



POST LUXEMBOURG AUTOMATES SERVICE DELIVERY OF 5G, VIDEO, AND CLOUD WITH CONTRAIL ENTERPRISE MULTICLOUD

Summary

Company:

POST Luxembourg

Industry:

Service Provider

Business Challenges:

Build an agile telco cloud to launch 5G service and meet growing customer demand

Technology Solution:

- QFX10000 and QFX5100 lines of Switches
- Contrail Enterprise Multicloud
- MX10000 Universal Routing Platform (as DCI)

Business Results:

- Met growing customer demand for 5G mobile, IPTV, and business services
- Improved business flexibility and enhanced security through service chaining
- Enabled automated delivery and configuration for operations to reduce costs
- Delivered secure, uncompromised services on an integrated network through service chaining

As Luxembourg’s largest national telecom service provider, POST Luxembourg serves the digital communications needs of both residential and business customers. In fall 2020, POST will be launching commercial 5G service and continues to see rising demand for mobile, cloud, video, and business-to-business services. To meet this demand, POST has deployed Juniper switching across its state-of-the-art data centers and leverages Contrail® Enterprise Multicloud to ensure that the new services can be deployed rapidly and securely through its expansive infrastructure.

Data Centers Adopt Cloud-First Strategy

Mobile and Internet usage grows every year. Between 2019 and 2020, the number of mobile connections in Luxembourg increased 2.8 percent, and they now reach 134 percent of the population. Similarly, Internet subscriptions have increased 1.5 percent over the same period, while Internet adoption has reached 97 percent.

As the country’s largest telecom provider, POST is everyone’s biggest competitor, which means it has to constantly be at the top of its game as a leader in information and communications technology (ICT), especially when it comes to the launch of 5G services.

Being the connectivity of the future, 5G is more than just a revolution for smartphones and video-on-demand. Information transmission will be almost instantaneous, with connections that are up to 10 times faster. 5G will allow more medical follow-ups to be done remotely. Manufacturing will be more precise and efficient. Autonomous cars can reduce accidents and make roads safer.

Beyond the transformative opportunities of 5G, business and residential customers continue to consume more digital services.

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- Akim Ziadi, in charge of ICT infrastructure, POST Luxembourg

“Customer requirements are driven by a set of needs, and digital transformation is driving customer experience,” says Akim Ziadi, in charge of ICT infrastructure at POST Luxembourg. “We built an agile and performant infrastructure to support this digitalization with 5G, intent-driven networking, and security services into our product offerings.”

To create its telco cloud, the POST Luxembourg ICT team set out to build one of the most advanced, operationally efficient network data centers possible. A primary objective was to run any workload on any cloud and on any deployment, while creating a single cohesive infrastructure that the ICT team could manage easily.

Flexible Data Center Fabric Foundation

POST Luxembourg chose Juniper Networks® QFX Series Switches for the managed underlay network of its intra-data center fabric, and the Juniper Networks MX10000 Universal Routing Platform for inter-data center connectivity. The Juniper Networks QFX10000 line of Switches is used for the spine, while Juniper Networks QFX5100 Switches are deployed as leaf nodes to support compute workloads. The fully redundant underlay fabric seamlessly connects resources across both new and existing data centers. The network virtualization overlay, which leverages industry-standard Ethernet VPN (EVPN) and Virtual Extensible LAN (VXLAN), enables multitenancy and resource agility at a grand scale.

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- Akim Ziadi, in charge of ICT infrastructure, POST Luxembourg

Automated Service Deployment

“We have incredibly complex and diverse environments in our data centers,” Ziadi says. “Our challenge was to interoperate with several data centers scattered across the country and allow workloads to move east-west traffic between those data centers. We also needed to bring new designs by delivering secure platform connectivity with service chaining in an automated way and keep end-to-end traffic visibility. The Contrail Enterprise Multicloud platform with Juniper Insights met all our criteria and is aligned with POST Luxembourg’s vision of intent-driven networking automation.”

Contrail Enterprise Multicloud provides an open, flexible platform for network and security policy orchestration and advanced analytics. With Contrail Enterprise Multicloud, the POST Luxembourg ICT team provides overlay and underlay networks as well as its highly diverse compute environment, which spans bare-metal servers, virtual machines, and containers in a secure fashion.

“Juniper has a really open architecture that relies on standards, letting us easily interoperate with our ecosystem and third-party supplier,” Ziadi says. “One reason we selected Juniper is that, in a world which requires workload mobility for business agility, the network should be extended everywhere and security should be centralized and compliant with our policy and not relying on infrastructure constraints. The Contrail Platform is based on an end-to-end approach. We can deliver services whether the network is on-premises, in the data center, or in the cloud.”

New Cloud Services Arrive with Security and Visibility

Before Covid-19 spread across the world, the compound annual growth rate for global 5G services was forecast to have an annual growth rate (CAGR) of 43.9 percent from 2021 to 2027, according to Grand View Research. The same analyst group predicts IPTV to have a CAGR of 7.1 percent from 2020 to 2027. While Covid-19 is sure to have an impact, the expectation is that subscribers will want to watch more streaming videos and rely heavily on mobile applications.

With Contrail Enterprise Multicloud managing network policy and operations, POST Luxembourg can rapidly respond to changing customer needs. “With Juniper, we have a stable, reliable supplier that supports all our platforms and services,” Ziadi says.

“We needed to integrate security into all kinds of network elements,” he adds. “Juniper lets us add policies that bring security inside the network through service chaining, in order to automate our network deployments and ensure they are secure.

“That’s why service chaining is really important. Service chaining allows us to select the traffic to inspect or do load balancing if it’s required in the network. With Contrail Enterprise Multicloud, we have many options for service deployments.”

Well-Positioned for Innovation and Growth

Even as demand for 5G, video on-demand, and other digital services grows, POST Luxembourg is well prepared to deliver exceptional digital experiences. With Juniper as its supplier, POST has built a flexible telco cloud that scales as it delivers services to its customers.

Juniper's commitment to standardization and interoperability is key to achieving operational simplicity, enabling POST Luxembourg to easily connect other elements within its network and with other providers' networks.

"For network and service providers which require interoperability, standards are everything. If you do not follow standards, you cannot interoperate easily with third parties. Our challenge will be to bring edge computing and local networks that need to be connected to our core, delivering 5G service on premises for ultra-reliable low latency," Ziadi says.

"In this way, POST Luxembourg is well positioned to support today's and tomorrow's most innovative and advanced technologies and solutions in its data centers. It keeps us ahead of our competition and enables us to meet our customers' needs with their favorite mix of digital services," he concludes.

For More Information

To find out more about Juniper Networks products and solutions, please visit www.juniper.net.

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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