SOLUTION OVERVIEW

Aruba Fabric Composer
Simplify and accelerate data center networking

OVERVIEW

Building out enterprise data center infrastructure can be a challenge in planning, integrating, validating, and managing all the required infrastructure components. Even when all the components come together in a predefined composable offering, there is still the challenge of evolving legacy operations and process.

Applying the old way of doing things to a new, modern infrastructure can be a losing battle.

One of the biggest challenges in building out data center infrastructure is the network fabric, which is the foundational glue that integrates the infrastructure’s compute, storage, and application resources. Any bottleneck in the network fabric will negatively impact the enterprise’s ability to run applications efficiently.

At a high level, provisioning the network in a modern enterprise data center has been a challenge for two key reasons.

1. The network infrastructure itself has been traditionally complex, and typically requires specialized skills and training to configure and manage.

2. Network resources typically reside in a separate, siloed organization, and traditionally require a job ticket to schedule network configuration or maintenance.

Herein lies one of the most notorious bottlenecks of traditional IT, siloed operations that impede deployment velocity.

ARUBA FABRIC COMPOSER

Aruba Fabric Composer is an intelligent, API-driven, software-defined orchestration solution that simplifies and accelerates leaf-spine network provisioning and day-to-day operations across rack-scale compute and storage infrastructure.

What makes Aruba Fabric Composer different from other solutions is that the software can orchestrate a discrete set of switches as a single networking fabric which significantly simplifies operations and troubleshooting. This solution is fully infrastructure and application aware providing automation of various configuration and lifecycle events.

Aruba Fabric Composer implements a series of workflows
that are both interactive and automated allowing an operator to take control of their environment. This solution is implemented to augment switch by switch configuration, so the operator is still at liberty to access any device directly and make local changes, so you get the best environment for both traditional network operators in addition to dev ops automations.

**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 and Spine-Leaf connectivity. A robust set of APIs and tight integration into many 3rd party data center automation stacks, provides a seamless configuration and operational experience.

Aruba Fabric Composer is designed to work with Aruba OS-CX switches and is optimized for HPE data center products and tools such as HPE SimpliVity, HPE iLO and Pensando Distributed Services Platform delivered as an option in HPE servers. 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, allowing them to enjoy the benefits of automated fabric provisioning, event-based workflow automations, end-to-end network and host visibility and automatic storage traffic optimization.

The combination of Aruba Fabric Composer and CX switches can also support non-HPE environments allowing these deployments to also enjoy the benefits of automated fabric provisioning and eco-system integration into 3rd party IT automation frameworks from VMware, Nutanix, HPE and more.

Take for example Aruba Fabric Composer integration with the HPE iLO Amplifier Pack, an essential tool designed to simplify management of HPE servers running iLO. Using this integration administrators can enable easy and centralized access to server information directly giving IT administrators a dramatically simplified troubleshooting experience, 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 eco-system integrations help IT administrators to 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 hosts are connected to. In addition, Aruba Fabric Composer can respond to VM lifecycle events and configuration changes making appropriate fabric changes automatically. VM administrators can manage fabric operations all from a single VMware console – a very powerful and simplified operating model that most administrators have never had before until now.

**POWERFUL END-TO-END VISUALIZATION OF VIRTUAL AND PHYSICAL COMPONENTS**
Using the Aruba Fabric Composer Host View, administrators can easily see end-to-end connectivity between Virtual Machines, Port Groups, vSwitches, Physical NICs and how they are connected to Aruba CX switch ports.

These industry leading integrations provides customers a compelling value proposition for administrator who have longed for integrated server and networking provision, end-end visibility and easy troubleshooting – without having to jump between disparate management interfaces when provisioning racks of compute, storage and networking.

**Workload Visibility**

Aruba Fabric Composer builds an understanding of the physical network and the workloads that utilize the network. It gathers the necessary information from 3rd party orchestration systems and other repositories leveraging RESTful APIs. It captures the complete picture of the compute/storage/network resource ecosystem. This delivers a more accurate and meaningful global view of how and where virtual demands are impacting the physical network.

**Workload Optimization**

Aruba Fabric Composer optimizes data paths to satisfy the needs of critical application workloads. Policies created around explicit workload demands such as latency are met by arranging the network to satisfy those needs first. Optimizing the network to workloads needs delivers deterministic and predictable network performance and ensures that the right network resources are applied to the right workloads. This, for example, can translate to faster storage replication and mirroring or quicker database transaction response.

**Global Network Control**

Aruba Fabric Composer offers the simplicity and determinism of centralized network management with the rapid response and scalability of decentralized control. Once Aruba Fabric Composer has satisfied configuration of the workload requirements, it then works with the Aruba CX switching fabric to orchestrate the desired new network state. When workload requirements demand a new network state, Aruba Fabric Composer communicates updated topology information to the switches. The switches then implement the configuration across the network.

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

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**DETAILED SECTION OF FEATURE/CAPABILITIES**

**Event-based Workflow Automation**

Aruba Fabric Composer is built from-the-ground-up to be fully integrated with data center infrastructure, application and workload orchestration systems. Through an open source, event driven automation platform, Aruba Fabric Composer provides both the integration platform as well as a set of Aruba-developed integration packs. Integration packs automate workflows based on the included sensors, actions and triggers for 3rd party orchestration systems. Following an “If This Then That” (IFTTT) model, Aruba Fabric Composer can provision, configure or optimize Aruba network in real time, by reacting to events from these 3rd party systems without the need for user intervention.
**Network Visualization**

Visualize leaf and spine CX switches, VSX, LLDP neighbors

**Data Center Ecosystem Integration**

Aruba offers Integration Packs for several 3rd party IT orchestration systems. Integration Packs are built into the Aruba Fabric Composer and include specific logic for tools such as: Aruba Central, Aruba NetEdit, HPE iLO Amplifier, HPE SimpliVity, Pensando PSM, Nutanix Prism, VMware NSX-T, VMware vSphere and VSAN and VMware Cloud Foundation.

Based on discovery of managed elements within each of these orchestration systems, these pre-packaged fully tested and supported integration packs provide workflows ranging in functionality from network provisioning to automated network optimization.

This integration also helps to automate discovery and dynamic configuration and provisioning of IT infrastructure, using the operators native and familiar tool/user interface as the primary user UI across workflows that span storage, compute and networking with application and SLA centricity orchestrating the IT infrastructure for multi-purpose workloads.

**Summary of Key Benefits**

**Simplify IT operations**

Orchestrate a discrete set of switches as a single networking fabric which significantly simplifies day to day operations and troubleshooting overall. Workflow automation and simple point and click GUI help streamline and automate complexity - for example, helping to automate away EVPN configuration complexity.

**Accelerate provisioning** - Speed infrastructure provisioning with software-defined fabric automation and orchestration. Integrates into your existing IT operational frameworks with ease. Automated, turnkey infrastructure deployment that helps minimize delays and manual interactions with separate IT operational teams and silos.

**Increased visibility and control** – End-to-end network visibility of connective of hosts, virtual machines, VLANs, services and workloads simplify troubleshooting of connectivity and performance problems. Automatically detect and dynamically solve network issues before your business is impacted.
ARUBA FABRIC COMPOSER ORDERING INFORMATION

Aruba Fabric Composer is the integration platform residing between the Aruba OS-CX switches and 3rd party tools. It provides the means by which the Aruba fabric can automate lifecycle data center operations and optimize, application and storage workload performance.

Aruba Fabric Composer is offered as a self-contained ISO or Virtual Machine OVA, and can be installed in both virtual and physical host environments as a single instance or as a Highly Available 3 node cluster. Aruba Fabric Composer is available as a yearly per switch software subscription option.

DESCRIPTION (SKUS FOR 8325, 8360, 8400 SWITCHES)

Aruba Fabric Composer Device Management Service Tier 4
Switch 1 year Subscription E-STU R7G99AAE
Aruba Fabric Composer Device Management Service Tier 4
Switch 3 year Subscription E-STU R7H00AAE
Aruba Fabric Composer Device Management Service Tier 4
Switch 5 year Subscription E-STU R7H01AAE
Aruba Fabric Composer Device Management Service Tier 4
Switch 7 year Subscription E-STU R7H02AAE
Aruba Fabric Composer Device Management Service Tier 4
Switch 10 year Subscription E-STU R7H03AAE

DESCRIPTION (SKUS FOR 6300 SWITCHES)

Aruba Fabric Composer Device Management Service Tier 3
Switch 1 year Subscription E-STU R8D18AAE
Aruba Fabric Composer Device Management Service Tier 3
Switch 3 year Subscription E-STU R8D19AAE
Aruba Fabric Composer Device Management Service Tier 3
Switch 5 year Subscription E-STU R8D20AAE
Aruba Fabric Composer Device Management Service Tier 3
Switch 7 year Subscription E-STU R8D21AAE
Aruba Fabric Composer Device Management Service Tier 3
Switch 10 year Subscription E-STU R8D22AAE