



# Business Continuity with Nutanix Enterprise Cloud and Mellanox DCI

Today's enterprise IT infrastructure is distributed. Data and applications are dispersed across on-premises and public clouds, but also distributed in remote office/branch office (ROBO) and disaster recovery (DR) sites. In such a multi-cloud environment, an end-to-end, unified platform is imperative to business continuity across these clouds without complex deployment, disjointed operations, and costly disruptions.

Nutanix delivers a true unified enterprise cloud experience across the entire IT fabric from private cloud on premises, to public cloud, to remote DR site. Combining the agility and one-click simplicity of a public cloud with the security, control, predictable economics, and performance needed in a private cloud, Nutanix enterprise cloud streamlines datacenter operations with consumer-grade management that reduces complex operations such as disaster recovery to a single click and ensures business continuity of mission-critical applications.

Mellanox Ethernet Storage Fabric (ESF) provides the network underpinning for Nutanix enterprise cloud infrastructure. Designed to make the network transparent, the Mellanox ESF delivers guaranteed performance for any workloads on any storage and integrated network automation to greatly simplify network design, provisioning, operation and troubleshooting, for local network in one cloud and datacenter interconnect (DCI) in multi-cloud environment.

To provide a transparent, automated experience for application provisioning and mobility, data backup and disaster recovery, Mellanox ESF is integrated with Nutanix enterprise cloud in the management plane. Through REST APIs, Mellanox network orchestration and management software, NEO™, automates network provisioning from Nutanix Prism and eliminates complex and expensive manual network configuration for numerous network devices in multiple clouds.

## KEY BENEFITS

- Unified hybrid cloud platform that runs application at scale
- Automation of infrastructure and applications to simplify IT operations across the board
- Up to 100Gb/s VXLAN/ EVPN for DCI meeting most RPO/RTO requirements
- Zero-touch application mobility across multiple cloud for disaster recovery

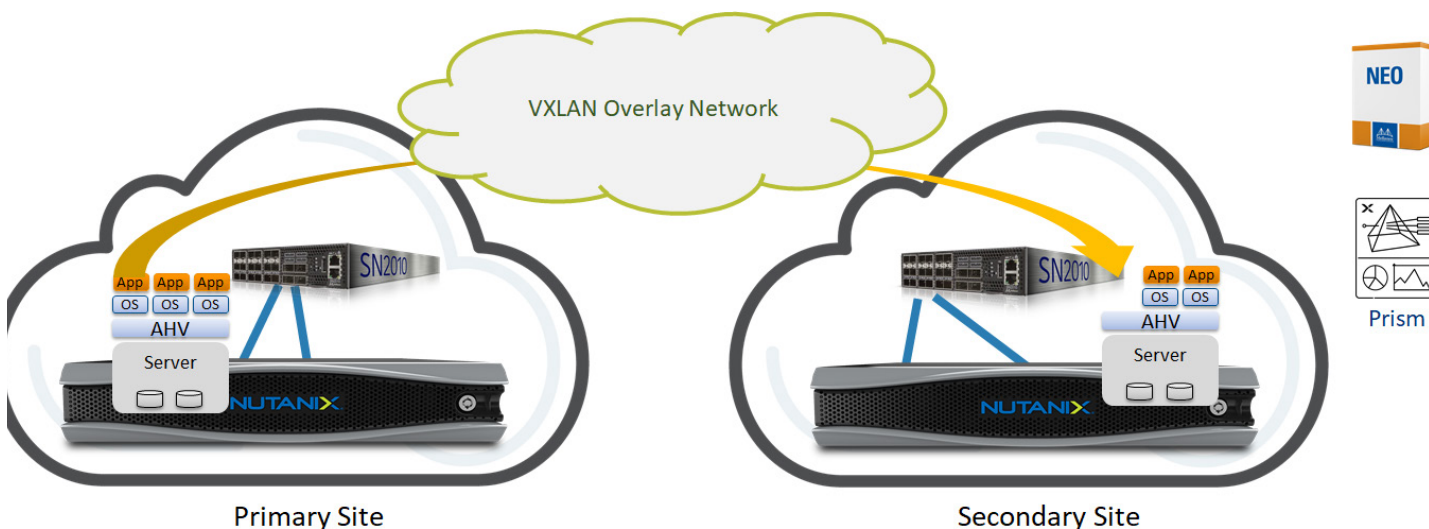
## NETWORK AUTOMATION FOR BUSINESS CONTINUITY AND DISASTER RECOVERY

As customers plan for business continuity and disaster recovery, they need solutions that go above and beyond just data replication, and automate the recovery of their entire environment in the event of a disaster. Networking often remains as the key challenge in DR implementation. The joint solution between Nutanix and Mellanox automates network provisioning as part of workload lifecycle management and 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.

EVPN is an open and standard-based innovation simplifying datacenter interconnect (DCI) over multiple clouds. By using EVPN based DCI, enterprise customers can stretch a Layer 2 network between data centers, and 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’s NEO gets the API trigger, and based on that, NEO orchestrates the ESF for data backup and recovery in other data centers. VMs operate seamlessly in either data center, even during DR 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, 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 from Nutanix CALM



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