

Versatile and Robust Government Connectivity



Overview

The Solomon Islands Government (SIG) comprises of 26 Ministries and statutory bodies in 93 physical locations spread across the capital city of Honiara.

The Information and Communications Technology Support Unit (ICTSU) are a division under the Ministry of Finance & Treasury who are responsible for managing and maintaining a small data center that hosts all key ICT systems and services. In 2011, the cabinet of Solomon Islands endorsed SIG ICT strategy for centralization of ICT services and mandated ICTSU to expand their ICT service offering to the whole of Government.

Challenge

Most government offices have little connectivity, and ICT costs are high. As a result, there were many inefficiencies and productivity was low. Basic services such as virus control, data backup and internet provision were either unreliable or non-existent.

The Solomon Islands Government in Honiara is small by global standards, with around 2,500 computer users in total. Workers are distributed in 93 offices around Honiara, many of which typically hold fewer than 10 people.



The Ministry of Finance wanted to supply basic ICT services to all SIG Ministries by leveraging their existing investment in ICT infrastructure within the Ministry of Finance & Treasury.

Enhanced connectivity was needed to help the government to

- Control their ICT recurrent costs
- Improve inter-government communications
- Roll out a suite of IT applications that form the foundations of E-Government.

“We now have a versatile and robust network. We have connectivity – high performance connectivity. We have achieved a dramatic reduction in Information and Communications Technology costs, and we can deliver applications and services that enable real change in efficiency of all government processes”

- SMITH INIAKWALA DIRECTOR, SIG ICT SUPPORT UNIT

Requirements

A new network was required with:

- No reliance on fixed (cabled infrastructure)
- Ability to be rapidly deployed
- Support up to 5,000 users
- Scalability to grow as needs and applications expand
- Ability to be relocated as offices move between buildings
- High reliability with adequate bandwidth and low latency
- Proven to be cost effective when compared to other alternatives

The equipment had to be able to operate in a city environment with high temperatures of up to 35°C and humidity of at least 80%.



Solution

CBO Pty Ltd, a Cambium Networks partner in Brisbane, Australia helped define the solution. CBO designed a reliable and robust MAN solution that consisted of:

A High bandwidth backbone network including 19 Cambium Networks PTP 600 links

- High usage sites (10) with throughput over 10 Mbps have been allocated a point to point link as these sites usually have to service multiple government departments
- Backhaul links (9) are in a network ring topology and are designed for 100 Mbps to 300 Mbps of throughput

WiMAX connectivity for the remaining smaller government sites using Cambium Networks Point-to-Multipoint (PMP) 320 access points using the licensed 3.5 GHz spectrum

- Each of the 18 base station locations uses 4 x 90 degree sector antenna servicing 52 client sites and has been designed to have 360° coverage of its surrounding areas

SIG also has the ability to monitor and control the entire network using the Cambium Networks Wireless Manager platform.

CUSTOMER PROFILE:

Solomon Islands Government

CHALLENGE

Provide broadband connectivity for public services in the city of Honiara.

SOLUTION

- Network of 10 Point-to-Point (PTP) 600 links to high usage locations.
- Network ring of 9 PTP 600 links to provide up to 300 Mbps of throughput.
- 18 Point-to-Multipoint (PMP) 320 base stations for licensed WiMAX access networks

APPLICATION

Government and public services to the people of Solomon Islands

BENEFITS

- High throughput to connect multiple offices
- Low latency to support VoIP and video applications
- Rapidly deployed
- High reliability to perform in hot temperatures, high humidity, and over water
- Scalable to increase capabilities and needs evolve
- Ability to leverage the network infrastructure to add public safety video surveillance applications

Results

CBO provided detailed installation training and support. Detailed site packs were completed for each of the 93 sites and included specific installation manuals, work instructions, network equipment to be installed at each site, and the materials required to install the equipment.

Training was provided to the Solomon Islands Government ICT staff by CBO so that technicians could operate and maintain the network.

The network has performed perfectly.

The system has already increased inter-department communication and sharing of resources. The new network enhances the operation of a number of existing and new ICT systems for the government including:

- a Customs system which allows customs officials to track imports and exports electronically at the main sea port and at Henderson airport
- Government payroll and finance functions
- Vehicle and licensing system

Going Forward

The system has already paved the way for SIG to see the benefits of a connected government.

- Increased visibility of operational processes
- Reduction in recurrent Internet access costs
- Reduction in support costs
- Reduction in the number and duration of outages
- Increased satisfaction of the delivery of government applications

SIG is now looking at leveraging the network to include public safety by merging of CCTV video surveillance from Honiara Port back into the network core data center.