

**TSC and OSI comment on Asia Pacific
Network Development**

January 2017

[*www.oceanspecialists.com*](http://www.oceanspecialists.com)

TSC and OSI comment on Asia Pacific Network Development

Technology Systems Corporation (TSC), a leading provider of market intelligence for the submarine cable industry, and Ocean Specialists (OSI), a global provider of fiber optic networks, routinely partner under their shared corporate umbrella to assess market happenings. This paper reflects the combined views of John Manock, editor of TSC's Submarine Cable World, and Tony Mosley, OSI's Director of Asia Pacific Business Development, and outlines recent submarine cable activities in the Pacific region as well as changes in the way the industry views the connecting of island markets.

At the start of the 21st Century, a global network of submarine fiber optic cables was already in place connecting the world's largest telecommunications markets. At that time, before the Internet had become an integral part of the global economy and the lives of billions of people, the thought of building cables to small, isolated markets was rarely taken seriously. Small markets without the purchasing power to produce significant revenue for carriers could not justify the huge investment needed to build a submarine cable system.

Yet now, only a decade-and-a-half later, a remarkable thing is happening. Throughout the world, small markets, especially islands, are being connected to the global submarine cable network with a pace that is increasing each year. Nowhere is this trend more apparent than in the Central and South Pacific. A web of submarine cable systems is being spun throughout the region, linking the very markets that in 2000 would never have been seriously considered for connection to the global network.

The Internet is ultimately the driving force behind this, as it is in so many aspects of today's society. The power of broadband Internet cannot be underestimated. The World Bank studied the economic impact of broadband and concluded that an increase of 10% in broadband penetration would increase GDP per capita growth by 0.9-1.5%. Mr. Houlin Zhao, ITU Secretary-General, may have put it best when he said, "Broadband networks offer perhaps the greatest opportunity we have ever had to make rapid and solid advances in global social and economic development – across all sectors, including healthcare, education, new job opportunities, transportation, agriculture, trade and government services. In the Twenty-First Century, broadband networks therefore need to be considered as basic critical infrastructure, like roads, railways, water and power networks."

The first South and Central Pacific islands that were connected with international fiber optic cables were stopping points for transpacific cables such as Hawaii, Guam and Fiji. Islands like American Samoa, New Caledonia and Tahiti followed as the United States and France began to recognize the social and economic benefit of broadband and that the citizens in those locations would be at a significant disadvantage without connectivity.

Gradually, the network extended out to reach other islands – the Northern Mariana Islands, the Federated States of Micronesia, Tonga, Papua New Guinea and Vanuatu. Now a new wave of cables is taking shape. Palau, Yap, Samoa, the Solomons, Cook, Norfolk, Kiribati and Nauru are among those that could be connected to the global submarine cable network in the near future.

The long-term development of these island networks has somewhat mimicked what was seen in some of the world's largest markets. After the first cable connection is made, sometimes a second is necessary. For some – like Papua New Guinea, Samoa and American Samoa – the first cable was one of low capacity. In fact, they were recycled cables that had been taken out of service along larger routes. It was thought that they would have sufficient capacity to satisfy these markets, but demand grew and more modern, higher-capacity cables became essential. For others -- like Saipan, Tinian and Rota in the Northern Mariana Islands – a second submarine cable system was needed for redundancy and route diversity after a Typhoon cut off the islands from the Internet.

In addition, there are early signs that the global submarine cable network will extend its reach further into the Pacific islands. No longer are cables restricted to landing on a single island of a small island chain. Domestic cable extensions are beginning to appear. The Fiji Connectivity Project, which the World Bank committed to fund in late 2016, will link the international cable landing point in Suva, Fiji, to the smaller Fijian island of Vanua Levu, a distance of 150 kilometers. Although far from a “trend,” there can be little doubt that similar connectivity projects will appear elsewhere in the Pacific.

At the turn of the Century, the suggestion that these small island markets would be connected would be shrugged off with a “Who’s going to pay for that?” But as it has turned out, funding for these projects can come from a variety of sources. Some funding comes from local investment, i.e., the island government or telecom/Internet providers. As noted, other funding has come from national governments -- primarily France and America -- to fund cables to islands that they administer in the Pacific. Philanthropic organizations have shown interest as well. But perhaps the most significant funders right now are the World Bank and the Asian Development Bank, both of which have been prominent in many of the projects in the Pacific.

The future will only see the continuation of the trend of connecting Pacific islands with submarine cables. This is not just a desired outcome, but a necessary one. Reliable, high-speed broadband connectivity is vital for social and economic development, poverty alleviation, e-health, e-government and e-learning. Governments and non-governmental organizations recognize that failing to provide connectivity to these islands deprive them from having the same opportunities that mainland populations have. The global submarine cable network is destined to reach further into the Pacific and bring the benefits of high-speed Internet to more island populations.