



Media Release

First batch of public sector 5G trials at Sentosa underway

- *5G@Sentosa testbed aims to catalyse large-scale adoption of 5G by government agencies and develop Singapore's 5G eco-system ahead of nationwide 5G rollout in 2025*
- *The Building and Construction Authority and National Environment Agency are among the first government agencies to leverage low latency 5G for trials involving fully autonomous robots, tele-operated vehicles, and augmented reality*

Singapore, 19 October 2021 – Sentosa will serve as a testbed for promising public sector use cases that could be rolled out on the mainland in the next five years, with the first batch of trials already underway. The 5G@Sentosa programme was announced today by Minister for Communications and Information and Minister-in-charge of Smart Nation and Cybersecurity Mrs Josephine Teo.

5G@Sentosa is a public-private sector collaboration led by the Government Technology Agency (GovTech), the Sentosa Development Corporation (SDC), and Singtel. The testbed catalyses the public sector's adoption of 5G connectivity ahead of the nationwide 5G rollout in 2025 by enabling agencies to trial use cases that improve operational effectiveness and deliver citizen-centric services. 5G will also enhance GovTech's Smart Nation Sensor Platform, facilitating agencies' gathering and processing of sensor data in real-time, and opening up new operational possibilities in areas such as urban planning and traffic management. Singtel plays an important role with its purpose-built network and edge cloud infrastructure in Sentosa supporting 5G application rollout on a mass scale, while Sentosa provides a unique environment as an ecosystem of leisure experiences and businesses for organisations to study and trial the viability of innovative prototypes and solutions.

A total of 10 trials have started, leveraging the lower latency, higher speed, and broader bandwidth of 5G technology for use cases in areas such as construction, manufacturing, healthcare and tourism. The Building and Construction Authority (BCA), the National Environment Agency (NEA), the Centre for Healthcare Assistive and Robotics Technologies (CHART) at Changi General Hospital, Nanyang Polytechnic, and the Agency for Science, Technology and Research's (A*STAR's) Institute for Infocomm Research (I²R) are among the first wave of agencies participating in 5G@Sentosa. SDC will also partner the Singapore Tourism Board (STB) in trialling infrastructure-light 5G leisure experiences in Sentosa, which could potentially be adopted by Singapore's tourism industry. The Government aims to have 15 live trials by public agencies running in Sentosa by the end of the year, and at least 30 by the first half of 2023.

"5G is a key component of the SNSP that allows us to tap the full potential of sensors and IoT systems to facilitate the real-time sharing of operational data, generate new insights, and deliver better citizen-centric public services. 5G@Sentosa gives GovTech a platform to work with agencies and industry to co-create solutions for the public sector," said GovTech Chief Executive Kok Ping Soon. "We are encouraged by agencies' recognition of 5G as an emerging technology with the potential to unlock new Smart Nation applications and look forward to supporting more trials at 5G@Sentosa."



BCA is currently working with Gammon Pte Ltd, the builder of the North-South Link Project in Sentosa, to trial the use of 5G for construction applications. This includes deploying fully autonomous robots with mounted 3D laser scanners for remote tracking of work progress, leveraging augmented reality technology for real-time quality control on building installations, and using drones with live video feeds for site inspection.

Said Dr Tan Kee Wee, Programme Director of the Digitalisation department in BCA, “5G technology has opened up many possibilities for the Built Environment sector to further leverage robotics and automation. Such applications typically require a large amount of data to be transmitted in real-time which 5G would be able to support. We are excited to see the results of these trials on how 5G technology can improve site productivity and safety, transforming the way we build. We hope to partner more built environment firms to trial such 5G capabilities to improve their digital site management capabilities.”

The NEA is working with Nanyang Technological University (NTU) to trial the tele-operation of the Autonomous Environmental Service Vehicle for road-sweeping. 5G's high bandwidth and low latency are beneficial for streaming live camera feeds from the vehicle to the off-site operator, as well as transmitting haptic feedback and vehicular commands. These trials would enable an off-site operator to play the role of the on-board safety driver, a current requirement for Autonomous Vehicle (AV) trials, in the eventual deployment of AVs on public roads.

Mr Bill Chang, Chief Executive Officer, Group Enterprise at Singtel said, “The trials at Sentosa are the big ramp up in public sector use cases after the launch of Singtel’s islandwide 5G Standalone network. Our common vision with GovTech, Sentosa, and the partnering agencies is to accelerate and develop an exciting 5G eco-system. Singtel’s 5G network and Multi-Access Edge Compute is enabling the deployment of low-latency, business-critical applications, allowing agencies to trial the use of 5G-powered drones and robots, deployment of teleops as well as advanced data analytics capabilities easily and efficiently. What you have seen today is a sampling of what 5G can achieve, and we welcome more agencies, businesses and eco-system partners to come on board.”

Mr Michael Ma, Assistant Chief Executive, SDC, said, “Being a leading leisure destination, we are constantly on the lookout for new and innovative ways to deepen our engagement with guests and create great experiences. The range of 5G trials will play an important role in identifying opportunities where infrastructure-light 5G technology can be leveraged not only to achieve greater productivity and efficiency in SDC’s management of the Sentosa precinct, such as in transport, security, and cleaning operations, but also to enhance Singapore’s tourism offerings, including Sentosa’s range of unique leisure experiences. Such offerings could include edutainment featuring immersive 5G augmented reality (AR) experiences at Sentosa’s nature and heritage trails. We are pleased to partner STB to trial the gamification of the Fort Siloso area, with a joint technical study to begin by the end of this year.”



About GovTech

The Government Technology Agency of Singapore (GovTech) is the lead agency driving Singapore's Smart Nation initiative and public sector digital transformation. As the Centre of Excellence for Infocomm Technology and Smart Systems (ICT & SS), GovTech develops the Singapore Government's capabilities in Data Science & Artificial Intelligence, Application Development, Sensors & IoT, Digital Infrastructure, and Cybersecurity.

GovTech supports public agencies to manage enterprise IT operations and develop new digital products for citizens and businesses. GovTech is the public sector lead for cybersecurity, and oversees key government ICT infrastructure, as well as regulates ICT procurement, data protection and security in the public sector. GovTech is a Statutory Board under the Smart Nation and Digital Government Group (SNDGG) in the Prime Minister's Office.

For more information, please visit www.tech.gov.sg.

About Sentosa

Sentosa is Asia's leading leisure destination and Singapore's premier island resort getaway, located within 15 minutes from the central business and shopping districts. The island resort is managed by Sentosa Development Corporation, which works with various stakeholders in overseeing property investments, attractions development, and operation of the various leisure offerings and management of the residential precinct on the island.

The 500-hectare island resort is home to an exciting array of themed attractions, award-winning spa retreats, lush rainforests, golden sandy beaches, resort accommodations, world-renowned golf courses, a deep-water yachting marina and luxurious residences – making Sentosa a vibrant island resort for business and leisure. Making Sentosa its home, too, is Singapore's first integrated resort, Resorts World Sentosa, which operates South East Asia's first Universal Studios theme park.

Situated on the eastern end of Sentosa Island is Sentosa Cove, an exclusive oceanfront and residential enclave bustling with some 2,000 homes, romantic quayside restaurants, retail and specialty shops. The Island is also proud to be home to Sentosa Golf Club and its two acclaimed golf courses, The Serapong and The New Tanjong. Sentosa Golf Club hosts the SMBC Singapore Open and the HSBC Women's World Championship, featuring some of the world's best golf professionals.

Welcoming a growing number of local and international guests every year, Sentosa is an integral part of Singapore's goal to be a global destination to work, live and play.

For more information, please visit: www.sentosa.com.sg.



About Singtel

Singtel is Asia's leading communications technology group, providing a portfolio of services from next-generation communication, 5G and technology services to infotainment to both consumers and businesses. The Group has presence in Asia, Australia and Africa and reaches over 740 million mobile customers in 21 countries. Its infrastructure and technology services for businesses span 21 countries, with more than 428 direct points of presence in 362 cities.



For consumers, Singtel delivers a complete and integrated suite of services, including mobile, broadband and TV. For businesses, Singtel offers a complementary array of workforce mobility solutions, data hosting, cloud, network infrastructure, analytics and cyber security capabilities.

Singtel is dedicated to continuous innovation, harnessing next-generation technologies to create new and exciting customer experiences as we shape a more sustainable, digital future.

For more information, visit www.singtel.com.

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