



Configuring Dial Backup Using Dialer Watch

First Published: February 24, 1998

Last Updated: February 18, 2010

The Dialer Watch feature provides enhancements to the Hot Standby Router Protocol (HSRP) function. This feature provides the backup router and backup links as soon as the primary routers and links become inactive.

Finding Feature Information

Your software release may not support all the features documented in this module. For the latest feature information and caveats, see the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the “[Feature Information for Configuring Dial Backup Using Dialer Watch](#)” section on [page 16](#).

Use Cisco Feature Navigator to find information about platform support and Cisco IOS and Catalyst OS software image support. To access Cisco Feature Navigator, go to <http://www.cisco.com/go/cfn>. An account on Cisco.com is not required.

Contents

- [Prerequisites for Configuring Dial Backup Using Dialer Watch, page 2](#)
- [Information About Configuring Dial Backup Using Dialer Watch, page 2](#)
- [How to Configure Dialer Backup Using Dialer Watch, page 3](#)
- [Configuration Examples for Dialer Watch, page 7](#)
- [Additional References, page 14](#)
- [Feature Information for Configuring Dial Backup Using Dialer Watch, page 16](#)



Americas Headquarters:
Cisco Systems, Inc., 170 West Tasman Drive, San Jose, CA 95134-1706 USA

Prerequisites for Configuring Dial Backup Using Dialer Watch

- Decide which interfaces on which routers will act as primary and secondary interfaces. Unlike traditional backup methods, you can define multiple interfaces on multiple routers instead of a singly defined interface on one router.
- Determine which addresses and networks are to be monitored or watched. Typically, this will be the address of an interface on a remote router or a network advertised by a central or remote router.

Information About Configuring Dial Backup Using Dialer Watch

To configure dial backup using the Dialer Watch feature, you should understand the following concept:

- [Dialer Watch Overview, page 2](#)

Dialer Watch Overview

Dialer Watch is a backup feature that integrates dial backup with routing capabilities. Prior dial backup implementations used the following conditions to trigger backup:

- Interesting packets were defined at central and remote routers using dial-on-demand routing (DDR).
- Connection loss occurred on a primary interface using a back up interface with floating static routes.
- Traffic thresholds were exceeded using a dialer load threshold.

Prior backup implementations may not have supplied optimum performance on some networks, such as those using Frame Relay multipoint subinterfaces or Frame Relay connections that do not support end-to-end permanent virtual circuit (PVC) status updates.

Dialer Watch provides reliable connectivity without relying solely on defining interesting traffic to trigger outgoing calls at the central router. Dialer Watch uses the convergence times and characteristics of dynamic routing protocols. Integrating backup and routing features enables Dialer Watch to monitor every deleted route. By configuring a set of watched routes that define the primary interface, you are able to monitor and track the status of the primary interface as watched routes are added and deleted.

Monitoring the watched routes is done in the following sequence:

1. Whenever a watched route is deleted, Dialer Watch checks whether there is at least one valid route for any of the defined watched IP addresses.
2. If no valid route exists, the primary line is considered down and unusable.
3. If a valid route exists for at least one of the defined IP addresses and if the route is pointing to an interface other than the backup interface configured for Dialer Watch, the primary link is considered up.
4. If the primary link goes down, Dialer Watch is immediately notified by the routing protocol and the secondary link is brought up.
5. Once the secondary link is up, at the expiration of each idle timeout, the primary link is rechecked.
6. If the primary link remains down, the idle timer is indefinitely reset.
7. If the primary link is up, the secondary backup link is disconnected. Additionally, you can set a disable timer to create a delay for the secondary link to disconnect, after the primary link is reestablished.

Dialer Watch provides the following advantages:

- Routing—Backup initialization is linked to the dynamic routing protocol, rather than a specific interface or static route entry. Therefore, both primary and backup interfaces can be any interface type, and can be used across multiple interfaces and multiple routers. Dialer Watch also relies on convergence, which is sometimes preferred over traditional DDR links.
- Routing protocol independent—Static routes or dynamic routing protocols, such as Interior Gateway Routing Protocol (IGRP), Enhanced IGRP (EIGRP) or Open Shortest Path First (OSPF) can be used.
- Nonpacket semantics—Dialer Watch does not exclusively rely on interesting packets to trigger dialing. The link is automatically brought up when the primary line goes down without postponing dialing.
- Dial backup reliability—DDR redial functionality is extended to dial indefinitely in the event that secondary backup lines are not initiated. Typically, DDR redial attempts are affected by enable-timeouts and wait-for-carrier time values. Intermittent media difficulties or flapping interfaces can cause problems for traditional DDR links. However, Dialer Watch automatically reestablishes the secondary backup line on ISDN, synchronous, and asynchronous serial links.

The following prerequisites apply to Dialer Watch:

- The router is dial backup capable, meaning the router has a data communications equipment (DCE), terminal adapter, or network termination 1 device attached that supports V.25bis.
- The router is configured for DDR. This configuration includes traditional commands such as **dialer map** and **dialer in-band** commands, and so on.
- Dialer Watch is only supported for IP at this time.

For information on how to configure traditional DDR for dial backup, see the other chapters in the “Dial Backup” part of this publication.

**Note**

The Multilink PPP Minimum Links Mandatory feature has priority over the Dialer Watch feature. If both features are configured simultaneously then the ISDN link will not become inactive even if the primary link is active.

How to Configure Dialer Backup Using Dialer Watch

This section contains the following sections:

- [Configuring the Interface to Perform DDR Backup, page 3](#) (Required)
- [Creating a Dialer List, page 4](#) (Required)
- [Setting the Disable Timer on the Backup Interface, page 5](#) (Optional)

Configuring the Interface to Perform DDR Backup

Perform this task to configure the interface to perform DDR backup. This task initiates Dialer Watch.

SUMMARY STEPS

1. **enable**
2. **configure terminal**

3. **interface** *type number*
4. **dialer watch-group** *group-number*

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: Router> enable	Enables privileged EXEC mode. <ul style="list-style-type: none"> • Enter your password if prompted.
Step 2	configure terminal Example: Router# configure terminal	Enters global configuration mode.
Step 3	interface <i>type number</i> Example: Router(config)# interface bri0	Enters interface configuration mode.
Step 4	dialer watch-group <i>group-number</i> Example: Router(config)# dialer watch-group 1	Enables Dialer Watch on the backup interface.

Creating a Dialer List

Perform this task to create a dialer list. This task defines the IP addresses that you want to be watched.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **dialer watch-list** *group-number* **ip** *ip-address address-mask*

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: Router> enable	Enables privileged EXEC mode. <ul style="list-style-type: none">• Enter your password if prompted.
Step 2	configure terminal Example: Router# configure terminal	Enters global configuration mode.
Step 3	dialer watch-list <i>group-number</i> ip <i>ip-address</i> <i>address-mask</i> Example: Router(config)# dialer watch-list 1 ip 192.0.2.0 255.255.255.224	Defines all IP addresses to be watched. <ul style="list-style-type: none">• The dialer watch-list command is the means to detect if the primary interface is up or down. The primary interface is determined to be up when there is an available route with a valid metric to any of the addresses defined in this list, and it points to an interface other than the interface on which the dialer watch-group command is defined. The primary interface is determined to be down when there is no available route to any of the addresses defined in the dialer watch-list command.

Setting the Disable Timer on the Backup Interface

Perform this task to set the disable timer on the backup interface. You may want to implement a delay before the backup interface is dropped once the primary interface recovers. This delay can ensure stability, especially for flapping interfaces or interfaces experiencing frequent route changes.

**Note**

The **dialer watch-disable** command used in Dialer Watch configurations was replaced in Cisco IOS Release 12.3(11)T by the **dialer watch-list delay** command. When using the **dialer watch-list delay** command in software later than Cisco IOS Release 12.3(11)T, you can specify both a connect and disconnect timer for the disable timer. The disconnect time specifies that the disconnect timer is started when the secondary link is up and after the idle timeout period has expired, and only when software has determined that the primary route has come up.

In Cisco IOS Releases Prior to 12.3(11)T

Perform this task to apply a disable timer.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **interface** *type number*
4. **dialer watch-disable** *seconds*

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: Router> enable	Enables privileged EXEC mode. <ul style="list-style-type: none">Enter your password if prompted.
Step 2	configure terminal Example: Router# configure terminal	Enters global configuration mode.
Step 3	interface <i>type number</i> Example: Router(config)# interface ethernet 1/0	Enters interface configuration mode.
Step 4	dialer watch-disable <i>seconds</i> Example: Router(config-if)# dialer watch-disable seconds	Applies a disable timer to the interface.

In Cisco IOS Release 12.3(11)T and Later

Perform this task to apply a disable timer.

SUMMARY STEPS

- enable**
- configure terminal**
- interface** *type number*
- dialer watch-list** *group-number delay {connect connect-time | disconnect disconnect-time}*

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: Router> enable	Enables privileged EXEC mode. <ul style="list-style-type: none">Enter your password if prompted.
Step 2	configure terminal Example: Router# configure terminal	Enters global configuration mode.

	Command or Action	Purpose
Step 3	interface <i>type number</i> Example: Router(config)# interface ethernet 1/0	Enters interface configuration mode.
Step 4	dialer watch-list <i>group-number delay {connect connect-time disconnect disconnect-time}</i> Example: Router(config-if)# dialer watch-list 1 delay connect 50	Configures a disable time. <ul style="list-style-type: none"> • <i>group-number</i>—Group number assigned to the list. Valid group numbers are from 1 to 255. • delay—Specifies that the router will delay dialing the secondary link when the primary link becomes unavailable. • connect <i>connect-time</i>—Time, in seconds, after which the router rechecks for availability of the primary link. If the primary link is still unavailable, the secondary link is then dialed. Valid times range from 1 to 2147483 seconds. • disconnect <i>disconnect-time</i>—Time, in seconds, that specifies when to disconnect. Disconnect occurs when the secondary link is up and after the idle timeout period has expired, and only when software has determined that the primary route has come up. Valid times range from 1 to 2147483 seconds.

Configuration Examples for Dialer Watch

The **dialer watch-disable** command used in Dialer Watch configurations was replaced in Cisco IOS Release 12.3(11)T by the **dialer watch-list delay** command. The following sections provide examples of how to configure Dialer Watch in software before and after the **dialer watch-disable** command was replaced.

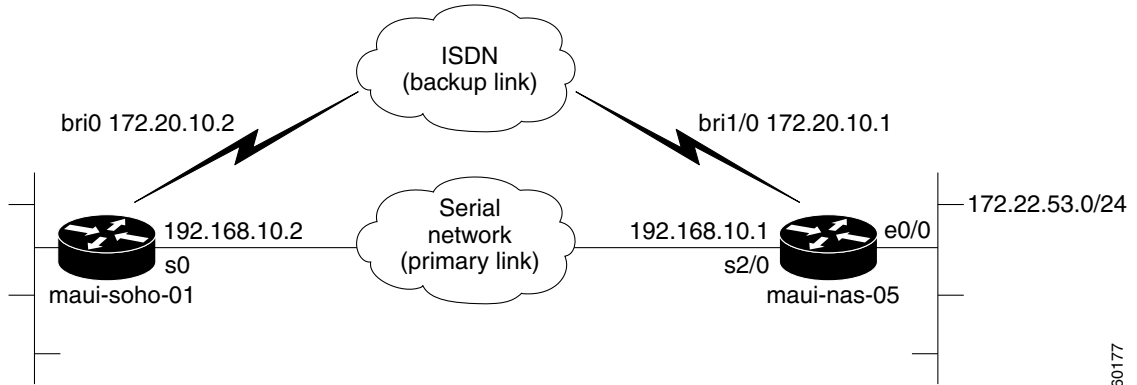
- [Configuring Dialer Watch Prior to Cisco IOS Release 12.3\(11\)T: Example, page 7](#)
- [Configuring Dialer Watch with Cisco IOS Release 12.3\(11\)T and Later Releases: Example, page 11](#)

Configuring Dialer Watch Prior to Cisco IOS Release 12.3(11)T: Example

In the following example, an ISDN BRI line is used to back up a serial leased line connection by configuring the Dialer Watch feature on a router named maui-soho-01. The Dialer Watch feature enables the router to monitor the existence of a specified route. If that route is not present, the backup interface is activated. Unlike other backup methods, the Dialer Watch feature does not require interesting traffic to activate the backup interface. The configuration shown in [Figure 1](#) uses legacy dial-on-demand routing (DDR) and the Open Shortest Path First (OSPF) routing protocol. Dialer profiles can be used in place of DDR. Once the backup connection is activated, you must ensure that the routing table is updated to use the new backup route. Additional information about the Dialer Watch feature is available at the following website:

<http://www.cisco.com/warp/public/129/bri-backup-map-watch.html>

For additional information on configuring legacy DDR, dialer profiles, PPP, and traditional dial backup features, see the relevant chapters in this publication.

Figure 1 *Dialer Watch for Frame Relay Interfaces***Note**

The following example uses commands supported in Cisco IOS software prior to Release 12.3(11)T. See the updated example for configuring Dialer Watch after Cisco IOS Release 12.3(11)T that follows this example.

Configuration for maui-soho-01

```
maui-soho-01# show running-config
```

```
Building configuration...
```

```
Current configuration : 1546 bytes
```

```
!
version 12.1
no service single-slot-reload-enable
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname maui-soho-01
!
logging rate-limit console 10 except errors
aaa new-model
aaa authentication login default local
aaa authentication login NO_AUTHEN none
aaa authentication ppp default local
!This is basic AAA configuration for PPP calls.
enable secret 5 <deleted>
!
username maui-nas-05 password 0 cisco
!Username for remote router (maui-nas-05) and shared secret.
!Shared secret(used for CHAP authentication) must be the same on both sides.
ip subnet-zero
no ip finger
!
isdn switch-type basic-ni
!
interface Loopback0
 ip address 209.165.200.225 255.255.255.224
!
interface Ethernet0
 ip address 209.165.200.226 255.255.255.224
!
interface Serial0
!Primary link.
 ip address 209.165.200.227 255.255.255.224
```



```
encapsulation ppp
ppp authentication chap
!
interface BRI0
 ip address 209.165.200.228 255.255.255.224
!IP address for the BRI interface (backup link).
 encapsulation ppp
 dialer idle-timeout 30
!Idle timeout(in seconds)for this backup link.
!Dialer watch checks the status of the primary link every time the
!idle-timeout expires.
 dialer watch-disable 15
!Delays disconnecting the backup interface for 15 seconds after the
!primary interface is found to be up.
 dialer map ip 192.0.2.0 name maui-nas-05 broadcast 5550111
!Dialer map for the BRI interface of the remote router.
 dialer map ip 192.0.2.1 name maui-nas-05 broadcast 5550111
!Map statement for the route/network being watched by the
!dialer watch-list command.
!This address must exactly match the network configured with the
!dialer watch-list command.
!When the watched route disappears, this dials the specified phone number.
 dialer watch-group 8
!Enable Dialer Watch on this backup interface.
!Watch the route specified with dialer watch-list 8.
 dialer-group 1
!Apply interesting traffic defined in dialer-list 1.
 isdn switch-type basic-ni
 isdn spid1 51255522220101 5550112
 isdn spid2 51255522230101 5550112
 ppp authentication chap
!Use chap authentication.
!
router ospf 5
 log-adjacency-changes
 network 209.165.200.230 255.255.255.224 area 0
 network 209.165.200.231 255.255.255.224 area 0
 network 209.165.200.232 255.255.255.224 area 0
 network 209.165.200.233 255.255.255.224 area 0
!
ip classless
no ip http server
!
dialer watch-list 8 ip 209.165.200.234 255.255.255.224
!This defines the route(s) to be watched.
!This exact route(including subnet mask) must exist in the routing table.
!Use the dialer watch-group 8 command to apply this list to the backup interface.
access-list 101 remark Define Interesting Traffic
access-list 101 deny ospf any any
!Mark OSPF as uninteresting.
!This will prevent OSPF hellos from keeping the link up.
Access-list 101 permit ip any any
dialer-list 1 protocol ip list 101
!Interesting traffic is defined by access-list 101.
!This is applied to BRI0 using dialer-group 1.
!
line con 0
 login authentication NO_AUTHEN
 transport input none
line vty 0 4
!
end
```

Configuration for maui-nas-05

```
maui-nas-05# show running-config
```

```
Building configuration...
```

```
Current configuration:
```

```
!
version 12.1
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname maui-nas-05
!
aaa new-model
aaa authentication login default local
aaa authentication login NO_AUTHEN none
aaa authentication ppp default local
! -- This is basic AAA configuration for PPP calls.
Enable secret 5 <deleted>
!
username maui-soho-01 password 0 cisco
!Username for remote router (maui-soho-01) and shared secret.
!Shared secret(used for CHAP authentication) must be the same on both sides.
!
ip subnet-zero
!
isdn switch-type basic-ni
!
interface Loopback0
 ip address 209.165.200.230 255.255.255.224
!
interface Ethernet0/0
 ip address 209.165.200.231 255.255.255.224
!
interface Ethernet0/1
 no ip address
 shutdown
!
interface BRI1/0
!Backup link.
 ip address 209.165.200.231 255.255.255.224
 encapsulation ppp
 dialer map ip 172.20.10.2 name maui-soho-01 broadcast
!Dialer map with IP address and authenticated username for remote destination.
!The name should match the authentication username provided by the remote side.
!The dialer map statement is used even though this router is not dialing out.
 Dialer-group 1
!Apply interesting traffic defined in dialer-list 1.
 isdn switch-type basic-ni
 isdn spid1 51255501110101 5550111
 isdn spid2 51255501120101 5550112
 ppp authentication chap
!
.
.
.
!
interface Serial2/0
 ip address 209.165.200.232 255.255.255.224
 encapsulation ppp
 clockrate 64000
 ppp authentication chap
```

```

!
.
.
.
!
router ospf 5
 network 209.165.200.230 255.255.255.224 area 0
 network 209.165.200.231 255.255.255.224 area 0
 network 209.165.200.232 255.255.255.224 area 0
 network 209.165.200.233 255.255.255.224 area 0
 default-information originate
!
ip classless
ip route 209.165.200.229 255.255.255.224 Ethernet0/0
no ip http server
!
dialer-list 1 protocol ip permit
!This defines all IP traffic as interesting.
!
line con 0
 login authentication NO_AUTHEN
 transport input none
line 97 102
line aux 0
line vty 0 4
!
end

```

Configuring Dialer Watch with Cisco IOS Release 12.3(11)T and Later Releases: Example

The following example shows how to configure Dialer Watch using the **dialer watch-list delay** command that replaced the **dialer watch-disable** command.

Configuration for maui-soho-01

```

maui-soho-01# show running-config
Building configuration...

Current configuration : 1546 bytes
!
version 12.4
no service single-slot-reload-enable
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname maui-soho-01
!
logging rate-limit console 10 except errors
aaa new-model
aaa authentication login default local
aaa authentication login NO_AUTHEN none
aaa authentication ppp default local
!This is basic AAA configuration for PPP calls.
enable secret 5 <deleted>
!
username maui-nas-05 password 0 cisco
!Username for remote router (maui-nas-05) and shared secret.

```

```

!Shared secret(used for CHAP authentication) must be the same on both sides.
ip subnet-zero
no ip finger
!
isdn switch-type basic-ni
!
interface Loopback0
 ip address 209.165.200.225 255.255.255.224
!
interface Ethernet0
 ip address 209.165.200.226 255.255.255.224
!
interface Serial0
!Primary link.
 ip address 209.165.200.227 255.255.255.224
 encapsulation ppp
 ppp authentication chap
!
interface BRI0
 ip address 209.165.200.228 255.255.255.224
!IP address for the BRI interface (backup link).
 encapsulation ppp
 dialer idle-timeout 30
!Idle timeout(in seconds)for this backup link.
!Dialer watch checks the status of the primary link every time the
!idle-timeout expires.
 dialer map ip 192.0.2.1 name maui-nas-05 broadcast 5550111
!Dialer map for the BRI interface of the remote router.
 dialer map ip 192.0.2.2 name maui-nas-05 broadcast 5550111
!Map statement for the route/network being watched by the
!dialer watch-list command.
!This address must exactly match the network configured with the
!dialer watch-list command.
!When the watched route disappears, this dials the specified phone number.
 dialer watch-group 8
!Enable Dialer Watch on this backup interface.
!Watch the route specified with dialer watch-list 8.
 dialer-group 1
!Apply interesting traffic defined in dialer-list 1.
isdn switch-type basic-ni
 isdn spid1 51255522220101 5552222
 isdn spid2 51255522230101 5552223
 ppp authentication chap
!Use chap authentication.
dialer watch-list 8 delay disconnect 15
!Delays disconnecting the backup interface for 15 seconds after the
!primary interface is found to be up.
!
router ospf 5
 log-adjacency-changes
 network 209.165.200.225 255.255.255.224 area 0
 network 209.165.200.226 255.255.255.224 area 0
 network 209.165.200.227 255.255.255.224 area 0
 network 209.165.200.228 255.255.255.224 area 0
!
ip classless
no ip http server
!
dialer watch-list 8 ip 209.165.200.229 255.255.255.224
!This defines the route(s) to be watched.
!This exact route(including subnet mask) must exist in the routing table.
!Use the dialer watch-group 8 command to apply this list to the backup interface.
access-list 101 remark Define Interesting Traffic
access-list 101 deny ospf any any

```

```

!Mark OSPF as uninteresting.
!This will prevent OSPF hellos from keeping the link up.
Access-list 101 permit ip any any
dialer-list 1 protocol ip list 101
!Interesting traffic is defined by access-list 101.
!This is applied to BRI0 using dialer-group 1.
!
line con 0
  login authentication NO_AUTHEN
  transport input none
line vty 0 4
!
end

```

Configuration for maui-nas-05

```

maui-nas-05# show running-config
Building configuration...

Current configuration:
!
version 12.4
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname maui-nas-05
!
aaa new-model
aaa authentication login default local
aaa authentication login NO_AUTHEN none
aaa authentication ppp default local
! -- This is basic AAA configuration for PPP calls.
Enable secret 5 <deleted>
!
username maui-soho-01 password 0 cisco
!Username for remote router (maui-soho-01) and shared secret.
!Shared secret(used for CHAP authentication) must be the same on both sides.
!
ip subnet-zero
!
isdn switch-type basic-ni
!
interface Loopback0
  ip address 209.165.200.225 255.255.255.224
!
interface Ethernet0/0
  ip address 209.165.200.226 255.255.255.224
!
interface Ethernet0/1
  no ip address
  shutdown
!
interface BRI1/0
!Backup link.
  ip address 209.165.200.227 255.255.255.224
  encapsulation ppp
  dialer map ip 192.0.2.2 name maui-soho-01 broadcast
!Dialer map with IP address and authenticated username for remote destination.
!The name should match the authentication username provided by the remote side.
!The dialer map statement is used even though this router is not dialing out.
  Dialer-group 1
!Apply interesting traffic defined in dialer-list 1.

```

```

isdn switch-type basic-ni
isdn spid1 51255501110101 5550111
isdn spid2 51255501120101 5550112
ppp authentication chap
!
! <<-- irrelevant output removed
!
interface Serial2/0
ip address 192.168.10.1 255.255.255.252
encapsulation ppp
clockrate 64000
ppp authentication chap
!
! <<-- irrelevant output removed
!
router ospf 5
network 209.165.200.225 255.255.255.224 area 0
network 209.165.200.226 255.255.255.224 area 0
network 209.165.200.227 255.255.255.224 area 0
network 209.165.200.228 255.255.255.224 area 0
default-information originate
!
ip classless
ip route 209.165.200.225 255.255.255.224 Ethernet0/0
no ip http server
!
dialer-list 1 protocol ip permit
!This defines all IP traffic as interesting.
!
line con 0
login authentication NO_AUTHEN
transport input none
line 97 102
line aux 0
line vty 0 4
!
end

```

Additional References

The following sections provide references related to the Configuring Dial Backup Using Dialer Watch.

Related Documents

Related Topic	Document Title
Cisco IOS commands	Cisco IOS Master Commands List, All Releases
Dial commands	Cisco IOS Dial Technologies Command Reference

Standards

Standard	Title
No new or modified standards are supported by this feature, and support for existing standards has not been modified by this feature.	—

MIBs

MIB	MIBs Link
No new or modified MIBs are supported, and support for existing MIBs has not been modified.	To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL: http://www.cisco.com/go/mibs

RFCs

RFC	Title
No new or modified RFCs are supported by this feature, and support for existing RFCs has not been modified by this feature.	—

Technical Assistance

Description	Link
<p>The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies.</p> <p>To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds.</p> <p>Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.</p>	http://www.cisco.com/cisco/web/support/index.html

Feature Information for Configuring Dial Backup Using Dialer Watch

Table 1 lists the release history for this feature.

Not all commands may be available in your Cisco IOS software release. For release information about a specific command, see the command reference documentation.

Use Cisco Feature Navigator to find information about platform support and software image support. Cisco Feature Navigator enables you to determine which Cisco IOS and Catalyst OS software images support a specific software release, feature set, or platform. To access Cisco Feature Navigator, go to <http://www.cisco.com/go/cfn>. An account on Cisco.com is not required.



Note

Table 1 lists only the Cisco IOS software release that introduced support for a given feature in a given Cisco IOS software release train. Unless noted otherwise, subsequent releases of that Cisco IOS software release train also support that feature.

Table 1 Feature Information for Configuring Dial Backup Using Dialer Watch

Feature Name	Releases	Feature Information
Dialer Watch	11.3(2)T	The Dialer Watch feature provides enhancements to the Hot Standby Router Protocol (HSRP) function. This feature provides the backup router and backup links as soon as the primary routers and links become inactive. The following commands were introduced or modified: dialer watch-disable, dialer watch-group, dialer watch-list.

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: www.cisco.com/go/trademarks. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

© 1998–2010 Cisco Systems, Inc. All rights reserved.