

## Empowering Enterprise Cloud Infrastructures

### Platform Features

- > Unified hybrid cloud platform runs any application at any scale.
- > Complete automation of infrastructure and applications simplifies IT operations
- > Up to 100Gb/s VXLAN/ EVPN for DCI, meeting most RPO/RTO requirements
- > Zero-touch application mobility and disaster recovery across multiple clouds

### Products Used

- > NVIDIA® Mellanox® Ethernet Switches
- > Nutanix Enterprise Cloud
- > Nutanix Prism
- > NVIDIA MellanoxNEO®
- > NVIDIA Mellanox Ethernet Storage Fabric (ESF)™

## BUSINESS CONTINUITY WITH NUTANIX ENTERPRISE CLOUD & NVIDIA MELLANOX DCI

Today's enterprise IT infrastructures are distributed. Data and applications are dispersed across on-premises and public clouds, and in remote office/branch office (ROBO) and disaster recovery (DR) sites.

### Unifying Enterprise Cloud Experiences

An end-to-end, unified platform—without complex deployment, disjointed operations, and costly disruptions—is essential for business continuity across such multi-cloud environments.

NVIDIA Mellanox NEO orchestration capabilities enable Nutanix to deliver a true unified enterprise cloud experience across the entire IT fabric, from a private cloud on premises, to a public cloud, or remote data recovery (DR) site. The Nutanix enterprise cloud combines the agility and one-click simplicity of a public cloud, with the security, control, predictable economics, and performance needed in a private cloud. Streamline data center operations with consumer-grade management. Simplify complex operations such as disaster recovery to a single click and ensure business continuity of mission-critical applications.

### NVIDIA and Nutanix Deliver Enterprise Cloud Infrastructure

NVIDIA Mellanox Ethernet Storage Fabric (ESF) provides the network underpinning for the Nutanix enterprise cloud infrastructure. Designed to increase network transparency, the ESF guarantees performance for any storage workload and integrates network automation to greatly simplify network design, provisioning, operation and troubleshooting.

ESF provides both invisible networking for a single cloud, and the data center interconnect (DCI) for a multicloud environment:

- > Power your growth by running applications at scale on a unified hybrid cloud platform
- > Simplify IT operations across the board by automating your infrastructure and applications
- > Take advantage of up to 100 Gb/s VXLAN/EVPN for DCI to comply with most RPO/RTO requirements
- > Provide zero-touch application mobility across multiple clouds for disaster recovery

Integrate Mellanox ESF with Nutanix enterprise cloud in the management plane to provide a transparent, automated experience for application provisioning and mobility, data backup and disaster recovery. The NVIDIA Mellanox NEO™ network orchestration and management software utilizes REST APIs to automate Nutanix Prism network provisioning, while eliminating complex and expensive manual network configuration for numerous network devices in multiple clouds.

## Network Automation for Business Continuity and Disaster Recovery

As your customers plan for business continuity and disaster recovery, they need solutions that go above and beyond data replication—to automating the recovery of their entire environment. Networking is often the key challenge in DR implementations. The joint solution between Nutanix and Mellanox automates network provisioning as part of workload lifecycle management. It allows workloads to preserve their IP addresses when they failover to the target site, enabling uninterrupted business continuity during partial or full failover. These capabilities are delivered using VXLAN/EVPN overlays that allow transparently stretching networks across the primary and secondary sites.

## Streamlining Time-Consuming IT tasks

Ethernet VPN (EVPN) is an open and standards-based innovation that simplifies the data center interconnect (DCI) over multiple clouds. By using EVPN based DCI, enterprise customers can stretch a Layer 2 network between data centers. Applications in the form of virtual machines (VMs or containers) can move easily with same IP and gateway, eliminating the traditional and costly way of manually re-configuring DNS entry. In the event of disaster recovery, the EVPN-based control plane automatically updates VM locations, and the client will continuously access the VM without even noticing the change in VM location. The entire solution is seamless with the integration of Mellanox's network orchestrator NEO and Nutanix's Prism. When a user makes a VM and a network using Prism, Mellanox NEO gets the API trigger, and based on that, NEO orchestrates the ESF for data backup and recovery in other data centers.

## Seamless Operations

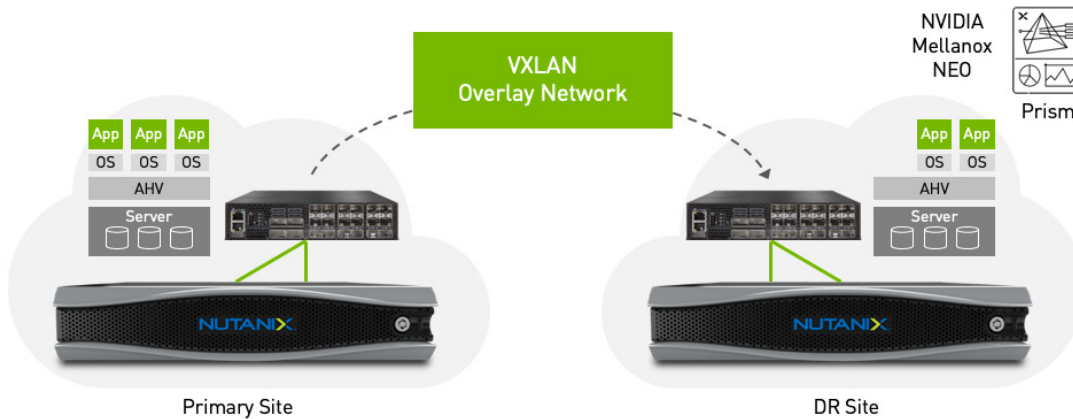
The entire solution—NVIDIA Mellanox DCI and Nutanix Enterprise Cloud—is seamless by integrating Mellanox's network orchestrator NEO with Nutanix's Prism. When a user creates a VM and network using Prism, Mellanox's NEO gets the API trigger, and based on that, Mellanox NEO orchestrates the ESF for data backup and recovery in other data centers. Virtual machines (VMs) operate seamlessly in either data center, even during disaster recovery events managed by Nutanix Prism.

The orchestration is mainly based on EVPN DCI – where a VXLAN is stretched from the primary data location to the backup data location while keeping VLANs intact if needed. Anycast gateway functionality of EVPN helps seamless workload movement and

essentially make the network abstracted from the compute point of view.

In addition, Mellanox NEO provides the following capacities:

- > VM-level network visualization
- > Automated VLAN provisioning for VM operations (creation, migration, and deletion)
- > One-click mLAG and RoCE configuration
- > Real-time and historical network telemetry (histogram) for traffic/performance monitoring
- > Switch software upgrade at scale
- > One-click NEO deployment by Nutanix CALM



## About Nutanix [www.nutanix.com](http://www.nutanix.com)

Nutanix is a global leader in cloud software and hyperconverged infrastructure solutions, making infrastructure invisible so that IT can focus on the applications and services that power their business. Companies around the world use Nutanix Enterprise Cloud OS software to bring one-click application management and mobility across public, private and distributed edge clouds so they can run any application at any scale with a dramatically lower total cost of ownership. The result is organizations that can rapidly deliver a high-performance IT environment on demand, giving application owners a true cloud-like experience.

**LEARN MORE**

To learn more about NVIDIA's business continuity & disaster recovery solutions, see: [www.nvidia.com](http://www.nvidia.com)