Static Route Configuration

Contents

Chapter 1 Static Route Configuration

1.1 Preface

S4330 is an ASIC-based Gigabit intelligent switch, in which a layer-3 forwardin g and routing table is maintained to specify the next hops of routes and rele vant information. These routes may be learned dynamically through routing pr otocols or added manually. A static route is a route to an address or a netw ork segment which is configured manually.

1.2 Static Route Configuration

1.2.1 Configuring a Static Route

Table 1-1 Static route configuration tasks

Configuration Task		Description	Details
Adding/Deleting a static routing entr y	Adds a static routing entry.	Mandatory	1.2.2
	Deletes a static routing entry.	Mandatory	1.2.2
Displaying a routing entry	Displays a specified routing entry.	Mandatory	1.2.3
	Displays an ECMP routing entry.	Optional	1.2.3

1.2.2 Adding/Deleting a Static Route

Table 1-2 Basic static route configuration

Operation	Command	Remarks
Enters the global configuration mode.	**ip route** dst-ip mask gate-ip	
Enters the global configuration mode.	**no ip route dst-ip** mask [gate-ip] **no ip route static all**	

Notes:

gate-ip: next-hop IP address of a static route, in dotted decimal notation;

dst-ip: destination address of a static route to be added, in dotted decimal notation;

mask: mask of the destination address, in dotted decimal notation.

1.2.3 Displaying Routing Entries

This command displays the information relevant to the specified routing entry, such as the next-hop address and route type. You can choose to view the r outes to a specific destination address, all static routes, and all routes. By de fault, all routes will be displayed.

Table 1-3 Displaying static route configuration

Operation	Command	Remarks
Enters the all commands mode.	**show ip route** [*ip-address* [*mask*] | static | rip | ospf]	
Enters the all commands mode.	**show ip route ecmp**[*ip-address* [*mask*] | static | rip |ospf]	

Parameter description:

ip-address: destination address, in dotted decimal notation;

mask: accompany an IP address to specify a destination network segment, in dotted decimal notation;

static: to display all static routing entries;

rip: to display all RIP routing entries;

ospf: to display all OSPF routing entries

1.2.4 Configuration Examples

! To add a route with the next-hop address as 10.11.0.254 to network segment 192.168.0.100, run the following command:

Switch(config)#ip route 192.168.0.100 255.255.0.0 10.11.0.254

! To delete a route to network segment 192.168.0.100, run the following command:

Switch(config)#no ip route 192.168.0.100 255.255.0.0

! To delete all the static routes, run the following command:

Switch(config)#no ip route static all

! To display the ECMP routes to 192.168.0.100, run the following command:

Switch(config)#show ip route ecmp 192.168.0.100

! To display all the ECMP routes, run the following command:

Switch(config)#show ip route ecmp

! To display all the ECMP routes over RIP, run the following command:

Switch(config)#show ip route ecmp rip

! To display all the ECMP routes over OSPF, run the following command:

Switch(config)#show ip route ecmp ospf

! To display the routes to 192.168.0.100, run the following command:

Switch(config)#show ip route 192.168.0.100

! To display the information of all the routing tables, run the following command:

Switch(config)#show ip route

! To display the information of all the RIP routing tables, run the following command:

Switch(config)#show ip route rip

! To display the information of all the OSPF routing tables, run the following command:

Switch(config)#show ip route ospf