



Solution Brief

Innovative hyper-converged data center solutions from Dell, Pluribus Networks and Nutanix

Together Dell, Pluribus Networks and Nutanix are helping customers deploy an end-to-end data center solution that will optimize the performance, scalability, efficiency and management of their hyper-converged environments.

- Delivers simplified operations, improved agility and greater flexibility with Dell XC web-scale hyper-converged appliances powered by Nutanix
- Provides a high-availability and scalable network fabric infrastructure with Dell Open Network switches running Pluribus Networks Open Netvisor Linux (ONVL)
- Includes global support and financial services from a company known for its superior capabilities

The optimum performance of mission-critical applications and workflows are the lifeblood of many organizations. However, today's enterprise data center IT infrastructures consist of various hardware and management silos which are limiting the ability of IT organizations to adjust to these business needs and demands quickly and easily.

In response, the adoption of hyper-converged systems has been steadily growing – the process of consolidating compute and storage into a single platform. These systems provide a faster and simplified deployment process, improved services and support and converged management of traditionally disparate resources. A key component of a high-performance hyper-converged infrastructure is the data center network which serves as the superhighway that delivers optimum performance, availability, and scalability for this demanding environment.

A complete hyper-converged data center infrastructure solution

Dell, working closely with Pluribus Networks and Nutanix, is helping organizations deploy and maintain an end-to-end hyper-converged infrastructure for demanding data center environments. This solution enables customers to combine Dell's market-leading XC web-scale hyper-converged appliance running Nutanix convergence software with Dell's broad offering of Open Networking switching platforms running the Pluribus distributed fabric operating system and Dell's global support and service capabilities.

Dell XC web-scale hyper-converged appliances powered by Nutanix

The Dell XC Web-scale Hyper-converged Appliance is a solution that combines storage, compute, and virtualization into an industry-proven x86 Dell PowerEdge Server running Nutanix web-scale software. By combining the hardware resources from each server (node) into a cooperative-use model for simplified operations, improved agility, and greater flexibility, Dell and Nutanix are delivering a simple, cost-effective solution for virtualized enterprise data centers.

These cost-effective 1U and 2U appliances consolidate compute and storage into a single platform enabling application and virtualization teams to quickly and simply deploy new workloads. This solution also enables data center capacity and performance to be easily expanded – one node at a time – delivering linear and predictable scale-out expansion with pay-as-you-go flexibility.

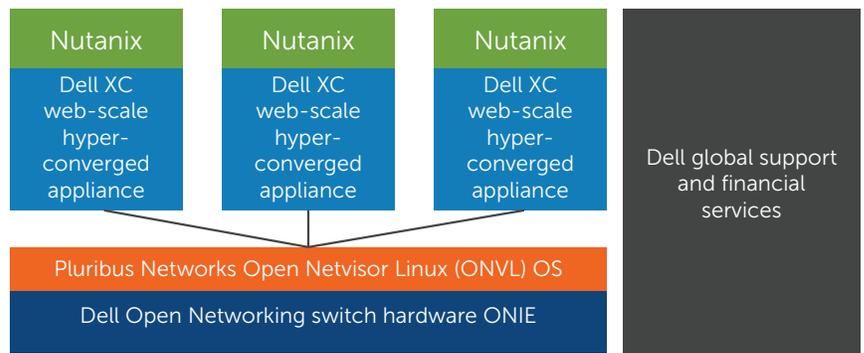


Figure 1: A complete hyper-converged data center solution

The key benefits of these appliances include:

- **Web-scale hyper-converged appliance** – a high-performance appliance delivering data efficiency and resiliency through a combination of solid state drives (SSDs) and hard disk drive (HDD) with a Nutanix virtual storage controller and Nutanix Distributed File System (NDFS)
- **Simplified deployment and management** – using the Nutanix Prism management framework which provides a highly intuitive, easy-to-use HTML-based graphical user interface (GUI) to configure, manage, and monitor clusters
- **Linear performance scalability** – performance scales linearly by being able to easily add additional nodes to an existing cluster when mission-critical application demands grow and change
- **Optimized storage efficiency** – improved storage utilization to handle exploding data growth through the use of thin provisioning, compression, and deduplication

Dell Open Networking IP fabric infrastructure running Pluribus Networks

Dell has been delivering high-performance, reliable data center and campus networking solutions for over a decade and today powers some of the world's most demanding enterprise and cloud/Web 2.0 environments. For data centers, this means feature-rich core, top-of-rack and blade switching solutions and high-performance 10/25/40/50/100GbE fabrics that fit an organization's business and budget needs.

Together with Pluribus networks, Dell now offers customers an open, programmable network virtualization infrastructure that ensures optimum performance and availability of hyper-converged clusters within their data center. This joint solution combines the cost-effectiveness of Dell's standards-based Open Networking switching platforms with Pluribus Networks Open Netvisor Linux (ONVL) operating system to build a high-availability fabric cluster with a single point of management and powerful analytics.

The key benefits of this joint solution include:

- **Open approach** – delivering customers a broad choice of the best-of-breed open networking platforms, operating system and management tools that fit their specific business and operational needs
- **An open L2/IP fabric networking solution** – providing the scalability and high availability properties of a fully distributed fabric incorporating a distributed controller architecture and no single point of failure
- **A single point of management** – by incorporating a fabric cluster with a fabric-wide consolidated view of end-points and VMs which is managed, automated and programmed as a single node and includes tap-free network analytics

A comprehensive suite of global support and financial services

Dell backs up each and every deployment with a comprehensive suite of design, deployment and management services to help customers of any size every step of the way. Also, Dell Financial Services provides a wide range of financing options to make hyper-converged technology acquisition easy and affordable.

Summary

Enterprise organizations will continue to embrace hyper-converged technology to realize a faster and simplified deployment process, improved services and support, and converged management of traditionally disparate resources. In addition, they now realize the data center network infrastructure is a critical component of the solution to help ensure optimum performance of these environments. Together Dell, Pluribus Networks and Nutanix are transforming the data center hyper-converged landscape with an innovative end-to-end solution.

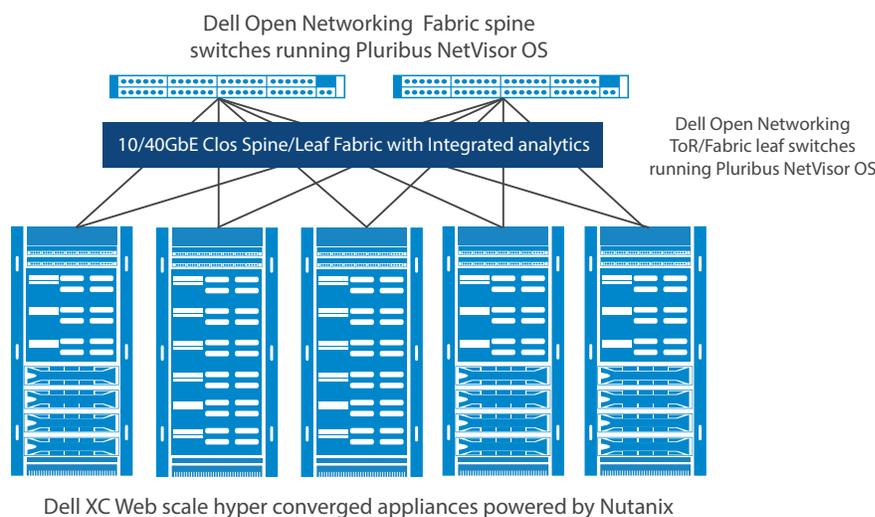


Figure 2: Hyper-converged data center infrastructure solution

For more information go to Dell.com/Nutanix and Dell.com/networking

