Overview

This chapter contains the following sections :

Information about Cisco Dynamic Fabric Automation

Cisco Dynamic Fabric Automation (DFA) simplifies a cloud deployment through automated provisioning and centralized management. Cisco DFA automates device and fabric configuration, eases Virtual Machine (VM) deployment and migration, and integrates baremetal and virtualized resources without using a dedicated gateway.

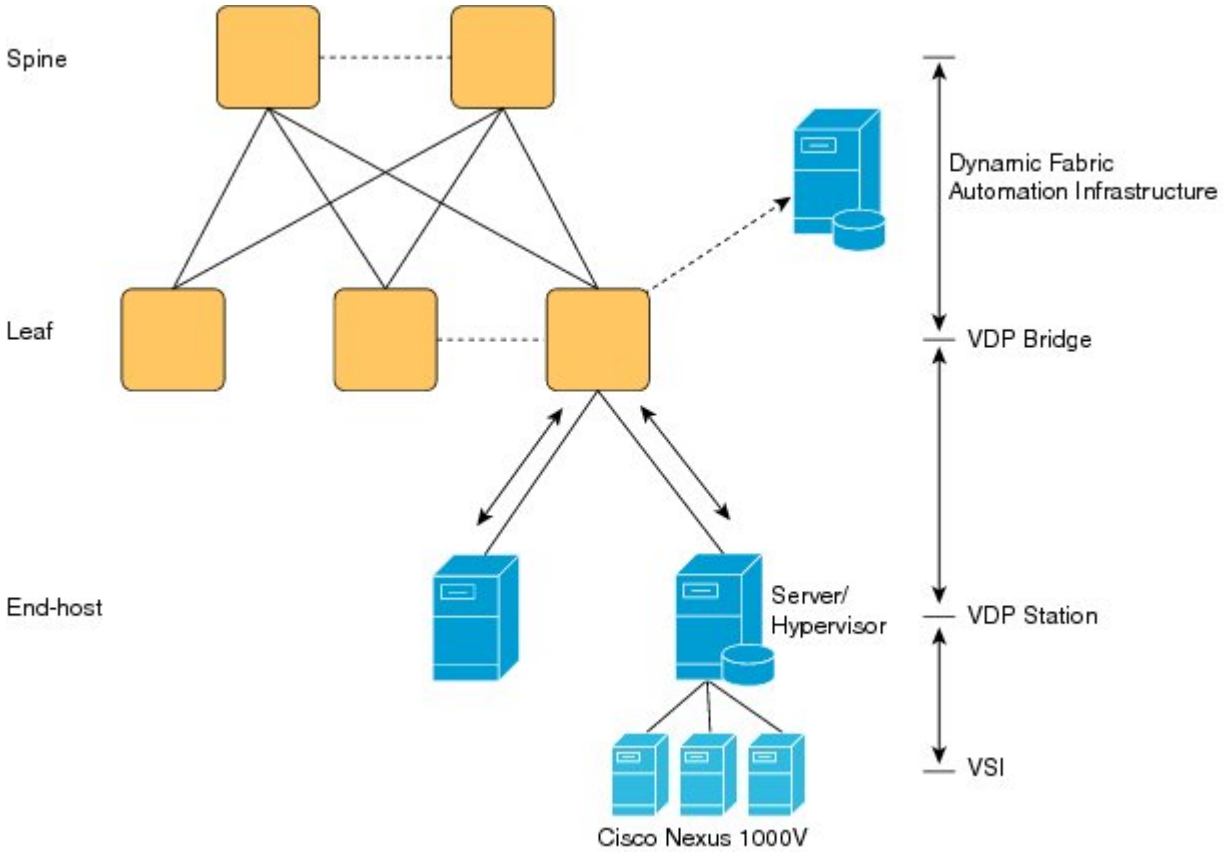
For more information about Cisco DFA, see http://www.cisco.com/en/US/solutions/ns340/ns517/ns224/ns945/dynamic_fabric_automation.html

Cisco Nexus 1000V Switches in a DFA Network

The Cisco Nexus 1000V acts as a leaf extension in the Cisco DFA network. The Cisco Nexus 1000V is configured as an end station in the DFA network and notifies the DFA leaf of a VM instantiation or a VM mobility event by using VDP based communication.

The components of Cisco DFA are shown in the following figure.

Figure 1: Components of Cisco DFA



The components of Cisco DFA architecture are as follows:

- Leaf Switch: A DFA leaf node operates as the bridge for the VSI Discovery and Configuration Protocol (VDP) exchange that handles requests from end hosts. The leaf node also communicates with the configuration profile databases to retrieve and apply the previously defined port profiles to each attached end host.
- End Station : An end station in Cisco DFA can be VDP capable or incapable. A VDP capable end station operates as the primary station for the VDP exchange and registers or deregisters its resident VMs to the attached leaf switch. A VDP-incapable end-station is a normal server node that does not participate in the VDP message exchange.
- Profile database: This database is a standalone server or a local configuration storage in the leaf switch that maps each end-host to its predefined port profile. This profile can be VLAN, ACL or QoS settings.