

Managing Policies

Policies are access rules that traffic must match when load balancing to a server farm. Policies allow the CSM to balance Layer 7 traffic. Multiple policies can be assigned to one virtual server, creating multiple access rules for that virtual server.

When configuring policies, you must first configure the access rules (maps and / or client-groups) and then you combine these access rules under a particular policy.

This section includes the following topics:

- Viewing Policies, page 7-2
- Adding Policies, page 7-4
- Editing Policies, page 7-9
- Viewing Policy Nodes, page 7-13

Viewing Policies

Figure 7-1 Policies Page

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You can view all policies configured in the device.

To view policies:

- **Step 1** Click **Home** at the top of the page.
- Step 2 Click Policies under the Services Dashboard. Or:
- Step 1 Click Setup from the task bar, then click Policies in the left-most pane.
- Step 2 Select Policies from the object selector.

User Guide for CiscoView Device Manager for the Cisco Content Switching Module

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The following fields appear:

Field	Action/Description		
Policy Name	Policy associated with a virtual server. The string is limited to 15 characters.		
Conditions			
Cookie Map	Name of the cookie map associated with a policy. Only one Cookie map can be associated with a policy.		
URL Map	Name of the URL map associated with a policy. Only one URL map can be associated with a policy.		
Header Map	Name of the Header map associated with a policy. Only one Header map can be associated with a policy.		
Client Group	Client-group can be either standard access-list name or ID (from 1 to 99). Only one client-group can be associated with a given SLB policy.		
Action			
Server Farm	Name of the server farm associated to the real server. You		
Backup Server Farm	can choose one Server Farm and/or Backup Server Farm to associate to the Policy.		
Sticky Group	Number identifying the sticky group to which the virtual server belongs.		
Reverse Sticky	Ensures that CSM switches connections in the opposite direction back to the original source.		

From the main Policies page, you can access functions to do the following:

- Click **Add** to add new policies. For more information, see "Adding Policies" section on page 7-4.
- Click **Edit** to edit policies. For more information, see "Editing Policies" section on page 7-9.
- Select a row and click **Delete** to delete policies.

Adding Policies

You can add a policy, and you can associate one map of each type and one Sticky group to the policy.

To create new policies:

Step 1 Click Home a	at the top of the page.
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- Step 2 Click Policies under Services Dashboard.
- Step 3 Click Add to add policies.

Or:

- Step 1 Click Setup from the task bar, then click Policies in the left-most pane.
- Step 2 Select Policies from the object selector.
- Step 3 Click Add to add policies. The following fields appear:

Field	Description			
Policy Name	Enter the policy associated with a virtual server. The string is limited to 15 characters.			
Cookie Map	From the list, select the name of the cookie map to be associated with the policy. Only one Cookie map can be associated with a policy.			
	Click \bigtriangledown and select one of the following:			
	• Select Cookie Map to select from a list of configured Cookie Maps.			
	• Create Cookie Map to create a Cookie Map. For more information on creating Cookie Maps, see "Adding a Cookie Map" section on page 8-9.			
	• Clear Cookie Map to clear the field.			
URL Map	From the list, select the name of the URL map to be associated with the policy. Only one URL map can be associated with a policy			
	Click \bigtriangledown and select one of the following:			
	• Select URL Map to select from a list of configured URL Maps.			
	• Create URL Map to create a URL Map. For more information on creating URL Maps, see "Adding a URL Map" section on page 8-23.			
	• Clear URL Map to clear the field.			

Field	Description			
Header Map	From the list, select the name of the Header map to be associated with the policy. Only one Header map can be associated with a policy.			
	Click \bigtriangledown and select one of the following:			
	• Select Header Map to select from a list of configured Header Maps.			
	• Create Header Map to create a Header Map. For more information on creating Header Maps, see "Adding a Header Map" section on page 8-26.			
	• Clear Header Map to clear the field.			
Client Group	From the list, select the client group number or name. Only one client-group can be associated with a given server-load balancing (SLB) policy.			
	Click \bigtriangledown and select one of the following:			
	• Create Client Group to create a Client group. Enter the Client group ID or Name.			
	• Clear Client Group to clear the Client group.			
Server Farm				
Server Farm	From the list, select the name of the server farm associated to the real server. You can choose one Server Farm to associate to the Policy.			
	Click \bigtriangledown and select one of the following:			
	• Select Server Farms to select from a list of configured Server Farms.			
	• Create Server Farms to create the Server Farms. For more information on creating Server Farms, see "Adding Server Farms" section on page 5-4.			
	• Clear Server Farms to clear the field.			

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Field	Description			
Backup Server Farm	From the list, select the name of the backup server farm associated to the real server. You can choose one Backup Server Farm to associate to the Policy.			
	Click \bigtriangledown and select one of the following:			
	• Select Server Farms to select from a list of configured Backup Server Farms.			
	• Create Server Farms to create the Backup Server Farm. For more information on creating Backup Server Farm, see "Adding Server Farms" section on page 5-4.			
	• Clear Server Farms to clear the field.			
Sticky	Select this check box to ensure that connections from the same client that match the same SLB policy use the same real server on subsequent connections.			
Sticky Group				

Field	Description				
Sticky Group	From the list, select the number identifying the sticky group to which the virtual server belongs.				
	The range is from 0 to 255.				
	Click \bigtriangledown and select one of the following:				
	• Select Sticky Groups to select from a list of configured Sticky Groups.				
	• Create Sticky Groups to create Sticky Groups. For more information on creating Sticky Groups, see "Adding a Sticky Group" section on page 9-5.				
	• Clear Sticky Groups to clear the field.				
Reverse Sticky Group	From the list, select the number identifying the reverse sticky group to which the virtual server belongs.				
	The range is from 0 to 255.				
	Click \bigtriangledown and select one of the following:				
	• Select Sticky Groups to select from a list of configured Sticky Groups.				
	• Create Sticky Groups to create Sticky Groups. For more information on creating Sticky Groups, see "Adding a Sticky Group" section on page 9-5.				
	• Clear Sticky Groups to clear the field.				

Editing Policies

To edit policies:

Step 1	Click Home at the top of the page.
Step 2	Click Policies under Services Dashboard.
Step 3	Select a row in the table and click Edit to launch Edit dialog for the selected Policy.
	Or:
Sten 1	Click Setun from the task bar, then click Policies in the left-most pape
	Check Setup from the task bal, then check i oneres in the fert most pane.
Step 2	Select Policies from the object selector.
Step 3	Select a row in the table and click Edit to launch Edit dialog for the selected Policy.
	The following fields appear:

Field	Description				
Policy Name	Name of the policy associated with a virtual server. The string is limited to 15 characters.				
Cookie Map	From the list, select the name of the cookie map associated with a policy. Only one Cookie map can be associated with a policy.				
	Click \bigtriangledown and select one of the following:				
	• Select Cookie Map to select from a list of configured cookie maps.				
	• Create Cookie Map to create a Cookie Map. For more information on creating Cookie Maps, see "Adding a Cookie Map" section on page 8-9.				
	• Clear Cookie Map to clear the field.				
URL Map	From the list, select the name of the URL map associated with a policy. Only one URL map can be associated with a policy.				
	Click \bigtriangledown and select one of the following:				
	• Select URL Map to select from a list of configured URL Maps.				
	• Create URL Map to create a URL Map. For more information on creating URL Maps, see "Adding a URL Map" section on page 8-23.				
	• Clear URL Map to clear the field.				
Header Map	From the list, select the name of the Header map associated with a policy. Only one Header map can be associated with a policy.				
	Click \bigtriangledown and select one of the following:				
	• Select Header Map to select from a list of configured Header Maps.				
	• Create Header Map to create a Header Map. For more information on creating Header Maps, see "Adding a Header Map" section on page 8-26.				
	• Clear Header Map to clear the field.				

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Field	Description			
Client Group	From the list, select the client group number or name. Only one client-group can be associated with a given server-load balancing (SLB) policy.			
	Click \bigtriangledown and select one of the following:			
	• Create Client group to create a Client group. Enter the Client group ID.			
	• Clear Client group to clear the Client group.			
Server Farm				
Server Farm	From the list, select the name of the server farm associated to the real server. You can choose one Server Farm to associate to the Policy.			
	Click \bigtriangledown and select one of the following:			
	• Select Server Farms to select from a list of configured Server Farms.			
	• Create Server Farms to create the Server Farms. For more information on creating Server Farms, see "Adding Server Farms" section on page 5-4.			
	• Clear Server Farms to clear the field.			
Backup Server Farm	From the list, select the name of the backup server farm associated to the real server. You can choose one Backup Server Farm to associate to the Policy.			
	Click \bigtriangledown and select one of the following:			
	• Select Server Farms to select from a list of configured Backup Server Farms.			
	• Create Server Farms to create the Backup Server Farm. For more information on creating Backup Server Farm, see "Adding Server Farms" section on page 5-4.			
	• Clear Server Farms to clear the field.			
Sticky	Select this to ensure that connections from the same client that match the same SLB policy use the same real server on subsequent connections.			
Sticky Group				

Field	Description			
Sticky Group	From the list, select the number identifying the sticky group to which the virtual server belongs.			
	Click \bigtriangledown and select one of the following:			
	• Select Sticky Groups to select from a list of configured Sticky Groups.			
	• Create Sticky Groups to create Sticky Groups. For more information on creating Sticky Groups, see "Adding a Sticky Group" section on page 9-5.			
	• Clear Sticky Groups to clear the field.			
Reverse Sticky Group	From the list, select the number identifying the reverse sticky group to which the virtual server belongs.			
	Click \bigtriangledown and select one of the following:			
	• Select Sticky Groups to select from a list of configured Sticky Groups.			
	• Create Sticky Groups to create Sticky Groups. For more information on creating Sticky Groups, see "Adding a Sticky Group" section on page 9-5.			
	• Clear Sticky Groups to clear the field.			

Viewing Policy Nodes

You can view all policies configured in the device.

Figure 7-2 Policy Node Page

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To view policies:

- **Step 1** Click **Home** at the top of the page.
- Step 2 Click Policies under Services Dashboard.
- Step 3 Click any of the Policy nodes.

Or:

- Step 1 Click Setup from the task bar, then click Policies in the left-most pane.
- **Step 2** Select **Policies** from the object selector. Click any of the Policy nodes.

The following tabs appear:

- Conditions And Action
- Virtual Servers

Conditions And Action

Click **Conditions and Action** to see the various conditions and their actions. The fields under the Conditions table will change when you select the different maps and client groups.

When you click **Maps**, you will see a table with a summary of details of all the associated maps like map type, name, and the number of map conditions. You can associate the different types of maps when you click **Cookie Maps**, **Header Maps**, or **URL Maps** under **Maps**.

The following fields appear when you click Maps:

Field	Description
Мар Туре	Specifies if it a Cookie, Header or a URL type map.
Map Name	Name of the map.
Number of Match Conditions	Specifies the total number of match conditions.



When you click the Map tree, a list of maps and icons are displayed. The icons have a color status display, for example, the icons are white by default. When you associate a map to it, it turns green. This icon is displayed for all the three types of maps, such as, Cookie, Header, and URL maps.

You have the following types of Conditions:

- Cookie Maps
- Header Maps

- URL Maps
- Client Group

Cookie Maps

From the **Conditions** tab, when you choose the **Cookie Maps** the following fields appear:

Field	Description	
Cookie Map	Name of the cookie map associated with the policy selected in the object selector.	
	Click \bigtriangledown and select one of the following:	
	• Select Cookie Map to select from a list of configured Cookie Maps.	
	• Create Cookie Map to create Cookie Maps. For more information on creating Cookie Maps, see "Adding a Cookie Map" section on page 8-9.	
	• Clear Cookie Map to clear the field.	
Cookie Name	Cookie Name String. This is limited to 15 characters.	
Cookie Value	Cookie Value	

From this page, you can access functions to do the following:

- Click Add to add new match conditions by entering the name and value.
- Click **Edit** to edit match conditions.
- Select a match condition and click **Delete** to delete it.

Header Maps

From the **Conditions** tab, when you choose the **Header Maps** the following fields appear:

Field	Description
Header Map	Click \bigtriangledown and select one of the following:
	• Select Header Map to select from a list of configured Header Maps.
	• Create Header Map to create Header Maps. For more information on creating Header Maps, see "Adding a Header Map" section on page 8-26.
	• Clear Header Map to clear the field.
Header Name	The Header name. The string is limited to 15 characters.
Header Value	The Header Value.

From this page, you can access functions to do the following:

- Click **Add** to add new header fields and values by entering the name and value.
- Click **Edit** to edit the header fields and values.
- Select a row and click **Delete** to delete it.

URL Maps

From the **Conditions** tab, when you choose the **URL Maps** the following fields appear:

Field	Description
URL Map	Click <i>∇</i> and select one of the following:
	• Select URL Map to select from a list of configured URL Maps.
	• Create URL Map to create URL Maps. For more information on creating URL Maps, see "Adding a URL Map" section on page 8-23.
	• Clear URL Map to clear the field.
URL Method	Specifies the method in incoming HTTP requests.
URL	Specifies the URL in incoming HTTP requests.

From this page, you can access functions to do the following:

- Click Add to add new URL expressions by entering the name and value.
- Click Edit to edit the URL expressions.
- Select a row and click **Delete** to delete it.

Client Group

From the **Conditions** tab, when you choose the **Client Group** the following fields appear:

Field	Description	
Client Group	Client-group can be either standard access-list name or ID (from 1 to 99). Only one client group can be associated with a given server-load balancing (SLB) policy.	
	Click \bigtriangledown and select one of the following:	
	• Create Client Group to create Client Group by entering the Client Group ID.	
	• Clear Client Group to clear the field.	

Action

The following tabs appear under the Actions section:

- Server Farms and Backup Server Farms
- Sticky Group
- Reverse Sticky Group

Server Farms and Backup Server Farms



You can configure a Backup Server Farm only after you configure a Server Farm.

Click **Server Farms** and/or **Backup Server Farms** to view all the Server Farms and Backup Server Farm that are associated to this policy.

The following fields appear:

Field	Description
Server Farm/Backup Server Farm	You can choose one Server Farm and/or Backup Server Farm to associate to the Policy.
	 Click and select one of the following: Select Server Farm to select from a list of configured Server Farms.
	• Create Server Farm to create Server Farms or Backup Server Farms. For more information on creating Server Farms, see "Adding Server Farms" section on page 5-4.
	• Clear Server Farm to clear the field.

From this dialog, you can access functions to do the following:

• Click Add and do one of the following:

- Select Create Named Real Server to create a named real server. For more information, see "Adding Named Real Server" section on page 5-17.
- Select Create Unnamed Real Server to create an unnamed real server. For more information, see "Adding Unnamed Real Server" section on page 5-20.
- Select a Real Server and click Edit to edit the configuration values.
- Select a Real Server and click **Delete** to delete the Real Server.

For more information on Server Farms, see "Viewing Server Farms" section on page 5-2.

Sticky Group

Click **Sticky Groups** to view all the sticky groups that are associated to this policy.

The following fields appear:

Field	Description	
Sticky Groups	Number identifying the sticky group to which the virtual server belongs. The range is from 0 to 255.	
	Click \bigtriangledown and select one of the following:	
	• Select Sticky Groups to select from a list of configured Sticky Groups.	
	• Create Sticky Groups to create Sticky Groups. For more information on creating Sticky Groups, see "Adding a Sticky Group" section on page 9-5.	
	• Clear Sticky Groups to clear the field.	
Туре	Type of Sticky Group.	
Timeout	Time in seconds to wait before a connection is considered unreachable.	

Reverse Sticky Group

Click **Reverse Sticky Groups** to view all the Sticky Group that are associated to this policy.

The following fields appear:

Field	Description
Reverse Sticky Groups	Number identifying the sticky group to which the virtual server belongs. The range is from 0 to 255.
	Click \bigtriangledown and select one of the following:
	• Select Sticky Groups to select from a list of configured Sticky Groups.
	• Create Sticky Groups to create Sticky Groups. For more information on creating Sticky Groups, see "Adding a Sticky Group" section on page 9-5.
	• Clear Sticky Groups to clear the field.
Туре	Type of reverse sticky group.
Timeout	Time in seconds to wait before a connection is considered unreachable.

Virtual Servers

Click the **Virtual Servers** tab to view the details of all the virtual servers to which the policy selected in the object selector is associated to. For more information on Virtual Servers, see "Viewing Virtual Servers" section on page 4-2.