GSMA

The Mobile Economy Pacific Islands 2023 Executive Summary

GSMA

The GSMA is a global organisation unifying the mobile ecosystem to discover, develop and deliver innovation foundational to positive business environments and societal change. Our vision is to unlock the full power of connectivity so that people, industry and society thrive. Representing mobile operators and organisations across the mobile ecosystem and adjacent industries, the GSMA delivers for its members across three broad pillars: Connectivity for Good, Industry Services and Solutions, and Outreach. This activity includes advancing policy, tackling today's biggest societal challenges, underpinning the technology and interoperability that make mobile work, and providing the world's largest platform to convene the mobile ecosystem at the MWC and M360 series of events.

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GSMA Intelligence is relied on by leading operators, vendors, regulators, financial institutions and third-party industry players, to support strategic decision-making and long-term investment planning. The data is used as an industry reference point and is frequently cited by the media and by the industry itself.

Our team of analysts and experts produce regular thought-leading research reports across a range of industry topics.

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Executive Summary

Bridging the mobile usage gap is a priority

Mobile remains the foremost form of internet connectivity, particularly as for many it is the only form of connectivity. The Covid-19 pandemic has highlighted the important role played by digital connectivity, allowing governments to keep in touch with citizens, businesses to move online and children to be educated virtually. Though less directly impacted by Covid-19 in terms of infection rates, Pacific Island[1] nations highly reliant on tourism (e.g. Fiji, Vanuatu and Palau) or the export of raw materials (e.g. Solomon Islands for timber) were affected by global lockdowns in their target segments. Pacific Islands that depend on revenue from fishing licences were similarly affected.

As the world recovers from the pandemic, countries and industries have the opportunity to invest in digital infrastructure to create a greener future and more connected, prosperous and resilient societies.

Although the number of smartphone connections in the Pacific Islands has increased annually (with feature phone connections declining), the overall unique mobile subscriber rate remains low at 47% for 2022, compared to 62% for the Asia Pacific region and nearly 70% globally. Similarly, mobile internet usage remains in the minority, at 27% of the population – despite coverage of mobile broadband networks (3G or 4G) reaching 86%. Around 60% of the population are covered by a fast enough mobile network but are not using the mobile internet. This is known as the usage gap. Key reasons include affordability of mobile service and handsets/devices in relation to income, a lack of digital skills, and online safety and security concerns. Mobile internet adoption is forecast to reach only 31% by 2030. This will leave a usage gap of 69% as all but the most remote populations will live within range of a 3G or 4G network.

Beyond the usage gap (driven by affordability, relevance and digital literacy barriers), mobile operators remain focused on extending coverage to underserved areas. This can include efficient terrestrial expansions (including voluntary network sharing) and exploring other solutions, such as partnerships with satellite providers, where the coverage gap is greatest. Closing this gap requires efforts by a range of stakeholders working together with mobile operators and other ecosystem players, such as device manufacturers and digital content creators.

Around 60% of the population are covered by a fast enough mobile network but are not using the mobile internet

1. Pacific Islands: American Samoa, Cocos (Keeling) Islands, Cook Islands, Fiji, French Polynesia, Guam, Kiribati, Marshall Islands, Micronesia, Nauru, New Caledonia, Niue, Norfolk Island, Northern Mariana Islands, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu, Wallis and Futuna Islands.

5G is set to drive growth and transformation globally, but 4G remains important

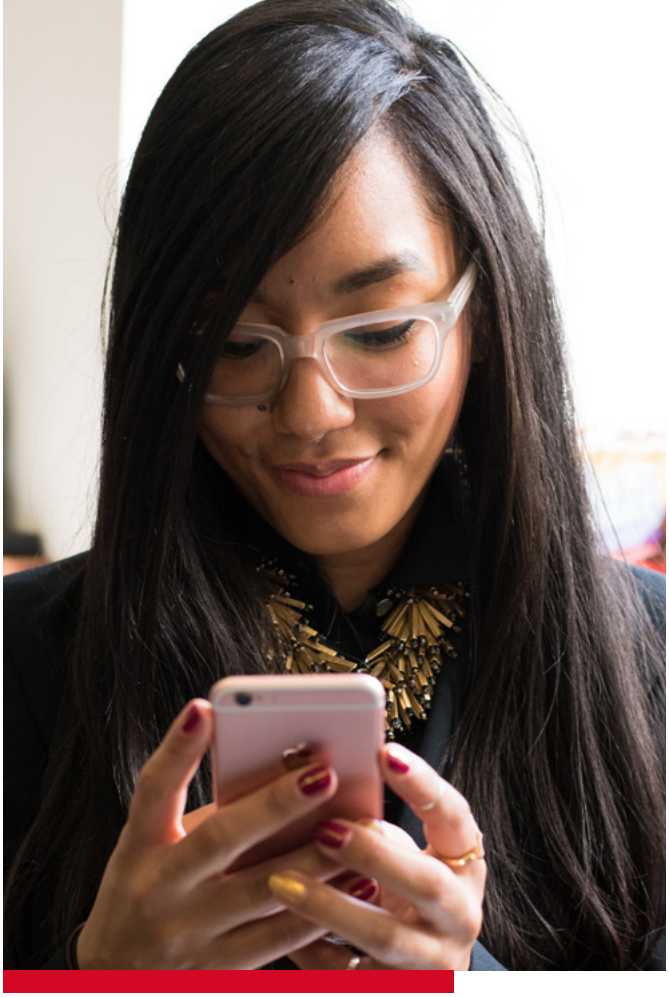
Mobile technologies are constantly improving; each successive generation advances the capabilities and efficiency of mobile networks. 5G supports a range of consumer and enterprise use cases, including enhanced mobile broadband, fixed wireless access, massive IoT and ultra-reliable, low-latency communications (URLLC). 5G deployments are gathering pace globally. In Asia Pacific (excluding Greater China), 47 commercial 5G services have been launched across 17 countries, while the number of 5G connections is forecast to exceed 1.3 billion by 2030 (or 40% of total connections). Rates are lower in the Pacific Islands, with 1.5 million connections (17% of total connections) forecast for 2030.

4G is still growing and will continue to have an important role over the rest of this decade and beyond. 4G coverage is accelerating and is almost nationwide in some Pacific Island countries (e.g. Samoa at 98% of the population, Fiji at 96%, Tonga at 95%, Vanuatu at 91% and Marshall Islands at 85%), though these tend to be concentrated in smaller land areas or closely linked islands. Papua New Guinea, the most populous and geographically expansive of the Pacific Islands, has 4G coverage of 66% – a majority but far from ubiquitous. It will take until 2030 to reach 90%. As a result of greater network coverage, 4G adoption in the Pacific Islands has increased to account for just under 50% of total connections and is forecast to reach 61% by 2030.

3G connections have reached their peak and are declining in some countries (e.g. Fiji, Samoa and Tuvalu) as operators retire legacy networks to repurpose spectrum and migrate customers to 4G networks. In some cases, 2G networks are also operational, though subscriber numbers are declining steadily. This raises concerns about the efficient and effective use of resources.

As the Pacific Islands prepare for the rollout of 5G, fixed wireless access should be considered as an efficient, cost-effective and scalable alternative to wired broadband, particularly for addressing last-mile connectivity challenges in disparate or remote areas.

4G adoption in the Pacific Islands has increased to account for just under 50% of total connections



Governments and policymakers across the region should prepare for the 5G opportunity, using a whole-of-government approach

Policies can help lead the way on digital transformation

Digital connectivity and technologies afford the Pacific Islands the opportunity to transcend the limitations of physical size and constraints of geography. Governments need to lead the way by implementing digital public services and policy/regulatory levers that promote innovation and investment, facilitate deployment, enable access to spectrum and ensure adequate security measures are in place.

Mobile connectivity is a core component of national communications infrastructure, which also includes submarine cables and satellite systems; these play important support roles in expanding international connectivity and rural coverage, respectively. Mobile connectivity is central to delivering digital transformation and improving the lives of citizens in the Pacific Islands – in particular, accelerating socioeconomic advancement across areas such as healthcare, education, digital commerce, agritech and tourism.

In the 5G era, mobile connectivity will play an even greater role in society, reflecting the potential for the technology to enable a range of new use cases and applications for citizens, enterprises and the public sector. In this context, governments and policymakers across the region should prepare for the 5G opportunity, using a whole-of-government approach. In practice, this means:

- **adopting flexible regulatory and policy frameworks** (flexible, light-touch regulation and a balanced approach to fees and taxes)
- **implementing policy actions to close the digital divide** (investing in digital skills training, forming policies to lower handset costs, and reducing spectrum fees)
- **ensuring safe and secure connectivity** (safety and security by design, and international/regional cooperation to combat cyberbullying, misinformation/disinformation and cybersecurity threats).

Effective spectrum policy is key to realising the full potential of 5G

Radio spectrum is essential to the provision of affordable, high-quality mobile connectivity. Spectrum policy decisions at international, regional and national levels are crucial in supporting the development of mobile networks and infrastructure that will generate economic growth and enable digital transformation of societies in this decade and beyond. 4G uses low and mid-bands below 3 GHz, while the diverse needs of 5G use cases can only be addressed through a combination of frequencies across low-band (below 1 GHz), mid-band (1–7 GHz) and high-band (above 24 GHz) spectrum.

Mid-band spectrum offers city-wide coverage for urban areas. The first wave of commercial 5G networks globally has focused on the 3.5 GHz band, within the mid-band range. In the longer term, additional mid-band spectrum will be needed to address growing 5G demand in a cost-effective way while reducing energy consumption and the environmental impact of network densification. By 2030, it is estimated that an average of 2 GHz of mid-band spectrum in each country will be required to realise the full potential of 5G and beyond. Low-band frequencies such as 600 and 700 MHz are also being used to provide better 5G coverage in sparsely populated areas.

The Pacific Islands region stands to benefit from the global harmonisation of spectrum bands for mobile use. Greater economies of scale will pave the way for successful 5G network development in the Pacific Islands, allowing local operators, consumers and enterprises to tap into a maturing ecosystem of equipment, devices, use cases and applications. At the World Radiocommunication Conference in 2023 (WRC-23), there are agenda items on low- and mid-band frequencies for mobile. These offer the opportunity for administrations to take important steps towards securing future spectrum resources – such as the 600 MHz, 3.5 GHz, 4.8 GHz and 6 GHz bands. Positive moves towards harmonisation will make 5G connectivity more widespread and affordable for everyone, as well as providing the opportunity for the Pacific Islands to engage with a mature ecosystem.

5G is, however, not a race. Governments and regulators in the Pacific Islands can help chart the path for 5G with a clear spectrum roadmap that sets out the stages to ensure sufficient spectrum to support 4G while meeting the future needs of 5G. Understanding government plans for spectrum to support new technology and uses provides industry with the time and certainty required to develop business strategies, secure capital investments and plan for network deployment.

The Pacific Islands region stands to benefit from the global harmonisation of spectrum bands for mobile use

Mobile makes a major contribution to national and regional economies

Direct contributions to GDP come from the growth of a healthy mobile operator sector and surrounding ecosystem of equipment suppliers through to digital content creators. Indirect contributions are even more sizeable and come from the productivity gains driven by the personal use of mobiles, and advanced connectivity and cellular IoT applications in business settings. Meanwhile, the mobile ecosystem is a major creator of jobs, helping upskill economies for the digital age. Operators are also major contributors to government revenue through taxation, which in turn helps build prosperous societies.

Updated economic impact projections will be released with the full version of this report in April 2023.

The Mobile Economy Pacific Islands

Unique mobile subscribers

2022 **6.0m**

2030 **7.3m**

47% 2022 **50%** 2030

Penetration rate
Percentage of population

CAGR 2022-2030 **2.5%**

SIM connections
(excluding licensed cellular IoT)

2022 **6.9m**

2030 **8.8m**

Penetration rate
Percentage of population

54% 2022 **60%** 2030

CAGR 2022-2030 **3.0%**

4G
Percentage of connections *(excluding licensed cellular IoT)*

2022 **49%** → 2030 **61%**

5G
Percentage of connections *(excluding licensed cellular IoT)*

2022 **0.2%** → 2030 **17%**

Mobile internet users

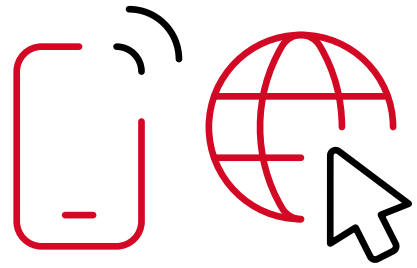
2022 **3.5m**

2030 **4.5m**

27% 2022

31% 2030

Penetration rate
Percentage of population



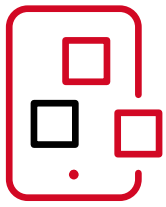
CAGR 2022-2030 **3.1%**

Smartphone adoption

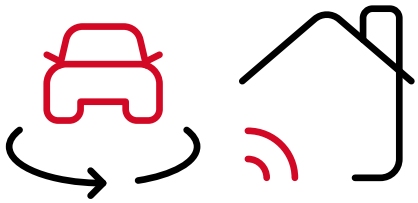
Percentage of connections *(excluding licensed cellular IoT)*

2022 **81%**

2030 **91%**



Licensed cellular IoT connections



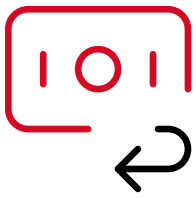
2021 **59,000**

2025 **78,000**

Operator revenues and investment

2022 **$1.2bn**

2030 **$1.4bn**



Total revenues

Operator capex

$2bn

for 2021–2025

(high capex intensity of 25–30%)

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