

Infinet Wireless strengthens connectivity within the Universidad de Guanajuato's important campus



Quanta 5 provides 400 Mbps in a link of 105 Km

The area of IT strengthened the network for academic use, distance learning, video conferencing and the University 's intranet. In 2015 the first link from the InfiLINK PRO family was installed, achieving a capacity of 200 Mbps and operating well for 4 years. From 2015 to 2020, after the launch of Quanta 5, Grupo Delta installed this new family between Culiacán Hill and Zamorano Hill, achieving 400 Mbps over 105 km to the complete satisfaction of users at the University of Guanajuato.

Mission

The University of Guanajuato is a private institution with more than 280 years of history, offering junior college, undergraduate and postgraduate degrees and certificates. It has a presence in 12 municipalities of the State of Guanajuato, with four University campuses and a junior college with 11 schools. It has 43,261 alumni, studying on programmes in every area of academia, including 72 degrees, 49 Masters, 22 PhDs, 25 specialties, 2 at

higher technical university level and baccalaureate studies.

Before 2014, the CINUG Tierra Blanca site - Interdisciplinary Centre of the Northeast of the University of Guanajuato, was not connected to the dorsal network of the University, which motivated the need to call for tenders for the construction of a system of links that could connect the headquarters located in the north of the State with the headquarters and campuses of the university while providing internet access service. It was vitally important, as the University planned to use the

network for academic purposes, such as distance education, use of internal platforms, and videoconferencing.

Solution

Grupo Delta presented a project for the construction of a private wireless network with repeater that could unite the Tierra Blanca site with the closest communication network, starting at the Culiacán Hill, which has an altitude of 2,830 above sea level at its highest point and reaching the municipality of Cortázar, Guanajuato, Mexico.

Infinet Wireless' business partner settled on the geographical location, designed the architecture and constructed a sustainable and environmentally friendly repeater, important, given that this is a protected zone. In February 2015 the first wireless links were installed, uniting the repeater on Culiacán Hill with the new repeater and from there to Tierra Blanca making use of the InfiLink PRO equipment, successfully linking the Tierra Blanca centre with the University's head office with a transfer capacity of 200 Mbps over a distance of 105 km.

Later, in 2019, with the launch of Infinet Wireless' Quanta 5 family, Grupo Delta incorporated and substituted the PRO family for the Quanta family. This new generation of wireless equipment was installed in the link between Culiacán and Zamorano over a distance of 105 km, achieving results that exceeded the expectations of the final client by attaining a transfer capacity of 400 Mbps.

"To date, the University of Guanajuato has more than 50 infinnet equipment installed from different families, being completely satisfied with the excellent results, the stability of the products and the integration that has been deployed. This bodes well for the future and persuades us that in time we can change the entire platform to Infinet Wireless

solutions," added David Pérez, project director at Grupo Delta.

Grupo Delta, a partner of Infinet Wireless, is a Mexican company based in Mexico City with more than 25 years experience in integration; they specialise in finding telecommunication, connectivity, video security and cyber security solutions. For more than 9 years Grupo Delta has been installing Infinet solutions together with Avantec, the official distributor, and they were responsible for the design, installation, tests, implementation and infrastructure of the University project.

"We are really pleased to be able to give the best connection to our students and academic staff at the University's Tierra Blanca site - now they are able to study and work productively at greater speed. We are also grateful for the help and support of Grupo Delta," added Flavio Herrera Ramos, head of the Networks and Security department of the Services and Information Technology Management of the University of Guanajuato.

Results

From the moment that the communications engineering team of the University decided to put Infinet Wireless point to point solutions to the test, Grupo Delta worked closely with the project in the design, development, tests and implementation of the wireless communication solutions, forming an excellent relationship between the companies and consequently winning the client's trust regarding the brand.

The connectivity network was completely replaced by the Quanta 5 family, with the longest link that the University has; 105 km. This change has allowed the University to fully appreciate the quality of this technology, which boasts many benefits including: a scalable solution for academic use; remote learning and the University of

Guanajuato's intranet; cost effective broadband; 100% improvement in data transfer capacity; significant savings in investment; reliable connectivity in difficult terrain

and what is more, allowing students the best connectivity when using internal platforms, internet and videoconferencing.

“We wanted to try out Infinet’s PTP equipment because of the company ‘s experience when it comes to solutions of greater capacity and stability in extreme climate conditions. The Quanta family solutions allowed us to connect the campus with our internal clients and other sites, covering complicated terrain and managing to deliver higher Mbps over a long link of 105 km” affirmed Guillermo Carrillo Gallardo, IT manager at the University of Guanajuato.

Requirements

- Scalable solution for academic use, remote learning and University intranet.
- Cost effective broadband wireless solution.
- Give hundreds of students the best connectivity when using internal platforms, internet and video conferencing.
- Connect the main University campus.
- Deliver reliable connectivity in difficult terrain.

Solution

- Point to point InfiLINK PRO solution
- Point to point Quanta 5 solution

Benefits

- 100% replacement of the PRO family with Quanta 5 family.
- The considerable augmentation by 100% in data transfer capacity.
- Increase in reliability and stability of the link.
- Better interference manageability.
- Savings in investment.