



Overview

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Information About Port Profiles and Port Groups

A port profile is a collection of interface-level configuration commands that are combined to create a complete network policy.

A port group is a representation of a port profile on the server. Every port group on the server is associated with a port profile on the Cisco Nexus 1000V. Network administrators configure port profiles, and then server administrators can use the corresponding port groups on the server to assign ports to port profiles.

In the Server, a port profile is represented as a port group. You assign the vEthernet interfaces to a port group in to do the following:

- Define port configuration by policy.
- Apply a single policy across a large number of ports.

When a newly-provisioned virtual machine is powered on, a vEthernet interface is created on the Cisco Nexus 1000V for each of the virtual machine vNICs. The vEthernet inherits the definitions in the selected port profile.

Information About Live Policy Changes

Port profiles are not static entities but dynamic policies that can change as network needs change. Changes to active port profiles are applied to each switch port that is using the profile. This simplifies the process of applying new network policies or changing an existing policy.

Information About Rollback to a Consistent Configuration

When you update the configuration in a port profile, its member interfaces are also updated. If the configuration fails, the port profile and its member interfaces are rolled back to the last known good configuration for the port profile.

Information About Interface Quarantine

Interfaces are sectioned off and shut down when a port profile configuration is in error. This is called Interface Quarantine.

When an interface is quarantined, it maintains its mapping to the port profile, and the port goes to the down status. The port goes to **NoPortProfile** state. If the port profile configuration is still in error, then the interface is again shut.

If you create a port profile with a command error, for example a private VLAN mapping error or service policy map error, then an attempt to apply this port profile to an interface shuts down the interface. The error is not copied to the interface and a system message is generated with details of the error. In this case, you must correct the error in the port profile, return the interface to service, and apply the corrected port profile to the interface.