



AVANTEL USES NETWORK SLICING TO DELIVER LOW-COST MOBILE SERVICES TO MILLENNIALS IN COLOMBIA

Summary

Company:

Avantel SAS

Industry:

Telco

Business Challenges:

Double number of subscribers in one year by offering high-quality, low-cost mobile services targeted at Millennials.

Technology Solution:

- Junos Node Slicing
- Junos Address Aware
- MX960 and MX480 Universal Routing Platforms
- QFX5100 line of Switches
- EX4300 Ethernet Switch

Business Results:

- Efficiently scaled network to meet aggressive growth plans and satisfy mobile data usage demands
- Pioneered use of Junos Node Slicing to scale infrastructure
- Prepared for the coming of 5G and IoT
- Simplified network operations and lowered OpEx

Avantel SAS is a rising star in Colombia. The mobile service provider is a favorite with university students and Millennials, who expect a great mobile experience at an affordable price. Avantel aims to capture 10 percent of the Colombian market, facing down far bigger, more established rivals with innovation and efficiency. Its state-of-the-art Juniper network, the first to implement Juniper Networks® Junos® Node Slicing in Latin America, is delivering a sustainable advantage.

Avantel quickly attracted 1 million subscribers in Bogota, Medellin, Cali, Cartagena, and a dozen other cities in Colombia. The company offers both consumer and enterprise communication services as well as content, video, and hosted applications.

“From 2017 to 2018, we doubled traffic,” says Oscar Bravo, chief of implementation and planning at Avantel. “In 2019, we expect an additional 54% increase.”

Avantel’s subscribers are digital citizens—heavy users of video chat, streaming video, and over-the-top (OTT) messaging apps like What’s App. Data consumption was skyrocketing, but Avantel’s legacy network couldn’t keep pace with the company’s aggressive growth plans.

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- Oscar Bravo, chief of implementation and planning, Avantel

“We had a capacity problem,” says Christian Torres, planning engineer for the core IP network at Avantel. “Our customer base is growing quickly and traffic is increasing at a high rate. Our core routers wouldn’t have been able to handle the physical connections we needed to deliver a good customer experience.”

Avantel’s core network was designed for an era in which voice, not data, dominated, and the company had relied on the same core network for a decade. Bravo and Torres knew the core network needed to offer better performance, reliability, and flexibility to deliver mobile plans that satisfied the mobile generation. And the network needed to be ready for IoT and 5G.

Avantel was ready to break with the status quo.

A Mobile Experience for Millennials

Impressed with Juniper's strong service provider heritage and focus on engineering simplicity, Avantel determined that Juniper networking in the core would enable the business growth and operational simplicity it coveted.

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- Oscar Bravo, chief of implementation and planning, Avantel

Avantel is the first service provider in Latin America to deploy Junos Node Slicing, a new way to converge networks, scale infrastructure, and deploy services. "We immediately saw the benefits of Junos Node Slicing in terms of capacity, availability, and flexibility," says Bravo.

Junos Node Slicing is a feature of Juniper Networks Junos operating system that allows Avantel to create multiple partitions in a single physical Juniper Networks MX Series 5G Universal Routing Platform within the context of 5G. Each partition behaves as a dedicated router, with its own control, data, and management plane. Junos Node Slicing empowers Avantel to create a more agile, virtualized, and converged infrastructure, as well as to consolidate multiple network functions on a single physical router. The Juniper Networks EX4300 Ethernet Switch is used as the satellite device for Junos Node Slicing.

The high-performance Juniper Networks MX960 and MX480 Universal Routing Platforms are used in the IP core network, where they deliver highly scalable routing, switching, security, and service features for service provider and cloud environments. Avantel also uses Juniper Networks QFX5100 line of Switches, deployed in a Virtual Chassis configuration for simplified management, in its data center. Virtual Chassis enables multiple interconnected switches to appear as a single, logical device.

To prepare for the coming wave of IoT and 5G devices, Avantel extended its IPv4 address pools with Juniper Networks Junos Address Aware. With Junos Address Aware, Avantel cost-effectively added carrier-grade NAT functionality to its MX Series routers without impacting the performance of routing or forwarding functions.

The Avantel team was under intense pressure to deploy the new network in time for the 2018 FIFA World Cup. All eyes would be on the Colombian national team in a country that takes soccer obsession to a new level. "We deployed the QFX5100 switches in our data center in record time so we could be ready for subscribers to stream the World Cup from their phones," says Torres.

Scalable Growth

With efficient, scalable data center infrastructure from Juniper, Avantel is ready to meet its business plans for aggressive growth and deliver excellent services as mobile data volumes grow rapidly.

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Avantel has built a solid foundation for the growth of IoT devices and data-heavy 5G services. "Our expectation is to continue to grow the network with Juniper in the core and support the shift to 5G," says Torres.

The Juniper network has also delivered OpEx savings. "With a Juniper platform, Avantel gained energy efficiency, saved power and space, and can optimize traffic to support different services," says Bravo. "Voice over LTE is much easier with Junos."

Moving to Juniper also simplified operations. "We quickly saw the many advantages of Junos," says Torres. "Juniper is much simpler, and integrating the core and access networks and deploying new services were much easier because of Junos."

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About Juniper Networks

Juniper Networks brings simplicity to networking with products, solutions and services that connect the world. Through engineering innovation, we remove the constraints and complexities of networking in the cloud era to solve the toughest challenges our customers and partners face daily. At Juniper Networks, we believe that the network is a resource for sharing knowledge and human advancement that changes the world. We are committed to imagining groundbreaking ways to deliver automated, scalable and secure networks to move at the speed of business.

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