

Virtualization Configuration

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Chapter 1 Configuring Virtualization

This chapter describes how to create and configure virtualization for your switch.

1.1 Overview

Virtualization is a technology for centralized management of the interface expansion. The user can enable virtualization of the switch and create a virtual device by connecting switches with the virtualized interfaces and connectors.

Virtualization has following advantages:

1. Virtualization can expand the interface density, because the interface number of the virtualized device equals the total interfaces of all member devices in the virtualization domain. That is, all member interfaces can be taken as one interface of the virtualized device.
2. This feature provides you with the tools to more closely and efficiently manage the system resources and users of the device. Virtualization enables the user to manage a group of switches as one logic object through one IP, which reduces the occupation of the IP address and is easy for management.
3. It expands uplink bandwidth.

Virtualization management is used for managing the configuration and operating state of the virtualization function. The user needs to enable the virtualization function. Restart the device after configuring virtualization and the virtualization function takes effect.

1.2 Virtualization Configuration Task List

- Configuring virtualized line cards for interconnection
- Configuring Virtualized Interface
- Configuring Parameters of Virtualization
- Enabling Virtualization
- Save the configuration of virtualization and restart the device

1.3 Virtualization Configuration Task

1.3.1 Configuring virtualized line cards for interconnection

Devices with different numbers in a virtual domain are connected to each other through virtualized line cards. Each virtualized device must have at least one virtualized line card. Only specific types of line cards can be configured as virtualized line cards.

To configure the virtualized line cards, run the following command:

Command	Purpose
bvss slot slot	Slot stands for virtualized line card. One device supports up to 2 virtualized line cards.

1.3.2 Configuring virtualization interface

On the virtualized line card, the designated virtualized port is configured for virtualized interconnection. In addition to the designated virtualized port, the remaining ports can be used as service ports. When no virtualized port is specified, all ports are virtualized ports by default.

To configure the virtualized interface, run the following command:

Command	Purpose
bvss interface num slot slot port port	<i>num stands for the serial number of stacking ports.</i> <i>slot stands for the specified virtualized line card.</i> <i>port stands for the specified stack port</i> <i>slot/port stands for a stack port.</i>

1.3.3 Configuring parameters of virtualization

Virtualization uses the virtualization domain to manage the virtualized devices of one same group. Each member device in the virtualization domain has one ID. Every member device needs to configure its priority, so that it can be used in negotiating the master device. The device with the top priority will become the master device of the virtualization domain.

Virtualization has two modes: the common mode and the enhanced mode. The common mode only supports virtualization of two devices and the enhanced mode supports virtualization of at most 4 devices. At present the system only supports virtualization of the common mode.

MAC address of the virtualization system can be set in two ways: take MAC of the master device as the MAC of the virtualization system and take the reserved MAC as the MAC of the virtualization system.

To configure parameters of virtualization, run the following command:

Command	Purpose
bvss mode [normal enhanced]	The command is used to configure the mode of virtualization
bvss domain-id <i>id</i>	The command is used to configure the domain of virtualization
bvss member-id <i>id</i>	The command is used to configure the member ID.
bvss priority <i>priority</i>	The command is used to configure the priority of the virtualized member device.
bvss mac-address mode [use-active-member use-static-pool]	The command is used to configure the MAC address of the virtualization system.

1.3.4 Enabling Virtualization

The device runs in standalone mode by default, and the virtualization function is not enabled. After the virtualization-related parameters are configured, the virtualization function needs to be enabled.

To enable virtualization, run the following command:

Command	Purpose
bvss enable	The command is used to enable Virtualization.

1.3.5 Saving Virtualization Configuration

After finishing the parameter configuration, save the configuration and restart the device. Then the virtualization function takes effect.

To save virtualization, run the following command:

Command	Purpose
write bvss-config	The command is used to save virtualization configurations.

1.3.6 Showing virtualization configuration

On devices with virtualization enabled, you can use the following commands to display virtualization-related information.

To show the virtualization information, run the following command:

Command	Purpose
show bvss current-config	The command is used to show the current configuration of virtualization
show bvss running-config	The command is used to show the running configuration of virtualization
show bvss management	The command is used to show information of virtualization
show bvss statistics	The command is used to show statistics information of virtualization

The **current-config** of virtualization refers to the effect configuration on the device now; the running-config of virtualization refers to the configuration that may modify or add in running of the device. These configurations do not take effect only they are saved and the device is restarted.