ST Engineering

CONNECTIVITY WHERE IT COUNTS:
ST ENGINEERING IDIRECT TECHNOLOGY IS CONNECTING PEOPLE IN REMOTE INDIAN ISLANDS

The Challenge

The tropical archipelago of Lakshadweep consists of 36 atolls and coral reefs off the coast of Kerala, Southwest India, and is home to a total population of some 70,000 people. To the Indian subcontinent's southeast, The Andaman and Nicobar Islands sit at the juncture of the Bay of Bengal and the Andaman Sea and are home to some 380,000 people scattered over 38 inhabited islands out of a total of 572.

As tourism hotspots, The Central Government of India wanted to develop several tourist destinations and economic hubs across the regions.

To achieve this, Indian state-owned telecommunications company BSNL needed to augment satellite bandwidth at the offshore Indian islands of Andaman & Nicobar and Lakshadweep under a Universal Service Obligation (USO) project funded by the Department of Telecommunications.

Existing Single Channel Per Carrier (SCPC) links across the islands needed a complete overhaul to support the growth of required applications with a view to enhanced socio-economic activity across the islands. BSNL selected ST Engineering iDirect's Dialog platform to meet these needs.

powered by
Newtec ◄ iDirect

The Solution

The Newtec Dialog platform can provide internet and 2G, 3G and 4G services and as a multi-service platform, allows for cost effective, fiber-like connectivity to meet the high demands of island users, ensuring a connectivity experience that is on a par with communications on the Indian mainland.

Dialog promotes the optimal utilization of available satellite resources through more efficient use of bandwidth thanks to its dynamic return technology Mx-DMA®, driving down costs and offering BSNL the capability to scale and expand when required to meet future needs.

ST Engineering iDirect's Mx-DMA is the return satellite technology that incorporates the best features of MF-TDMA and SCPC technologies, solving the difficult choice of having to select one or the other. Mx-DMA is a patented, efficient and dynamic multiple- access waveform which enables service providers to share satellite capacity more efficiently over a group of satellite terminals. The Mx-DMA return technology adjusts the frequency plan, the symbol rate, the modulation, coding and power in real-time for every terminal in the satellite

network. These adjustments are based on the return traffic demand, the network Quality of Service (QoS) management and channel conditions for the terminal population in the network.

The multi-service capability offered by Dialog enables BSNL to develop creative service plans to meet many different requirements, such as 2G, 3G and 4G services through embedded optimization and acceleration and high-speed, high-performance broadband services to every resident.

The Result

The Dialog platform now allows BSNL to dynamically allocate bandwidth as demand varies from island to island. It achieves essential flexibility and the ability to run many different types of applications, both fixed and mobile with the connectivity to make it possible for those living and working on the islands to grow and prosper despite their remote location.

The deployment of ST Engineering iDirect's new technology brings a broad range of applications to these Indian islands, from cellular backhaul and enterprise connectivity to maritime and remote community Wi-Fi, as well as the ability to connect with other Indian states.

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