the *Telecommunications Act* 1950 and the *Broadcasting Act* 1988.

Until 31 March 1999, the telecommunications industry was regulated by the Jabatan Telekomunikasi Malaysia (the Telecommunications Department) while the broadcasting industry was regulated by the Ministry of Information. With effect from 1 April 1999, the regulation of the telecommunications and broadcasting industries was taken over by the newly formed Communications and Multimedia Commission (the Commission).

The Act establishes a framework for regulatory intervention to promote Malaysia's national policy objectives for the communications and multimedia industry. This is an evolving industry in which a range of traditionally stand alone industries are converging.

National policy objectives under the Communications and Multimedia Act 1998:

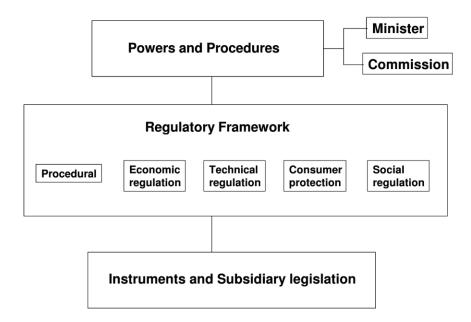
- To establish Malaysia as a major global center and hub for communications and multimedia information and content services;
- To promote a civil society where information-based services will provide the basis of continuing enhancements to quality of work and life;
- To grow and nurture local information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

The activities and services regulated under this Act include traditional broadcasting, telecommunications, and online services, including the facilities and networks used in providing such services, as well as content which is supplied via the facilities and networks. The Act seeks to provide a generic set of regulatory provisions based on generic definitions of market and service activities and services.

The key participants in the industry who are regulated under the Act include the following:

 Network facilities providers, who are the owners of facilities such as satellite earth stations, broadband fibre optic cables, telecommunications lines and exchanges, radiocommunications transmission equipment, mobile communications base stations, and broadcasting transmission towers and equipment;

- Network services providers, who provide the basic connectivity and bandwidth to support a variety of applications;
- Applications service providers, who provide particular functions such as voice services, data services, content-based services, electronic commerce and other transmission services; and
- Content applications service providers who are a special subset of applications service providers including traditional broadcast services and newer services such as online publishing and information services.



The institutional framework established under the Act may be depicted as in the above diagram.

Instruments which may be issued by the Minister include:

- Direction to the Commission: The Minister may direct the Commission with respect to the Commission's exercise of its powers and performance of its functions and obligations under the Act.
- Determination of a matter: The Minister may determine matters under the Act. A
 determination may be made entirely at the discretion of the Minister, subject to the provisions
 of the Act, and does not require consultation with the Commission or any other person.
- Grant of licences: The Minister has ultimate discretion with respect to the granting of licences under the Act, but must give due consideration to the relevant recommendation of the Commission.
- Declaration of licence conditions: The Minister may declare licence conditions and may
 vary or revoke licence conditions with respect to licences granted under the Act such as
 individual licences and class licences. The Minister must consult with affected licensees prior

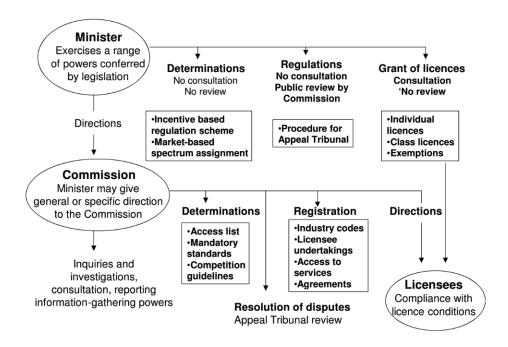
to declaring, varying or revoking a licence condition. Procedures for consultation are provided in the Act.

 Regulations: The Act empowers the Minister to make any regulations as may be necessary to give full effect to the Act.

Specific instruments which may be issued by the Commission include:

- Directions: The Commission may issue written directions to persons where the Act
 provides for it, including licensees about compliance or non-compliance with licence
 conditions. Before issuing a direction, the Commission must first provide a formal warning to
 the person and allow the person an opportunity to be heard or submit a written submission in
 defence of his conduct.
- **Determination:** The Commission may determine any matter specified in the Act as being subject to determination. The Commission may undertake a public inquiry prior to a determination only if the matter to be determined is of significant public or industry interest. The inquiry must then be carried out in accordance with the standard procedures for a public inquiry set out under the Act.
- Inquiry: The Commission may hold a public inquiry regarding any matter which relates to the administration of the Act or its subsidiary legislation. A public inquiry may be launched by the Commission on its own initiative, or by a request from a person. Alternatively, the Minister may direct the Commission to conduct a public inquiry. A public inquiry will generally involve the Commission's announcement of the inquiry and call for submissions in respect of the matters being examined.

The structure of the Minister's and Commission's powers and instruments may be depicted in the following manner:



The Act provides for two types of licences, namely individual licences and class licences.

The Minister has flexibility to grant either individual licences or class licences for particular types of activities as the Minister deems fit. This flexibility is designed to ensure that the Act remains responsible to changing requirements as the industry evolves.

Persons seeking an individual licence must submit a written application to the Commission. The Commission is required to process the application and provide a recommendation to the Minister as to whether an individual licence should be granted.

A person who wishes to operate under a class licence must submit a notice of registration to the Commission, if required under the Act. Registration simply enables the Commission to monitor industry activity. A requirement to register under a class licence does not imply any requirement for approval.

The objective of licensing is to both control and monitor the entry of network facilities providers and network service providers into the market, and to ensure that all facilities and services are provided in accordance with national policy. In addition, licensing allows the imposition of various conditions on market participation.