



Configuring VLANs

This chapter describes how to configure VLANs on the CSM and contains these sections:

- [Configuring Client-Side VLANs, page 4-2](#)
- [Configuring Server-Side VLANs, page 4-3](#)

When you install the CSM in a Catalyst 6500 series switch, you need to configure client-side and server-side VLANs. (See [Figure 4-1](#).)

Client-side or a server-side VLAN terminology logically distinguishes the VLANs facing the client-side and the VLANs connecting to the servers or destination devices. However, CSM client and server VLANs function very similarly. For example, new connections can be received on a server VLAN, and then be load-balanced out to a client VLAN.

The differences between client-side and server-side VLANs are as follows:

- When configuring bridge mode, you cannot bridge two server VLANs or two client VLANs. You can only bridge a client and a server VLAN.
- Denial of service (DoS) protection features are more aggressive on the client side VLANs, especially when rate limiting control traffic is sent to the central processing unit.



Note

You must configure VLANs on the Catalyst 6500 series switch before you configure VLANs for the CSM. VLAN IDs must be the same for the switch and the module.

Figure 4-1 Configuring VLANs

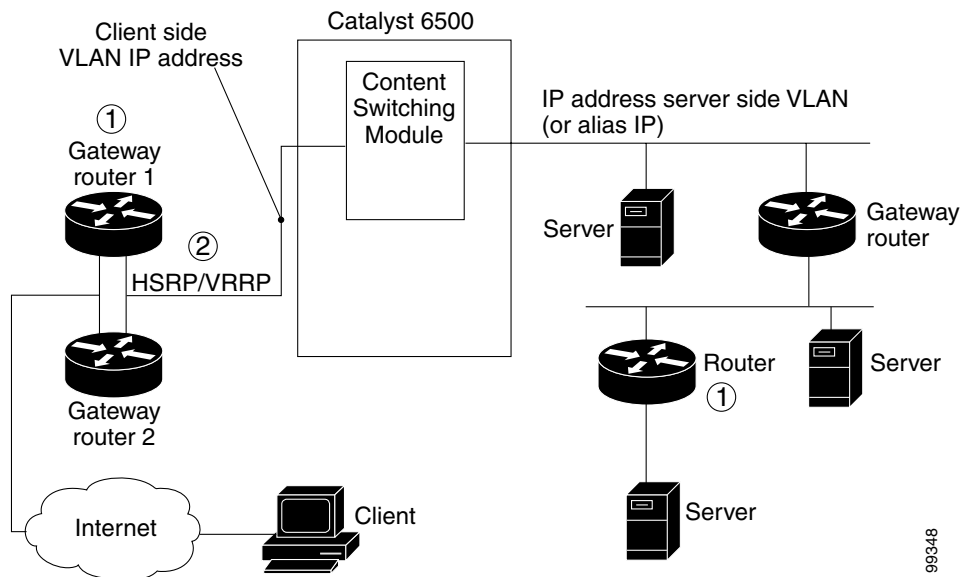


Diagram notes:

1— The CSM does not perform a Layer 3 lookup to forward traffic; the CSM cannot respond to ICMP redirects.

2— You can configure up to 7 gateways per VLAN for up to 511 client and server VLANs and up to 224 gateways for the entire system. If an HSRP gateway is configured, the CSM uses 3 of the 224 gateway entries because traffic can come from the virtual and physical MAC addresses of the HSRP group. (See the “Configuring HSRP” section on page 7-5.) The fault tolerant VLAN does not use an IP interface, so it does not apply toward the 512 VLAN limit.

Configuring Client-Side VLANs

To configure client-side VLANs, perform this task:



Caution

You cannot use VLAN 1 as a client-side or server-side VLAN for the CSM.

| | Command | Purpose |
|--------|---|--|
| Step 1 | Router(config-module-csm) # vlan <i>vlanid</i> client | Configures the client-side VLANs and enters the client VLAN mode ¹ . |
| Step 2 | Router(config-slb-vlan-client) # ip <i>ip-address netmask</i> | Configures an IP address to the CSM used by probes and ARP requests on this particular VLAN ² . |
| Step 3 | Router(config-slb-vlan-client) # gateway <i>ip-address</i> | Configures the gateway IP address. |

1. Enter the **exit** command to leave a mode or submode. Enter the **end** command to return to the menu's top level.
2. The **no** form of this command restores the defaults.

This example shows how to configure the CSM for client-side VLANs:

```
Router(config-module-csm)# vlan 130 client
Router(config-slb-vlan-client)# ip addr 123.44.50.6 255.255.255.0
Router(config-slb-vlan-client)# gateway 123.44.50.1
Router(config-slb-vlan-client)# exit
Router# show module csm vlan 1
```

Configuring Server-Side VLANs

To configure server-side VLANs, perform this task:

| | Command | Purpose |
|---------------|---|---|
| Step 1 | Router(config-module-csm)# vlan <i>vlanid</i> server | Configures the server-side VLANs and enters the server VLAN mode ¹ . |
| Step 2 | Router(config-slb-vlan-server)# ip <i>ip-address</i> <i>netmask</i> | Configures an IP address for the server VLAN ² . |
| Step 3 | Router(config-slb-vlan-server)# alias <i>ip-address netmask</i> | (Optional) Configures multiple IP addresses to the CSM as alternate gateways for the real server ³ . |
| Step 4 | Router(config-slb-vlan-server)# route <i>ip-address netmask gateway gw-ip-address</i> | Configures a static route to reach the real servers if they are more than one Layer 3 hop away from the CSM. |
| Step 5 | Router # show module csm slot <i>slot</i> vlan [<i>client</i> <i>server</i> <i>ft</i>] [<i>id vlan-id</i>] [<i>detail</i>] | Displays the client-side and server-side VLAN configurations. |

1. Enter the **exit** command to leave a mode or submenu. Enter the **end** command to return to the menu's top level.
2. The **no** form of this command restores the defaults.
3. The **alias** is required in the redundant configuration. (See the [Chapter 7, "Configuring Redundant Connections"](#).)

This example shows how to configure the CSM for server-side VLANs:

```
Router(config-module-csm)# vlan 150 server
Router(config-slb-vlan-server)# ip addr 123.46.50.6 255.255.255.0
Router(config-slb-vlan-server)# alias 123.60.7.6 255.255.255.0
Router(config-slb-vlan-server)# route 123.50.0.0 255.255.0.0 gateway 123.44.50.1
Router(config-slb-vlan-server)# exit
```

