Atos creates a blueprint for data center success with Juniper Apstra

IT services form the core of Atos' business plan. As a global leader in digital transformation, Atos is providing digital services and consulting with its offerings of sustainable, safe, and secure information services. Customers in 71 countries, Atos provides unified communications, cloud , big data, cybersecurity , IoT and transactional services.

Headquartered in suburban Paris, France, the company's 105,000 employees deliver tailored, end-to-end solutions to multiple industries. Atos says it's the No. 1 provider of managed cybersecurity services in Europe and that its sights are set on gaining market share in the other IT service areas in which it participates.

OVERVIEW

Company	Atos
Industry	Technology
Products Used	Juniper Apstra, QFX5210, QFX5120, EX4400
Region	EMEA

CUSTOMER SUCCESS AT-A-GLANCE

€11B	64	No. 1
Annual revenue	Data centers	Provider of managed cybersecurity services in Europe

CHALLENGE

Operating in a modern, cloud-first world

Atos' global customer base expects trouble-free data center services. Customers' business critical applications can't go down and when application performance is poor, the issue needs to be identified and rectified as quickly as possible.

"Our data centers need to operate 24/7. When we have operational issues we hear about it," says Lee Wright, CTO of infrastructure at Atos.

Atos shifted to a more modern spine-and-leaf architecture a few years ago to scale and introduce EVPN IP fabrics for a more reliable and dynamic customer services. Moving the new switches and EVPN technology into production was a struggle.

"We tried other solutions and creating manual playbooks to standardize configurations," says Lee. "Configuration drift was a major problem, standard DC LAN builds were difficult to control and police. Non-standard builds increase operational risk and expense,"

Adding to the problem was a lack of visibility. Network engineers couldn't see if a link or access layer was down or if a switch was misconfigured. Overall, data center operations was a challenge. Atos needed an automation solution to better manage its fast-growing EVPN network fabrics.

SOLUTION

Intent-based networking delivers intelligence, automation, visibility

Apstra intent-based software is deployed in 21 of the company's data centers, helping with multiple requirements of Day 0 through Day 2 operations. The software automates and validates the design, deployment, and operation of all data center switches.

The data center fabric comprises Juniper QFX5210 and QFX5120 switches for the spine, QFX5100 switches for the border, with QFX5120 and Juniper EX4400 switches for the leaf nodes. SRX firewalls protect the perimeter. PTX10001, MX204 and MX304 routers handle connectivity between DCs and the wider world. Switches from other vendors also populate the data centers—and Apstra easily manages the multivendor environment.

OUTCOME

Data center fabric transformation

Juniper Apstra is Atos' all-star playmaker for Day 0 through Day 2 operations in a dozen data centers, helping network engineers roll out new devices quickly and error-free. Atos plans to use Apstra standardized blueprints to upgrade the Atos data center LAN over the next three years.

Apstra also steps in to help engineers during upgrades and rolling out new services. "Apstra gives us the confidence to make changes on the fly and that means we can be more dynamic," says Lee. "Lifecycle management is baked in, so we can introduce new elements and roll back configurations, when necessary, without fear of outages."

When issues do surface, Apstra gives engineers visibility to diagnose the problems. "Application performance problems are easily identified and resolved with the rich telemetry data available from Apstra" says Lee. "We look at the telemetry data in Apstra and know if the problem is the device, app, or network." Engineers can see if a link is down or a cable is misconfigured and begin resolving the problem, he adds.

Apstra is especially useful for less experienced engineers. With Apstra's troubleshooting tools and diagnostic dashboards, less skilled engineers can take on more responsibility for both deploying new infrastructure and managing network fabrics.

"Apstra helps us onboard new members to the ops team with a range of skills and experience. It's become one of our most critical business solutions," says Lee.

> "It doesn't matter what switch is underneath Apstra. Fabric management is consistent and that's incredibly powerful for our business."
>
> Lee Wright
> CTO of Infrastructure, Atos

Corporate and Sales Headquarters

Juniper Networks, Inc.

1133 Innovation Way

Sunnyvale, CA 94089 USA

Phone: 888.JUNIPER (888.586.4737)

or +1.408.745.2000

www.juniper.net

APAC and EMEA Headquarters

Juniper Networks International B.V.

Boeing Avenue 240 1119 PZ Schiphol-

Rijk

Amsterdam, The Netherlands

Phone: +31.207.125.700