Cisco Network Services Manager 5.0

The following list of frequently asked questions is meant to help quickly address some of the commonly asked questions regarding Cisco® Network Services Manager Release 5.0. For more information on the product refer to the Network Services Manager product page at http://www.cisco.com/go/nsm.

Q. What is Cisco Network Services Manager?

A. Cisco Network Services Manager is designed to help enable customers to organize their network resources into a flexible multitenant infrastructure that integrates the network with their existing IT operational tools and processes. Network Services Manager's network abstraction layer allows customers to automatically provision a set of network features into an end-to-end topology, or "network container," much more easily and quickly than previously possible with template - and script-based systems, dramatically reducing network operations costs and the potential for misconfiguration while optimizing capacity utilization and accelerating service delivery.

Q. What are the main features and benefits of Network Services Manager?

A. Table 1 summarizes the key features and benefits of Network Services Manager.

Table 1. Features and Benefits of Network Services Manager

Feature	Benefits
Business-policy driven	Policies enforce topology models, network features, and network behaviors to help ensure adherence to organizational or architectural requirements, for example, all the security, isolation, features, and resources to support the desired "tier of service," and control the characteristics and behavior of multitenant data centers. As business needs evolve, new policies can be constructed and existing policies adjusted. For example, a policy for access to a customer relationship management (CRM) system can be established to automatically adjust the network services when new sales personnel are hired or when the CRM application moves physically or virtually.
Automates end-to-end infrastructure as a service	Helps enable just-in-time service delivery models to automatically translate a network container request into an end-to-end network service topology, including configuration of all associated routers, switches, firewalls, and other devices on the network.
Self-healing network containers	Network Services Manager is topology aware and seeks to maintain the integrity of any end-to-end topology it is managing. If an individual component should fail or be affected in some way Network Services Manager will reestablish necessary configurations to put that topology back into an operational state. Helps enable administrators to maintain highly available cloud network operation.

Q. How can Network Services Manager help to create service tiers across my cloud deployment?

A. Cisco Network Services Manager offers a flexible, policy-driven approach to how network services are managed and controlled. This is achieved by abstracting the components needed to build an isolated virtual network infrastructure for each tenant. Through an administrative interface Network Services Manager helps enable administrators to dynamically define and control sets of features from across multiple physical and virtual platforms in combination with behavior policies that support:

- Creation of different levels of service capability, or service tiers, for tenant use
- Definition of the capabilities and resources available in each tier
- Structuring of a system of "containment" tailored to tenant application and deployment model needs

Q. In what ways could a service provider use Network Services Manager?

A. Service providers can use Network Services Manager to provision a multitenant environment with isolation of traffic and network services, which allows third-party providers, resellers, and wholesalers to operate their own “white-labeled” cloud environments for downstream customers using a cloud-within-cloud approach. This capability allows large service providers to build and deploy scalable cloud architectures, while small providers can more easily offer cloud services to their customers.

Q. How does Network Services Manager define and control the behavior and characteristics of a cloud?

A. Cisco Network Services Manager abstracts the features, services, and resources from the underlying network infrastructure that are critical to multitenant operations, and models these in software. The resulting models, objects, and policies are used to enable administrators to define and control the behavior and characteristics of the network to support a cloud. These abstracted models are used by the Network Services Manager Engine when network container instances are requested. The result is a flexible and agile provisioning process that helps ensure that topologies are configured to policy and that resources are managed effectively as they are consumed or released

Q. What are the key architectural components of Network Services Manager? Can you describe each of them briefly?

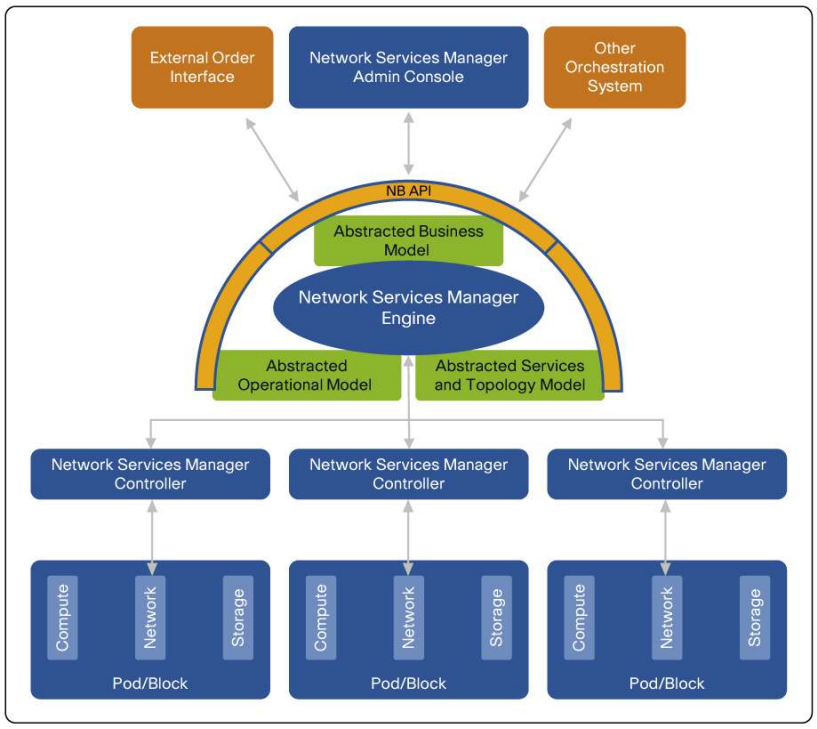
A. The Network Services Manager architecture (Figure 1) consists of a browser-based interface, allowing administrators to define network characteristics, services, and behaviors as well as construct business polices that define who (users and groups) or what (other computer resources) can access network resources.

The heart of the system is the Network Services Manager Engine, which automates the provisioning of end-to-end network services and dynamically generates the configuration instructions that control the devices and services in the multitenant environment.

The Network Services Manager Engine dynamically builds and deploys these configuration instructions that are pushed down to the Network Services Manager Controllers that translate the instructions into the exact network service topology configuration semantics for each device type/model in the pod.

The Network Services Manager Controllers interact with the network devices and network services in the pod in real time to determine the exact service characteristics of the network devices and status of the deployed network services.

Figure 1. Network Services Manager Admin Console



Q. Can Network Services Manager be integrated with my existing IT operational tools and processes?

A. Network Services Manager can be integrated with external systems such as order entry portals or service catalogs where user requests for network services can be captured and pushed to the Network Services Manager Engine for provisioning. Cisco Intelligent Automation for Cloud, or other ecosystem technologies such as higher-level orchestration frameworks or specific configuration management systems, can also use this interface to move critical information to and from Network Services Manager.

Q. What are the system requirements of Network Services Manager?

A. Table 2 gives the system requirements for network services virtualization software, Table 3 gives the requirements for device service controller software, and Table 4 gives the system requirements for command center client software.

Table 2. Network Services Manager Engine Software

Hardware	Dual Core CPU
Disk space	40 GB
Memory	2 GB minimum

Table 3. Network Services Manager Controller Software

Hardware	Dual Core CPU
Disk space	40 GB
Memory	2 GB

Table 4. Browser Software Access to Network Services Manager

Hardware	Microsoft Windows or Apple Mac desktop
Software	Firefox 3.6 to 15, Internet Explorer 7, 8, and 9

Q. How can I order Network Services Manager?

A. For ordering information please contact your local Cisco account representative.

Q. Where can I get more information on Network Services Manager?

A. For more information on Cisco Network Services Manager, visit http://www.cisco.com/go/nsm, contact your local Cisco account representative, or send an email to ask-nsm@cisco.com.

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