

Suruhanjaya Komunikasi dan Multimedia Malaysia
 Malaysian Communications and Multimedia Commission

INTERCONNECTION (1):

Interconnection Theories and Models

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AGENDA

- Importance of Interconnection, Scope and Interconnection issues
- Why Access Regime?
- Access Regime under Telecom Act 1950
- Access Regime under CMA 1998
- Elements of Access Regime
- Commission Initiative on Access Regime
- Conclusion


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The importance of Interconnection

- Communications
 - Major consumer issue
- Competition
 - Monopolies
 - History of incumbent operator owning major networks
 - Interconnection is a key factor to competition

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Scope of Interconnection

- Different regimes have different definitions
 - In Europe

“Interconnection means the physical and logical linking of public electronic communications networks used by the same or a different undertaking in order to allow the users of one undertaking to communicate with the users of the same or another undertaking, or to access services provided by another undertaking. Services may be provided by the parties involved or other parties who have access to the network”

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Scope of Interconnection (2)

- In addition, in Europe, they have another concept called access.

“Access means the making available of facilities/and or services, to another undertaking, under defined conditions, on either an exclusive or non-exclusive basis, for the purpose of providing electronic communications services. It covers, inter alia:

 - Access to network elements and associated facilities and services,
 - Access to physical infrastructure, software systems
 - Access to number translation systems,
 - Access to mobile networks, for roaming
 - Access to conditional access systems for digital television services”


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Key interconnection issues (1)

- Framework and procedural issues
 - Regulatory guidance
 - Interconnection with incumbents
 - Standard interconnection terms
 - Independent and timely dispute resolution
 - Non discriminatory access to interconnection facilities and services
 - Access to PSTN networks including planned changes
 - Treatment of Universal Service, Universal Access or Access Deficit Charges


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Key interconnection issues (2)

- Commercial issues
 - Level and structure of interconnection charges; basis for calculation (i.e. type of costs used to calculate charges, revenue sharing, bill and keep etc.)
 - Unbundling of interconnection charges for different network components and related services
 - Resale of network facilities and services
 - Payment for network modifications to facilitate interconnection
 - Confidential Treatment of competitive and customer information


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Key interconnection issues (3)

- Technical and Operational Issues
 - Open network standards and technical compatibility
 - Location of points of interconnection (PoI)
 - Access to signalling systems, advanced digital features, billing system, operations support systems (OSS), call related databases
 - Access to unbundled network components, including local loops
 - Equal ease of customer access to competitive networks
 - Access to numbers and implementation of number portability
 - Colocation and sharing of infrastructure (e.g. buildings, poles, ducts etc)
 - Quality of interconnection, including availability of sufficient interconnection capacity to avoid congestion and to ensure timely provisioning of interconnection services and facilities

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Widely accepted Interconnection Principles (1)

- Terms of interconnection should not be discriminatory
 - Between dominant or non-dominant
- Interconnection should be permitted at any technically feasible point
 - If non standard, requesting operator should pay additional costs
- Interconnection charges should generally be cost based
- Cost inefficiencies of incumbent should not be passed through
- Where reciprocal interconnection costs are balanced, may consider bill and keep and not cost based (simple)


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Widely accepted Interconnection Principles (2)


- Regulatory guidelines and procedures should be prescribed in advanced to facilitate negotiations
- Standard terms and procedures should be published for interconnection to dominant operators
- Interconnection procedures and arrangements should be transparent
- Interconnection arrangements should encourage sustainable competition
- Network elements should be unbundled and charged separately
- Charges relating to universal service should be identified separately and not bundled with interconnection charges
- An independent regulator should resolve interconnection disputes quickly and fairly

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THE MALAYSIAN SCENARIO

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WHY ACCESS REGIME?

Access is not an end in itself, but only an instrument to achieve structural reform, which in itself is an instrument to promote competition, productivity growth and consumer welfare

To create a more competitive industry structure, there are two options:

- divestiture - i.e., forcing the vertically integrated operator to divest itself of the monopoly business; or
- setting up a Regulatory Regime (consisting of Access Regime / Competition Regime) to regulate the monopoly / bottleneck business

US telecom industry took the divestiture route and forced AT&T to sell off its local exchange carriers (creating the Baby Bells). But most other countries have taken the Regulatory Regime route

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WHY ACCESS REGIME? (cont)

Two main reasons for mandating Access –

- to promote competition in a downstream market (conversely, to control market power in the upstream market); and
- to promote any-to-any connectivity.

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ACCESS REGIME UNDER THE COMMUNICATIONS AND MULTIMEDIA ACT 1998

- With the passing of the Communications and Multimedia Act 1998 (the Act), a new Access Regime was introduced
- While it was noted that the Telecommunications Act 1950 (including the Licenses issued under it) was revoked, some of the regulatory instruments under it have not been revoked (although some / parts of them have since been repealed). Similarly, the ICAs, which are effectively contractual agreements, are still very much in operation
- Efforts are ongoing to ensure that the intentions and instruments of the (new) Act with respect to the Access Regime are implemented

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ACCESS REGIME UNDER THE COMMUNICATIONS AND MULTIMEDIA ACT 1998 (continued)

Principle behind Access Regime

- Chapter 3 Part VI of the Act seeks to establish an Access Regime to ensure that all network facilities providers (NFP), network service providers (NSP) and applications service providers (ASP) can gain access to the necessary facilities and services on reasonable terms and conditions in order to prevent the inhibition of the provision of downstream services

Explanatory Statement to the Act, para 82

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ELEMENTS OF ACCESS REGIME

Definition of Access – section 6

- "Access" means access to a network facility or network service listed under Chapter 3 of Part VI.

Access List – sections 145, 146 and 147

- Access List is a list of network facilities and network services in respect of which Standard Access Obligations applies.
- The Commission may determine an Access List on its own accord or on the recommendation of an Access Forum.

Standard Access Obligations – section 149

- SAO refers to the obligation of an "Access Provider" (NFP and NSP) to provide access to the listed network facilities or network services on reasonable terms and conditions to an "Access Seeker" (NFP, NSP, ASP and CASP).

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ELEMENTS OF ACCESS REGIME (cont)

Access Forum – sections 147, 152 and 153

- Access Forum is a designated industry body with the responsibility to recommend Access List and Access Code to the Commission
- The Commission may designate a single industry body to be the Access Forum for that purpose

Access Code – section 153 and 154

- Access Code is a Voluntary Industry Code recommended by the Access Forum and registered by the Commission
- An Access Code shall provide model terms and conditions for compliance with the Standard Access Obligation
- The Commission may make a written request to the Access Forum to prepare Access Code. On the other hand, the Commission may determine Voluntary Industry Code or Mandatory Standard, depending on the legislative criteria

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ELEMENTS OF ACCESS REGIME (cont)


Access Undertaking – section 155 and 156

- An Access Undertaking is an undertaking by a licensee to provide Access to a particular network facility or network service listed in the Access List and shall be registered with the Commission
- The undertaking may specify terms and conditions for Access and shall be in accordance with section 110

Access Agreements – section 150

- (Written) Access Agreement for the provision of listed network facilities or network services shall be registered with the Commission in accordance with section 91

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ELEMENTS OF ACCESS REGIME (cont)

Access Dispute – section 151

- A party to the dispute over the compliance with SAO may notify the Commission of the dispute under Chapter 7 Part V of the Act

License Condition


- Insofar as Network Facilities Provider and Network Services provider Individual Licensees are concerned, they are subject to a License Condition which provides “The Licensee shall permit interconnection with the Licensee’s network under terms and conditions which may be determined and/or approved by the Commission.”

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HOW IT ALL PLAYS OUT IN PRACTISE?

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COMMISSION INITIATIVE ON ACCESS REGIME

Work on Access List

- As mentioned above, Access List may be determined by the Commission on its own accord or on the recommendation of an Access Forum.
- In line with the migration to the new licensing regime under the Act, the Commission was of the view that the Access Regime under the Act should be put in place as soon as possible. With that view in mind, the Commission initiated work on Access Regime by issuing the Commission Determination on Access List* in March 2001.

*Prior to that, in December 2000, the release of a Public Inquiry (PI) document on Access List Determination and Access Pricing Principles, inviting submissions from the public, was the first formal step taken by the Commission towards implementing Access Regime under the Act

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COMMISSION INITIATIVE ON ACCESS REGIME

Work on Access Pricing

- Following the Commission Determination on Access List, the Commission has also initiated work on Access Pricing, using a cost-based LRIC model, to review the benchmark Access Pricing determined in TRD 006/98
- The study began in August 2001 and the Commission has conducted a PI process in May 2002 to discuss the key findings of the exercise
- In July 2002, the Commission published the PI Report on Access Pricing, recommending the new Access Pricing for selective services on Access List

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COMMISSION INITIATIVE ON ACCESS REGIME

Work on Access Pricing

- The Minister of Energy, Communications and Multimedia issued a Ministerial Direction on Mandatory Standard on Access Pricing on 17 February 2003, directing the Commission to issue a Commission Determination on Mandatory Standard on Access Pricing, effective 1 July 2003
- The Commission will be issuing a new Commission Determination on Mandatory Standard on Access Pricing before 1 July 2003

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COMMISSION INITIATIVE ON ACCESS REGIME

Work on Access Pricing (continued)

- In the same PI process, the Commission also consulted the public on whether the Local Access Funding (LAF) mechanism (under TRD 006/98) should still be implemented given that there has been a substantial change to the Universal Service Provision (USP) system
- The Commission also consulted the public of whether an Access Deficit mechanism should be put in place to replace the LAF
- In the PI Report, the Commission recommended the abolition of LAF mechanism with a view to replace it with Access Deficit mechanism, awaiting TMB’s evidence to support the proposal

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COMMISSION INITIATIVE ON ACCESS REGIME

Work on Mandatory Standard (MS) on Access

- Similar to the situation with the Access List, a Code for Access may be determined by the Commission on its own accord or on the recommendation of an Access Forum
- With that view in mind, the Commission has decided to initiate another track of work with respect to the Access Regime i.e. developing a Mandatory Standard on Access
- The Minister of Energy, Communications and Multimedia issued a Ministerial Direction on Mandatory Standard on Access on 18 March 2003, directing the Commission to conduct a Public Inquiry process before issuing a Commission Determination on Mandatory Standard on Access

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COMMISSION INITIATIVE ON ACCESS REGIME

Work on Mandatory Standard (MS) on Access

- The PI process was initiated on 30 April 2003
- As part of the consultative process, a Public Hearing was conducted on the matter on 6 June 2003 to discuss relating to the draft Mandatory Standard on Access
- The PI process was concluded on 30 June 2003 and a PI Report will be issued on 30 July 2003
- The Commission is also in the process of issuing a Commission Determination on Mandatory Standard on Access, due date 14 August 2003

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COMMISSION INITIATIVE ON ACCESS REGIME

Work on Guideline on Access Agreement

- In light of Access Agreements being lodged to the Commission for registration, the Commission has also prepared a Guideline to register Access Agreements for industry and the Commission's internal use
- The work is slated to be completed in 3Q2003

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CONCLUSION

- Given the importance of Access, the Commission has decided to exercise its regulatory powers by developing initiatives to establish a workable Access Regime
- Notwithstanding the Commission's initiative, industry self-regulation for Access has always been given ample opportunity and support to develop
- The Commission's initiatives have always involved industry's and public participation
- In its efforts, the Commission has always built in flexibility in that the industry self-regulation efforts will always takes priority and precedence over the Commission's own initiatives

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THANK YOU

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