CONNECTING GREENLAND'S EAST COAST

TELE Greenland A/S, SES Networks

Case Study

Industry
Telecommunications

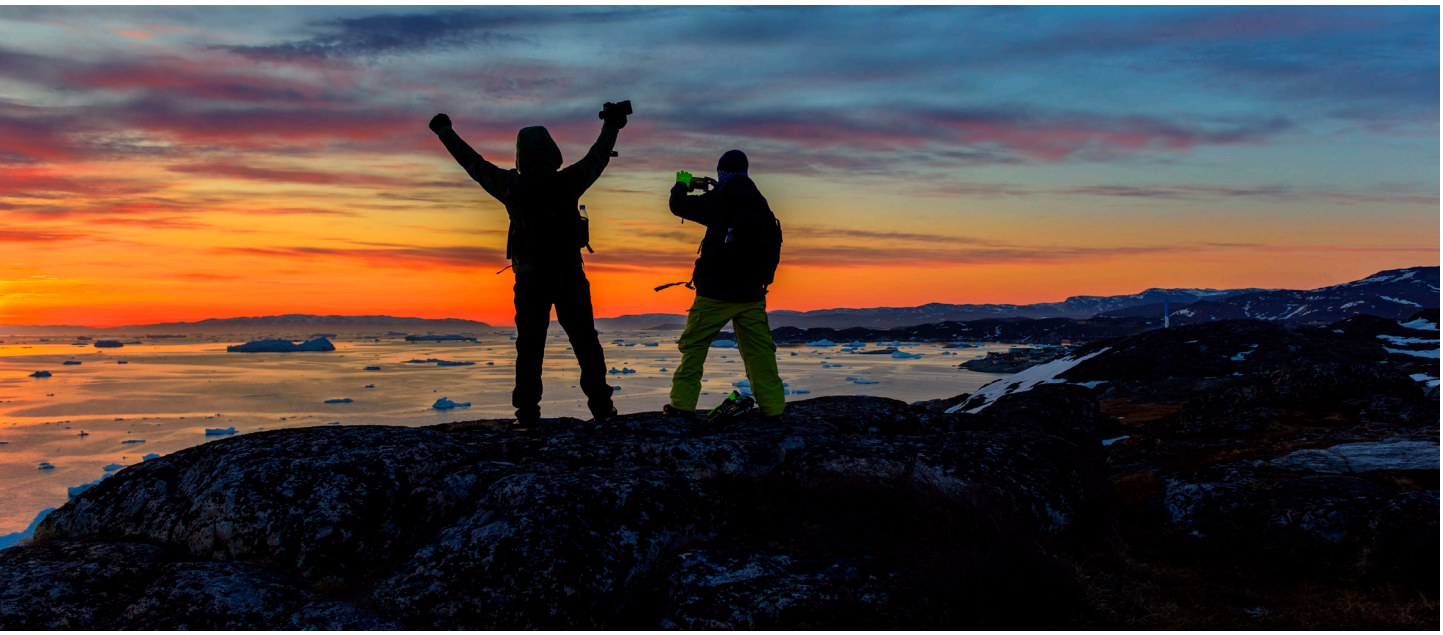
Location
North America

SES

TELE Greenland A/S chooses SES Networks to connect East Greenland

Although the infrastructure has several undersea cables, Greenland relies heavily on satellite connectivity.

TELE Greenland A/S is Greenland's sole telecommunications provider, which is no small feat on the world's largest island. TELE Greenland provides broadband and cellular services to 92% of the nation despite some of the Arctic challenges they encounter. The bigger cities, like Nuuk and Qaqortoq, connect to the rest of the world via undersea fibre optic cables. That internet traffic is then distributed to many towns and settlements via a series of radio relay towers, which require continuous maintenance and refuelling. Although the infrastructure has several undersea cables, Greenland relies heavily on satellite connectivity



Requirements:

Managed connectivity services

Seeking a trusted satellite operator who could connect portions of Greenland's east coast with the rest of the world, TELE Greenland identified several requirements:

- Over 1Gbps total capacity, serving the town of Tasiilaq and the village of Ittoqqortoormiut
- Managed connectivity to the Internet backbone via Europe
- With the provided transport connectivity, TELE Greenland planned to provide 4G services by utilizing Ericsson ground infrastructure

Challenges

TELE Greenland sought a solution that could triple the capacity to 1.4Gbps

Experiencing temperatures as low as -25°C and winds as high as 200 Km/hr, Greenland poses some of the greatest physical barriers to establishing broadband connectivity. Greenland's populations are widespread over the island, the majority of whom are not connected to any form of intercommunity roads. All transportation between cities and settlements requires scheduling boats, ships, planes, or helicopters to get people and supplies where they need to be. Some communities receive data communications via radio repeaters spanning distances over hills and mountains, but each of these radio masts must be maintained and the generators individually refilled. For some radio towers, this process requires two full days of repeated helicopter drop-offs to complete.

The capital city, Nuuk, and several other towns are connected to undersea fibre optic cable backbones. However, as with any undersea cable, cuts and damage do occur, and the harsh weather conditions of Greenland's seas make repairs very difficult over winter.

To circumvent these challenges, TELE Greenland has designated many towns and settlements across Greenland to receive broadband connectivity from satellites, which is then distributed to its consumers by familiar 4G, LTE, and Wi-Fi last miles. Two of those cities are Tasiilaq and Ittoqqortoormiut, both located on the east coast. Tasiilaq is the largest city on the eastern shore, with a population of about 2,000. Ittoqqortoormiut, in contrast, is one of Greenland's most remote cities, home to just 345 Greenlanders who primarily travel by helicopter and plane as the city is inaccessible by water for much of the year. The two cities previously received 450 Mbps of bi-directional data throughput via satellite, but when TELE Greenland chose these towns to upgrade to LTE networks powered by Ericsson, they sought a solution that could triple the capacity to 1.4Gbps.

Solution

"This is the first step towards better internet solutions for 100% of the population in Greenland" - Stine Bosse, President of the board, TELE Greenland

TELE Greenland selected SES Networks as one of few satellite operators who could support the high throughput requirement. SES offered a managed bandwidth solution based on its NSS-10 satellite. At an SES partner teleport in Europe, the satellite uplink and downlink are connected by redundant fibre optic connectivity to the Internet.

SES manages the satellite operation, the uplink and downlink services, and the Internet connectivity covered under a single, robust service level agreement (SLA) guaranteeing high availability. SES's Network Operations Centre (NOC) monitors the service 24/7/365, and proactively detects and troubleshoots any issues that may arise. Should TELE Greenland happen to detect a problem first, SES's multilingual experts can help diagnose and resolve some problems remotely, avoiding costly trips by engineers.

Tapping SES Networks to manage the teleport and satellite network and provide monitoring and troubleshooting frees TELE Greenland to focus on its core competencies when facing Greenland's harsh challenges to connect their consumers along Greenland's east coast with the LTE last-mile and provide excellent customer service.

"I'm delighted to announce this important milestone in upgrading internet solutions and improving the quality of experience for our customers in the areas that are not reached by cable," said Stine Bosse, President of the Board of Tele Greenland A/S. "This is the first step towards better internet solutions for 100% of the population in Greenland, allowing access to new internet plans."

Antonio Bove, Director, Fixed Data Sales Europe of SES Networks explained, "Tele Greenland and SES both deeply believe in leaving no one outside the reach of connectivity and enabling opportunities for everyone. We are committed to delivering content connectivity solutions in even the most remote locations where terrestrial infrastructures cannot be deployed and are proud to bring high-quality internet experiences to people in East Greenland."

Discover how SES Networks can manage your challenges: www.ses.com/networks

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For more information about SES,
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