Gran Telescopio CANARIAS Launches High Performance, Reliable Network to Drive Astrophysical Research

Technology Needs

- Increased network capacity to support huge volumes of data and new technologies crucial for researcher use
- Simplified network infrastructure to centralize management and maximize user productivity
- Improved Wi-Fi connectivity for better user experience

Extreme Solution Components

- ExtremeSwitching™
- ExtremeWireless™
- ExtremeCloud™ IQ

> "The new wireless network, based on Wi-Fi 6, will allow us to take Wi-Fi connectivity to another level and make the most of all the IT resources we have available, as well as significantly improve the productivity and experience of corporate user connection. Extreme is a reliable and close partner, from whom we receive full support. It offers support that goes well beyond the level of service established by contract. It is a partner that helps us progress and continuously improve the services offered by the Observatory. The new network offers us the ability to provide researchers with huge volume of data provided by the telescope, necessary for their investigations."

Daniel Medina, IT Director, GRANTECAN

GRANTECAN is a public company in charge of operating the Gran Telescopio CANARIAS (GTC), one of the largest and most advanced telescopes in the world, located on the island of La Palma in Spain. It employs 78 people, including researchers and corporate users, spread across multiple facilities including the building that houses the telescope.

To help further its scientific activities, GRANTECAN sought a reliable, high-performance network infrastructure consisting of both hardware and software solutions that met the demanding needs of operating the telescope. Specifically, the network needed to be able to support researchers as the analyzed the massive volumes of data necessary for their work, all without experiencing degradation to the user experience. GRANTECAN found its existing wireless infrastructure deficient in providing the capacity to deploy new technologies, as well as support for applications and services critical to operations and research.

In partnership with Extreme, GRANTECAN upgraded its entire network through the deployment of Extreme wireless solutions and ExtremeCloud IQ. With a robust, reliable infrastructure that supports new technologies, improves user productivity and optimizes management, GRANTECAN can refocus its efforts on the future scientific achievements of the GTC.

> "I can highlight how easy it has been to deploy and configure all the network equipment. With the new network, more powerful and prepared for new technologies, we are ready not only to prepare the network for the Observatory current needs, but also to deploy new technologies such as hyper-convergence, IIoT or next-generation firewallst."

César Cabrera, System Administrator, GRANTECAN

Results

✓ Reliability

- More capacity to support critical and highly demanding applications and services needed for research and telescope operation
- Reliable partnership supporting progress and continuous improvement of services

⚙ Improved Operations

- Enhanced telescope operation, configuration and support
- Real-time delivery of high-quality data and images from telescope to researchers
- Significant advances in productivity and user experiences

⇄ Simplified Management

- Optimized and centralized management of entire network saves users time and resources to focus on research and data collection

Extreme networks®