EUROPEAN EXCHANGE NL-IX HANDLES MASSIVE INTERNET SURGE WITH JUNIPER-POWERED PEERING

Summary

Company:
NL-ix

Industry:
Internet Exchange Point, Service Provider, Cloud

Business Challenges:
Build a second peering exchange network to ensure ultra-high resiliency for carrier, ISP, content network, cloud, and enterprise members

Technology Solution:
- *MX10008 Universal Routing Platform*
- *Junos OS*

Business Results:
- *Easily handled a massive 40 percent increase in traffic from customers*
- *Built an ultra-fast, ultra-resilient exchange using diverse fiber connections, data centers, and networking equipment to mitigate the risk of business disruption due to unplanned events*
- *Laid the foundation to meet demand for an exponentially larger number of higher bandwidth connections*

Digital life, whether for work, learning, or play, depends on a resilient Internet connection. NL-ix, one of the largest Internet exchanges in Europe, is ready as more of our lives become increasingly digital. NL-ix, with a strategic focus on resiliency, has constructed redundant peering built on Juniper routing to ensure a consistently exceptional experience for more than 600 members, including carriers, telco, ISPs, cloud, and content delivery networks.

NL-ix offers carrier-neutral peering across Northwest Europe, and its exchange business has been growing robustly before work-from-anywhere became a global activity.

"As NL-ix served more members and as our traffic grew, we wanted to enhance the resilience of our network," says Jan Paul Dekker, CTO of NL-ix.

To ensure a superbly resilient service that would withstand any kind of unplanned event, NL-ix built out a secondary Internet exchange network. "We wanted to be able to handle unforeseen outages," Dekker says. "Having a secondary exchange minimizes risk to our operations."

A Reliable Digital Lifeline

With business continuity a strategic focus, NL-ix was well prepared when more people needed to work and learn from home due to unexpected conditions.

"Internet traffic has more importance when people's movements are limited," Dekker says about the recent coronavirus quarantine.

For many millions of people across Europe and elsewhere, the Internet became an essential service.

"We have a strong duty to keep the Internet running," Dekker says. "The Internet is a lifeline for businesses and consumers.

"We saw a 40 percent traffic increase from our members in only three months."

The highly resilient NL-ix exchange didn't experience any congestion or additional latency despite the surge. The customer experience was flawless.

"Juniper is already resilient by design. With Juniper, we can build resilience on top of resilience in our exchange network."

- Jan Paul Dekker, CTO, NL-ix

Ensuring Internet Reliability

"We are far more resilient than most other exchanges," Dekker says. NL-ix operates two diverse exchange platforms, with independent fiber, data centers, and network vendors. The two platforms share only a management connection.

"Juniper is already resilient by design," Dekker says. "With Juniper, we can build resilience on top of resilience in our exchange network."

NL-ix chose Juniper Networks® MX10008 Universal Routing Platform to power its second exchange. The Junos® operating system, which runs across Juniper's network and security products, powers some of the world's most sophisticated networks.

"The Juniper MX Series router met all the requirements of a peering platform: high-performance routing and stable Layer 2 networking with the lowest latency possible," Dekker says. "The MX Series router is nonblocking on all ports."

"Juniper is a well-respected brand, which is important because our reputation is at stake."

- Jan Paul Dekker, CTO, NL-ix

The powerful MX10008 router delivers throughput scaling to 19.2 Tbps, providing long-term investment protection. A redundant design, along with high port density, power efficiency, and an economical cost-per-bit, were in the MX10008 router's favor, enabling NL-ix to contain OpEx while handling long-term traffic growth and introduction of new services.

With people's attention spans shrinking and impatience growing, low latency is a competitive advantage for the exchange. The NL-ix website proudly displays real-time latencies to all cities where it offers peering. "We work to get the latency as low as the physics allows," Dekker says.

For its Juniper network, NL-ix implemented Ethernet VPN/ Virtual Extensible LAN (EVPN/VXLAN) for a more flexible and efficient alternative to VPLS. "With NL-ix, a customer can peer within the same domain from Amsterdam to Denmark," Dekker says. "That's very different than with other exchanges."

Operating a Juniper-powered network has been straightforward and can be done remotely. "Junos OS is risk-free to handle, with the nature of its configuration commits and rollbacks," Dekker says.

Reinventing the Internet Exchange

"Juniper is a well-respected brand, which is important because our reputation is at stake," Dekker says.

As NL-ix continues to innovate, a Juniper-powered network provides a solid foundation to expand services as it encourages railways, postal services, retailers, manufacturers, and other organizations to become their own ISP to gain greater control over their cloud connectivity. With an ultra-fast, ultra-resilient network, NL-ix can meet the coming demand for exponentially more cloud connectivity, enabling its members to deliver better experiences to employees and customers.

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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