

## SOLUTION OVERVIEW

# Simplify and accelerate your Nutanix environment with Aruba Fabric Composer

## HCI REQUIRES SOFTWARE-DEFINED NETWORKING FABRIC

Modern, hyperconverged infrastructure (HCI) systems consolidate a variety of applications and workloads onto a single, common infrastructure. This workload consolidation can pose important network engineering challenges for IT planners and operators. Traditional enterprise data center networks were not designed to support unrestricted east-west traffic flows that dominate the contemporary software-defined data center. These legacy networks are typically complex to operate, inefficient, and statically engineered, which inhibits operational and business agility. This problem is further compounded as the HCI cluster size grows to multi-rack deployments.

With Aruba Fabric Composer and Aruba CX switches, customers can quickly and easily deploy and automate data center networking fabrics. This enables faster time to production for hyperconverged and private cloud environments at any scale while being fully interoperable with existing data center infrastructure.

## ARUBA FABRIC COMPOSER

Aruba Fabric Composer is an intelligent, API-driven, software-defined orchestration solution. It simplifies and accelerates data center network provisioning across physical and virtual rack-scale compute and storage infrastructure environments.

What makes Aruba Fabric Composer different from other solutions is its ability to orchestrate a discrete set of switches as a single networking fabric to simplify operations and troubleshooting. This infrastructure and application-aware solution also automates various configuration and lifecycle events.

## DATA CENTER ECOSYSTEM INTEGRATION

Aruba Fabric Composer supports deep IT ecosystem integrations that enable administrators to manage, provision, and visualize their entire end-to-end network. An intuitive HTML5-based user interface provides a self-documenting, real-time map of the environment: from a VM, to host networking, to a specific switch port, and through Networks View visualizing Virtual Switch Extensions and spine-leaf connectivity. A robust set of APIs and tight integration with many third-party data center automation stacks provides a seamless configuration and operational experience.

Aruba Fabric Composer is designed to work with Aruba CX switches and is optimized for HPE data center products and tools such as HPE SimpliVity, HPE iLO, and Aruba NetEdit. The combination of Aruba Fabric Composer and Aruba OS-CX switches can also support non-HPE environments such as VMware vSphere, VMware NSX, Nutanix Prism, and others, harnessing the benefits of automated fabric provisioning, event-based workflow automations, end-to-end network and host visibility, and automatic storage traffic optimization.

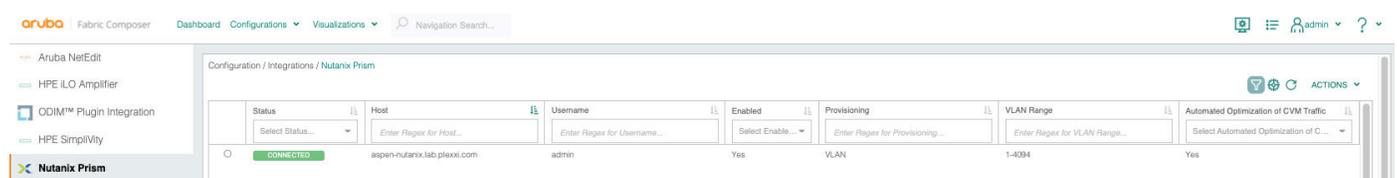


Figure 1: Aruba Fabric Composer – Nutanix Integration

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## SIMPLIFY AND ACCELERATE YOUR NUTANIX ENVIRONMENT WITH ARUBA FABRIC COMPOSER

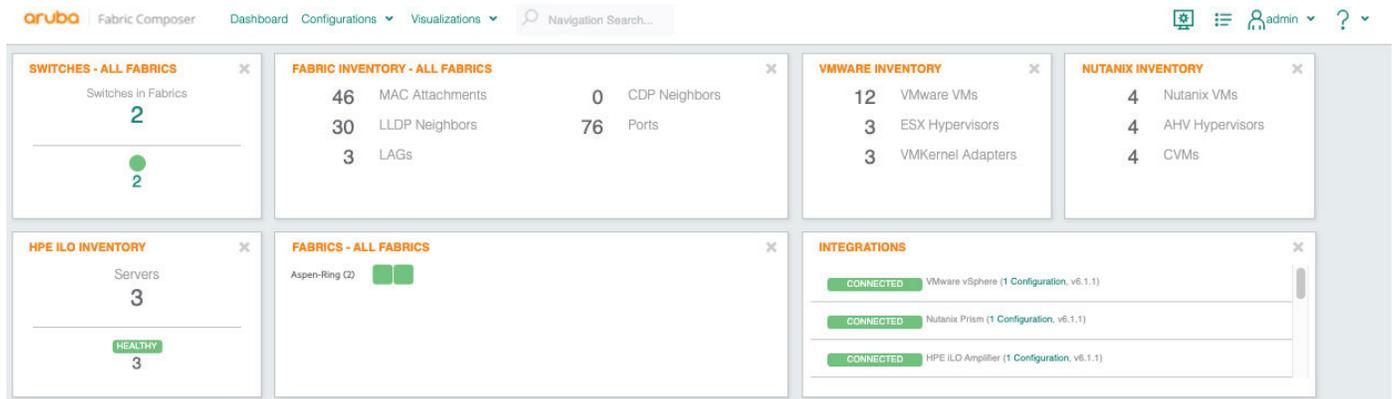


Figure 2: Aruba Fabric Composer Dashboard View

As an example, Aruba Fabric Composer integrates with the HPE iLO Amplifier Pack, an essential tool designed to simplify management of HPE servers running iLO. This integration allows administrators to enable easy, centralized access to server information, which gives IT administrators a dramatically simplified troubleshooting experience by providing a single UI through which to view a wealth of information about the hosts and network.

Aruba Fabric Composer is also fully infrastructure- and application-aware. These powerful ecosystem integrations help IT administrators automate routine network configuration tasks in response to lifecycle events happening in the customer's environment. For example, via the integration with VMware vSphere®, Aruba Fabric Composer can discover and visualize the virtual network infrastructure within hosts along with the physical network infrastructure to which the hosts are connected. In addition, Aruba Fabric Composer can respond to VM lifecycle events and configuration changes and automatically make appropriate fabric changes. VM administrators can manage fabric operations from a single VMware console – a very powerful and simplified operating model that most administrators have never had until now.

**Aruba Fabric Composer and Aruba CX switches provide an innovative and intelligent software-defined solution for customers struggling with manual, siloed IT provisioning and operating models across compute, storage, and network infrastructure.**

### Aruba and Nutanix partnership provides operational ease and agility

The software integration between Nutanix HCI solutions and Aruba provides an advanced orchestration experience that encompasses compute, storage, and networking and allows you to:

- Shorten time to provision new workloads and expand existing ones
- Gain deep visibility into how workloads interact with your infrastructure
- Empower IT administrators by providing them a simplified, integrated IT solution
- Minimize calls to IT with powerful tools that quickly identify root causes of issues
- Remove silos within IT using automation that crosses boundaries to handle day-to-day manual tasks
- Ensure smooth operation of critical workloads with a highly available and resilient solution

Nutanix leverages its industry leading, 100% software-defined hyperconverged infrastructure to provide a single cloud platform that seamlessly brings your hybrid cloud strategy to life. Nutanix Acropolis software converges compute and storage to provide cloud-like infrastructure to run applications at any scale, providing unified management and operations with one-click simplicity, intelligent automation, and always-on availability.

Aruba is one of the world's top IT networking vendors. From small to large enterprise environments, Aruba's comprehensive portfolio includes solutions ideal for access, core, and datacenter deployments.



The deep integration of Nutanix Prism and Aruba Fabric Composer allows for the discovery and visualization of the virtual network infrastructure, within the hosts and the physical network. Aruba Fabric Composer can respond to VM lifecycle events and configuration changes, making appropriate fabric adjustments automatically.

Administrators can monitor the Nutanix-Aruba network environment from the Prism console – a powerful tool for quickly understanding the IT infrastructure. To ensure resiliency of the Nutanix cluster, Aruba Fabric Composer discovers where the critical controller VM traffic traverses the network and automatically provisions traffic policies.

### HPE ProLiant DX systems integrated with Nutanix software

Nutanix and HPE have closely collaborated to build private and hybrid multi-cloud infrastructures with a full portfolio from Nutanix and HPE. With Nutanix Enterprise Cloud software integrated in the HPE factory, the HPE ProLiant DX family of systems enables organizations to build infrastructure delivering the simplicity and agility of public cloud services, while also providing the control and security required in private cloud environments. This offering leverages Nutanix's free AHV hypervisor and Nutanix Enterprise Cloud software to provide customers with a pre-integrated and optimized solution that dramatically lowers total cost of ownership and accelerates operational productivity.

HPE ProLiant DX customers receive the same Nutanix compute, storage, virtualization, and network functionality, combined with the company's intuitive, consumer-grade management that has made Nutanix one of the industry's most popular hyperconverged solutions.

HPE ProLiant DX systems have been extensively tested and validated jointly by Nutanix and HPE to run business-critical applications at scale on Nutanix Acropolis, AHV, and Prism software. Deployments are fully supported by HPE for hardware, and Nutanix for software, covering the entire IT from initial installation, infrastructure upgrades, scaling, and troubleshooting.

Now HPE customers can extend the value of HPE ProLiant DX deployments with Aruba CX switches and Aruba Fabric Composer. This integration provides customers with a high-performance, 10/25/40/100GbE software-defined switching fabric that simplifies and accelerates Nutanix Enterprise Cloud deployments and allows seamless expansion across a multi-rack DX configuration.

This solution includes pre-built software integrations for HPE iLO Amplifier and Nutanix AHV that automates the networking aspects of the system deployment and ongoing operations. These pre-built, pre-tested integrations automatically discover Nutanix-based HCI nodes, Nutanix controller VMs, user VMs, as well as pre-provision the network fabric in response to Nutanix compute and storage events. This helps ensure high performance and quality of service for a diverse set of applications and workloads, while making strategic use of network capacity.

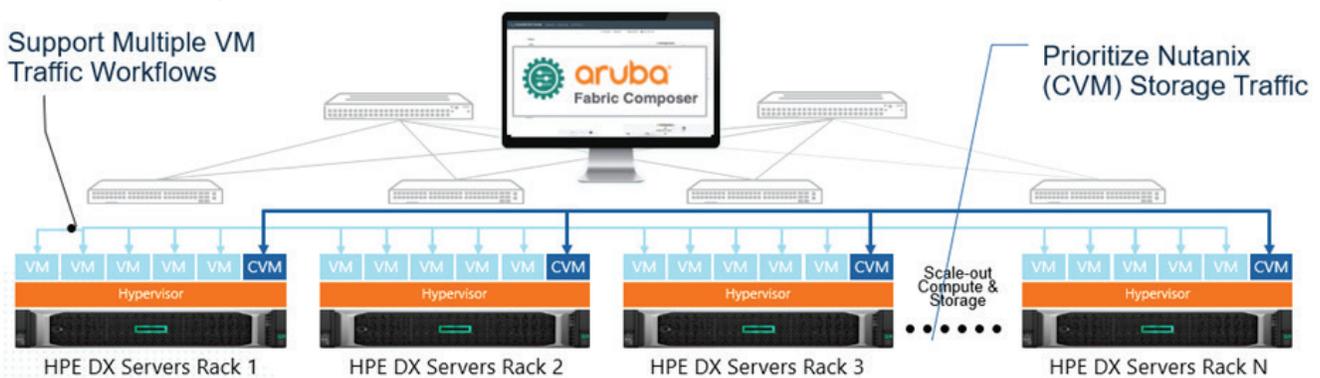


Figure 3: Data Center Fabric Topology with HPE ProLiant DX Servers



Best of all, this can all be monitored directly from the Nutanix Prism management console.

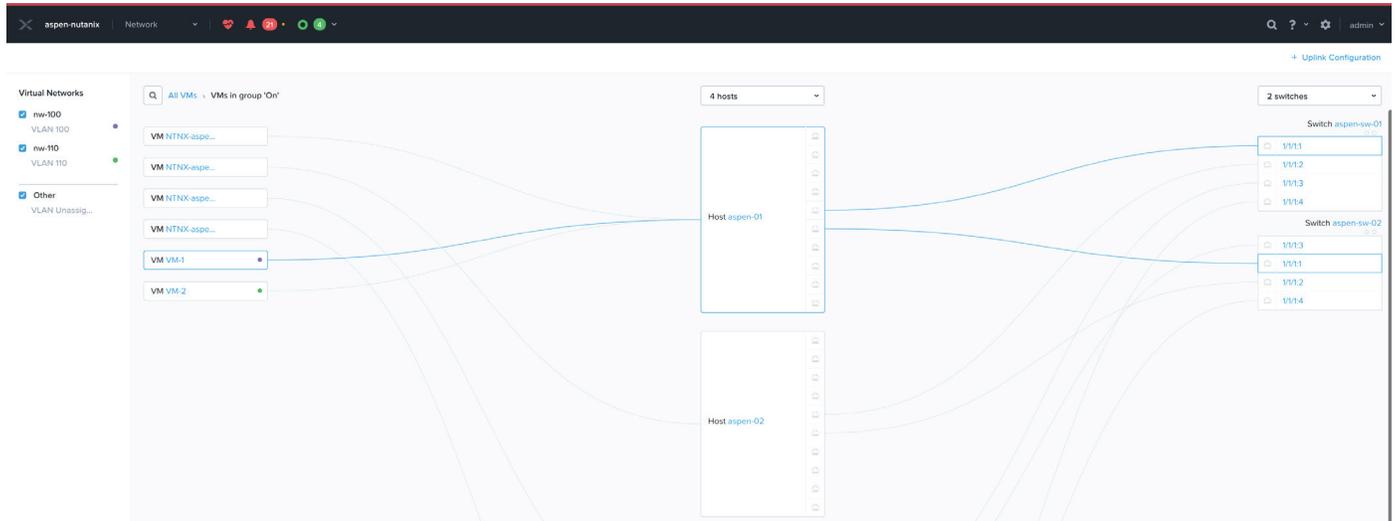


Figure 4: Nutanix Prism Host View

Contact your local sales representative to find out how we can help accelerate the modernization of your data center.

For information on Aruba Fabric Composer, please visit:  
<https://www.arubanetworks.com/products/switches/core-and-data-center/fabric-composer/>

For information on Aruba CX switches, please visit:  
<https://www.arubanetworks.com/products/switches/>

For information on HPE DX solutions, please visit:  
<https://www.nutanix.com/hpe>