Malaysian Communications and Multimedia Commission
Suruhanjaya Komunikasi dan Multimedia Malaysia

PUBLIC CONSULTATION ON THE USE AND PROVISIONING OF INTERNATIONAL ROAMING-BASED CONNECTIVITY SERVICES IN MALAYSIA, INCLUDING THROUGH ESIM SOLUTIONS

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1. INTRODUCTION

The Malaysian Communications and Multimedia Commission ("**MCMC**") is conducting this public consultation to better understand the use and provisioning of international roaming-based connectivity services in Malaysia, including services enabled through foreign-issued SIMs, embedded SIMs ("**eSIMs**"), foreign-issued International Mobile Subscriber Identities ("**IMSIs**") and long-term or permanent roaming arrangements.

Such services are increasingly being used by consumers, businesses and connected devices to access mobile connectivity in Malaysia. These include, among others:

- Travel eSIM services;
- Consumer mobile connectivity services;
- Internet of Things ("**IoT**") and machine-to-machine ("**M2M**") connectivity services;
- Connected vehicle services;
- Enterprise connectivity solutions; and
- Other services relying on international roaming arrangements.

The growing adoption of these services presents opportunities such as increased consumer choice, seamless cross-border connectivity, operational efficiencies and innovation. At the same time, stakeholders have raised questions relating to:

- Consumer awareness and protection;
- Subscriber registration and identity verification;
- Fraud, scam prevention and security;
- Regulatory accountability and oversight;
- Lawful access and public safety requirements;
- Market competition; and
- The long-term use of international roaming arrangements within Malaysia.

Through this consultation, MCMC seeks to:

1. Determine the types of international roaming-based connectivity services currently being offered and used in Malaysia;
2. Identify the entities involved in providing such services;
3. Obtain industry and consumer feedback on the benefits, risks and challenges associated with these services; and
4. Assess the appropriate regulatory interventions from policy, consumer protection and operational perspectives.

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2. AREAS OF CONSULTATION

For the purposes of this consultation, references to foreign-issued eSIMs, foreign-issued SIMs, foreign IMSIs and permanent roaming arrangements are intended to capture connectivity services that enable users, devices or service providers in Malaysia to obtain mobile connectivity through international roaming or equivalent cross-border arrangements, rather than through a locally provisioned mobile subscription under the Malaysian regulatory framework.

The increasing availability and adoption of international roaming-based connectivity services, including those enabled through eSIM technology, have introduced new opportunities for consumers, businesses and service providers. Such services can facilitate seamless connectivity, cross-border service provision, global IoT deployments, and increased consumer choice.

At the same time, stakeholders have identified a number of considerations arising from the use of such services, particularly where international roaming arrangements are utilised on a long-term basis within Malaysia. These considerations may include, but are not limited to:

a) Consumer Awareness and Transparency

Consumers may not always be aware that the connectivity service they have purchased is provided through an international roaming arrangement rather than a locally provisioned mobile service. This may affect consumers' understanding of the service provider, applicable terms and conditions, customer support arrangements, and available avenues for dispute resolution.

b) Consumer Protection

Questions may arise regarding service quality, continuity of service, complaint handling, billing transparency, and the applicability of consumer protection mechanisms where services are provided by entities located outside Malaysia.

c) Regulatory Visibility and Accountability

The use of international roaming-based services may present challenges in identifying the responsible service provider, end user, or entity accountable for compliance with applicable laws and regulatory requirements.

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d) Subscriber Registration and Verification

As subscriber registration requirements may differ across jurisdictions, there may be varying approaches to customer identification, verification and record-keeping practices among service providers.

e) Fraud, Scam Prevention and Security

Stakeholders have highlighted the potential implications of international roaming-based services on efforts to prevent fraud, scams, misuse of communications services, and other unlawful activities, particularly where user information may not be readily accessible to relevant authorities.

f) Lawful Access and Public Safety

The provision of communications services through international arrangements may give rise to operational considerations relating to lawful requests, emergency response, public safety, and cooperation with relevant authorities.

g) Competition and Market Impact

The increasing use of international roaming-based connectivity services may have implications on market competition and the sustainability of the domestic telecommunications ecosystem.

h) IoT and M2M Connectivity Requirements

For certain IoT and M2M applications, including connected vehicles and other connected solutions, international roaming arrangements may offer operational efficiencies and global connectivity capabilities. At the same time, stakeholders may have views on the suitability of existing arrangements to support long-term deployments within Malaysia.

i) Future Technology Developments

The increasing adoption of eSIM technology, connected devices, low-power wide-area networks, and other emerging technologies may continue to shape the manner in which connectivity services are provided and consumed in Malaysia.

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MCMC encourages participation from all interested parties. In particular, MCMC welcomes responses from entities currently offering, facilitating, reselling or supporting connectivity services in Malaysia through foreign-issued SIMs, eSIMs or international roaming arrangements.

Stakeholders are encouraged to provide practical experiences, market information, supporting evidence, use cases and recommendations to assist MCMC in evaluating potential future regulatory approaches.

3. CONSULTATION

In responding to the questions below, stakeholders are encouraged to distinguish between short-term travel use cases, consumer services, enterprise services and long-term IoT/M2M deployments, and to support their views with data, examples, operational experience or relevant international practices where available.

The need for regulatory intervention

The increasing availability of foreign-issued eSIMs and services relying on permanent roaming arrangements has enabled consumers and businesses in Malaysia to access mobile connectivity through providers that may not have a physical presence or regulatory obligations within the Malaysian jurisdiction. These developments have lowered barriers to service access and increased consumer choice. However, they may also give rise to concerns relating to regulatory oversight, consumer protection, fair competition, public safety, lawful interception, subscriber identification, and compliance with domestic regulatory requirements.

Given the evolving nature of the mobile connectivity market, MCMC seeks stakeholders' views on whether regulatory intervention is necessary to address potential risks associated with the provision and use of foreign-issued eSIMs, foreign IMSIs and permanent roaming-based connectivity services in Malaysia, or whether existing market dynamics and current regulatory frameworks are sufficient to address such concerns.

Question 1

Should MCMC regulate the provision of eSIM and/or permanent roaming services used within Malaysia?

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Any regulatory approach should balance the objectives of consumer protection, national security, competition, innovation, and market efficiency, while avoiding unnecessary compliance burdens that may impede technological development or consumer access to new services.

Stakeholders are invited to provide views on the suitability of various regulatory mechanisms, including the following:

a) Licensing requirements;
b) Registration or notification requirements;
c) Technical or operational obligations;
d) Consumer protection measures;
e) SIM registration and electronic Know Your Customer ("**e-KYC**") requirements;
f) Restrictions on service offerings; and
g) Any other alternative approaches that may achieve the desired policy outcomes.

Question 2

If regulatory intervention is considered necessary, MCMC seeks views on the most proportionate and effective regulatory framework. What would be the most appropriate regulatory approach?

Roaming Duration Thresholds and Regulatory Considerations

Permanent roaming arrangements were traditionally intended to support temporary travel and mobility use cases. However, advancements in eSIM technology and the emergence of global connectivity providers have enabled roaming-based connectivity services to be utilised on a long-term or permanent basis within a single country. Such arrangements may raise questions regarding regulatory oversight, market competition, network planning, and the distinction between roaming services and domestic mobile services.

Question 3

(I) MCMC seeks stakeholders' views on whether limits should be imposed on the duration of roaming usage within Malaysia and, if so, what period would be appropriate for the following segments taking into account operational practicality,

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international practices, consumer needs, and business requirements:

a) Individual users subscribing to connectivity services; and
b) IoT/M2M services.

(II) If a restriction on the duration of roaming usage is introduced, what would be an appropriate maximum period? Would 30 days or 60 days be appropriate?

Licensing and Compliance Obligations for Providers of Permanent Roaming Services

Certain service providers, including distributors, resellers or aggregators, may offer mobile connectivity to customers in Malaysia through foreign-issued IMSIs and permanent roaming arrangements without holding licences under the Malaysian regulatory framework. While such arrangements may facilitate innovative service offerings and expand consumer choice, they may also raise questions regarding regulatory parity, accountability, enforcement, consumer protection, and compliance with obligations imposed on licensed service providers.

Question 4

Should a party offering telecommunications services in Malaysia using foreign IMSIs and permanent roaming arrangements be required to obtain a licence under the Malaysian regulatory framework?

Impact on the Market

The availability of foreign-issued eSIM and permanent roaming services may influence the competitive dynamics of Malaysia's mobile communications sector. Such services may enhance competition, stimulate innovation, expand consumer choice, and provide alternative connectivity solutions. Conversely, stakeholders have also raised concerns regarding regulatory asymmetry, uneven playing field, adequate consumer recourse mechanisms, and the long-term sustainability of domestic telecommunications.

MCMC seeks evidence and data-based views on the potential impact of maintaining the current regulatory position, including both short-term and

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long-term effects on consumers, industry participants, and the broader communications ecosystem. Stakeholders are also invited to identify any areas where policy guidance, self-regulatory measures, or targeted intervention may be warranted.

Question 5

If foreign-issued eSIMs and permanent roaming services continue to remain unregulated, what is your view of their impact on the mobile connectivity market?

Consumer protection

Consumers using foreign-issued eSIM and permanent roaming services may encounter challenges associated with customer support, complaint handling, dispute resolution, service continuity, contractual transparency, and accountability, particularly where service providers operate outside Malaysia's jurisdiction. The absence of clear consumer protection obligations may affect consumers' ability to seek assistance or redress when service issues arise.

Question 6

What consumer protection obligations should apply to providers of foreign-issued eSIM and permanent roaming services operating in Malaysia? This includes the extent to which providers should be required to maintain the following:

a) **customer service and complaint handling arrangements;**
b) **dispute resolution mechanisms;**
c) **accountability for service delivery and resolution of service-related issues;**
d) **disclosure of service terms and conditions;**
e) **transparency of pricing and charges;**
f) **availability of local customer support; and**
g) **any other consumer protection measures considered appropriate.**

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Data collection and protection

The collection, retention, management, and protection of subscriber information are important elements in ensuring consumer protection, facilitating regulatory oversight, supporting public safety objectives, and preventing misuse of telecommunications services. However, the cross-border nature of foreign-issued eSIM and permanent roaming services may create challenges regarding accountability, jurisdiction, data governance, and access to subscriber information.

Question 7

(I) What customer information should be collected, retained and protected in relation to foreign-issued eSIM and permanent roaming services?

(II) MCMC seeks stakeholder views on the following:

a) the minimum customer information required for service provision;
b) the party responsible for collecting and maintaining subscriber information;
c) where subscriber information should be stored;
d) customer access to their own information;
e) data retention practices;
f) information security measures;
g) compliance with the Personal Data Protection Act 2010 or equivalent data protection laws; and
h) any other safeguards necessary to ensure consumer protection.

Please provide reasons for your views and describe any existing practices adopted by your organisation.

Identity verification and subscriber registration measures

Effective subscriber registration and identity verification measures support a range of public policy objectives, including consumer protection, fraud prevention, cybersecurity, public safety, and law enforcement cooperation. While technological developments have enabled remote onboarding and digital identity verification through e-KYC processes, the application of such measures

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to foreign-issued eSIM and permanent roaming services may present unique operational and jurisdictional considerations.

Question 8

What identity verification and subscriber registration measures should apply to foreign-issued eSIM and permanent roaming-based connectivity services?

In responding to this, stakeholders may consider, among others:

a) **e-KYC methods;**
b) **registration channels or platforms used;**
c) **customer identity verification processes;**
d) **limitations on the number of subscriptions that may be registered by a single individual;**
e) **measures to prevent fraudulent registrations or identity misuse; and**
f) **any other registration requirements considered necessary.**

Please provide reasons for your views and identify any operational challenges associated with implementing such measures.

GENERAL COMMENTS:

Stakeholders are encouraged to provide any additional feedback, comments, or proposals that may assist in the consideration of the matters addressed in this Public Consultation Paper, including issues that may not have been specifically covered by the questions above.

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SUBMISSION OF RESPONSES

Stakeholders are invited to submit their responses, together with supporting information, evidence, or relevant use cases, via email to pc.roaming@mcmc.gov.my. MCMC may consider all views received in determining the appropriate regulatory approach for eSIMs and permanent roaming-based connectivity services in Malaysia.

MCMC particularly welcomes responses from, but is not limited to, the following stakeholders:

a) Mobile Network Operators ("**MNOs**");
b) Mobile Virtual Network Operators ("**MVNOs**");
c) IoT/M2M service providers;
d) eSIM platform providers, distributors, resellers and aggregators;
e) Enterprise users;
f) Industry associations and chambers of commerce;
g) Technology providers, system integrators, solution vendors;
h) Ministries and Government Agencies; and
i) Consumers.

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