Investing in a more open future

Deploying Enterprise SONiC Distribution by Dell Technologies enabled Dell IT to run a modern, resilient, and scalable network, delivering robust connectivity across its operations.

Business needs

Dell IT, the internal team that manages Dell Technologies IT infrastructure, needed greater automation, advanced telemetry, and scalability from a unified network operating system that could seamlessly manage operations from the edge to its global data centers.

Solutions at a glance

- Enterprise SONiC Distribution by Dell Technologies
- Dell PowerSwitch

Business results

Reduces manual tasks and operational costs by automating network operations.

Enhances scalability and flexibility as technology progresses.

Provides a unified architecture supporting a variety of use cases.

Ensures resiliency by removing single points of failure.

Accelerates time-to-market for feature requests.

DELLTechnologies

> The modular, container-based architecture enables rapid innovation and adaptability.

Democratizing open-source networking

Dell Technologies understands the importance of open-source networking to future-proof infrastructure and remain at the forefront of innovation. Prior to implementing an open-source platform, Dell IT was supporting multiple operating systems on different switching platforms. It needed a unified landscape where it could establish automation and efficiently unify and standardize its network environment. Dell co-created a platform to embrace open-source networking, modernize network infrastructure and disaggregate from proprietary stacks.

Developed by Dell Technologies and Broadcom, and built on software created by a community of industry experts, Dell Enterprise SONiC is an open-source system that bridges the gap between platforms for its users. Combined with the comprehensive Dell PowerSwitch portfolio, it's designed to transform data center and edge networking by delivering high-speed, low latency switching that enables scalable, flexible, and reliable network fabrics. As a big advocate for using and vetting the solutions it sells, Dell IT decided to put this powerful solution to the test in-house.

Facilitating modern IT workloads

Dell Enterprise SONiC is well-suited to handle the demanding workloads of modern enterprises: it can support the massive data flows of generative AI, orchestrate Kubernetes clusters, and ensure seamless operations across global data centers and edge environments. In the nine months since deploying Dell Enterprise SONiC, Dell IT has rolled it out to over a thousand devices seamlessly, without incident. Dell IT has been able to streamline disparate systems into a single configured platform, reducing operational complexity.

The open-source networking platform enables technology users to tailor networking to their specific use cases and to evolve their modern data center without the time and cost

limitations of legacy, proprietary solutions. The modular and scalable architecture of Dell Enterprise SONiC seamlessly integrates with existing tools and platforms, allowing Dell IT to replace proprietary infrastructure with a unified operating system across data center and edge environments. This increased flexibility allows for greater scalability and the agility to pivot as technology continues to evolve.

Greater automation and efficiency

Dell Enterprise SONiC enables users to automate routine network tasks, reducing manual intervention and operational costs. Thanks to more efficient and reliable network management that relieves IT teams of time-consuming daily tasks, they can focus on forward-thinking design and innovation that positions organizations for success in a rapidly evolving digital world.

At Dell, the ability to standardize configurations across all 23 global data centers allows the company to achieve consistent deployments, minimizing errors and ensuring uniform network behavior across its entire infrastructure. Dell Enterprise SONiC ensures that network fabrics meet stringent security standards. Vulnerabilities and issues are identified and dealt with faster as features are peer-reviewed before they go live. Dell's dedicated roadmap of features, along with community contributions to the community version of SONiC, bring greater feature velocity. Dell Enterprise SONiC builds on the base code of the community version, adding its own developments and updates that enable customers to modernize and implement Enterprise-level features quickly to keep up with new technology demands.

> "
> There's no better technology than Dell Enterprise SONiC to champion next-level innovation. It's one of the first times that all the major players in the tech industry have come together to build something so incredible."
>
> **Eran Cantor,**
> Network Architect, Dell Technologies

> **"**SONiC is changing the networking landscape by bringing innovation, open standards, better automation, and telemetry so users are able to establish networking based on their own use cases."
>
> **Saurabh Kapoor,**
> Director, Product Management & Strategy,
> Dell Networking Solutions

Benefitting from a connected community

By embracing open-source networking, Dell IT benefits from continuous innovation and community-driven enhancements. Dell Enterprise SONiC's versatility offers enterprise-grade features to businesses of all sizes and capabilities, and with over 2000 members in the community version of SONiC, users can access a wealth of knowledge and expertise from major players within the industry.

Forward-thinking innovation

With the help of Dell Enterprise SONiC, Dell IT is set to increase its footprint to 10,000 switches next year and expand to all edge locations including executive briefing centers, customer service centers and manufacturing sites.

Transitioning from legacy infrastructure to more open ecosystems that support AI and other emerging technologies, Dell Technologies is pioneering next-level innovation and establishing the future of networking. By powering Dell IT's extensive infrastructure, including the PowerSwitch line, Dell Enterprise SONiC ensures that Dell IT remains at the forefront of technological advancement with a network infrastructure that not only meets today's demands but is ready for tomorrow's challenges.

> **"**In the IT world, you have to be flexible, or you get left behind. One of the exciting things about SONiC is it's very robust and versatile, which makes it easy to pivot and change as technology evolves."
>
> **Patrick Montgomery,**
> Director of Data Center Networking and Architecture, Dell Technologies

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Learn More About Enterprise SONiC Distribution by Dell Technologies

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