The Equinix selects Arista Networks to power its innovative new bare metal provisioning services

Highlights

Challenge

To ensure the performance and reliability of its new bare metal as-a-service, Equinix selected Arista Networks based on compelling features, reliability and price point.

Solutions

- Arista 7300X3 and 7050X3 Series spine and leaf switches for high performance, low latency and scale
- Extensible Operating Systems across entire network simplifies management tasks

Results

- Seamless integration to deliver consistent network performance and reliability
- Open standards-based approach to simplify support, upgrades and automation
- Compelling price versus performance

As the leader in the colocation data center market, Equinix is continually developing new services to serve the needs of its clients. To support its new Metal "as-a-service" offering, it selected Arista Networks to deliver the required network performance and reliability at a compelling price point.

EQUINIX

Project Background

Equinix Inc. is the global leader in the colocation data center market with over 220 data centres serving 55+ markets on five continents. Equinix also offers a growing portfolio of value-added services such as Equinix Fabric® that allows customers to directly, securely and dynamically create data centre-to-data centre network connections between any two Fabric locations within a metro or globally via software-defined interconnection.

Challenge

As an industry pioneer, Equinix is continually adding to its services portfolio and the newest offering is Equinix Metal™, a fully automated and interconnected bare metal service. Equinix Metal provides digital businesses with an automated, "as-a-service" deployment method to build their foundational infrastructure and take advantage of the global reach, interconnected ecosystems, and trusted partners available via Platform Equinix®.

With this new service, customers have the option to deploy the physical infrastructure of their choice at software speeds across Equinix's trusted platform. Together with other digital infrastructure building blocks in the Equinix portfolio, customers have access to a broad range of physical and virtual deployment alternatives to place infrastructure wherever they need it and connect to everything they need to succeed.

The technology to deliver the Metal service combined both in-house development and the 2020 acquisition of Packet, a leader in bare metal automation technology. However, to create the new service, Equinix needed to build an underlying network that could deliver the level of performance and features suitable for integration into the highly automated provisioning engine.

Solution

As Jay Pabley, VP, Global Network Architecture at Equinix explains, "We already have a lot of experience with Arista as it has been part of our internet exchange offering for around five years, so we were very familiar with Arista's capabilities including reliability, quality and execution".

"From an engineering standpoint, Arista offered everything that we needed for this project and the Packet folks felt the same way as well, so it was just a case of marrying that into an engineering plan that we knew we could execute on."

The underlying network for the Metal service uses Arista 7308X3 switches for the spine and 7050X3 switches at the edge which are purpose built around a flexible arrangement of 25/100GbE ports

All Arista switches run the same EOS software, a binary image simplifying network administration with a single standard across all switches. Arista EOS is a modular switch operating system with a unique state sharing architecture that cleanly separates switch state from protocol processing and application logic.

Conclusion

"At the end of the day, it really was about technical capabilities, first and foremost, along with confidence in Arista's support, plus the added value of the better price points just made it such an easy decision," says Pabley.

Following extensive lab testing, Pabley and his team carried out an aggressive 4-month roll-out of the new Metal service running on top of the Arista switches. In October 2020, the Metal service launched at International Business Exchange™ (IBX®) data centers across four global metros in Amsterdam, New York, Silicon Valley and Washington.

"The service is designed for the same 5-9's reliability that we offer for our data center and cloud fabric products and the provision response times are in the order of seconds, "explains Pabley. "For a customer it is a case of accessing a few pull down menus, selecting what they need, hitting send and everything is up and running in under 20 seconds – it's what customers expect these days."

In Pabley's view, the underlying Arista network technology "…has met the performance and reliability expectations we had going into this project" and Equinix will be expanding its Metal service and Arista deployment to an additional 20 sites over 2021.

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