Monitoring VSS Redundancy System

The following topics provide an overview of Cisco 6500 virtual switching redundancy system.

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- Virtual Switch Link, page 32-4

Cisco 6500 VSS Redundancy System Overview

The Cisco Catalyst 6500 Series Virtual Switching System (VSS) allows the clustering of two chassis units together into a single, logical entity. The two chassis units are connected through a Virtual switch link (VSL) link, where one chassis acts as an active unit and the another chassis acts as a standby unit. If the active chassis fails, then the standby chassis act as the active chassis. The chassis units are selected as the active or standby units based on the priority set.

This clustering of chassis allows enhancements in all areas of network design including high availability, scalability, management, and maintenance.

The VSS redundancy system has the following processors:

- Dual 6500 processor—Each chassis has 1 SUP card.
- Quad processor—Each chassis has 2 SUP cards, one is active and the other one is standby hot (switchover target). The chassis which is in standby hot (switchover target) acts as the next active chassis.

Viewing VSS Redundancy System Properties in Logical Inventory

To view the VSS redundancy system properties in the logical inventory:

Step 1 Double-click the Cat 6500 VSS device to open the **Inventory** window.

Step 2 Choose **Logical Inventory> Redundancy Systems**. Click a particular VSS domain ID. The properties of the VSS domain are displayed in the content pane.

Figure 32-1 shows the VSS redundancy system properties in the logical inventory

Figure 32-1 VSS Redundancy System Properties

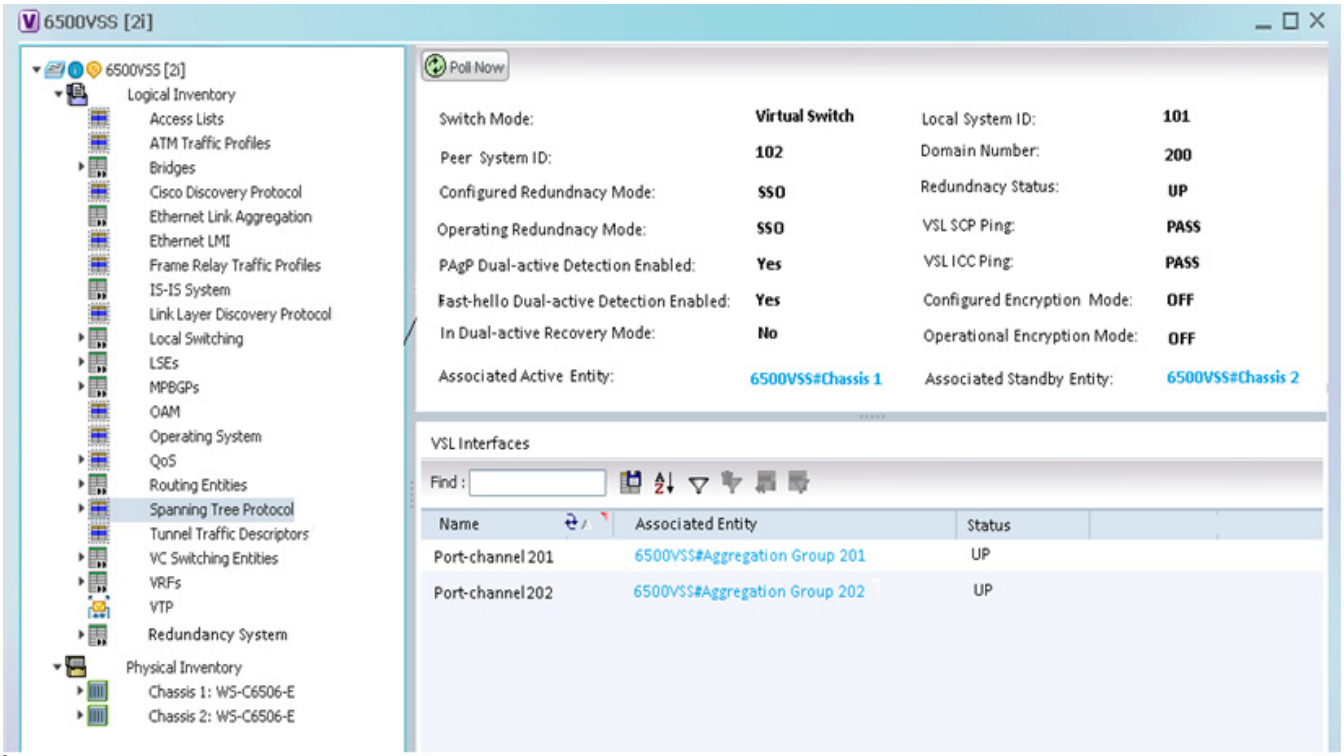


Table 32-1 describes the information that is displayed in the Redundancy System

Table 32-1 Redundancy System Details

Field Name	Description
Switch Mode	The current mode of the switch.
Local System ID	Unique identifier of a local physical chassis in the virtual switch.
Peer System ID	Unique identifier of a peer physical chassis in the virtual switch.
Domain Number	The virtual switch domain number to recognize a virtual switch domain. Only switches with the same domain number can be in the same virtual switch.
Configured Redundancy Mode	The configured redundancy mode.
Redundancy Status	Redundancy state: Up or Down. If the field is empty, it means the data was not collected from the device.
Operating Redundancy Mode	The operational redundancy mode.
VSL SCP Ping	Status of the VSL ISCP ping.
VSL ICC Ping	Status of the VSL ICC ping.
PAgP Dual-active Detection Enabled	Yes or No. Represents whether PAgP messaging over the MEC links to communicate between the two chassis through a neighbor switch is enabled or disabled.

Table 32-1 Redundancy System Details (continued)

Field Name	Description
Fast-hello Dual-active Detection Enabled	Yes or No. Represents whether hello messages over a backup Ethernet connection is enabled or disabled.
In Dual-active Recovery Mode	Yes or No. Represents whether BFD messaging over a backup Ethernet connection is enabled or disabled.
Configured Encryption Mode	ON or OFF. Represents whether the encryption mode is configured or not.
Operational Encryption Mode	ON or OFF. Represents whether the encryption mode is operational or not.
Associated Active Entity	Active chassis name linked to the active chassis.
Associated Standby Entity	Standby chassis name linked to the standby chassis.
VSL Interfaces Table	
Name	Name of the interface on which VSS is configured.
Associated Entity	Associated entity linked to the interface on which LAG and VSS are configured.
Status	Interface status: UP or DOWN

Viewing Switch Virtual Redundancy State in Physical Inventory

To view the virtual switch redundancy state in the physical inventory:

Step 1 In the Vision client, double-click the Cat 6500 VSS device to open the **Inventory** window.

Step 2 In the **Inventory** window, expand the Physical Inventory node.

Step 3 Click **Chassis** and click an SUP card.

Step 4 In the SUP card details window, the VSS redundancy state is displayed.

Figure 32-2 depicts the redundancy states of virtual switching system:

Figure 32-2 Redundancy States of Virtual Switching System

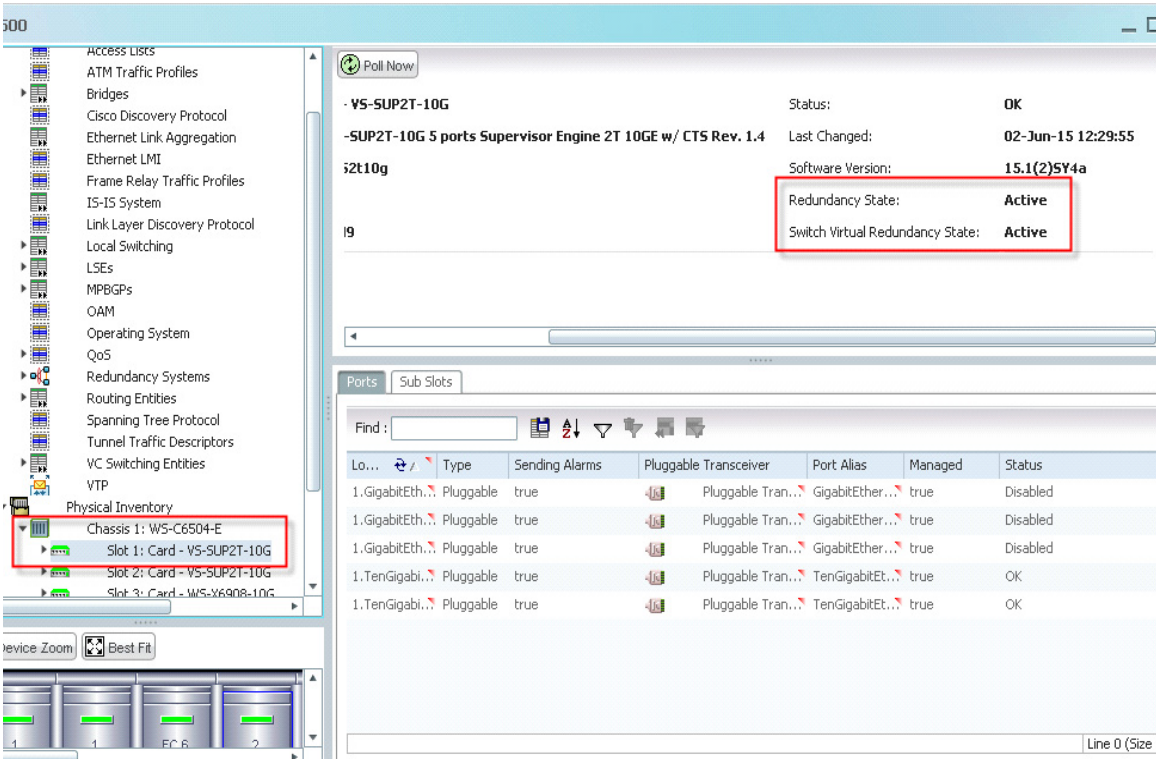


Table 32-2 describes the information displayed for the VSL link:

Table 32-2 Virtual Switch Virtual Redundancy State

Switch Virtual Redundancy State Value	Description
Active	This RP is in active state
Standby HOT (Chassis)	This RP is in standby state for this chassis (not ready to take over)
Standby HOT (Switchover Target)	This RP is in standby state and ready to take over
NA	Not Applicable as the system is not operating in VSS mode

Virtual Switch Link

Any device connected to VSS system, if there is a Virtual switch link (VSL) failure from the device to the first active chassis, then the system internally runs SSO and creates a VSL link with the second active chassis. Hence there is no network failure seen in the device connected to the VSS system.

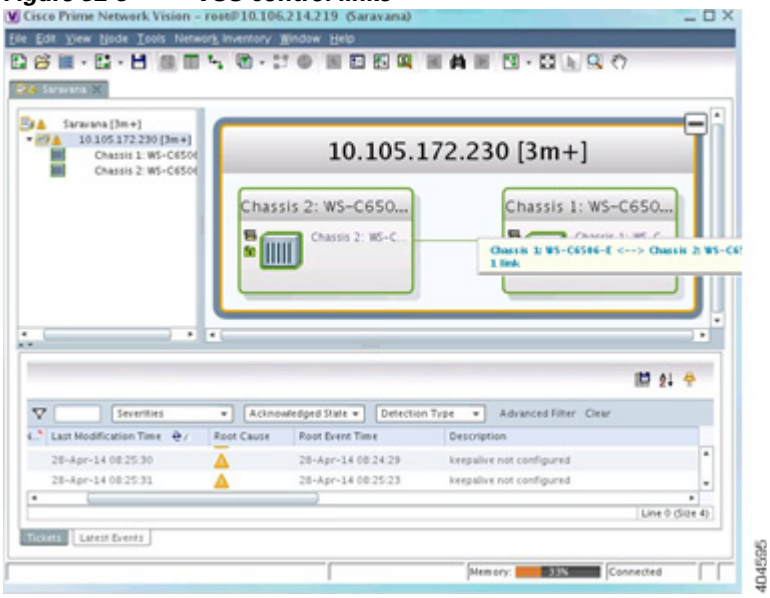
Viewing VSL Link Properties

To view the VSL link properties between two virtual switches:

Step 1 In the Vision client map view, select a link connected between two chassis in Cat 6500 VSS device and open the link quick view window.

Figure 32-3 depicts the VSS control links:

Figure 32-3 VSS control links



Step 2 In the link quick view window, click **Properties**.

Step 3 In the link **properties** window, select the VSL link to display the link properties.

Figure 32-4 depicts the link properties:

Figure 32-4 Link properties

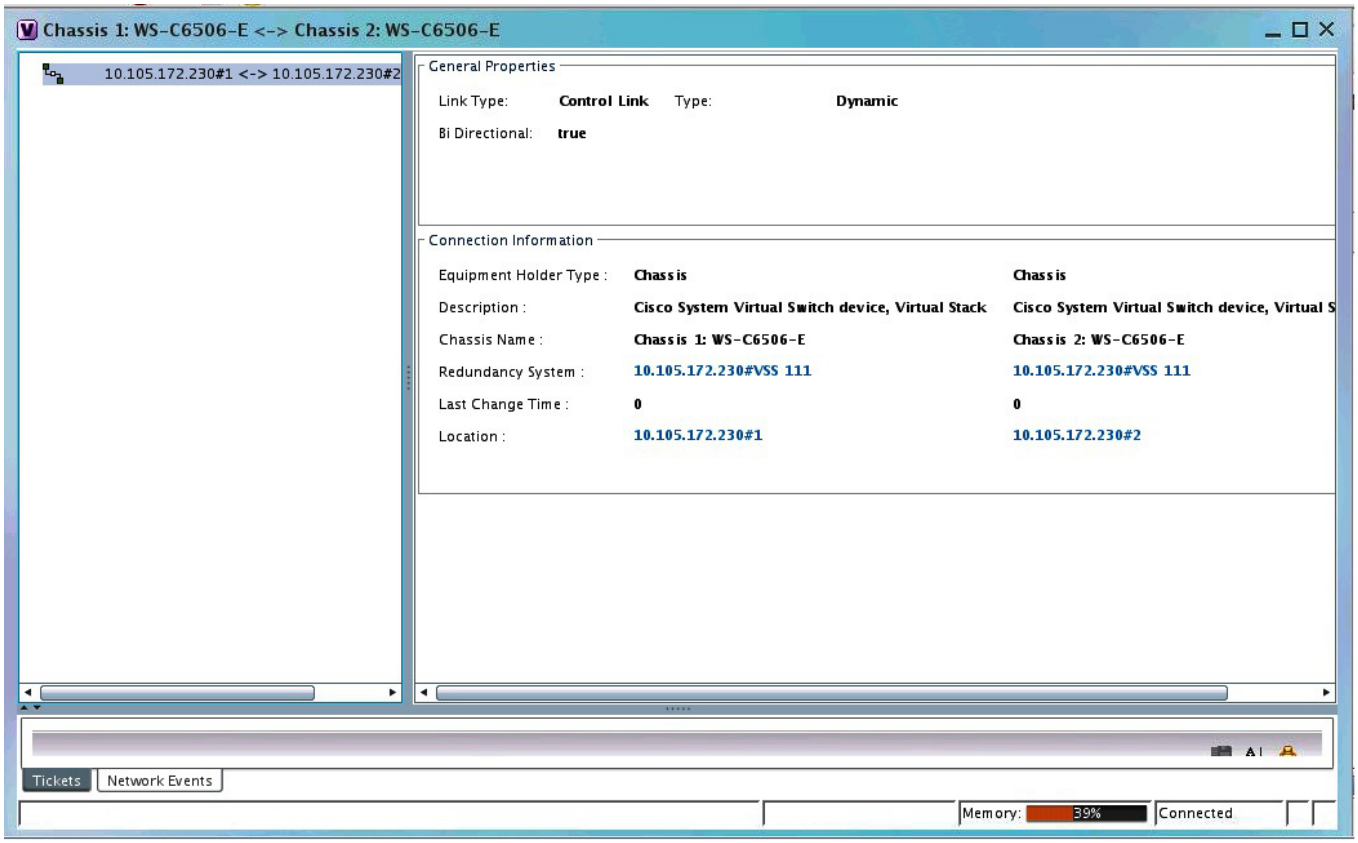


Table 32-3 describes the information that is displayed for the VSL link

Table 32-3 VSL Link Properties

Field Name	Description
General Properties	
Link Type	Link protocol. In this case, Control Link.
Type	Type of link: Dynamic or Static.
Bi Directional	Whether the link is bidirectional: True or False.
Connection Information	
Equipment Holder Type	Chassis
Chassis Name	Chassis names of the two virtual switches.
Description	Cisco System Virtual Switch device, virtual stack.
Redundancy System	Links to the associated redundancy system.
Location	Links to chassis of the associated virtual switches.

vssredundancysystem.html