JUNIPER NETWORKS | **Engineering** Simplicity

ICELANDAIR

ICELANDAIR REACHES MORE DESTINATIONS WITH SMOOTH NETWORK OPERATIONS

Summary

Company:
Icelandair

Industry:
Travel and Hospitality

Business Challenges:
Improve experiences for customers and employees with faster, more powerful network services for mission-critical business services and travel logistics.

Technology Solution:
- *MX104 Universal Routing Platform*
- *QFX10002 and QFX5100 Switches*
- *EX3400 Ethernet Switch*
- *SRX300 Services Gateway*

Business Results:
- *Enhanced customer experience with more efficient online bookings, reservations, payments, and flight check-ins*
- *Improved employee experiences and streamlined operations around fuel, food, and facilities to ensure planes travel safely to and from their destinations*
- *Experienced zero network service interruption during migration to new network*

Based in Reykjavik and midway between Europe and North America, Icelandair is perfectly positioned to serve the fast-growing, highly competitive travel industry. As Iceland's leading airline, Icelandair carries four million passengers annually to 40 destinations in 16 countries, and travelers love the 80-year-old airline for its excellent service and reasonable prices. To deliver an exceptional customer experience and smooth operations, Icelandair depends on Juniper Networks networking from campus to core.

During the last decade, Icelandair has expanded its footprint, adding more flights, passengers, and planes. The busy airline operates as many as 600 flights per week with up to 12,000 passengers a day. Iceland has surged in popularity, with Reykjavik a top destination from the U.S.

"There's monumental complexity behind each and every trip," says Ármann Guðjónsson, network architect at Icelandair.

All the data for every ticket, passenger, connection, bag, upgrade, meal, and seat assignment travels across the Icelandair network. The network, although behind the scenes, plays a critical role in helping passengers long before they arrive at the airport and even after they leave the plane.

"The network binds all our services together," Guðjónsson says.

As the airline's flight paths grew in number, its data center infrastructure wasn't keeping pace with the airline's business goals. Icelandair had an exciting vision for innovative new services and better processes to improve operations and workflow and enhance the customer experience.

Status quo networking was not going to meet Icelandair's out-of-the-ordinary plans to delight customers and employees. The airline expected zero downtime during the cutovers from old to new, and it wanted the technological responsiveness and flexibility that would lift the business into a fast-moving jet stream ahead of competitors.

"We're keen on continuing our partnership with Juniper and making sure we can thrive."

- Ármann Guðjónsson, network architect, Icelandair

A Network Packed with Power

After reviewing RFPs from the top network vendors, Icelandair decided Juniper Networks was the best match for the airline's future plans.

Icelandair wanted a core network that supported IP/MPLS and future-oriented technologies like SDN, automation, and hyper converged infrastructure. Working together, Icelandair and Juniper designed a network to replace its legacy system. Even in the build-up stages, the Juniper network design provided the IT team more flexibility and operational efficiency.

"With Juniper, we know migrations can happen with no downtime."

- Ármann Guðjónsson, network architect, Icelandair

At a new, larger data center in Reykjavik, Icelandair refreshed its core IP/MPLS network, deploying the Juniper Networks® MX104 Universal Routing Platform. It uses high-performance Juniper Networks QFX10002 and QFX5100 Switches in the data center, resulting in greater flexibility, reliability, and speed.

The Juniper Networks EX3400 Ethernet Switch is deployed at its large offices, while the Juniper Networks SRX300 Services Gateway provides secure connectivity to smaller sites around the world.

A major factor for choosing Juniper switching was how well it fit into Icelandair's data center—both literally and figuratively. For example, the QFX5100 delivers 40GbE capacity and advanced features in a 1 U form factor, while the QFX10002 delivers 100GbE and the same advanced features in a 2 U form factor.

"Juniper rolls up great features even in the smaller switches," says Guðjónsson.

What Icelandair gained is a network that is tenfold faster with lower overall operational costs for power and space. "With Juniper, we have a range of advanced features in affordable equipment, and that really matters," Guðjónsson says.

A History of No-Downtime Cutovers

A Juniper network supports all of the airline's operations at Keflavik Airport, the main hub in Iceland. The new and improved network carries all application traffic related to the logistics around fuel, food, and facilities, ensuring that every plane travels safely to and from its destination.

Juniper and Icelandair did lots of front-end work to align the network design with the airline's business-critical needs. When it came time to cut over from the legacy vendor, that time and effort paid off in a huge way with nearly zero network downtime.

The deployment team hit its 10 p.m. deadline with only a few noncritical workstations experiencing a minute offline.

In later upgrades, the news was again incredibly positive. One project migrated during working hours with one second or less downtime that no one noticed. "This is what we like to do now," says Guðjónsson. "With Juniper, we know migrations can happen with no downtime."

With a Juniper-powered network, Icelandair enjoys newfound resiliency and redundancy. Even during upgrades and maintenance windows, the network performs as expected to keep passengers and airplanes connected to critical logistical information. Guðjónsson says the built-in resiliency would have been twice the cost with the previous vendor.

Most importantly, the network is always available so that customers can book online, call for a reservation, pay for a ticket, and check in for a flight.

Improving the Employee Experience

Icelandair is expanding the network to serve two recently added levels in a building at Keflavik Airport. One of the levels is designed for the delivery of airline food, and it is a haven for Icelandair staff during bad weather.

In the morning, crews can face brutal windchill and rain when loading an airplane before takeoff. The welcoming area is there for anyone who serves and handles the aircraft, creating a place to relax, get some refreshment, check e-mail, or watch a streaming video before heading back to work. The second site being prepped for a Juniper network is the Icelandair network control center. Here, the staff works 24 hours a day ensuring smooth and enjoyable travel experiences.

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Ármann Guðjónsson,
network architect, Icelandair

With Juniper, Icelandair has no limits on its expansion plans or future business goals. "Things are changing really fast in data center technology," Guðjónsson says. "We're keen on continuing our partnership with Juniper and making sure we can thrive."

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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