Suruhanjaya Komunikasi dan Multimedia Malaysia

Malaysian Communications and Multimedia Commission

Information Paper on Regulating Cloud Services

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1.0 ABBREVIATIONS

ASP (C)	Applications Service Provider (Class)
CMA1998	Communications and Multimedia Act 1998
Licensing Regulations 2000	Communications and Multimedia (Licensing) Regulations 2000
Licensing Exemption Order 2000	Communications and Multimedia (Licensing) (Exemption) Order 2000
MCMC	Malaysian Communications and Multimedia Commission
NFP (I)	Network Facilities Provider (Individual)
NSP (I)	Network Service Provider (Individual)
USP Regulations 2002	Communications and Multimedia (Universal Service Provision) Regulations 2002

2.0   INTRODUCTION

2.1   The Minister of Communications and Multimedia Malaysia had on 16 October 2021 announced that Malaysia will be regulating the provisioning of cloud services beginning 1 January 2022. The services will be regulated by MCMC under the light touch regulation provided under the CMA1998.

2.2   The light touch regulation seeks to increase protection of consumer data, as well as allowing participation of industry players in the development of the regulatory instruments such as, technical codes and standard operating procedures (SOPs) on data security, and protections based on international benchmark.

2.3   This information document seeks to provide further clarification on the regulatory framework for cloud services under the light touch regulations as provided under the CMA1998.

2.4   The regulatory of cloud service will support Government of Malaysia aspirations on MyDIGITAL as Malaysia is moving towards cloud first strategy and 80% of public data will be migrated to a hybrid cloud environment by the end of 2022.

3.0 BACKGROUND

3.1 With the accelerated digitalisation and increased reliance on cloud services, consumer protection as well as trusted environment is important for the cloud services.

3.2 MCMC also notes that regulatory framework will provide certainty and clarity of the due process which enables investors to adequately assess its investment in Malaysia.

3.3 The regulatory framework is decided based on the objective to:
   i. Protecting investors' interest;
   ii. Creating a trusted environment;
   iii. Protecting personal data passing through data centres; and
   iv. Addressing the issue on hosting of illegal activities.

3.4 Under the CMA1998 a robust regulatory environment can be established by ability to regulate the activity with the available regulatory instruments and tools provided under the Act.

4.0 LEGISLATIVE CONTEXT – LICENSING FRAMEWORK

4.1 CMA1998 has included provisions on licensing that is designed to allow flexibility with respect to licensing structures as the licensing requirements vary over time with the evolution in the communications and multimedia industry.

4.2 Licences under the CMA1998 are formulated to be both technology and service neutral. The licensing regime allows a licensee to undertake activities that are market specific. This creates opportunities for expansion into the industry and provides for a more effective utilisation of network infrastructure.

4.3 CMA1998 imposes the requirement of licence under S.126 for the provisioning of network facilities, network services and applications services and under S.205 for the provisioning of content applications services.

4.4 These activity categories are further classified into two key types of licences that is Individual Licence and Class Licence.

- **Individual licence** requires a high degree of regulatory control for a specified person to conduct a specified activity and may include special licence conditions.
- **Class licence** is a 'light-handed' form of regulation which is designed to promote industry growth and development with easy market access with yearly registration.

4.5 Both Individual and Class licence are subjected to the standard licence conditions as specified under Schedule of the CMA1998.

4.6   Individual licences must be applied for and are granted by the Minister of Communications and Multimedia (hereinafter referred to as the "**Minister**"). Special or additional licence conditions may be imposed and such licence conditions are declared by the Minister. The Minister also has the power to modify, vary, revoke or impose further special or additional conditions at any time. However, the affected licensees will be notified of the intention to do so to enable them to make the appropriate submissions.

4.7   The Minister may grant a Class licence in respect of any matter requiring a licence under the CMA1998. Unlike an Individual licence, a Class licence requires yearly registration. The following, types and category of licences are available under the CMA1998

Licences under the CMA1998

Licence	Type of licence
Individual	- Network Facilities Provider (**NFP**) - Network Service Provider (**NSP**) - Content Applications Service Provider (**CASP**)
Class	- Network Facilities Provider (NFP) - Network Service Provider (NSP) - Content Applications Service Provider (CASP) - Applications Service Provider (**ASP**)

4.8   The details of activities licensed under each Individual or Class licence category is further elaborated under the Licensing Regulations 2000. The types of activities regulated is as per table below:

Licence Category	Individual Licence	Class Licence	Exempt/ Unlicensed
Network Facilities Provider	• Earth Stations; • Fixed links and cables; • Radiocommunications transmitters and links; • Satellite hubs; • Satellite control station; • Space station; • Submarine cable landing centre; • Towers, poles, ducts and pits used in conjunction with other network facilities; or • Such other network facilities which are not exempt under the CMA or not subject to a class licence under Part IV of the Licensing Regulations or not listed in this subparagraph.	• Niche or limited purpose network facilities	• Broadcasting and production studios; • Incidental network facilities; or • Private network facilities.
Network Service Provider	• Bandwidth services; • Broadcasting distribution services; • Cellular mobile services; • Access applications service; • Space services; • Switching services; • Gateway services; or	• Niche customer access; or • Niche connection services	• Incidental network services; • LAN services; or • Private network services.

Licence Category	Individual Licence	Class Licence	Exempt/ Unlicensed
	• Such other network services which are not exempt under the CMA or not subject to a class licence under Part IV of the Licensing Regulations or not listed in this subparagraph.		
Applications Service Provider		• PSTN telephony; • Public cellular services; • IP telephony; • Public payphone services; • Public switched data services; • Audiotext hosting services provided on an opt-in basis; • Directory services; • Internet access services; • Messaging services; or • Such other applications services which are not exempt under the Act or not listed in this subregulation.	• Electronic transaction service; • Interactive transaction service; • Networked advertising boards and Cineplex; or • Web hosting or client server.
Content Applications Service Provider	• Satellite broadcasting; • Subscription Broadcasting; • Terrestrial free to air TV; • Terrestrial radio broadcasting; or	Following limited content applications service: • Content applications service limited in its availability to:	Internet content applications services.

Licence Category	Individual Licence	Class Licence	Exempt/ Unlicensed
	• Such other content applications services which are not exempt under the CMA or not subject to a class licence under Part IV of the Licensing Regulations or not listed in this subparagraph.	i. vehicles, vessels, railway or aircraft used for hire or reward or for any other valuable consideration ii. a single commercial or residential building; or iii. a restricted geographical area; • A content applications service of limited appeal or which is targeted to a special interest group and available through subscription by persons using equipment specifically designed for receiving the said service; • A content applications service where the content is remotely generated and distributed through a network service and displayed on a screen; • A content applications service for distance learning purpose; or	

Licence Category	Individual Licence	Class Licence	Exempt/ Unlicensed
		• A content applications service linked or associated specifically to a sporting, cultural or other one-off event.	

4.9 The following are the numbers of licensees under the Individual and Class Licence category from 2017 to 2020:

Individual Licence 2017-2020

Licence	2017	2018	2019	2020
NFP (I)	209	220	213	220
NSP (I)	176	183	176	170
CASP (I)	52	56	52	48
Total	**437**	**459**	**441**	**438**

Class Licence Registration 2017-2020

Licence	2017	2018	2019	2020
NFP (C)	9	10	11	17
NSP (C)	11	10	11	17
CASP (C)	10	11	10	15
ASP (C)	433	413	420	450
Total	**463**	**444**	**452**	**499**

4.10 Based on the above data, Class licence is designed to promote industry growth and development with easier market entry in line with the national policy objective of creating a robust applications environment for end users.

4.11 ASP (C) licence was fully liberalised in 2012, providing locally incorporated foreign-owned company the ability to enter into Malaysian market to provide the retail activities to end users in Malaysia with backhaul provided by the local network facilities and network services providers.

4.12 The decision to licence the cloud services as an applications services under the ASP (C) licence is based on the decision to regulate the cloud services under a light touch approach. In addition, MCMC wants to ensure no worse-off position to the existing licence environment. As such, with the introduction of cloud services as one of the activities under the ASP (C) licence, licensing requirement will be imposed on the person undertaking the cloud services activity.

4.13 As discussed earlier, the licensing framework is drafted to allow flexibility with respect to licensing structures as the licensing requirements vary over time with the evolution of the communications and multimedia industry. Under the Regulation 30 of the Licensing Regulations 2000, apart from the activities listed, it also allow for any other applications services that is not either exempted or not listed in the regulation to be licensed.

4.14 Based on the Minister's decision to licence cloud services, it will be covered under the Regulation 30(1)(j) of the Licensing Regulations 2000 of which reproduced here for reference:

> **Regulation 30   Applications service provider class licensee**
>
> *(1)   A person who provides any or all of the following applications service may be registered as an applications service provider class licensee:*
>
> *(j)   such other applications service which are not exempt under the Act or not listed in this subregulation.*

4.15   MCMC has undertaken the same regulatory imposition for the "non-subscription broadcasting" activity under CASP Individual licence where the activity is not specified under the regulation but was considered as it falls under the definition and ambit of the content applications services activity.

4.16   There will be no changes or introduction of new provision to cover the licensing of cloud services. The regulatory imposition will be under the existing licensing framework available under the CMA1998.

4.17   The licensing framework under the CMA1998 imposes the requirement of local presence in the provisioning of the licensable activities.

4.18   As such, the regulation on cloud services will be based on this premise, whereby a person with local presence would be required to be registered as an ASP(C) licensee. In this respect, local presence would be determined based on the followings:

(a)   a person that is locally incorporated/established in accordance with the relevant laws. However, a local branch of a foreign person would not fall within this category as branches of a foreign person is still regarded as a part of the said foreign person and would be inconsistent with regulation 23 of the Licensing Regulations 2000; or

(b)   a person that is locally incorporated/established in accordance with the relevant laws and provides cloud services that originates from a foreign cloud service provider, through its local data centre. In this respect, the provisioning of the foreign cloud services would be undertaken by the local data centre which would have control over the cloud services that are being made available to the end users.

The illustration of the local presence requirement is as follows:

Illustrations:

i.   **Company A** is a locally incorporated company providing cloud services to end users. Company A is required to be registered under the ASP (C) licence for providing the said services.

ii.   **Company B** is not a locally incorporated company but provides cloud services through a local data centre, **Company C**, to end users. Company C is required to be registered under the ASP (C) licence for providing the foreign cloud service provider's services through its local data centre.

iii.   **Company D** is not a locally incorporated company and does not provide cloud services through any local data centres to end users. Company D is not required to be registered under the ASP (C) licence.

iv.   **Company E** is not a locally incorporated company, but has a local branch. As the branch is not considered as local presence, the said branch need not be registered under the ASP (C) licence.

5.0 CLOUD SERVICES

Definition of Cloud Services

5.1 MCMC notes the definition of cloud services under the Technical Code On Information and Network Security - Cloud Service Provider Selection MCMC (MTSFB TC G017:2018):

"*cloud services is defined as one or more capabilities offered through cloud computing invoked using a defined interface or any service made available to users on demand via the Internet from a cloud computing provider's server*".

5.2 Further, the Focus Group on Cloud Computing Technical Report under the International Telecommunication Union ('ITU') defined cloud services "*as service that is delivered and consumed on demand at any time, through any access network, using any connected devices using cloud computing technologies*".

5.3 Generally, there are three basic types of cloud services:

a. **Software as a Service (SaaS)**
   This is the most widely recognised type of cloud service. It encompasses a variety of services, such as file storage and backup, web based email and project management tools. Users are able to access, share, store and secure information in the cloud using the applications.

b. **Platform as a Service (PaaS)**
   It serves as a web-based environment where developers can build cloud apps. PaaS provides the database, operating system and programming language that a company can use to develop cloud

based software, without having to maintain the underlying elements. Many IaaS vendors, also offers PaaS capabilities.

c. Infrastructure as a Service (IaaS)

It provides the infrastructure that many cloud service providers need to manage its SaaS tools. It serves as the complete data centre framework, eliminating the need for resource intensive, on-site installations.

These providers maintain all storage servers and networking hardware.

5.4 The common deployment models are as follows[1]:

a.   Private Cloud

- Exclusive use by a single organisation comprising multiple consumers.
- May be owned, managed and operated by the organisation, a third party or some combination of them.
- May exist on or off premises.

b.   Public Cloud

- Provisioned for open use by the general public.
- May be owned, managed and operated by a business, academic or government organisation or some combination of them.
- It exists on the premises of the cloud provider.

c.   Hybrid Cloud

- A composition of two or more distinct cloud infrastructures that remain unique entities, but are bound together by

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[1] MCMC MTSFB TC G017:2018 Information and Network Security – Cloud Service Provider Selection

standardised or proprietary technology that enables data and application portability

5.5 Under the CMA1998, licence is imposed on the service provider. As such, deployment of network facilities and network services under the private network is exempted. Nevertheless, the service providers providing the network facilities and network services to these private networks requires licence.

5.6 In addition, licensing requirement is not imposed on the person providing software and solutions. These are not a licensable activities under the CMA1998. MCMC notes under the cloud services architecture, there is a possibility to provide software and solutions with reliance to other cloud services platform and infrastructure. As such, these "pure software providers" are not subjected to the requirement of registration under the ASP (C) licence.

5.7 MCMC notes the reselling activities undertaken by the local companies for the cloud services products provided by large cloud service providers. Based on the information that being provided, these resellers merely reselling the product of the cloud service providers without having any control whatsoever on the cloud service products. As such, these resellers are not service providers in this instance and not require to be registered under the ASP (C) licence.

> **Illustrations:**
>
> i. **Company F** is providing software or solutions that is based on cloud service infrastructure and platform provided by **Company G**. Company F would not be required to be registered under the

> ASP (C) licence. Company G would be required to be registered under the ASP (C) licence if it has local presence.
>
> ii. **Company H** is an agent reselling cloud services of **Company I.** Company H would not be required to be registered under the ASP (C) licence. Company I however would be required to be registered under the ASP (C) licence if it has local presence.

5.8 Taking into consideration of the above, cloud services for the purpose of ASP (C) licence registration will be as follows:

"Cloud Service means any service made available to end users on demand via the Internet from a cloud computing provider's server."

5.9 The definition is considered open and wide based on the engagement sessions undertaken with stakeholders. MCMC wishes to maintain the definition as to ensure that it will be wide enough to cover the cloud services activity provided to end users. The definition shall be taken into the context of the existing licensing framework under the CMA1998.

5.10 For clarity, end user means any natural or artificial person the cloud services being provided to.

> **Illustrations:**
> i. Cloud services is being provide to Bank XYZ. **Bank XYZ** is an end user.
> ii. Cloud services is being provided to Mr. H. **Mr. H** is an end user.

6.0   INTERNATIONAL PRACTICES AND EXPERIENCE

6.1   MCMC has also looked at the international practices in regulating the cloud services. MCMC acknowledged various regulatory framework available in the other countries based on the legislations under each state.

6.2   Depending on law of the land, some jurisdictions have explored certifications, implementation of general privacy laws, and requirement of data localisation in regulating the cloud service sector. The following, brief information that MCMC has gathered so far in relation to practices of other jurisdictions in regulating the cloud services.

No.	Country	Regulatory Measures
1.	Indonesia	▪ Initially, Indonesia placed a requirement for data to be onshore in 2012 with 5 years transition period given; ▪ In 2019, the requirement has been relaxed with only government data to be placed onshore while other commercial and/or private data can be hosted offshore Indonesia; ▪ Indonesia is proposing to require a registration for "private electronic service provider" which includes internet service providers and cloud service providers.
2.	Thailand	▪ If the cloud services is provided by a leased line network provider, the company would already obtained a licence issued by National Broadcasting and Telecommunications Commission (NBTC) Thailand; ▪ Thailand data protection laws modelled the General Data Protection Regulation ('GDPR') and has the extra-terrestrial jurisdiction on foreign entity collecting and processing Thai citizens data;

No.	Country	Regulatory Measures
		▪ Usage of cloud services by electronic transaction service providers is guided by guidelines issued by the Electronic Transaction Committee established under the Electronic Transaction Act.
3.	Vietnam	▪ Vietnam's Ministry of Information and Communications issued guidelines containing the technical specifications and criteria for cloud computing solutions in e-government deployment; ▪ The guidelines also serve as reference for private sector in choosing CSP.
4.	Australia	▪ Australia stand is guided by its Privacy Act 1988 through the Australian Privacy Principles where the law regulates how businesses handling information. The Act covers government agencies and organisations with annual turnover of more than AUS$3 million[2]. ▪ Australian Cyber Security Centre ('ACSC') and digital Transformation Agency ('DTC') issued cloud security guidance co-designed with industry to support the secure adoption of cloud services. It aims to guide organisations, cloud service providers and assessors to perform comprehensive assessment on the suitability of the cloud service handling organisation data[3].
5	China	▪ Cloud services categories under the internet resource co-ordination services ('IRCS') which is a type of Internet Data Centre service ('IDC'). IDC is categorized under the value added telecoms services

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[2] Office of the Australian Information Commissioner
[3] Australian Cyber Security Centre

No.	Country	Regulatory Measures
		('VATS') and would require licence[4].
6.	United States of America (USA)	▪ USA enacted Clarifying Lawful Overseas Used of Data Act (CLOUD Act) in 2018 to allow US based company via warrant to provide requested data stored on servers regardless in the USA or in foreign soil[5].
7.	United Kingdom[6]	▪ Implement the EU GDPR through its Data Protection Act 2018. ▪ Its Investigatory Powers Act 2016 provides ability of government interception of communications data. National security services may request access to customer communications and may require cloud service providers to create "backdoors" in their software in order to remove protections, such as encryption, that they have applied to customer's data. ▪ Network and Information Systems Regulations 2018 imposed the requirement on necessary measures to prevent security breach in which if happened should be informed to the Information Commissioner's office within 72 hours.

6.3 In the effort to provide certainty on the regulation, MCMC is taking the licensing approach as provided under the CMA1998. Licensing the activity would enable MCMC to regulate the matter through the available regulatory instruments provided under the CMA1998.

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[4] https://www.chinalawvision.com/2020/10/intellectual-property/cybersecurity/regulation-of-cloud-computing-in-china/
[5] The United States Department of Justice
[6] UK Parliament Post – Postnote Number 629 June 2020

7.0 INDUSTRY FEEDBACK AND HOW IT IS BEING ADDRESSED

7.1 Based on the preliminary engagement with various stakeholders, feedbacks received from the stakeholders can be summarised as follows:

    i. Concern on the impact of regulation;

    ii. Concern on overall increase in the cost of doing business (contribution to Universal Service Provision fund ("**USP Fund**") and Licence Fees);

    iii. Foreign shareholding restrictions and Bumiputera shareholding requirement; and

    iv. Proposed issuance of guidelines instead of licensing.

7.2 Taking into consideration of the above, MCMC has decided that the cloud services activity is to be regulated under the light-touch regulation approach under the CMA1998.

7.3 Under the light-touch regulation, cloud services will be categorised as applications service activity that is licensable under the ASP (C) licence.

7.4 ASP (C) licence requires yearly registration with a fee of RM2,500.00 and is subject to standard licence conditions as applicable to all ASP (C) licence holders. There is no restriction in shareholding and the licensee is allowed to be 100% foreign owned.

7.5 In terms of USP fund contribution, in order to stimulate demand for cloud services as well as part of incentive under MyDIGITAL, MCMC will impose zero weightage for revenue under cloud services activity. As such, revenue generated from the cloud services activity will not be subjected to the contribution for the USP Fund.

8.0 IMPLEMENTATION OF THE REGULATION

8.1 The requirement for registration under ASP(C) will be in force beginning 1 January 2022 as announced by the Minister. However, a grace period from 1 January 2022 until 31 March 2022 is allowed for company to manage its affairs. MCMC accepts voluntary registration within this period. The regulation will be in force beginning 1 April 2022.

8.2 For existing ASP (C) licence holders that are providing cloud services, the said licence holders may continue providing cloud services under the current ASP (C) licence, but would be required to include cloud service activities as one of the activities undertaken, during the re-registration of the said licence for the following year.

CONTACTING MCMC

More information on the above may be obtained by writing to the following address:

Head, Licensing Department
Malaysian Communications and Multimedia Commission
MCMC Tower 1, Jalan IMPACT, Cyber 6
63000 Cyberjaya
Selangor Darul Ehsan

Tel No.:   +603-86 88 80 00
Fax No.:   +603-86 88 10 02
Email: licensing@mcmc.gov.my

APPENDIX 1

Standard Licence Condition of ASP (C) licence

1. **SOLE LICENCE**
   1.1 This licence replaces any other licence granted by the Minister and shall be the sole licence held by the licensee in respect of the applications services authorised under this licence.

2. **COMPLIANCE WITH THE LAW**
   2.1 The licensee shall comply with the provisions of the Communications and Multimedia Act 1998 ("the Act").
   2.2 The licensee shall comply with the provisions of any subsidiary legislation made or other instruments, guidelines or regulatory policies issued under the Act.

3. **COMPLIANCE WITH NUMBERING AND ELECTRONIC ADDRESSING PLANS**
   3.1 The licensee shall comply with any consumer codes registered under the Act which are relevant to the activities of the licensee.

4. **COMPLIANCE WITH CONSUMER CODES**
   4.1 The licensee shall comply with any consumer codes registered under the Act which are relevant to the activities of the licensee.

5. **INDEMNITY**
   5.1 The licensee shall indemnify the Minister and the Commission against any claims or proceedings arising from any breaches or failings on the part of the licensee.

6. **SAFETY MEASURES**
   6.1 The licensee shall in respect of all apparatus, equipment and installations possessed, operated, maintained or used under the licence, take all proper and adequate safety measures to safeguard life or property including exposure to any electrical emission or radiation emanating from the apparatus, equipment or installations so used.

7. **CHARGING MECHANISM**
   7.1 The licensee shall take reasonable steps to ensure that the charging mechanism used in connection with any of its network facilities and/or network services are accurate and reliable in all material aspects.

8. ACCESS TO INTERNATIONAL COMMUNICATIONS NETWORK

8.1   The licensee shall not in any way whatsoever have access to an international communications network without a Network Service Provider Individual Licence except by way of entering into an arrangement with a Network Service Provider Individual Licence holder for that purpose.

9   COMPLIANCE WITH RULES IN RELATION TO SPECIAL REGULATION REGIME

9.1   The licensee shall observed and comply with the special rate regulation regime as may be determined by the Minister under section 200 of the Act.