

TAKING A NATION FORWARD

Industry Telecommunications

Location Oceania With the launch of O3b mPOWER, we're improving and extending digital access across the Cook Islands together with Vodafone





vodafone

SES's MEO Coverage



Spanning 15 islands and 2.2 million square kilometres of ocean, the Cook Islands is home to over 17,600 people.

From the main islands of Rarotonga and Aitutaki, to Pa Enua—the outer islands such as Manihi-Manihiki, Atiu, Penrhyn, and others—the Cook Islands comprises urban centres and remote farming communities, with populations of less than 100, separated by several hundred kilometres of ocean. Yet, over the last decade, the nation has made major strides in connectivity while working to ensure none of its population are left behind.

Vodafone Cook Islands (Vodafone) is a full-service provider with a mission to enrich the lives of all Cook Islanders through telecommunications for residential, enterprise, and government customers. SES's partnership with Vodafone began in 2013, when the Cook Islands became the first customer to sign on to O3b MEO—SES's firstgeneration satellite constellation in medium Earth orbit, connecting the main island of Rarotonga and the majority of the outer islands to the outside world for the first time.

"It's been a fantastic partnership based on honesty, transparency, and trust," says Alan Cheng, Sales Manager at SES for the Pacific region. "Over the last ten years, they've gone from what the UN classifies as a developing nation into a developed nation. We're proud to have played a part in that."

In 2019, the islands of Rarotonga and Aitutaki were connected via the Manatua submarine cable, which enabled those end users to access faster internet speeds. Yet while the cable has vastly improved connectivity for the nation's most densely populated islands, it left the nation's outer islands behind.

"Being a single cable-connected country means we only have one point of failure," says Cheng. "O3b mPOWER enables us to ensure not only the islands of Rarotonga and Aitutaki stay 4G connected in case of a major cable break, but the entire country."

O3b mPOWER will not only continue to contribute and serve as a solid back up to the Manatua submarine cable, but it will also provide better connectivity to the outer islands bridging the digital gap between the haves and the have-nots.





O3h mPOWER



With O3b mPOWER, Vodafone is securely ramping up 4G and 5G capacity across the islands. On the island of Atiu, Vodafone and SES are installing an Intellian mP130 terminal with a solar-powered cell outstation and 4G mobile cell site—part of their plan to ramp up 4G and 5G internet speeds to the smaller islands via O3b mPOWER. "Our customers expect the best," says Robert McFadzien, Chief Technology Officer at Vodafone. "They've become accustomed to the high speeds of data in Rarotonga, and they expect it out here in the most remote places as well."

Building on a foundation of trust, we worked hand in hand with Vodafone to enable secure connectivity across the Cook Islands by installing a regional gateway in Rarotonga. "We chose O3b mPOWER because it allows us to securely roll out 4G capability to every citizen in the country," says Phillip Henderson, CEO of Vodafone. Vodafone will be utilising two critical services via O3b mPOWER: Mobile Backhaul mPOWERED for extending capacity to the remote, or outer islands, and Trunk mPOWERED to provide backup to the main islands' undersea cable.

For those living in the rural outer islands, O3b mPOWER means new and improved access to e-education, e-medicine, and e-commerce. "The Ministry of Education will be able to deliver on virtual learning to all the students across the country," says Henderson. "And local artisans can now market their wares overseas."

Yet, the greatest value O3b mPOWER brings the Cook Islands is the unprecedented flexibility to allocate its gigabit-scale bandwidth. A committed information rate from SES lets Vodafone allot service per island and dynamically adjust capacity as needed which is critical as the nation's tourism industry revives.



"Plenty of satellite technologies out there can connect these remote communities, but they create some level of cyber security risks where you don't have gateways in the country. O3b mPOWER enables us to maintain sovereignty over our data at a national level."

PHILLIP HENDERSON Chief Executive Officer at Vodafone





"Flexibility is important for us. We often have big events where an island's population might suddenly double in a day or two. Or, we've had a cable break where islands have been cut off for three to four weeks. With O3b mPOWER, we have enough capacity to enable a seamless cutover to satellite on-demand."

ROBERT MCFADZIEN Chief Technology Officer at Vodafone For additional information on this project, please visit www.ses.com

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