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China State Oceanic Administration (SOA) Environmental Monitoring & Marine Forecasting

Executive Summary

Challenge

China State Oceanic Administration (SOA) authorities needed to deploy a reliable VSAT network for marine environmental monitoring, disaster forecasting and warning and to streamline inter-office operations. The network needed to efficiently deliver real-time data, video and voice capabilities from over 100 remote sites.

The Solution

Unique Star/Mesh hybrid network system, enabling better monitoring, warning, and management functions with the aid of live on-the-scene video, maritime communications applications. Enterprise data communications network supports IT applications that streamline processes such as requisitions.

Benefits of Spacebridge

The SpaceBridge's solution accesses two satellites (C-band and Ku-band) and combines Mesh and Star network topologies in the same network for mission-critical communications, using both TDMA and SCPC Return Links.

Introduction

China State Oceanic Administration (SOA) needed a two-way satellite communications network to transmit real-time video and monitoring data collected at marine sites for marine environmental monitoring, disaster forecasting and early warning, and for internal business data processes. It also wanted voice and two-way day communications between both maritime and land-based teams.

Challenge

SOA is charged with protecting the health of coastal marine ecosystems. To prevent fragile marine ecosystems from deteriorating, SOA must quickly obtain accurate and reliable marine monitoring data, and based on the data, it must ensure timely response to marine pollution incidents.

Achievements

The SOA satellite communication network system is composed of one central station and nearly 100 remote satellite stations. A dual-band (C/Ku-Band) satellite network, it supports two-way transmission of video, IP data and voice between remote stations and a central Hub station.

Benefits of Spacebridge

Through SpaceBridge VSAT and DVB-RCS satellite communications technology, two-way video, IP data and voice links are now active between remote sites and a VSAT Hub at SOA's Customer Information Center where all real-time video and environmental monitoring data is analyzed and processed in real time. With the addition of Mesh capability to the DVB-RCS system, remote sites can directly link to each other, and to the Customer Information Center.