show ip slb conns

To display the active IOS Server Load Balancing (IOS SLB) connections (or sessions, in GPRS load balancing and the Home Agent Director), use the **show ip slb conns** command in privileged EXEC mode.

show ip slb conns [**vserver** *virtual-server* | **client** *ip-address* | **firewall** *firewall-farm*] [**detail**]

Syntax Description

vserver *virtual-server*	(Optional) Displays only those connections (or sessions, in GPRS load balancing and the Home Agent Director) associated with the specified virtual server.
client *ip-address*	(Optional) Displays only those connections (or sessions, in GPRS load balancing and the Home Agent Director) associated with the specified client IP address.
firewall *firewall-farm*	(Optional) Displays only those connections (or sessions, in GPRS load balancing and the Home Agent Director) associated with the specified firewall farm.
detail	(Optional) Displays detailed information about the connection (or session, in GPRS load balancing and the Home Agent Director).

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.0(7)XE	This command was introduced.
12.1(5)T	This command was integrated into Cisco IOS Release 12.1(5)T.
12.2	This command was integrated into Cisco IOS Release 12.2.
12.1(7)E	The **firewall** keyword and *firewall-farm* argument were added.
12.2(14)S	This command was integrated into Cisco IOS Release 12.2(14)S.
12.2(18)SXE	This command was integrated into Cisco IOS Release 12.2(18)SXE.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.

Usage Guidelines

If no options are specified, the command displays output for all active IOS SLB connections (or sessions, in GPRS load balancing and the Home Agent Director).

Examples

The following is sample output from the **show ip slb conns** command:

```
Router# show ip slb conns

vserver          prot   client               real                 state
---------------------------------------------------------------------------
TEST             TCP    10.150.72.183:328    10.80.90.25:80       INIT
TEST             TCP    10.250.167.226:423   10.80.90.26:80       INIT
TEST             TCP    10.234.60.239:317    10.80.90.26:80       ESTAB
TEST             TCP    10.110.233.96:747     10.80.90.26:80       ESTAB
```

```
TEST            TCP    10.162.0.201:770      10.80.90.30:80        CLOSING
TEST            TCP    10.22.225.219:995     10.80.90.26:80        CLOSING
TEST            TCP    10.2.170.148:169      10.80.90.30:80        ZOMBIE
```

Table 19 describes the fields shown in the display.

Table 19 show ip slb conns Field Descriptions

Field	Description
vserver	Name of the virtual server associated with the connection (or session, in GPRS load balancing and the Home Agent Director).
prot	Protocol being used by the connection (or session, in GPRS load balancing and the Home Agent Director).
client	Client IP address associated with the connection (or session, in GPRS load balancing and the Home Agent Director).
real	Real server IP address associated with the connection (or session, in GPRS load balancing and the Home Agent Director).
state	Current state of the connection (or session, in GPRS load balancing and the Home Agent Director). • CLOSING—The connection is closing. • ESTAB—The connection has been established and is operational. • INIT—The connection is being initialized. • ZOMBIE—The connection is currently pending destruction (awaiting a timeout or some other condition to be met).

show ip slb dfp

To display Dynamic Feedback Protocol (DFP) manager and agent information, such as passwords, timeouts, retry counts, and weights, use the **show ip slb dfp** command in privileged EXEC mode.

show ip slb dfp [**agent** *agent-ip port* | **manager** *manager-ip* | **detail** | **weights**]

Syntax Description

agent	(Optional) Displays information about an agent.
agent-ip	(Optional) Agent IP address.
port	(Optional) Agent TCP or User Datagram Protocol (UDP) port number.
manager	(Optional) Displays information about the specified manager.
manager-ip	(Optional) Manager IP address.
detail	(Optional) Displays all data available.
weights	(Optional) Displays information about weights assigned to real servers for load balancing.

Defaults

If no options are specified, the command displays summary information.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.0(7)XE	This command was introduced.
12.1(5)T	This command was integrated into Cisco IOS Release 12.1(5)T.
12.2	This command was integrated into Cisco IOS Release 12.2.
12.1(5a)E	The **manager** keyword and *manager-ip* argument were added.
12.2(14)S	This command was integrated into Cisco IOS Release 12.2(14)S.
12.2(18)SXE	This command was integrated into Cisco IOS Release 12.2(18)SXE.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.

Usage Guidelines

If no options are specified, the command displays summary information.

Examples

The following sample output from the **show ip slb dfp** command displays high-level information about all DFP agents and managers:

```
Router# show ip slb dfp
DFP Manager:
      Current passwd:NONE Pending passwd:NONE
      Passwd timeout:0 sec

Agent IP          Port    Timeout   Retry Count   Interval
-------------------------------------------------------------
172.16.2.34       61936   0         0             180 (Default)
```

Table 20 describes the fields shown in the display.

Table 20 show ip slb dfp Field Descriptions

Field	Description
DFP Manager	Indicates that the following information applies to the DFP manager.
Current passwd	Current password for the DFP manager, if any.
Pending passwd	Pending password for the DFP manager, if any.
Passwd timeout	For the DFP manager, delay period, in seconds, during which both the current password and the pending password are accepted.
Agent IP	IP address of the agent about which information is being displayed.
Port	TCP or UDP port number of the agent. The valid range is 1 to 65535.
Timeout	Time period, in seconds, during which the DFP manager must receive an update from the DFP agent. A value of 0 means there is no timeout.
Retry Count	Number of times the DFP manager attempts to establish the TCP connection to the DFP agent. A value of 0 means there are infinite retries.
Interval	Interval, in seconds, between retries.

The following example displays detailed information about DFP agents and managers:

```
Router# show ip slb dfp detail
DFP Manager
      Current passwd <none> Pending passwd <none>
      Passwd timeout 0 sec
      Unexpected errors 0
% No DFP Agents configured
```

Table 21 describes the fields shown in the display.

Table 21 show ip slb dfp detail Field Descriptions

Field	Description
DFP Manager	Indicates that the following information applies to the DFP manager.
Current passwd	Current DFP password for MD5 authentication.
Pending passwd	Pending new DFP password for MD5 authentication.
Passwd timeout	Delay period, in seconds, during which both the current password and the pending password are accepted.
Unexpected errors	Number of unexpected errors encountered by the DFP manager.
No DFP Agents configured	Indicates that there are no DFP agents associated with the DFP manager.

The following example displays detailed information about DFP manager 10.0.0.0:

```
Router# show ip slb dfp manager 10.0.0.0
DFP Manager 10.0.0.0 Connection state Connected
   Timeout = 20
   Last message sent 033537 UTC 01/02/00
```

Table 22 describes the fields shown in the display.

Table 22 show ip slb dfp manager Field Descriptions

Field	Description
DFP Manager	Indicates that the following information applies to the DFP manager.
Connection state	Current connection state of the DFP manager.
Timeout	Time period, in seconds, during which the DFP manager must receive an update from the DFP agent. A value of 0 means there is no timeout.
Last message sent	Date and time of the last message sent by the DFP manager.

The following example displays detailed information about weights assigned to real servers for load balancing:

```
Router# show ip slb dfp weights
Real IP Address 10.0.10.10 Protocol TCP Port 22 Bind_ID 111 Weight 111
      Set by Agent 172.16.2.3458490 at 132241 UTC 12/03/99
Real IP Address 10.17.17.17 Protocol TCP Port www Bind_ID 1 Weight 1
      Set by Agent 172.16.2.3458490 at 132241 UTC 12/03/99
Real IP Address 10.68.68.68 Protocol TCP Port www Bind_ID 4 Weight 4
      Set by Agent 172.16.2.3458490 at 132241 UTC 12/03/99
Real IP Address 10.85.85.85 Protocol TCP Port www Bind_ID 5 Weight 5
      Set by Agent 172.16.2.3458490 at 132241 UTC 12/03/99
```

Table 23 describes the fields shown in the display.

Table 23 show ip slb dfp weights Field Descriptions

Field	Description
Real IP Address	IP address of the real server for which weight is reported.
Protocol	Protocol used for the port.
Port	Port for which the following bind ID is being reported.
Bind_ID	Bind ID of this instance of the real server.
Weight	Weight calculated for the real IP address.
Set by Agent	Agent that set the weight, and the date and time the weight was set.

show ip slb firewallfarm

To display firewall farm information, use the **show ip slb firewallfarm** command in privileged EXEC mode.

show ip slb firewallfarm [**detail**]

Syntax Description

detail	(Optional) Displays detailed information.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.1(3a)E	This command was introduced.
12.2(14)S	This command was integrated into Cisco IOS Release 12.2(14)S.
12.2(18)SXE	This command was integrated into Cisco IOS Release 12.2(18)SXE.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.

Examples

The following is sample output from the **show ip slb firewallfarm** command:

```
Router# show ip slb firewallfarm

firewall farm    hash        state         reals
-------------------------------------------------
FIRE1            IPADDR      OPERATIONAL     2
```

Table 24 describes the fields shown in the display.

Table 24 show ip slb firewallfarm Field Descriptions

Field	Description
firewall farm	Name of the firewall farm.
hash	Load-balancing algorithm used to select a firewall for the firewall farm: • IPADDR—Uses the source and destination IP addresses in the algorithm. • IPADDRPORT—Uses the source and destination TCP or User Datagram Protocol (UDP) port numbers, in addition to the source and destination IP addresses, in the algorithm. See the **predictor hash address (firewall farm)** command for more details.

Table 24 show ip slb firewallfarm Field Descriptions (continued)

state	Current state of the firewall farm: • OPERATIONAL—Functioning properly. • OUTOFSERVICE—Removed from the load-balancing predictor lists. • STANDBY—Backup firewall farm, ready to become operational if the active firewall farm fails.
reals	Number of firewalls that are members of the firewall farm.

show ip slb fragments

To display information from the Cisco IOS Server Load Balancing (IOS SLB) fragment database, use the **show ip slb fragments** command in privileged EXEC mode.

show ip slb fragments

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.1(11b)E	This command was introduced.
12.2(14)S	This command was integrated into Cisco IOS Release 12.2(14)S.
12.2(18)SXE	This command was integrated into Cisco IOS Release 12.2(18)SXE.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.

Examples

The following sample output from the **show ip slb fragments** command shows fragment information for virtual server 10.11.11.11:

```
Router# show ip slb fragments

ip src          id    forward         src nat         dst nat
-----------------------------------------------------------------------
10.11.2.128     12    10.11.2.128     10.11.11.11     10.11.2.128
10.11.2.128     13    10.11.2.128     10.11.11.11     10.11.2.128
10.11.2.128     14    10.11.2.128     10.11.11.11     10.11.2.128
10.11.2.128     15    10.11.2.128     10.11.11.11     10.11.2.128
10.11.2.128     16    10.11.2.128     10.11.11.11     10.11.2.128
```

Table 25 describes the fields shown in the display.

Table 25 show ip slb fragments Field Descriptions

Field	Description
ip src	Source IP address of the fragment.
id	IP ID of the fragment, set by the packet originator.
forward	IP address to which the fragment is being forwarded.
src nat	If using Network Address Translation (NAT), new source IP address after NAT.
dst nat	If using NAT, new destination IP address after NAT.

show ip slb gtp

To display IOS Server Load Balancing (IOS SLB) general packet radio service (GPRS) Tunneling Protocol (GTP) information, use the **show ip slb gtp** command in privileged EXEC mode.

show ip slb gtp {**gsn** [*gsn-ip-address*] | **nsapi** [*nsapi-key*] [**detail**]}

Syntax Description

gsn	(Optional) Displays IOS SLB database information for the specified gateway GPRS support node (GGSN) or serving GPRS support node (SGSN).
gsn-ip-address	(Optional) IP address of the GGSN or SGSN for which information is to be displayed. If you do not specify a *gsn-ip-address*, IOS SLB displays information for all GGSNs and SGSNs.
nsapi	(Optional) Displays IOS SLB database information for the specified Network Service Access Point Identifier (NSAPI).
nsapi-key	(Optional) Key of the NSAPI for which information is to be displayed. If you do not specify an *nsapi-key*, IOS SLB displays information for all NSAPIs.
detail	(Optional) Displays additional, more detailed information.

Defaults

If you specify **gsn** and you do not specify a *gsn-ip-address*, IOS SLB displays information for all GGSNs and SGSNs.
If you specify **nsapi** and you do not specify an *nsapi-key*, IOS SLB displays information for all NSAPIs.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.1(13)E3	This command was introduced.
12.2(18)SXE	This command was integrated into Cisco IOS Release 12.2(18)SXE.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.

Examples

The following is sample output from the **show ip slb gtp gsn** command for a specific GGSN or SGSN:

```
Router# show ip slb gtp gsn 10.0.0.0

type ip              recovery-ie  purging
-----------------------------------------
SGSN 10.0.0.0 UNKNOWN      N
```

Table 26 describes the fields shown in the display.

Table 26 show ip slb gtp gsn Field Descriptions

Field	Description
type	Type of GSN (either GGSN or SGSN).

Table 26 show ip slb gtp gsn Field Descriptions (continued)

ip	IP address of the GGSN or SGSN.
recovery-ie	Last seen recovery IE for this GGSN or SGSN.
purging	Indicates whether Packet Data Protocol (PDP) contexts belonging to this GGSN or SGSN are being purged as a result of path failure: • **Y (Yes)**—PDP contexts are being purged. • **N (No)**—PDP contexts are not being purged.

The following is sample output from the **show ip slb gtp nsapi** command:

```
Router# show ip slb gtp nsapi

nsapi key        real                  nsapi count session count
-----------------------------------------------------------------
11111111111111F1 172.16.0.0 1          1
```

The following is sample output from the **show ip slb gtp nsapi** command for a specific NSAPI key:

```
Router# show ip slb gtp nsapi 11111111111111F1

nsapi key        real                  nsapi count session count
-----------------------------------------------------------------
11111111111111F1 172.16.0.0 1          1
```

Table 27 describes the fields shown in the display.

Table 27 show ip slb gtp nsapi Field Descriptions

Field	Description
nsapi key	Key for the session. This is the IMSI.
real	Real server to which the session is assigned.
nsapi count	Number of NSAPIs bound to the session. This is the number of PDP contexts (mobile sessions) on the GGSN associated with the IMSI.
session count	Number of sessions to which the NSAPI is currently bound. Normally, the NSAPI is bound to one session, but it is bound to two sessions in transition during an update.

The following is sample output from the **show ip slb gtp nsapi detail** command:

```
Router# show ip slb gtp nsapi detail

IMSI key = 11111111111111F1, real = 172.16.0.1, nsapi count = 1, session count = 1
no vserver          key              client                 state      seq
-------------------------------------------------------------------------------
5  SERVER1          0009E8810009E881 10.0.0.0:2123        GTP_INIT   0
```

Table 28 describes the fields shown in the display.

Table 28 show ip slb gtp nsapi detail Field Descriptions

Field	Description
IMSI key	IMSI key for the session.
real	Real server to which the session is assigned.
nsapi count	Number of NSAPIs bound to the session. This is the number of PDP contexts (mobile sessions) on the GGSN associated with this IMSI.
session count	Number of sessions to which the NSAPI is currently bound. Normally, the NSAPI is bound to one session, but it is bound to two sessions in transition during an update.
no	NSAPI number.
vserver	Name of the virtual server.
key	Session key.
client	SGSN IP address and port number.
state	State of the session. Possible states are: • **GTP_ESTAB**—The session has been established successfully. • **GTP_INIT**—The PDP contexts have been deleted as a result of a delete request or a deletion in GGSN, and IOS SLB is waiting to destroy the session after the GTP_TIMEOUT. • **GTPIO_REQ_CLIENT**—Waiting for a response from the real server.
seq	Sequence number in the last delete request.

show ip slb map

To display information about IOS SLB protocol maps, use the **show ip slb map** command in privileged EXEC mode.

show ip slb map [*id*]

Syntax Description

id	(Optional) Displays information about the specified map.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.2(33)SRB	This command was introduced.

Usage Guidelines

If no ID is specified, the command displays information about all maps.

Examples

The following is sample output from the **show ip slb map** command:

```
Router# show ip slb map
ID: 1, Service: GTP
 APN: Cisco.com, yahoo.com
 PLMN ID(s): 11122, 444353
 SGSN access list: 100
ID: 2, Service: GTP
 PLMN ID(s): 67523, 345222
 PDP Type: IPv4, PPP
ID: 3, Service: GTP
 PDP Type: IPv6
ID: 4, Service: RADIUS
 Calling-station-id: "?919*"
ID: 5, Service: RADIUS
 Username: "..778cisco.*"
```

Table 19 describes the fields shown in the display.

Table 29 show ip slb map Field Descriptions

Field	Description
ID	Identifier of the map about which information is being displayed. Information about each map is displayed on a separate line.
Service	Protocol associated with the map. Valid protocols are: • GTP—For general packet radio service (GPRS) Tunneling Protocol (GTP) maps • RADIUS—For RADIUS load balancing maps
APN	One or more access point names (APNs) associated with the GTP map

Table 29 show ip slb map Field Descriptions (continued)

PLMN ID(s)	One or more public land mobile networks (PLMNs) associated with the GTP map.
SGSN access list	Serving GPRS Support Node (SGSN) access list associated with the GTP map.
PDP Type	One or more packet data protocol (PDP) types associated with the GTP map.
Calling-station-id	String to be matched against the calling station ID attribute in the RADIUS payload.
Username	String to be matched against the username attribute in the RADIUS payload.

show ip slb natpool

To display the IP Cisco IOS Server Load Balancing (IOS SLB) Network Address Translation (NAT) configuration, use the **show ip slb natpool** command in privileged EXEC mode.

show ip slb natpool [**name** *pool*] [**detail**]

Syntax Description

name *pool*	(Optional) Displays the specified NAT pool.
detail	(Optional) Lists all the interval ranges currently allocated in the client NAT pool.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.1(2)E	This command was introduced.
12.2(14)S	This command was integrated into Cisco IOS Release 12.2(14)S.
12.2(18)SXE	This command was integrated into Cisco IOS Release 12.2(18)SXE.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.

Examples

The following is sample output from the default **show ip slb natpool** command:

```
Router# show ip slb natpool

nat client B  209.165.200.225 1.1.1.6  1.1.1.8  Netmask 255.255.255.0
nat client A  10.1.1.1  1.1.1.5  Netmask 255.255.255.0
```

The following is sample output from the **show ip slb natpool** command with the **detail** keyword:

```
Router# show ip slb natpool detail

nat client A  1.1.1.1  1.1.1.5  Netmask 255.255.255.0
     Start NAT        Last NAT         Count     ALLOC/FREE
     ------------------------------------------------------
     10.1.1.1:11001    10.1.1.1:16333    0005333   ALLOC
     10.1.1.1:16334    10.1.1.1:19000    0002667   ALLOC
     10.1.1.1:19001    10.1.1.5:65535    0264675   FREE

nat client B  1.1.1.6  1.1.1.8  Netmask 255.255.255.0
     Start NAT        Last NAT         Count     ALLOC/FREE
     ------------------------------------------------------
     10.1.1.6:11001    10.1.1.6:16333    0005333   ALLOC
     10.1.1.6:16334    10.1.1.6:19000    0002667   ALLOC
     10.1.1.6:19001    10.1.1.8:65535    0155605   FREE
```

Table 30 describes the fields shown in the display.

Table 30 show ip slb natpool detail Field Descriptions

Field	Description
Start NAT	Starting NAT address in a range of addresses in the client NAT pool.
Last NAT	Last NAT address in a range of addresses in the client NAT pool.
Count	Number of NAT addresses in the range.
ALLOC/FREE	Indicates whether the range of NAT addresses has been allocated or is free.

Related Commands

Command	Description
ip slb natpool	Configures the IOS SLB NAT.

show ip slb probe

To display information about a Cisco IOS Server Load Balancing (IOS SLB) probe, use the **show ip slb probe** command in privileged EXEC mode.

show ip slb probe [**name** *probe*] [**detail**]

Syntax Description

name *probe*	(Optional) Displays information about the specified probe.
detail	(Optional) Displays detailed information, including the SA Agent operation ID, which you can correlate with the output of the **show rtr operational-state** command.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.1(2)E	This command was introduced.
12.2(14)S	This command was integrated into Cisco IOS Release 12.2(14)S.
12.2(18)SXE	This command was integrated into Cisco IOS Release 12.2(18)SXE.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.

Examples

The following is sample output from the **show ip slb probe** command:

```
Router# show ip slb probe

Server:Port             State        Outages  Current  Cumulative
-----------------------------------------------------------------
10.10.4.1:0             OPERATIONAL        0  never    00:00:00
10.10.5.1:0             FAILED             1  00:00:06 00:00:06
```

Table 31 describes the fields shown in the display.

Table 31 show ip slb probe Field Descriptions

Field	Description
Server:Port	IP address and port of the real server.
State	Operational state of the probe: • FAILED—The probe has succeeded in the past but has currently failed. • OPERATIONAL—The probe is functioning normally. • TESTING—The probe has never succeeded, due to no response. IOS SLB keeps no counters or timers for this state. For a detailed listing of real server states, see the **show ip slb reals** command.
Outages	Number of intervals between successful probes.

Table 31 show ip slb probe Field Descriptions (continued)

Current	Time since the last probe success. That is, the duration (so far) of the current outage.
Cumulative	Total time the real server has been under test by the probe and has failed the probe test. This value is the sum of the Current time plus the total time of all previous outages.

show ip slb reals

To display information about the real servers, use the **show ip slb reals** command in privileged EXEC mode.

show ip slb reals [**sfarm** *server-farm*] [**detail**]

Syntax Description

sfarm *server-farm*	(Optional) Displays information about those real servers associated with the specified server farm or firewall farm.
detail	(Optional) Displays detailed information.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.0(7)XE	This command was introduced.
12.1(5)T	This command was integrated into Cisco IOS Release 12.1(5)T.
12.2	This command was integrated into Cisco IOS Release 12.2.
12.1(13)E	The **vserver** keyword and *virtual-server* argument were replaced with the **sfarm** keyword and *server-farm* argument.
12.2(14)S	This command was integrated into Cisco IOS Release 12.2(14)S.
12.2(18)SXE	This command was integrated into Cisco IOS Release 12.2(18)SXE.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(33)SRC	The output for the **detail** keyword for a real server in a server farm was updated to display the configured maximum number of connections allowed (**rate**).
15.0(1)S	The output for the **detail** keyword for a real server in a server farm was updated to display the real server's IPv4, IPv6, or dual-stack address.

Usage Guidelines

If no options are specified, the command displays information about all real servers.

In a configuration with stateful backup, if a probe changes state at the same time that the primary IOS SLB device fails over to the backup IOS SLB device, the output from the **show ip slb reals** command for the backup device displays the state of the probe before the failover, not the actual current state.

Examples

The following is sample output from the **show ip slb reals** command:

```
Router# show ip slb reals

real             farm name        weight   state           conns
-------------------------------------------------------------------
10.80.2.112      FRAG             8        OUTOFSERVICE    0
10.80.5.232      FRAG             8        OPERATIONAL     0
10.80.15.124     FRAG             8        OUTOFSERVICE    0
10.254.2.2       FRAG             8        OUTOFSERVICE    0
10.80.15.124     LINUX            8        OPERATIONAL     0
```

```
10.80.15.125     LINUX           8        OPERATIONAL     0
10.80.15.126     LINUX           8        OPERATIONAL     0
10.80.90.25      SRE             8        OPERATIONAL     220
10.80.90.26      SRE             8        OPERATIONAL     216
10.80.90.27      SRE             8        OPERATIONAL     216
10.80.90.28      SRE             8        TESTING         1
10.80.90.29      SRE             8        OPERATIONAL     221
10.80.90.30      SRE             8        OPERATIONAL     224
10.80.30.3       TEST            100      READY_TO_TEST   0
10.80.30.4       TEST            100      READY_TO_TEST   0
10.80.30.5       TEST            100      READY_TO_TEST   0
10.80.30.6       TEST            100      READY_TO_TEST   0
```

Table 32 describes the fields shown in the display.

Table 32 show ip slb reals Field Descriptions

Field	Description
real	IP address of the real server about which information is being displayed. Used to identify each real server. Information about each real server is displayed on a separate line.
farm name	Name of the server farm or firewall farm with which the real server is associated.
weight	Weight assigned to the real server. The weight identifies the real server's capacity, relative to other real servers in the server farm.
state	Current state of the real server. • DFP_THROTTLED—The Dynamic Feedback Protocol (DFP) agent sent a weight of 0 for this real server (send no further connections to this real server). • FAILED—The real server has failed as a result of either no response or reset (RST) responses to client traffic. (See the **faildetect numconns (real server)** command for more information about controlling tolerance for no responses and RSTs.) The real server has been removed from use by the predictor algorithms. The retry timer has started. • MAXCONNS_THROTTLE—The number of connections on the real server exceeds the configured maximum number of simultaneous active connections (**maxconns**). • OPERATIONAL—The real server is functioning properly and is being used for load-balancing. • OPER_WAIT—The real server is waiting to become operational (waiting for a timeout or some other condition to be met). • OUTOFSERVICE—The real server was configured with **no inservice** and has been removed from the load-balancing predictor lists. • PROBE_FAILED—The probe has succeeded in the past but has currently failed. This failure might occur at the same time user connections fail, or it might not. • PROBE_TESTING—The probe has never succeeded, due to no response. The initial probe timed out waiting for a success.

Table 32 show ip slb reals Field Descriptions (continued)

	• READY_TO_TEST—The real server is queued for testing after being in FAILED state until the retry timer expired. • TESTING—The real server is queued for assignment. When a single user connection is assigned to a real server that is in READY_TO_TEST state, the real server is placed in TESTING state. If the test succeeds, the real server is placed back in OPERATIONAL state. • TEST_WAIT—The real server is waiting to begin testing (waiting for a timeout or some other condition to be met).
conns	Number of connections associated with the real server. In general packet radio service (GPRS) load balancing, number of sessions associated with the real server. In per-packet server load balancing, number of request packets that have been load balanced to each real server, using the connection count.

The following is sample output from the **show ip slb reals detail** command for a dual-stack real server in a server farm:

```
Router# show ip slb reals detail

172.16.88.5, SF1, state = OPERATIONAL, type = server
  ipv6 = 2342:2342:2343:FF04:2388:BB03:3223:8912
  conns = 0, dummy_conns = 0, maxconns = 4294967295
  weight = 8, weight(admin) = 8, metric = 0, remainder = 0
  reassign = 3, retry = 60
  failconn threshold = 8, failconn count = 0
  failclient threshold = 2, failclient count = 0
  total conns established = 0, total conn failures = 0
  server failures = 0
```

The following is sample output from the **show ip slb reals detail** command for a real server in a firewall farm:

```
Router# show ip slb reals detail

10.10.3.2, F, state = OPERATIONAL, type = firewall
  conns = 0, dummy_conns = 0, maxconns = 4294967295
  weight = 8, weight(admin) = 8, metric = 0, remainder = 0
  total conns established = 8377, hash count = 0
  server failures = 0
  interface FastEthernet1/0, MAC 0000.0c41.1063
```

Table 33 describes the fields shown in the above detail displays.

Table 33 show ip slb reals detail Field Descriptions

Field	Description
IPv4 or IPv6 address	IPv4 or IPv6 address of the real server about which information is being displayed. Used to identify each real server. Information about each real server is displayed on a separate line.
farm name	Name of the server farm or firewall farm with which the real server is associated.

Table 33 show ip slb reals detail Field Descriptions (continued)

state	Current state of the real server. • DFP_THROTTLED—The Dynamic Feedback Protocol (DFP) agent sent a weight of 0 for this real server (send no further connections to this real server). • FAILED—The real server has failed as a result of either no response or reset (RST) responses to client traffic. (See the **faildetect numconns (real server)** command for more information about controlling tolerance for no responses and RSTs.) The real server has been removed from use by the predictor algorithms. The retry timer has started. • MAXCONNS_THROTTLE—The number of connections on the real server exceeds the configured maximum number of simultaneous active connections (**maxconns**). • OPERATIONAL—The real server is functioning properly and is being used for load-balancing. • OPER_WAIT—The real server is waiting to become operational (waiting for a timeout or some other condition to be met). • OUTOFSERVICE—The real server was configured with **no inservice** and has been removed from the load-balancing predictor lists. • PROBE_FAILED—The probe has succeeded in the past but has currently failed. This failure might occur at the same time user connections fail, or it might not. • PROBE_TESTING—The probe has never succeeded, due to no response. The initial probe timed out waiting for a success. • READY_TO_TEST—The real server is queued for testing after being in FAILED state until the retry timer expired. • TESTING—The real server is queued for assignment. When a single user connection is assigned to a real server that is in READY_TO_TEST state, the real server is placed in TESTING state. If the test succeeds, the real server is placed back in OPERATIONAL state. • TEST_WAIT—The real server is waiting to begin testing (waiting for a timeout or some other condition to be met).
type	Indicates whether the real server is associated with a server farm (server) or firewall farm (firewall).
ipv6	IPv6 address of the real server about which information is being displayed, if dual-stack.
conns	Number of connections associated with the real server. In general packet radio service (GPRS) load balancing, number of sessions associated with the real server. In per-packet server load balancing, number of request packets that have been load balanced to each real server, using the connection count.
dummy_conns	Internal counter used in debugging.
maxconns	Maximum number of active connections allowed on the real server at one time.

Table 33 show ip slb reals detail Field Descriptions (continued)

weight	Weight assigned to the real server. The weight identifies the real server's capacity, relative to other real servers in the server farm. This value could be changed by DFP.
weight(admin)	Configured (or default) weight assigned to the real server.
metric	Internal counter used in debugging.
remainder	Internal counter used in debugging.
reassign	Total number of consecutive unacknowledged SYNchronize sequence numbers (SYNs) or Create Packet Data Protocol (PDP) requests since the last time the **clear ip slb counters** command was issued.
retry	Interval, in seconds, to wait between the detection of a failure on the real server and the next attempt to connect to the server.
rate	Maximum number of connections per second allowed on the real server.
failconn threshold	Maximum number of consecutive connection failures allowed before the real server is considered to have failed.
failconn count	Total number of consecutive connection failures since the last time the **clear ip slb counters** command was issued.
failclient threshold	Maximum number of unique client connection failures allowed before the real server is considered to have failed.
failclient count	Total number of unique client connection failures since the last time the **clear ip slb counters** command was issued.
total conns established	Total number of successful connection assignments since the last time the **clear ip slb counters** command was issued.
total conn failures	Total number of unsuccessful connection assignments since the last time the **clear ip slb counters** command was issued.
server failures	Total number of times this real server has been marked failed.
hash count	Total number of times the hash algorithm has been called.
interface	Type of interface.
MAC	MAC address of the firewall.

show ip slb replicate

To display the Cisco IOS Server Load Balancing (IOS SLB) replication configuration, use the **show ip slb replicate** command in privileged EXEC mode.

show ip slb replicate

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.1(2)E	This command was introduced.
12.2(14)S	This command was integrated into Cisco IOS Release 12.2(14)S.
12.2(14)ZA5	This command was modified to support slave replication.
12.2(18)SXE	This command was integrated into Cisco IOS Release 12.2(18)SXE.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.

Examples

The following is sample output from the **show ip slb replicate** command:

```
Router# show ip slb replicate

VS1, state = NORMAL, interval = 10
 Slave Replication: Enabled
 Slave Replication statistics:
  unsent conn updates:         0
  conn updates received:       0
  conn updates transmitted:    0
  update messages received:    0
  update messages transmitted: 0
 Casa Replication:
  local = 10.1.1.1 remote = 10.2.2.2 port = 1024
  current password = <none> pending password = <none>
  password timeout = 180 sec (Default)
 Casa Replication statistics:
  unsent conn updates:        0
  conn updates received:      0
  conn updates transmitted:   0
  update packets received:    0
  update packets transmitted: 0
  failovers:                  0
```

Table 34 describes the fields shown in the display.

Table 34 show ip slb replicate Field Descriptions

Field	Description
state	Current replication state of the virtual server: • DUMPING—Dumping the connection table to the Hot Standby Router Protocol (HSRP) peer device. • NORMAL—Functioning properly. • PREEMPTING—Preparing to preempt the HSRP peer device and assume an active role.
interval	Replication buffering interval, in seconds.
Slave Replication	Indicates whether Slave Replication is enabled or disabled.
unsent conn updates	Number of Slave Replication or CASA Replication connection updates waiting to be sent.
conn updates received	Number of Slave Replication or CASA Replication connection updates received.
conn updates transmitted	Number of Slave Replication or CASA Replication connection updates sent.
update packets received	Number of Slave Replication or CASA Replication connection update packets received.
update packets transmitted	Number of Slave Replication or CASA Replication connection update packets sent.
local	Listening IP address for CASA Replication state exchange messages that are advertised.
remote	Destination IP address for all CASA Replication state exchange signals.
port	TCP or User Datagram Protocol (UDP) port number or port name for all CASA Replication state exchange signals.
current password	Current CASA Replication password for Message Digest Algorithm Version 5 (MD5) authentication, if any.
pending password	Pending CASA Replication password for MD5 authentication, if any.
failovers	Number of CASA Replication failovers detected.

Related Commands

Command	Description
request (HTTP probe)	Configures an HTTP probe to check the status of the real servers.

show ip slb serverfarms

To display information about the server farms, use the **show ip slb serverfarms** command in privileged EXEC mode.

show ip slb serverfarms [**name** *serverfarm-name*] [**detail**]

Syntax Description

name	(Optional) Displays information about only a particular server farm.
serverfarm-name	(Optional) Name of the server farm.
detail	(Optional) Displays detailed server farm information.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.0(7)XE	This command was introduced.
12.1(5)T	This command was integrated into Cisco IOS Release 12.1(5)T.
12.2	This command was integrated into Cisco IOS Release 12.2.
12.2(14)S	This command was integrated into Cisco IOS Release 12.2(14)S.
12.2(18)SXE	This command was integrated into Cisco IOS Release 12.2(18)SXE.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(33)SRC	The output for the **detail** keyword was updated to display RADIUS load balancing enhancements and information about the IOS SLB KeepAlive Application Protocol (KAL-AP) agent.
15.0(1)S	The output for the **detail** keyword was updated to display the real server's IPv4, IPv6, or dual-stack address.

Examples

The following is sample output from the **show ip slb serverfarms** command:

```
Router# show ip slb serverfarms

server farm     predictor          nat   reals   bind id  interface(s)
GGSN            ROUNDROBIN         none  0       0        <any>
GGSN1           ROUNDROBIN         S     5       0        <any>
GGSN_IPV6       ROUNDROBIN         S     5       0        <any>
```

Table 35 describes the fields shown in the display.

Table 35 show ip slb serverfarms Field Descriptions

Field	Description
server farm	Name of the server farm about which information is being displayed. Information about each server farm is displayed on a separate line.
predictor	Type of load-balancing algorithm (ROUNDROBIN, LEASTCONNS, or ROUTEMAP) used by the server farm
nat	NAT setting for the server farm: • **c**—Client NAT • **s**—Server NAT • **none**—NAT is not configured for the server farm
reals	Number of real servers configured in the server farm
bind id	Bind ID configured on the server farm.
interface(s)	Interface used by the server farm

The following is sample output from the **show ip slb serverfarms detail** command, if RADIUS load balancing is configured with the route map predictor:

```
Router# show ip slb serverfarms detail

SF1, predictor = ROUNDROBIN, nat =SERVER, interface(s) = Vl88
  virtuals inservice: 1, reals = 1, bind id = 0
  Real servers:
    172.16.88.5, weight = 8, OPERATIONAL, conns = 0
    ipv6 = 2342:2342:2343:FF04:2388:BB03:3223:8912
  Total connections = 0
```

For RADIUS load balancing with the route map predictor configured, specifying the **detail** keyword displays:

- **predictor = ROUTE-MAP**—Indicates that the **route-map** keyword is configured on the **predictor** command in SLB server farm configuration mode.
- **routemap name**—Name of the IOS policy-based routing (PBR) route map. If the route map is invalid or is not present, IOS SLB also displays **Not Configured/Valid**.

The following is sample output from the **show ip slb serverfarms detail** command, if a KAL-AP request was received for this server farm:

```
SF, predictor = ROUNDROBIN, nat = SERVER, interface(s) = <any>
  virtuals inservice: 1, reals = 2, bind id = 0
  KAL-AP tag: "chicago.com", farm weight: 400
```

For the KAL-AP agent, specifying the **detail** keyword displays:

- **KAL-AP tag**—Domain tag to be used by the KAL-AP agent when searching for a server farm, if configured.
- **farm weight**—The weight to be used by the KAL-AP agent when calculating the load value for a server farm.

show ip slb sessions

To display information about sessions handled by Cisco IOS Server Load Balancing (IOS SLB), use the **show ip slb sessions** command in privileged EXEC mode.

show ip slb sessions [**asn** | **gtp** [**ipv6**] | **gtp-inspect** | **ipmobile** | **radius**] [**vserver** *virtual-server*] [**client** *ipv4-address ipv4-netmask*] [**detail**]

Syntax Description

asn	(Optional) Displays information about set of Access Service Network (ASN) gateways sessions being handled by IOS SLB.
gtp	(Optional) Displays IPv4 information about general packet radio service (GPRS) Tunneling Protocol (GTP) sessions being handled by IOS SLB.
ipv6	(Optional) Displays detailed information about the IPv6 sessions being handled by GTP load balancing.
gtp-inspect	(Optional) Displays information about GTP sessions being handled by IOS SLB that have GTP cause code inspection enabled.
ipmobile	(Optional) Displays information about Mobile IP sessions being handled by IOS SLB.
radius	(Optional) Displays information about RADIUS sessions being handled by IOS SLB.
vserver *virtual-server*	(Optional) Displays information about sessions being handled by the specified virtual server.
client *ipv4-address ipv4-netmask*	(Optional) Displays information about sessions associated with the specified client IPv4 address or subnet
detail	(Optional) Displays detailed information.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.1(11b)E	This command was introduced.
12.2(14)S	This command was integrated into Cisco IOS Release 12.2(14)S.
12.1(13)E3	The **gtp** and **gtp-inspect** keywords were added.
12.2(14)ZA2	The **ipmobile** keyword was added.
12.2(18)SXE	This command was integrated into Cisco IOS Release 12.2(18)SXE.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(33)SRC1	The **asn** keyword was added.
15.0(1)S	The **ipv6** keyword was added.

Examples

The following is sample output from the **show ip slb sessions** command for RADIUS sessions:

```
Router# show ip slb sessions radius

Source               Dest                   Retry
Addr/Port            Addr/Port           Id Count  Real            Vserver
-------------------------------------------------------------------------------
10.10.11.1/1645      10.10.11.2/1812     15     1  10.10.10.1  RADIUS_ACCT
```

Table 36 describes the fields shown in the display.

Table 36 show ip slb sessions radius Field Descriptions

Field	Description
Source Addr/Port	Source IPv4 address and port number for the session.
Dest Addr/Port	Destination IPv4 address and port number for the session.
Id	RADIUS identifier for the session.
Retry Count	Number of times a RADIUS request was sent by a RADIUS client without receiving a response from the RADIUS server (proxy or otherwise).
Real	IPv4 address of the SSG RADIUS server (proxy or otherwise).
Vserver	Name of the virtual server whose sessions are being monitored and displayed.

The following example shows GTP IPv4 session data:

```
Router# show ip slb sessions gtp

vserver         key              client          real                 state
-------------------------------------------------------------------------------
10.10.10.10     1234567890123456 10.5.5.5          10.10.1.1             GTP_ESTAB
```

Table 37 describes the fields shown in the display.

Table 37 show ip slb sessions gtp Field Descriptions

Field	Description
vserver	Name of the virtual server whose GTP sessions are being monitored and displayed. Information about each session is displayed on a separate line.
key	Network Service Access Point Identifier (NSAPI) key being used by the GTP session.
client	Client IPv4 address being used by the GTP session.
real	Real IPv4 address of the GTP session.
state	Current state of the GTP session: • **GTP_ESTAB**—The session has been established successfully. • **GTP_INIT**—The Packet Data Protocol (PDP) contexts have been deleted as a result of a delete request or a deletion in gateway GPRS support node (GGSN), and IOS SLB is waiting to destroy the session after the GTP_TIMEOUT. • **GTPIO_REQ_CLIENT**—Waiting for a response from the real server.

The following example shows GTP IPv6 session data:

```
Router# show ip slb sessions gtp ipv6

vserver = VS, key = 1112131415180030
  client = 3:3:3:3:3:3:3:9
  real = 4:4:4:4:4:4:4:4
  state = SLB_IPV6_GTP_ESTAB
```

The following example shows IOS SLB Mobile IP session data:

```
Router# show ip slb sessions ipmobile

vserver        NAI hash          client          real               retries
-------------------------------------------------------------------------------
VIRTUAL_HA     0xFFFF            10.1.1.1/434     10.10.1.1          1
```

Table 38 describes the fields shown in the display.

Table 38 show ip slb sessions ipmobile Field Descriptions

Field	Description
vserver	Name of the virtual server whose Mobile IP sessions are being monitored and displayed. Information about each session is displayed on a separate line.
NAI hash	Network access identifier (NAI) in the Registration Request (RRQ), used by Cisco IOS SLB as a unique identifier.
client	Client IPv4 address being used by the Mobile IP session.
real	Real IPv4 address of the Mobile IP session.
retries	Number of foreign agent retries for the Mobile IP session.

The following is sample output from the **show ip slb sessions asn** command for ASN sessions:

```
Router# show ip slb sessions asn

vserver         MSID              Base Station      real              state
-------------------------------------------------------------------------------
10.10.10.10     001646013fc0      5.5.5.5           10.10.1.1         ASN_REQ
```

Table 39 describes the fields shown in the display.

Table 39 show ip slb sessions asn Field Descriptions

Field	Description
vserver	Name of the virtual server whose ASN sessions are being monitored and displayed. Information about each session is displayed on a separate line.
MSID	Mobile Station Identifier (MSID), used by Cisco IOS SLB as a unique identifier.
Base Station	IPv4 address of the base station associated with the ASN session.

Table 39 show ip slb sessions asn Field Descriptions (continued)

real	Real IPv4 address of the ASN session.
state	Current state of the ASN session: • **ASN_ESTAB**—The session has been established successfully. • **ASN_INIT**—IOS SLB is waiting to destroy the session after timeouts in ASN_REQ or ASN_ESTAB state. If the base station is configured to send the ACK directly to the ASN gateway, and if **no faildetect inband** is configured, the session remains in ASN_REQ state until it is destroyed. • **ASN_REQ**—Waiting for a response from the real server.

show ip slb static

To display the Cisco IOS Server Load Balancing (IOS SLB) server Network Address Translation (NAT) configuration, use the **show ip slb static** command in privileged EXEC mode.

show ip slb static

Syntax Description

This command has no arguments or keywords.

Defaults

The default behavior is to display the entire IOS SLB server NAT configuration.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.1(11b)E	This command was introduced.
12.2(14)S	This command was integrated into Cisco IOS Release 12.2(14)S.
12.2(18)SXE	This command was integrated into Cisco IOS Release 12.2(18)SXE.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.

Examples

The following is sample output from the **show ip slb static** command:

```
Router# show ip slb static

real                    action         address         counter
-----------------------------------------------------------------
10.11.3.4               drop           0.0.0.0         0
10.11.3.1               NAT            10.11.11.11     3
10.11.3.2               NAT sticky     10.11.11.12     0
10.11.3.3               NAT per-packet 10.11.11.13     0
```

Table 40 describes the fields shown in the display.

Table 40 show ip slb static Field Descriptions

Field	Description
real	IP address of the real server.

Table 40 show ip slb static Field Descriptions (continued)

action	Action to be taken by the real server: • drop—The real server is configured to have its packets dropped by IOS SLB, if the packets do not correspond to existing connections. • NAT—The real server is configured to use server NAT, and to use its own virtual IP address when translating addresses. • NAT per-packet—The real server is configured to use server NAT and per-packet server load balancing. • NAT sticky—The real server is configured to use server NAT for sticky connections. • pass-thru—The real server is not configured to use server NAT.
address	Virtual IP address used by the real server when translating addresses using server NAT. Address 0.0.0.0 means the real server is not configured for server NAT.
counter	For actions drop and NAT per-packet, indicates the number of packets processed by the real server. For actions NAT and NAT sticky, indicates the number of packets received by, but not necessarily processed by, the real server.

show ip slb stats

To display IOS Server Load Balancing (IOS SLB) statistics, use the **show ip slb stats** command in privileged EXEC mode.

show ip slb stats [kal-ap]

Syntax Description

kal-ap	(Optional) Displays information about the IOS SLB KeepAlive Application Protocol (KAL-AP) agent.

Defaults

No default behavior or values.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.0(7)XE	This command was introduced.
12.1(5)T	This command was integrated into Cisco IOS Release 12.1(5)T.
12.2	This command was integrated into Cisco IOS Release 12.2.
12.1(9)E	This command was modified to support general packet radio service (GPRS) load balancing.
12.2(14)S	This command was integrated into Cisco IOS Release 12.2(14)S.
12.2(18)SXE	This command was integrated into Cisco IOS Release 12.2(18)SXE.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(33)SRC	The **kal-ap** keyword was added, and the output for the command was updated to display correlation inject failures for RADIUS load balancing accelerated data plane forwarding.
12.2(33)SRC1	The output for the command was updated to display packet fragment drops for Access Service Network (ASN) R6 load balancing.

Examples

The following is sample output from the **show ip slb stats** command:

```
Router# show ip slb stats
Pkts via normal switching:     108247
Pkts via special switching:    4307026
Pkts via slb routing:          1376241
Pkts Dropped:                  0
Connections Created:           933131
Connections Established:       350042
Connections Destroyed:         639323
Connections Reassigned:        0
Zombie Count:                  0
Connections Reused:            0
Connection Flowcache Purges:   2665
Failed Connection Allocs:      0
Failed Real Assignments:       0
```

```
RADIUS framed-ip Sticky Count: 524288
RADIUS username Sticky Count:  0
RADIUS cstn-id Sticky Count:   0
GTP imsi Sticky Count:         0
Route Flows Created:           1691177
Failed Route Flow Allocs:      0
Failed Correlation Injects:    0
Pkt fragments drops in ssv:    0
ASN MSID sticky count:         1
```

Table 41 describes the fields shown in the display.

Table 41 show ip slb stats Field Descriptions

Field	Description
Pkts via normal switching	Number of packets handled by IOS SLB via normal switching since the last time counters were cleared. Normal switching is when IOS SLB packets are handled on normal IOS switching paths (CEF, fast switching, and process level switching).
Pkts via special switching	Number of packets handled by IOS SLB via special switching since the last time counters were cleared. Special switching is when IOS SLB packets are handled on hardware-assisted switching paths.
Pkts via slb routing	Number of packets handled by IOS SLB via SLB routing since the last time counters were cleared.
Pkts dropped	Number of packets dropped or consumed by IOS SLB since the last time counters were cleared. The **Pkts dropped** field can increase for one or more of the following reasons: • Pings and other Internet Control Message Protocol (ICMP) packets addressed to a virtual IP address are dropped. • TCP data packets in which the **conn** entry is not available as a result of an idle timeout, failure of a probe, or failure of a real server, are dropped. • UDP traceroute packets addressed to a virtual IP address are dropped. • UDP packets addressed to a virtual IP address with a port number other than the one configured in the virtual server are dropped. If the virtual server uses the **any 0** port number, IOS SLB forwards the UDP packets to the real server. • Fragmented packets that cannot be reassembled are dropped.
Connections Created	Number of connections (or sessions, in general packet radio service [GPRS] load balancing and the Home Agent Director) created since the last time counters were cleared.
Connections Established	Number of connections (or sessions, in GPRS load balancing and the Home Agent Director) created and that have become established since the last time counters were cleared.

Table 41 show ip slb stats Field Descriptions (continued)

Connections Destroyed	Number of connections (or sessions, in GPRS load balancing and the Home Agent Director) destroyed since the last time counters were cleared.
Connections Reassigned	Number of connections (or sessions, in GPRS load balancing and the Home Agent Director) reassigned to a different real server since the last time counters were cleared.
Zombie Count	Number of connections (or sessions, in GPRS load balancing and the Home Agent Director) that are currently pending destruction (awaiting a timeout or some other condition to be met).
Connections Reused	Number of zombie connections (or sessions, in GPRS load balancing and the Home Agent Director) reused since the last time counters were cleared. A zombie connection is reused if it receives a TCP SYNchronize sequence number (SYN) or User Datagram Protocol (UDP) packet and succeeds in connecting to a real server. The zombie connection becomes a real connection and the zombie count is decremented.
Connection Flowcache Purges	Number of times the connection flow cache was purged since the last time counters were cleared.
Failed Connection Allocs	Number of times the allocation of a connection (or session, in GPRS load balancing) failed since the last time counters were cleared.
Failed Real Assignments	Number of times the assignment of a real server failed since the last time counters were cleared.
RADIUS framed-ip Sticky Count	Number of entries in the RADIUS framed-IP sticky database.
RADIUS username Sticky Count	Number of entries in the RADIUS username sticky database.
RADIUS cstn-id Sticky Count	Number of entries in the RADIUS calling-station-ID sticky database.
GTP imsi Sticky Count	Number of entries in the GTP IMSI sticky database.
Route Flows Created	Number of route flows created.
Failed Route Flows Allocs	Number of failed route flow allocations.
Failed Correlation Injects	Number of failed correlation injects.
Pkt fragments drops in ssv	Number of packet fragments drops in the SSV.
ASN MSID sticky count	Number of sticky objects in the ASN MSID sticky database.

The following is sample output from the **show ip slb kal-ap stats kal-ap** command:

```
Router# show ip slb kal-ap stats kal-ap

KAL-AP Mgr: (default), Socket state: OPEN, Socket retry: 0
KAL-AP Mgr: 2.2.2.2, Socket state: FAILED, Socket retry: 10
  UDP Port: 5002, vrf: vrf1
KAL-AP Mgr: 10.77.161.34, Socket state: FAILED, Socket retry: 10
  UDP Port: 5002, Secret: test
KAL-AP Packet Statistics:
Packet Received:     84
Bytes Received:      3966
```

```
Packet Sent:          30
Bytes Sent:           1080
Encrypt Errors:       0
Recv Failures:        0
Sent Failures:        0
KAL-AP Manager:       2.2.2.2     Secret:         Yes
KAL-AP Manager:       3.3.3.3     Secret:         Yes
CAPP UDP Port:        5001
Pkt Recd:             100         Bytes Recd:     12345
Pkt Sent:             100         Bytes Sent:     12121
MD5 checksum failed: 0            Error packets: 0
```

show ip slb sticky

To display the IOS Server Load Balancing (IOS SLB) sticky database, use the **show ip slb sticky** command in privileged EXEC mode.

show ip slb sticky [**asn** {**msid** *msid* | **nai** *nai*} | **client** *ipv4-address ipv4-netmask* | **gtp imsi** [**ipv6**] [**id** *imsi*] | **radius calling-station-id** [**id** *string*] | **radius framed-ip** [**client** *ipv4-address ipv4-netmask*] | **radius username** [**name** *string*]]

Syntax Description

asn msid *msid*	(Optional) Displays only those sticky database entries associated with the specified Access Service Network (ASN) Mobile Station ID (MSID).
asn nai *nai*	(Optional) Displays only those sticky database entries associated with the specified ASN network address identifier (NAI).
client *ipv4-address ipv4-netmask*	(Optional) Displays only those sticky database entries associated with the specified client IPv4 address or subnet.
gtp imsi	(Optional) Displays only entries associated with the IOS SLB general packet radio service (GPRS) Tunneling Protocol (GTP) International Mobile Subscriber ID (IMSI) sticky database, and shows all of the Network Service Access Point Identifiers (NSAPIs) that the user has used as primary Packet Data Protocols (PDPs).
ipv6	(Optional) Displays only IPv6 entries associated with the IOS SLB GTP IMSI sticky database, and shows all of the NSAPIs that the user has used as primary PDPs.
id *imsi*	(Optional) Displays only those sticky database entries associated with the specified IMSI.
radius calling-station-id	(Optional) Displays only entries associated with the IOS SLB RADIUS calling-station-ID sticky database.
id *string*	(Optional) Displays only those sticky database entries associated with the specified calling station ID.
radius framed-ip	(Optional) Displays only entries associated with the IOS SLB RADIUS framed-IP sticky database.
radius username	(Optional) Displays only entries associated with the IOS SLB RADIUS username sticky database.
name *string*	(Optional) Displays only those sticky database entries associated with the specified username.

Defaults

If no options are specified, the command displays information about all virtual servers.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.0(7)XE	This command was introduced.
12.1(5)T	This command was integrated into Cisco IOS Release 12.1(5)T.
12.2	This command was integrated into Cisco IOS Release 12.2.
12.1(11b)E	The **radius** keyword was added.
12.1(12c)E	The **framed-ip**, **username**, **name**, *netmask*, and *string* keywords and arguments were added.
12.2(14)S	This command was integrated into Cisco IOS Release 12.2(14)S.
12.2(14)ZA5	The **calling-station-id** and **id** keywords and the *string* argument were added.
12.2(18)SXE	The **gtp imsi** and **id** keywords and the *imsi* argument were added.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(33)SRE	The **asn**, **msid**, and **nai** keywords and the *msid* and *nai* arguments were added.
15.0(1)S	The **ipv6** keyword was added. The output was updated to display the real server's GTP version and IPv4, IPv6, or dual-stack address.

Examples

The following is sample output from the **show ip slb sticky** command:

```
Router# show ip slb sticky

client           netmask          group  real                 conns
-------------------------------------------------------------------
10.10.2.12       255.255.0.0      4097   10.10.3.2            1
```

Table 42 describes the fields shown in the display.

Table 42 show ip slb sticky Field Descriptions

Field	Description
client	Client IPv4 address or subnet which is bound to this sticky assignment.
netmask	IPv4 subnet mask for this sticky assignment.
group	Group ID for this sticky assignment.
real	Real server used by all clients connecting with the client IPv4 address or subnet detailed on this line.
conns	Number of connections currently sharing this sticky assignment.

The following is sample output from the **show ip slb sticky gtp imsi** command:

```
Router# show ip slb sticky gtp imsi

IMSI                  Real         Ver  Group ID   vs_index  refcount  nsapi
-------------------------------------------------------------------------
11111111111111FF      10.10.10.1   1    5          10        1         6
11123411111111FF      10.10.10.2   1    5          10        1         9
```

Table 43 describes the fields shown in the display.

Table 43 show ip slb sticky gtp imsi Field Descriptions

Field	Description
IMSI	IMSI bound to this sticky assignment in the IOS SLB GTP IMSI sticky database.
Real	IPv4 address of the GTP IMSI real server.
Ver	GTP version: v0, v1, or v2
Group ID	Group ID for this sticky assignment.
vs_index	Virtual index, out of a maximum of 500.
refcount	Number of NSAPIs used as primary PDPs.
nsapi	NSAPI used as a primary PDP. **Note** IOS SLB does not display the **nsapi** column for GTP v2 sessions.

The following is sample output from the **show ip slb sticky gtp imsi ipv6** command:

```
Router# show ip slb sticky gtp imsi ipv6

IMSI             Real            Ver  Group Id  vs_index  refcount  NSAPIs
-------------------------------------------------------------------------
11121314151800F0 21.21.21.1      2    4099      7         1         3
                 2342:2342:2343:FF04:2342:AA03:2323:8912
```

The following is sample output from the **show ip slb sticky radius calling-station-id** command:

```
Router# show ip slb sticky radius calling-station-id

calling-station-id  group id     server real  framed-ips
-----------------------------------------------------
6228212             15           10.10.10.1   1
```

Table 44 describes the fields shown in the display.

Table 44 show ip slb sticky radius calling-station-id Field Descriptions

Field	Description
calling-station-id	Calling station ID bound to an SSG RADIUS proxy in the IOS SLB RADIUS calling-station-ID sticky database.
group id	Group ID for this sticky assignment.
server real	IPv4 address of the SSG RADIUS proxy server.
framed-ips	Number of IPv4 addresses bound to the SSG RADIUS proxy in the IOS SLB RADIUS framed-IP sticky database.

The following is sample output from the **show ip slb sticky radius framed-ip** command:

```
Router# show ip slb sticky radius framed-ip

framed-ip       group id     server real  route i/f
-----------------------------------------------------
1.1.1.1         15           10.10.10.1   <any>
```

Table 45 describes the fields shown in the display.

Table 45 show ip slb sticky radius framed-ip Field Descriptions

Field	Description
framed-ip	IPv4 address bound to a Cisco Service Selection Gateway (SSG) RADIUS proxy in the IOS SLB RADIUS framed-IP sticky database.
group id	Group ID for this sticky assignment.
server real	IPv4 address of the SSG RADIUS proxy server.
route i/f	Route interface.

The following is sample output from the **show ip slb sticky radius username** command:

```
Router# show ip slb sticky radius username

username        group id     server real  framed-ips
-----------------------------------------------------
9198783355      15           10.10.10.1   1
```

Table 46 describes the fields shown in the display.

Table 46 show ip slb sticky radius username Field Descriptions

Field	Description
username	Username bound to an SSG RADIUS proxy in the IOS SLB RADIUS username sticky database.
group id	Group ID for this sticky assignment.
server real	IPv4 address of the SSG RADIUS proxy server.
framed-ips	Number of IPv4 addresses bound to the SSG RADIUS proxy in the IOS SLB RADIUS framed-IP sticky database.

The following is sample output from the **show ip slb sticky asn** command:

```
Router# show ip slb sticky asn

MSID                Real      Group Id vs_index   NAI
-------------------------------------------------------
ABCD.12FE.3467   10.10.10.1   5         10        abc@cisco.com
2247.1130.8642   10.10.10.2   5         10        bcd@abc.com
```

Table 47 describes the fields shown in the display.

Table 47 show ip slb sticky asn Field Descriptions

Field	Description
MSID	MSID bound to this sticky assignment in the IOS SLB ASN sticky database.
Real	IPv4 address of the ASN real server.
Group ID	Group ID for this sticky assignment.
vs_index	Virtual index, out of a maximum of 500.
NAI	NAI bound to this sticky assignment in the IOS SLB ASN sticky database.

The following is sample output from the **show ip slb sticky asn nai abc@cisco.com** command:

```
Router# show ip slb sticky asn nai abc@cisco.com

MSID                Real      Group Id vs_index   NAI
-------------------------------------------------------
ABCD.12FE.3467   10.10.10.1   5         10        abc@cisco.com
```

Table 48 describes the fields shown in the display.

Table 48 show ip slb sticky asn nai abc@cisco.com Field Descriptions

Field	Description
MSID	MSID bound to this sticky assignment in the IOS SLB ASN sticky database.
Real	IPv4 address of the ASN real server.
Group ID	Group ID for this sticky assignment.
vs_index	Virtual index, out of a maximum of 500.
NAI	NAI bound to this sticky assignment in the IOS SLB ASN sticky database.

show ip slb vservers

To display information about the virtual servers, use the **show ip slb vservers** command in privileged EXEC mode.

show ip slb vservers [**name** *virtual-server*] [**redirect**] [**detail**]

Syntax Description

name *virtual-server*	(Optional) Displays information about the specified virtual server.
redirect	(Optional) Displays information about redirect virtual servers.
detail	(Optional) Displays detailed information.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.0(7)XE	This command was introduced.
12.1(5)T	This command was integrated into Cisco IOS Release 12.1(5)T.
12.2	This command was integrated into Cisco IOS Release 12.2.
12.2(14)S	This command was integrated into Cisco IOS Release 12.2(14)S.
12.2(18)SXE	This command was integrated into Cisco IOS Release 12.2(18)SXE.
12.2(18)SXF	The output for this command was modified to reflect the GTP sticky query option on the **idle (virtual server)** command.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(33)SRC	The output for the **detail** keyword was updated to display information about the IOS SLB KeepAlive Application Protocol (KAL-AP) agent.
12.2(33)SRC1	The output for the **detail** keyword was updated to display information about Access Service Network (ASN) virtual servers.
15.0(1)S	The output was updated to display the virtual server's IPv4 or dual-stack address.

Usage Guidelines

If no options are specified, the command displays information about all virtual servers.

Examples

The following is sample output from the **show ip slb vservers** command:

```
Router# show ip slb vservers

slb vserver      prot  virtual              state         conns    interface(s)
-------------------------------------------------------------------------------
GGSN_SERVER1     UDP   4.3.2.1/32:0         OPERATIONAL   0        <any>
                       2342:2342:2343:FF04:2342:AA03:2323:8912/128
VS1              UDP   4.3.2.2/32:0         OPERATIONAL   0        <any>
                       2342:2342:2343:FF04:2343:AA03:2323:8912/128
VS2              UDP   4.3.2.3/32:0         OPERATIONAL   0        <any>
                       2342:2342:2343:FF04:2341:AA03:2323:8912/128
```

Table 49 describes the fields shown in the display.

Table 49 show ip slb vservers Field Descriptions

Field	Description
slb vserver	Name of the virtual server about which information is being displayed. Information about each virtual server is displayed on a separate line.
prot	Protocol being used by the virtual server.
virtual	Virtual IPv4 or dual-stack address of the virtual server, including the network mask, if configured.
state	Current state of the virtual server: • FAILED—Real server represented by this virtual server has been removed from use by the predictor algorithms; retry timer started. • OPERATIONAL—Functioning properly. • OUTOFSERVICE—Removed from the load-balancing predictor lists. • STANDBY—Backup virtual server, ready to become operational if active virtual server fails.
conns	Number of connections (or sessions, in general packet radio service [GPRS] load balancing and the Home Agent Director) associated with the virtual server.
interface	Type of interface.

The following sample output from the **show ip slb vservers detail** command shows detailed data for a virtual server with route health injection (advertise=TRUE):

```
Router# show ip slb vservers detail

VS, state = OPERATIONAL, v_index = 7, interface(s) = <any>
   virtual = 3.3.3.3/32:2123, UDP, service = GTP, advertise = TRUE
   ipv6 = 3:3:3:3:3:3:3:3/128
   serverfarm maps:
    map 1: priority = 1, serverfarm = SF, backup serverfarm= SF3
           ipv6 serverfarm = SF1 ipv6 backup serverfarm = SF2
    map 2: priority = 2, serverfarm = SF3, backup serverfarm= SF
          ipv6 serverfarm = SF2 ipv6 backup serverfarm = SF1
   serverfarm = <not assigned>, backup serverfarm = <not assigned>
   backup_serverfarm_hits = 0
   delay = 10, idle = 3600
   gtp: request idle = 30
        slb notification retry = 2
        gtp sticky query: <disabled>
        max retries: 0
   sticky: <none>
           group id = 0
   synguard counter = 0, synguard period = 0
   conns = 0, total conns = 0, syns = 0, syn drops = 0
   standby group = None
```

The following sample output from the **show ip slb vservers name detail** command shows detailed data for virtual server GGSN_SERVER with GTP sticky query enabled:

```
Router# show ip slb vservers name GGSN_SERVER detail

GGSN_SERVER, state = OPERATIONAL, v_index = 7, interface(s) = <any>
  virtual = 10.10.195.1/32:0, UDP, service = GTP, advertise = TRUE
```

```
server farm = GGSN, delay = 10, idle = 3600
gtp: request idle = 30, slb notification retry = 2
gtp sticky query: <enabled>, max retries: 3
sticky: <none>
sticky: group id = 4097 <assigned>
synguard counter = 0, synguard period = 0
conns = 0, total conns = 17192, syns = 0, syn drops = 0
standby group = None
```

Table 50 describes the fields shown in the display.

Table 50 show ip slb vservers name detail Field Descriptions

Field	Description
GGSN_SERVER	Name of the virtual server about which information is being displayed (in this case, GGSN_SERVER).
state	Current state of the virtual server: FAILED—Real server represented by this virtual server has been removed from use by the predictor algorithms; retry timer started. OPERATIONAL—Functioning properly. OUTOFSERVICE—Removed from the load-balancing predictor lists. STANDBY—Backup virtual server, ready to become operational if active virtual server fails.
v_index	Virtual index, out of a maximum of 500.
interface(s)	Type of interface.
virtual	Virtual IPv4 or dual-stack address of the virtual server, including the network mask, if configured.
UDP	Protocol being used by the virtual server (in this case, UDP).
service	Service, such as GTP, HTTP, or Telnet, associated with the virtual server (in this case, GTP).
advertise	Current state of host route advertisement for this virtual server: TRUE—Host route is being advertised. FALSE—Host route is not being advertised.
ipv6	For dual-stack, IPv6 address of the virtual server
server farm	Name of the server farm associated with the virtual server.
delay	Delay timer duration, in seconds, for this virtual server.
idle	Idle connection timer duration, in seconds, for this virtual server.
gtp request idle	GTP idle connection timer duration in seconds.
slb notification	Number of times IOS SLB can reassign a rejected Create PDP Context to a new real Cisco gateway GPRS support node (GGSN).
gtp sticky query	For GTP IMSI sticky, indicates whether IOS SLB is to query the GGSN before deleting any GTP IMSI sticky objects.
max retries	Maximum number of queries IOS SLB is to send to the GGSN when there is no response from the GGSN.
sticky	Indicates whether sticky connections are enabled for this virtual server.

Table 50 show ip slb vservers name detail Field Descriptions (continued)

sticky group id	Sticky group in which this virtual server is placed, for coupling of services.
synguard counter	Number of unacknowledged SYNchronize sequence numbers (SYNs) that are allowed to be outstanding to this virtual server.
synguard period	Interval, in milliseconds, for SYN threshold monitoring for this virtual server.
conns	Number of active connections currently associated with the virtual server.
total conns	Total number of connections that have been associated with the virtual server since coming INSERVICE.
syns	Number of SYNs handled by the virtual server in this period.
syn drops	Number of SYNs dropped by the virtual server in this period.
standby group	Hot Standby Router Protocol (HSRP) group name with which the virtual server is associated.

The following sample output from the **show ip slb vservers name detail** command shows detailed data for GTP virtual server GGSN_SERVER with maps enabled:

```
Router# show ip slb vservers name GGSN_SERVER detail
GGSN_SERVER, state = OPERATIONAL, v_index = 9, interface(s) = <any>
  virtual = 10.10.10.10/32:0, UDP, service = GTP, advertise = TRUE
  serverfarm maps:
  map 4: priority = 1, serverfarm = FARM4, backup = <none>
  map 1: priority = 3, serverfarm = FARM1, backup = FARM2
  map 5: priority = 4, serverfarm = FARM5, backup = <none>
  server farm = <not assigned>, delay = 10, idle = 3600
  gtp: request idle = 30, slb notification retry = 2
  gtp sticky query: <disabled>, max retries: 0
  sticky: <none>
  sticky: group id = 0
  synguard counter = 0, synguard period = 0
  conns = 0, total conns = 0, syns = 0, syn drops = 0
  standby group = None
```

Table 51 describes the fields shown in the display.

Table 51 show ip slb vservers name detail Field Descriptions

Field	Description
GGSN_SERVER	Name of the RADIUS virtual server about which information is being displayed (in this case, GGSN_SERVER).
state	Current state of the virtual server: FAILED—Real server represented by this virtual server has been removed from use by the predictor algorithms; retry timer started. OPERATIONAL—Functioning properly. OUTOFSERVICE—Removed from the load-balancing predictor lists. STANDBY—Backup virtual server, ready to become operational if active virtual server fails.
v_index	Virtual index, out of a maximum of 500.
interface(s)	Type of interface.

Table 51 show ip slb vservers name detail Field Descriptions (continued)

virtual	Virtual IPv4 or dual-stack address of the virtual server, including the network mask, if configured.
UDP	Protocol being used by the virtual server (in this case, UDP).
service	Service, such as GTP, HTTP, or Telnet, associated with the virtual server (in this case, GTP).
advertise	Current state of host route advertisement for this virtual server: TRUE—Host route is being advertised. FALSE—Host route is not being advertised.
serverfarm maps	List of IOS SLB server farm maps associated with this virtual server. Information about each map is displayed on a separate line.
priority	Priority of the map.
serverfarm	Server farm with which the map is associated.
backup	Backup server farm, if any.
server farm	Name of the server farm associated with the virtual server. Information about each server farm is displayed on a separate line.
map ID	Map associated with the server farm.
priority	Priority of the map.
delay	Delay timer duration, in seconds, for this virtual server.
idle	Idle connection timer duration, in seconds, for this virtual server.
gtp request idle	GTP idle connection timer duration in seconds.
slb notification	Number of times IOS SLB can reassign a rejected Create PDP Context to a new real Cisco gateway GPRS support node (GGSN).
gtp sticky query	For GTP IMSI sticky, indicates whether IOS SLB is to query the GGSN before deleting any GTP IMSI sticky objects.
max retries	Maximum number of queries IOS SLB is to send to the GGSN when there is no response from the GGSN.
sticky	Indicates whether sticky connections are enabled for this virtual server.
sticky group id	Sticky group in which this virtual server is placed, for coupling of services.
synguard counter	Number of unacknowledged SYNchronize sequence numbers (SYNs) that are allowed to be outstanding to this virtual server.
synguard period	Interval, in milliseconds, for SYN threshold monitoring for this virtual server.
conns	Number of active connections currently associated with the virtual server.
total conns	Total number of connections that have been associated with the virtual server since coming INSERVICE.
syns	Number of SYNs handled by the virtual server in this period.
syn drops	Number of SYNs dropped by the virtual server in this period.
standby group	Hot Standby Router Protocol (HSRP) group name with which the virtual server is associated.

The following sample output from the **show ip slb vservers name detail** command shows detailed data for an ASN virtual server:

```
Router# show ip slb vservers name ASN_VSERVER detail
ASN_VSERVER, state = OPERATIONAL, v_index = 10, interface(s) = <any>
  virtual = 2.2.2.2/32:0, UDP, service = ASNR6, advertise = TRUE
  server farm = SF, delay = 10, idle = 3600
  asn: request idle = 90
  asn: delete notif recvd = 2, nai-update notif recvd = 2
  asn: Notification Errors: Deletes = 1, nai-updates = 0
  sticky: <none>
  sticky: group id = 4097 <assigned>
  synguard counter = 0, synguard period = 0
  conns = 0, total conns = 156, syns = 0, syn drops = 0
  standby group = None
-------------------------------------------------------
                |      delete     |    nai-updates
   Real commn: |--------+--------+--------+-------------
  port = 63082 |  Recv  | Errors |  Recv  |  Errors
---------------+--------+--------+--------+-------------
    15.15.15.4       1         1        1         0
    15.15.15.5       1         0        1         0
```

Table 52 describes the fields shown in the display.

Table 52 show ip slb vservers name detail Field Descriptions

Field	Description
ASN_VSERVER	Name of the ASN virtual server about which information is being displayed (in this case, ASN_VSERVER).
state	Current state of the virtual server: FAILED—Real server represented by this virtual server has been removed from use by the predictor algorithms; retry timer started. OPERATIONAL—Functioning properly. OUTOFSERVICE—Removed from the load-balancing predictor lists. STANDBY—Backup virtual server, ready to become operational if active virtual server fails.
v_index	Virtual index, out of a maximum of 500.
interface(s)	Type of interface.
virtual	Virtual IPv4 or dual-stack address of the virtual server, including the network mask, if configured.
UDP	Protocol being used by the virtual server (in this case, UDP).
service	Service, such as GTP, HTTP, or Telnet, associated with the virtual server (in this case, ASNR6).
advertise	Current state of host route advertisement for this virtual server: TRUE—Host route is being advertised. FALSE—Host route is not being advertised.

Table 52 show ip slb vservers name detail Field Descriptions (continued)

server farm	Name of the server farm associated with the virtual server. Information about each server farm is displayed on a separate line.
delay	Delay timer duration, in seconds, for this virtual server.
idle	Idle connection timer duration, in seconds, for this virtual server.
asn: request idle	ASN idle connection timer duration in seconds.
asn: delete notif recvd	Number of delete notifications received.
asn: nai-update notif recvd	Number of NAI-update notifications received.
asn: Notification Errors: Deletes	Number of delete notification errors.
asn: Notification Errors: nai-updates	Number of NAI-update notification errors.
sticky	Indicates whether sticky connections are enabled for this virtual server.
sticky group id	Sticky group in which this virtual server is placed, for coupling of services.
synguard counter	Number of unacknowledged SYNchronize sequence numbers (SYNs) that are allowed to be outstanding to this virtual server.
synguard period	Interval, in milliseconds, for SYN threshold monitoring for this virtual server.
conns	Number of active connections currently associated with the virtual server.
total conns	Total number of connections that have been associated with the virtual server since coming INSERVICE.
syns	Number of SYNs handled by the virtual server in this period.
syn drops	Number of SYNs dropped by the virtual server in this period.
standby group	Hot Standby Router Protocol (HSRP) group name with which the virtual server is associated.
Real commn: port	Port used by the real server.

show ip slb wildcard

To display information about the wildcard representation for irtual servers, use the **show ip slb wildcard** command in privileged EXEC mode.

show ip slb wildcard

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.2(33)SRE	This command was introduced.
15.0(1)S	The output was updated to display the virtual server's IPv4, IPv6, or dual-stack address.

Examples

The following is sample output from the **show ip slb wildcard** command:

```
Router# show ip slb wildcard

Interface Source Address         Port  Destination Address    Port  Prot
ANY       0.0.0.0/0              0     3.3.3.3/32             2123  UDP
ANY       0.0.0.0/0              0     3.3.3.3/32             0     UDP
ANY       0.0.0.0/0              0     0.0.0.0/0              0     ICMP

Interface: ANY
Source Address [Port]: ::/0[0]
Destination Address [Port]: 2342:2342:2343:FF04:2341:AA03:2323:8912/128[0]
Protocol: ICMPV6

Interface: ANY
Source Address [Port]: ::/0[0]
Destination Address [Port]: 2342:2342:2343:FF04:2341:AA03:2323:8912/128[2123]
Protocol: UDP
```