Case Study:

Strategic Network Upgrade for E-commerce Giant

Key Results

4x increase in Bandwidth

30% Reduction in TCO

6 Choices of Switch Vendors

Background

In the fast-paced world of e-commerce, network reliability and agility are not just assets; they're necessities. A leading player in the industry faced a critical decision point: how to upgrade their extensive network infrastructure without triggering a significant budget increase. The challenge was compounded by the urgent need to avoid the supply chain disruptions experienced during the COVID-19 pandemic and to eliminate the risk of vendor lock-in, which could impede operational flexibility and competitive edge.

256 PORT BRICK (192 DOWN, 64 UP)
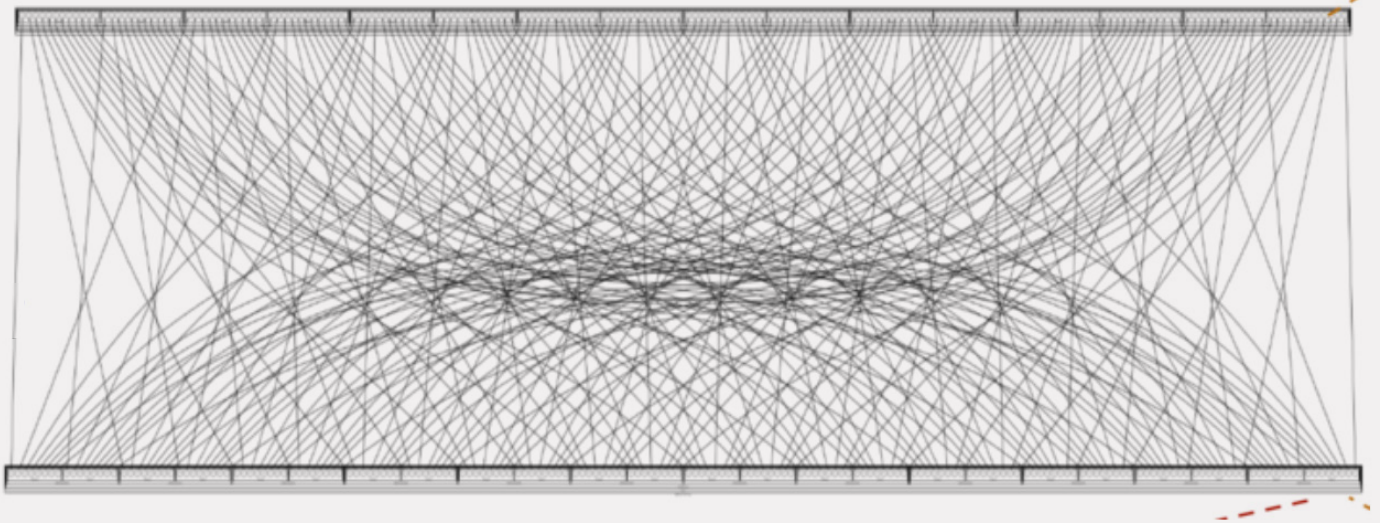
Objective

The goal was ambitious yet clear: to orchestrate a network infrastructure upgrade that would not only avoid the financial and operational pitfalls of traditional network upgrades but also ensure the company's network would be resilient against future uncertainties. This upgrade had to empower the company with full control over their networks, provide options to mitigate future supply chain or vendor dependency issues, and achieve a substantial reduction in total cost of ownership (TCO), all while enhancing network speed and capacity.

Strategic Issue

Navigating the landscape of traditional networking solutions revealed a significant gap: none could offer the requisite flexibility, cost efficiency, or performance enhancement without the accompanying financial strain or vendor lock-in. The company was in search of an innovative solution that could match or exceed the performance of its existing network without the burdensome constraints of conventional network vendors.

Solution

While there were options like Arrcus and Dell SONiC in the market, the company sought a solution that avoided vendor lock-in and offered the best balance between cost and performance. The search led to Aviz Networks and their ONES SONiC Suite with disaggregated support. This solution stood out due to its vendor-agnostic approach and the promise of disaggregated support, which aligned perfectly with the company's needs for flexibility, scalability, and cost-efficiency. Aviz Networks distinguished itself with its expertise in SONiC (Software for Open Networking in the Cloud), delivering a support stack optimized for the highest TCO efficiency. This innovative approach was designed to provide immediate cost savings and ensure the company's network infrastructure could adapt and scale according to future needs and challenges.

Solution Details

➤ **Pre-Deployment SONiC RDE Support:**
Aviz collaborated with the customer in selecting suitable community SONiC versions and hardware, leveraging its partnerships with hardware manufacturers and pre-deployment tools to test SONiC capabilities across different platforms. This approach enabled the identification of compatible hardware SKUs for the customer's specific use cases, ensuring a turn-key solution.

➤ **System Qualification and Bug Fixes:**
Aviz played a crucial role in the SONiC system qualification process, utilizing its dedicated lab and Fabric Test Automation Suite (FTAS) to conduct comprehensive testing on selected SKUs. This process was aimed at ensuring smooth integration in multi-vendor environments and addressing potential interoperability issues, resulting in a detailed report to guide the customer in finalizing their hardware choices.

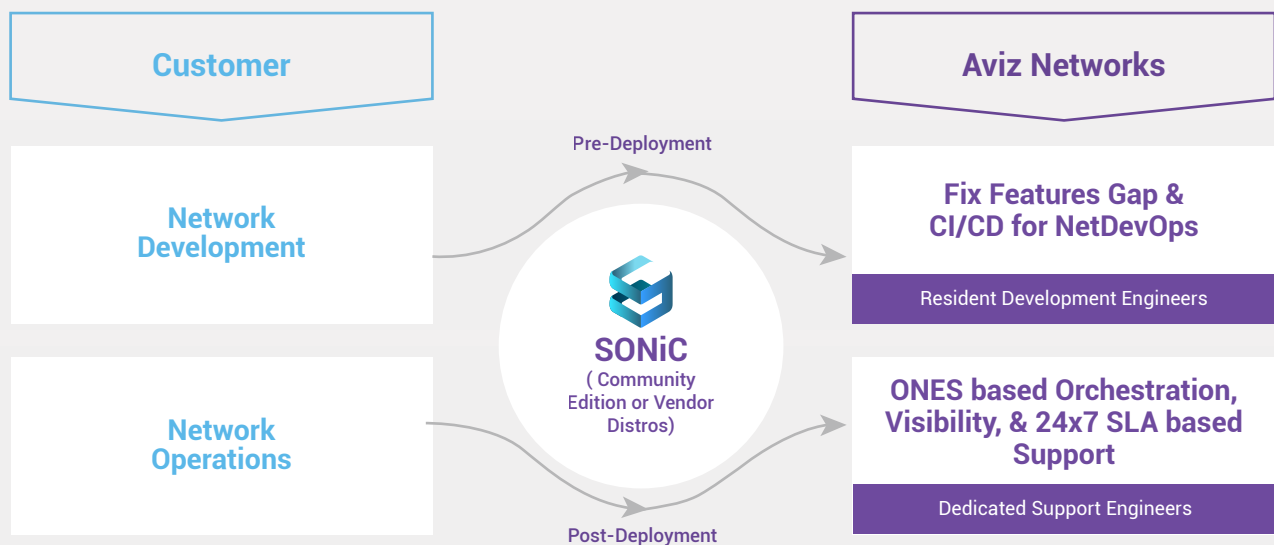● **Continuous Integration/Continuous Deployment (CI/CD) for SONiC:**
Implementing a CI/CD system, Aviz continuously validated SONiC releases, including patches and upgrades, ensuring the network's integrity. This setup facilitated the automation of test cases relevant to the customer's environment, aiding in the frequent evaluation of new SKUs and their integration into the network refresh cycles.

➤ Post-Deployment Support and Tools:

Post-deployment, Aviz developed the Open Networking Enterprise Suite (ONES) to provide deep visibility into the network by collecting and normalizing telemetry data. This tool enabled rapid identification and resolution of network issues, enhancing service level agreements (SLAs). Aviz's 24x7 support, backed by robust SLAs with hardware and ASIC vendors, further ensured timely resolution of production issues.

➤ Customer Advocacy and Community Engagement:

Aviz leveraged its leadership position within the SONiC community to advocate for customer needs, ensuring that crucial bug fixes and features were incorporated into subsequent SONiC releases. This advocacy ensured that the customer remained aligned with the latest SONiC versions, benefiting from new features and enhancements while influencing the SONiC roadmap to meet their specific requirements.

Customer

Aviz Networks

Pre-Deployment

Network Development

Fix Features Gap & CI/CD for NetDevOps

Resident Development Engineers

SONiC
(Community Edition or Vendor Distros)

Network Operations

ONES based Orchestration, Visibility, & 24x7 SLA based Support

Dedicated Support Engineers

Post-Deployment
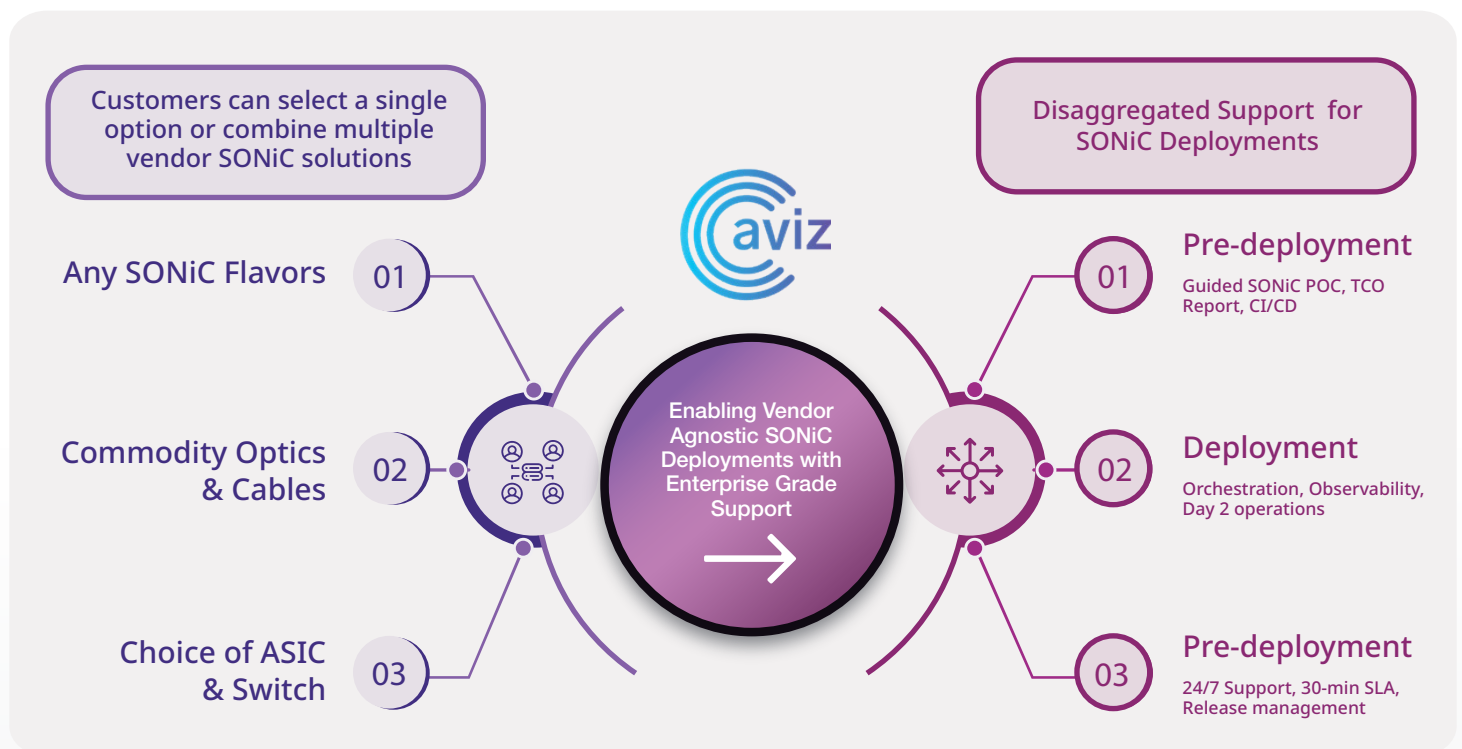
Why Aviz?

➤ **Vendor Agnostic:**

Aviz Networks' SONiC expertise meant the company could avoid vendor lock-in, ensuring operational flexibility and the freedom to choose the best components for their needs.

➤ **Disaggregated Support Offering:**

The ONES SONiC suite offered a unique benefit of disaggregated support, allowing the company to integrate seamlessly into their existing setup while ensuring future scalability and resilience.

➤ **Total Cost of Ownership:**

Aviz Networks' solution was designed to minimize TCO, a crucial factor for the company looking to upgrade their network without a significant budget increase. The approach promised not only immediate savings but also a strategic advantage in operational and financial planning.

Customers can select a single option or combine multiple vendor SONiC solutions

Disaggregated Support for SONiC Deployments

Any SONiC Flavors — 01

Commodity Optics & Cables — 02

Choice of ASIC & Switch — 03

Enabling Vendor Agnostic SONiC Deployments with Enterprise Grade Support

01 — **Pre-deployment**
Guided SONiC POC, TCO Report, CI/CD

02 — **Deployment**
Orchestration, Observability, Day 2 operations

03 — **Pre-deployment**
24/7 Support, 30-min SLA, Release management

Outcome

Implementing the ONES SONiC suite from Aviz Networks resulted in a transformative upgrade for the e-commerce giant:

➤ The network's capacity and performance were significantly enhanced, moving from 100GbE to 400GbE, without the anticipated budget spike.

➤ The solution provided a robust framework against future supply chain vulnerabilities, incorporating multiple vendors to create a resilient network.

➤ The company saw a 30% reduction in TCO while quadrupling bandwidth, optimizing operational expenses, and maximizing the value of their investment.

➤ The vendor-agnostic nature of Aviz Networks' solution future-proofed the company's network infrastructure, ensuring scalability and adaptability to meet future demands.

➤ Aviz Networks' ecosystem-centric approach empowered this customer to seamlessly integrate solutions from six different vendors—Wistron, Arista, Cisco, NVIDIA, Edgecore, and Celestica—eliminating concerns about changes in solution behavior or complexities in the management layer. This was achieved through a unified quality standards framework, a single Network Operating System (NOS), and consolidated support SLAs, all accessible via a single-pane-of-glass interface.

Key Results

This strategic network upgrade exemplifies how embracing innovative solutions like Aviz Networks' ONES SONiC Suite can lead to substantial improvements in network performance, financial efficiency, and operational resilience. The e-commerce giant not only quadrupled their bandwidth and saved 30% in TCO but also achieved complete freedom from vendor lock-in, setting a new standard in the industry for how to approach network infrastructure upgrades.

Next Steps

Looking for a similar transformation? Contact Aviz Networks to discover how we can replicate this success for you. Visit us at www.aviznetworks.com.