

Transcript of Speech by Minister for Communications and Information Mrs. Josephine Teo at the Digital Connectivity Blueprint Launch 2023 on Monday, 5 June 2023

Members of the Advisory Panel on Digital Infrastructure

Industry Partners

Friends and colleagues

1 Good Morning. I am very happy to join you here ahead of the annual Asia Tech X Singapore Summit.

2 I would first like to thank the members of the Panel, as well as our industry partners, for closely working with the Ministry of Communications and Information as well as the IMDA to co-create our shared digital future. Thank you for passionately sharing your business insights and technical expertise over the past few months.

3 A big part of Singapore's attraction as a home to global businesses is our ability to think long term, develop ambitious plans, and bring them to fruition. This is certainly true of our urban planners who laid out the physical foundations for Singapore in the 1960s and 70s. Particularly for Singapore's transport infrastructure, I witnessed first-hand this form of ethos when I was heavily involved in the development of the plans for the Changi Aviation Hub.

4 However, unlike physical infrastructure, the many digital infrastructure components that work seamlessly behind the scenes to power our digital economy and society are often "out of sight, out of mind". And yet we all know that few of our digital ambitions can be realized without adequate infrastructure.

5 As many have come to expect, and in the spirit of the Forward Singapore exercise, we should aspire to be good stewards of our nation and take a future-oriented approach to keep building new foundations for success. The ethos is especially relevant to digital connectivity infrastructure, where long lead times are needed for building up capacity, and yet, demand tends to grow in spurts. Given this situation, if we insisted that all digital structure investments we made to be just-in-time, there will be too many missed opportunities. On the other hand, pushing ahead with all "just-in-case" investments will be too costly. Instead, we aim to keep a close watch on technology trends, and steadily advance our readiness level to always be in a strong position to capture new opportunities. This means continuing to master-plan and develop our digital connectivity infrastructure for the long-term, while accepting that some capacity will be built ahead of demand. We will also have to take risks and recognize that some projects must pivot or come to an end when conditions change unexpectedly.

6 With these comments as backdrop, my team and I are excited to launch Singapore's Digital Connectivity Blueprint. It is the first of its kind, I believe, to set out holistic plans for our digital connectivity infrastructure in the next decade.

7 Our blueprint is also one of the few – if not the first – in the world to adopt an expansive and integrated view encompassing the different types of digital infrastructure, cutting across several industries and other sectors.

8 It goes beyond the traditional 'hard' infrastructure which provide connectivity, such as through broadband and mobile networks; and compute, such as through data centers.

9 Our plans include Physical-digital infrastructure, which integrates devices in the physical world so that they can digitally connect to and communicate with one another.



10 We also incorporated ideas on Soft Infrastructure or “Digital Utilities”. This refers to the software layer that provide the foundation for key digital transactions to be conducted seamlessly and securely across borders. They include identity verification, e-payments and invoicing, document authentication, and data exchanges.

11 In the physical world, airports provide a relatable analogy of how these three layers are integrated and work together to provide a seamless travel experience. The hard infrastructure layer is like your airport terminals and runways, connective travelers and aircraft to Singapore and the rest of the world. The physical digital infrastructure is like the system that tracks and transports our baggage without losing them. The soft infrastructure layer is like the system for showing proof of vaccination across multiple jurisdictions, which became critical when travel resumed after the COVID-19 pandemic. Such systems are essential digital utilities that keep things running smoothly. All three layers have come together to make Changi an outstanding air hub and brought tremendous value to Singapore.

12 In the same way, by integrating our digital connectivity plans across the hard, physical-digital, and soft layers, we hope Singapore can enhance its standing as a technology hub. This will also put us in a better position to seize opportunities from emerging tech trends, such as the rise of generative AI, autonomous systems, and immersive multi-party interactions.

13 To ensure that our plans have the best chance of meeting future demands, we worked closely with industry partners to develop a blueprint that enables Singapore to remain at the forefront of digital connectivity.

14 Let me now outline Singapore’s strategic priorities as well as our approach in more nascent areas.

15 First, we will enhance the capacity of our submarine cable landings while pushing the envelope for the sustainable growth of data centers here. This will strengthen our international connectivity and domestic compute capacity.

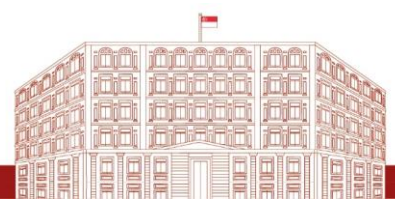
16 Second, we will upgrade our domestic hard infrastructure to support 10-gigabit speeds and provide seamless end-to-end connectivity. We are not going for “more of the same, just faster”. Instead, we are building capacity for the widespread use of new applications that the current bandwidth will not be good enough for, such as those with data-intensive operations or heavy use of AI. At the same time, we will ensure that our digital infrastructure is resilient and secure against threats, to retain international confidence in Singapore.

17 Third, we will enhance our Digital Utilities and extend their global linkages, so that more people and enterprises can benefit from seamless, trusted, and secure digital transactions across borders. It is critical that such digital utilities are inter-operable across different jurisdictions. That is why Deputy Prime Minister Lawrence Wong will be speaking more about this tomorrow.

18 Finally, we will put in place foundations to scale up the integration and deployment of autonomous systems across sectors, to maximize productivity gains and resource optimization. We will also strive to build our readiness in frontier technologies such as quantum-safe networks, green software, and Low Earth Orbit – or LEO – satellite services.

19 Now that I have laid out the features of Singapore’s Digital Connectivity Blueprint, you may be wondering what it represents and why does it matter?

20 The Blueprint is in fact a tangible investment in the future of Singapore – as much as it is an investment in our Smart Nation and digital economy – to bring greater opportunities for our people and enterprises.



21 Singapore is an open economy that is highly connected to the region and the world. The additional capacity enabled for submarine cable landings will strengthen digital connectivity for all of us, including our neighbors in Southeast Asia. And the growth of new green data centers that push the sustainability envelope, will help to meet the future demands of global businesses that have an interest in our part of the world.

22 Significant resources will be required to bring the plans in the Blueprint to fruition. Two big-ticket items alone – submarine cables and data centers – are expected to catalyze around 20 billion Singapore dollars in investments. This consists of at least 10 billion in overall submarine cable investments that will strengthen digital connectivity between Singapore, Southeast Asia, and the world; and potentially 10 to 12 billion Singapore dollars building new green data centers. Most of this will be led by the private sector.

23 As to how long it will take – a decade. If not more, depending on investor confidence.

24 But beyond monetary investments, the Digital Connectivity Blueprint will take imagination and commitment from all stakeholders to fully come alive. This is because new infrastructure alone does not spur new innovations. They only serve as the foundations upon which we build better opportunities, stronger trust, and improve lives.

25 Therefore, our aim for this Blueprint is neither to have a pretty document which, at some point will distribute it to everyone who wants it. Nor just the impressive dollars of capital investments.

26 It is to breathe new life and seed new innovations in our economy and society through the collective efforts of the public and private sectors. And to uplift people through the jobs and businesses that they engage with. Just as Changi Airport is not only about the infrastructure, but about connecting people around the world, our Blueprint is about connecting people and businesses to the future. In this regard, I thank members of the advisory panel who emphasized time and again, that the blueprint is ultimately about the future of our businesses and people. The Panel Co-Chairs, SMS Mr. Janil and Mr. Irving Tan will speak more about this later in their remarks.

27 For now, ladies and gentlemen, I'm very pleased to present to you the Singapore Digital Connectivity Blueprint.

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