

Snapshot Routing Commands

This chapter describes the commands needed for configuring snapshot routing on the router.

Snapshot routing enables a single router interface to call other routers during periods when the line protocol for the interface is up (these are called “active periods”). The router dials to all configured locations during such active periods to get routes from all the remote locations.

The router can be configured to exchange routing updates each time the line protocol goes from “down” to “up” or from “dialer spoofing” to “fully up.” The router can also be configured to dial the server router in the absence of regular traffic if the active period time expires.

Snapshot routing is useful in two command situations:

- Configuring static routes for DDR interfaces
- Reducing the overhead of periodic updates sent by routing protocols to remote branch offices over a dedicated serial line

For configuration tasks and examples, refer to the “Configuring Snapshot Routing” chapter in the *Dial Solutions Configuration Guide*.

dialer map snapshot

To define a dialer map for Cisco's snapshot routing protocol on a client router connected to a DDR interface, use the **dialer map snapshot** interface configuration command. To delete one or more previously defined snapshot routing dialer maps, use the **no** form of this command.

```
dialer map snapshot sequence-number dial-string  
no dialer map snapshot [sequence-number]
```

Syntax Description

<i>sequence-number</i>	A number in the range from 1 to 254, inclusive, that uniquely identifies a dialer map.
<i>dial-string</i>	Telephone number of a remote snapshot server to be called during an active period.

Default

No snapshot routing dialer map is defined.

Command Mode

Interface configuration

Usage Guidelines

This command first appeared in Cisco IOS Release 10.3.

Enter a command for each remote snapshot server router the client router should call during an active period.

Use the **no dialer map snapshot** form of this command to remove all previously defined snapshot dialer maps on the client router; use the **no dialer map snapshot** *sequence-number* form of this command to delete a specified dialer map.

Examples

The following examples define snapshot dialer maps on a client router:

```
dialer map snapshot 12 4151231234  
dialer map snapshot 13 4151231245
```

The following example removes one of the previously defined snapshot routing dialer maps on the client router:

```
no dialer map snapshot 13
```

Related Commands

You can use the master indexes or search online to find documentation of related commands.

```
dialer rotary-group  
interface dialer  
snapshot client
```

show snapshot

To display snapshot routing parameters associated with an interface, use the **show snapshot** EXEC command.

show snapshot [*type number*]

Syntax Description

type number (Optional) Interface type and number.

Command Mode

EXEC

Usage Guidelines

This command first appeared in Cisco IOS Release 10.3.

Sample Display

The following is sample output from the **show snapshot** command:

```
Router# show snapshot serial 1

Serial1 is up, line protocol is up, snapshot up
Options: dialer support
Length of each activation period: 3 minutes
Period between activations:      10 minutes
Retry period on connect failure: 10
For dialer address 240
Current queue: active, remaining active time: 3 minutes
Updates received this cycle: ip, ipx, appletalk
For dialer address 1
Current queue: client quiet, time until next activation: 7 minutes
```

Table 124 describes the fields shown in the display.

Table 124 Show Snapshot Field Descriptions

Field	Description
Serial1 is up, line protocol is up	Indicates whether the interface hardware is currently active (whether carrier detect is present) and if it has been taken down by an administrator.
snapshot up	Indicates whether the snapshot protocol is enabled on the interface.
Options:	Option configured on the snapshot client or snapshot server interface configuration command. It can be one of the following: <ul style="list-style-type: none"> dialer support—Snapshot routing is configured with the dialer keyword. stay asleep on carrier up—Snapshot routing is configured with the suppress-statechange-updates keyword.
Length of each activation period	Length of the active period.
Period between activations	Length of the quiet period.

Table 124 Show Snapshot Field Descriptions (Continued)

Field	Description
Retry period on connect failure	Length of the retry period.
For dialer address	Displays information about each dialer rotary group configured with the dialer map command.
Current queue:	Indicates which period snapshot routing is currently in. It can be one of the following: <ul style="list-style-type: none"> • active—Routing updates are being exchanged. • client quiet—The client router is in a quiet period and routing updates are not being exchanged. • server quiet—The server router is in a quiet period, awaiting an update from the client router before awakening, and routing updates are not being exchanged. • post active—Routing updates are not being exchanged. If the server router receives an update from the client router, it processes it but does not begin an active period. This allows time for resynchronization of active periods between the client and server routers. • no queue—This is a temporary holding queue for new snapshot routing interfaces and for interfaces being deleted.
remaining active time time until next activation	Time remaining in the current period.
Updates received this cycle	Protocols from which routing updates have been received in the current active period. This line is displayed only if the router or access server is in an active period.

snapshot client

To configure a client router for snapshot routing, use the **snapshot client** interface configuration command. To disable a client router, use the **no** form of this command.

snapshot client *active-time quiet-time* [**suppress-statechange-updates**] [**dialer**]
no snapshot client *active-time quiet-time* [**suppress-statechange-updates**] [**dialer**]

Syntax Description

<i>active-time</i>	Amount of time, in minutes, that routing updates are regularly exchanged between the client and server routers. This can be an integer in the range 5 to 100. There is no default value. A typical value is 5 minutes.
<i>quiet-time</i>	Amount of time, in minutes, that routing entries are frozen and remain unchanged between active periods. Routes are not aged during the quiet period, so they remain in the routing table as if they were static entries. This argument can be an integer from 8 to 100000. There is no default value. The minimum quiet time is generally the active time plus 3.
suppress-statechange-updates	(Optional) Disables the exchange of routing updates each time the line protocol goes from “down” to “up” or from “dialer spoofing” to “fully up.”
dialer	(Optional) Used if the client router has to dial up the remote router in the absence of regular traffic.

Defaults

Snapshot routing is disabled.

The *active-time* and *quiet-time* arguments have no default values.

Command Mode

Interface configuration

Usage Guidelines

This command first appeared in Cisco IOS Release 10.3.

The value of the *active-time* argument must be the same for the client and server routers.

To specify the remote server routers to be called by this client router during each active period, use the **dialer map snapshot** command.

Example

The following example configures a client router for snapshot routing:

```
interface dialer 1
  snapshot client 5 600 suppress-statechange-updates dialer
```

Related Commands

You can use the master indexes or search online to find documentation of related commands.

clear snapshot quiet-time

dialer map snapshot

show snapshot

snapshot server

snapshot server

To configure a server router for snapshot routing, use the **snapshot server** interface configuration command. To disable a server router, use the **no** form of this command.

snapshot server *active-time* [**dialer**]
no snapshot server *active-time* [**dialer**]

Syntax Description

active-time Amount of time, in minutes, that routing updates are regularly exchanged between the client and server routers. This can be an integer in the range 5 to 100. There is no default value. A typical value is 5 minutes.

dialer (Optional) Allows the client router to dial up the remote router in the absence of regular traffic.

Defaults

Snapshot routing is disabled.

The *active-time* argument has no default value.

Command Mode

Interface configuration

Usage Guidelines

This command first appeared in Cisco IOS Release 10.3.

The value of the *active-time* argument must be the same for the client and server routers.

Example

The following example configures a server router for snapshot routing:

```
interface dialer 1
  snapshot server 5
```

Related Commands

You can use the master indexes or search online to find documentation of related commands.

show snapshot
snapshot client