GLOSSARY

A

access control list (ACL)   A list of permissions to objects; for example, read, write, and delete permissions for users or system processes.

access switch   Managed switches that work at the desktop layer and that connect workstations and servers to the network. Access switches also provide MAC address filtering, bandwidth sharing, and bandwidth switching (moving data from one network to another). A virtual distributed switch such as a Cisco Nexus 1000 is also an access switch.

aggregation switch   A switch that provides aggregate or group networks.

B

business model   A representation of all of the resources, network topology, services, and business policies that are managed by Network Services Manager.

The business model includes the topology and can include cloud metamodels.

business policy   A mechanism for providing network connectivity in terms of resources, ports, protocols, schedules, and connection topologies.

C

connection topology   A network configuration that allows resources or collections of resources to communicate in a specific arrangement: all together, individually to all others (full mesh, bidirectional); server-to-client (spoke-initiated hub and spoke, or peer to peer); hub and spoke but bidirectional, such as for remote desktop help; or a single peer-to-peer pair, whether peer-initiated or bidirectional.

controller   The Network Services Manager component that manages the stack of devices associated with a logical site. Multiple controllers can run on a single host, allowing you to manage multiple sites from a single physical server.

D

device   Networking hardware such as a switch or router.

device stack   A collection of network elements (devices) representing a logical site. A stack of devices configured to manage cloud operations is referred to as a *pod* in Network Services Manager.

distribution switch   A device working at the workgroup or distribution layer (including LAN-based routers and Layer 3 switches), that ensures that packets are routed between subnets and VLANs.

domain   An organizational structure in Network Services Manager that is used to delegate administrative control and to provide managerial separation for tenants. A domain can contain all of the business model objects that are used to manage clouds.

dynamic topology   The process of retrieving abstract information from a business model, converting that abstract information into device-specific configurations, and implementing those configurations on the appropriate devices.

E

engine   The Network Services Manager component that analyzes business and network access policies, compares the existing topology to the specified policies, and requests the controllers to reconfigure the devices they control.

L

logical architecture   An abstract representation of the network architecture that a tenant can build by using the building blocks provided for cloud operations.

logical topology   An abstract method that a controller uses to provision devices by specifying how more primitive provisioning elements are to be combined to implement data paths and policy.

A logical topology specifies the manner and type of configuration that needs to occur at each transition point in the physical topology, and how services should be organized relative to each other and to devices in the physical topology.

M

metamodel   The definition of specific entities and resources that can exist in a network, and the relationships that exist among these entities and resources.

N

network access policy   The method used to define entitlement and access management on a network.

network container   A logical group of virtual network resources that are created and managed as a unit.

P

pod See device stack.

policy A statement of intent for access to resources or the network. Network Services Manager uses policies for comparison when analyzing the network topology and identifying the adjustments that must be made to the topology.

ports and protocols The TCP/UDP port or IP protocol that is permitted in a policy. Network Services Manager has predefined a number of standard ports, such as HTTP, Telnet, and ICMP. The predefined object ANY allows network communications on any port and protocol.

R

resource A host or a network subnet with an IP address and with a subnet mask that is assigned to a single site. Resources can be moved from one site to another, and can include local resources, groups, VLANs, and network identities.

S

site A logical collection of devices. More than one Network Services Manager site can exist at a physical location.

subnet Networked computers and devices with a common IP routing prefix such as 192.168.

T

tenant A domain that contains business model objects that set up and manipulate one or more logical network containers.

tenant network container A metamodel that identifies the device stack deployed for a tenant at a particular site.

U

URI Uniform Resource Identifier. A string of characters used to identify a name or a resource on the Internet. In Network Services Manager, a task resource is assigned a URI as a unique identifier for tracking purposes.

V

virtual machine (VM)   A computer environment such as those provided by VMware that allows one operating system to run on a host operating system as if it were standalone.

VLAN   An abstraction of a switch VLAN that can be managed as a Layer 2 VLAN or a routed VLAN (with an SVI). In Network Services Manager, VLANs are managed as resources from a pool and allocated dynamically for tenant networks. Depending on the need, the VLAN is created on all relevant devices to complete a data path for the tenant in the device stack.