



SUBMISSION FOR THE CONSULTATION PAPER

ON

EMBEDDED SIM TECHNOLOGY

To:

Ms Aileen Chia
Deputy Chief Executive / Director-General (Telecoms & Post)
Infocomm Media Development Authority
10 Pasir Panjang Road
#03-01 Mapletree Business City
Singapore 117438

For clarification on any views expressed by LW in this document, please contact:

A handwritten signature in black ink, appearing to read "Adeel Najam", is positioned above the contact information for Adeel Najam.

Adeel Najam
Co-Founder and Director
adeel@circles.asia
+65 8133 9322

Liberty Wireless Pte. Ltd.
221 Henderson Road, #06-10
Singapore 159557

Liberty Wireless Pte. Ltd. (“LW”) thanks the IMDA for inviting us to comment on embedded SIM technology. Our response to the Consultation Paper is structured as follows:

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PART I - SUMMARY OF MAJOR POINTS

- 1 LW understands and accepts the importance of the SIM card in the evolution and success of the global mobile sector. It established a physical boundary between the services and equipment (mainly handsets) markets of the communications sector; many, including LW, believe this separation kept each market contestable and vibrant over the past two decades. As the industry evolves toward this next phase, the contribution of this separation should not be forgotten.
- 2 LW therefore agrees with the spirit of the changes proposed by IMDA, and believes they will help to realise the full benefits of eSIM technology for consumers. We also back the proposed application of the No SIM-Lock policy to eSIM technology, as this is foundational to building a truly competitive market.
- 3 We believe a hybrid model for eSIM provisioning will best benefit both consumers and operators by harnessing the strengths of mobile operators, while encouraging fresh innovation from third parties.
- 4 LW supports the licensing framework proposed by IMDA, and appreciates that it maximises public safety while facilitating market innovation.

PART II - STATEMENT OF INTEREST

- 5 As an advocate for bringing empowerment back to end-users, LW endorses the rapid adoption of eSIM technology. We are optimistic about eSIM technology's potential to bring innovation to the industry, and create true portability and new value for consumers and enterprises alike.
- 6 We believe that the principles and frameworks IMDA is proposing are a necessary and timely step towards achieving this goal, and look forward to a policy mix that creates greater benefits for consumers by driving competition and innovation in the industry.

PART III - SPECIFIC COMMENTS

Section 2: No SIM-Lock Policy

- 7 LW strongly reiterates that the No SIM-Lock policy has made significant contributions to the vibrancy of Singapore's mobile sector over the past decades, and we believe that any adjustment or exception to it could potentially impede competition.

Question 1: IMDA would like to seek views and comments on the policy principle of extending the No SIM-lock policy to eSIM devices.

- 8 Accordingly, LW strongly supports the proposed extension of the No SIM-Lock policy to eSIM devices. We agree that this step is consistent with previous policy, and assert that it is foundational to ensuring that the market remains vibrant and competitive, to the benefit of consumers.

Question 2: IMDA would like to seek views and comments on the application of the No SIM-lock policy on Consumer devices (e.g., mobile phones, tablets and wearables (such as smart watches and fitness trackers) where they are eSIM-enabled.

- 9 LW agrees that IMDA's starting premise is appropriate: the No SIM-Lock policy should continue to apply to mobile operators for eSIM-enabled consumer devices, whether they are purchased by consumers or enterprise end-users.

Question 3: For M2M devices, IMDA would like to seek views and comments on placing the onus on mobile operators to facilitate switching of mobile operator profiles where consumer and enterprise end users request to switch mobile operators.

- 10 LW agrees that placing the onus on mobile operators to facilitate switching of mobile operator profiles in this instance can ensure that the power of choice remains with consumers. However, to ensure that all mobile operators are treated fairly, we believe more robust requirements are required from IMDA.

Section 3: eSIM Technology

Question 4: IMDA would like to seek views and comments on the adoption of GSMA specifications for eSIM devices that are to be sold and used in Singapore to facilitate the deployment of OTA Remote Provisioning functionality.

- 11 LW agrees that the GSMA specifications are robust, and that adopting them will accomplish the intent of the No SIM-Lock policy. We also appreciate IMDA's commitment to both convening and facilitating the commercial discussions necessary to realise technical switching amongst mobile operators.

Question 5: IMDA would like to seek views and comments on whether IMDA should require the mobile operators to adopt the GSMA SAS and ISO 27001 standards and secure the compliance of Relevant Providers in the eSIM OTA Remote Provisioning supply chain with the above-mentioned standards in the provisioning of eSIMs.

- 12 LW has no preference at this time on the adoption of the GSMA SAS and ISO 27001 Standards, and on securing the compliance of Relevant Providers in the eSIM OTA remote provisioning supply chain.

Question 6: Are there security gaps that GSMA SAS and ISO 27001 do not address, and if so, how should these gaps be plugged to facilitate trust and security in the provisioning of eSIMs, particularly in safeguarding the OTA profile management process.

- 13 LW believes that the GSMA SAS and ISO 27001 standards offer comprehensive protections and is not aware of any security gaps that they do not address at this time.

Section 4: eSIM Business and Operating Models

Question 7: IMDA would like to seek views and comments on which eSIM provisioning model is best suited for mobile operator's needs, and why.

- 14 LW believes that a hybrid model best serves the interest of consumers and mobile operators. This model includes third parties in the eSIM ecosystem, which is likely to foster competition and innovation; while mobile operators can leverage analytics and connectivity, and create cross-device value propositions.

Question 8: Do you see any further developments on the eSIM provisioning models, such as opportunities for business to vertically integrate and additional opportunities for third parties to participate in the eSIM ecosystem?

Question 9: Given the changes to the SIM landscape, do you see any value capture opportunities for Singapore in relation to eSIM developments and adoption? These could be from a manufacturing or cyber-security function, for example.

Question 10: As eSIM technology is still relatively nascent with few mass market devices using such technology, what additional support is required to encourage the development of the eSIM provisioning ecosystem in Singapore, in particular the OTA profile management function?

- 15 We encourage the IMDA to conduct additional trials as necessary to gather increased market insight into how eSIM technology might shape the market, and believe it will enable consumers to enjoy the full benefits of IoT technology.

Question 11: What would be the benefits and concerns for mobile operators to engage one trusted third party to provide services in support of OTA Remote Provisioning in Singapore, similar to the existing number porting arrangement.

- 16 LW believes that engaging a trusted third party has the potential to build consumer confidence, and simplify the administration and regulation of OTA remote provisioning. We will evaluate any proposed third party on a case-by-case basis depending on the services they are contracted to provide.

Section 5: Licensing and Regulation of eSIM Devices and Services

Question 12: Given the wide variety of applications for eSIM M2M devices, IMDA would like to seek views and comments on the proposed licensing framework and the proposed licence conditions for Consumer and M2M devices that are enabled with eSIM technology.

- 17 We believe that this policy approach effectively protects the interest of public safety and encourages commercial innovation, and will maximise the consumer benefit from M2M technology adoption while protecting them from security risks.

Question 13: To the extent where they are relevant, do you agree that the codes of practice, guidelines and consumer protection measures established by IMDA for the provision of mobile services should remain applicable to the operators who offer telecommunication services for the use of eSIM-enabled Consumer devices?

- 18 LW agrees that the existing codes, guidelines and consumer protection measures that relate to remedial (rather than anticipatory) regulatory frameworks should remain applicable, and should continue to be enforced. As rightly noted by IMDA, the eSIM is an evolving form factor that should serve end-user convenience, rather than be used as a tool to undermine market contestability.

PART IV - CONCLUSION

- 19 LW endorses IMDA's intent to lay a regulatory foundation for eSIM technology that considers security risks, while impartially fostering market innovation by all parties to the eSIM ecosystem.
- 20 LW believes that extending the No SIM-Lock policy to eSIM, and a hybrid eSIM provisioning model are required for a more competitive market environment.
- 21 We reiterate our support for eSIM technology, and urge IMDA to expedite the implementation of a forward-looking policy approach that facilitates its development and adoption, for the benefit of all parties.