



# Dial Backup for Serial Lines Commands

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This chapter describes the commands used to configure a primary serial interface to use a specific dial backup interface, whether the primary interface is configured for DDR or for Frame Relay or X.25 over a leased line.

The backup interface in each of these cases must be configured for DDR. The DDR configuration specifies the conditions in which the backup interface makes dial calls.

In Cisco IOS Release 11.3, all commands supported on the Cisco 7500 series are supported on the Cisco 7000 series.

For configuration tasks and examples, refer to the “Configuring Dial Backup for Serial Interfaces” chapter in the *Dial Solutions Configuration Guide*.

For information about configuring the specific backup interface for DDR, see the “Configuring Legacy DDR Spokes” chapter (for point-to-point DDR connections) or the “Configuring Legacy DDR Hubs” chapter (for point-to-multipoint DDR connections) in the *Dial Solutions Configuration Guide*.

## backup delay

To define how much time should elapse before a secondary line status changes after a primary line status has changed, use the **backup delay** interface configuration command. To return to the default, so that as soon as the primary fails, the secondary is immediately brought up without delay, use the **no** form of this command.

```
backup delay {enable-delay | never} {disable-delay | never}  
no backup delay {enable-delay | never} {disable-delay | never}
```

### Syntax Description

<i>enable-delay</i>	Number of seconds that elapse after the primary line goes down before the Cisco IOS software activates the secondary line.
<i>disable-delay</i>	Number of seconds that elapse after the primary line comes up before the Cisco IOS software deactivates the secondary line.
<b>never</b>	Prevents the secondary line from being activated or deactivated.

### Default

0 seconds

### Command Mode

Interface configuration

### Usage Guidelines

This command first appeared in Cisco IOS Release 10.0.

For environments in which there are spurious signal disruptions that may appear as intermittent lost carrier signals, we recommend that you enable some delay before activating and deactivating a secondary line.

### Example

The following example sets a 10-second delay on deactivating the secondary line (serial interface 0); however, the line is activated immediately:

```
interface serial 0  
  backup delay 0 10
```

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## backup interface

To configure an interface as a secondary or dial backup, use the **backup interface** interface configuration command. To disable this feature, use the **no** form of this command.

**backup interface** *type number*  
**no backup interface** *type number*

**backup interface** *slot/port* (for the Cisco 7200 series and Cisco 7500 series)  
**no backup interface** *slot/port*

### Syntax Description

<i>type number</i>	Interface type and port number to use as the backup interface.
<i>slot/port</i>	Backplane slot number and port number on the interface. See your hardware installation manual for the specific slot and port numbers.
<i>slot/port</i>	Backplane slot number and port number on the interface. See your hardware installation manual for the specific slot and port numbers.

### Default

Disabled

### Command Mode

Interface configuration

### Usage Guidelines

This command first appeared in Cisco IOS Release 11.0.

The interface you define with this command can back up only one other interface.

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**Note** Routers support only serial and ISDN backup interfaces. Access servers support both asynchronous and serial backup interfaces.

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### Examples

The following example sets serial 1 as the backup line to serial 0:

```
interface serial 0
  backup interface serial 1
```

## backup load

To set a traffic load threshold for dial backup service, use the **backup load** interface configuration command. To return to the default value, use the **no** form of this command.

```
backup load {enable-threshold | never} {disable-load | never}  
no backup load {enable-threshold | never} {disable-load | never}
```

### Syntax Description

<i>enable-threshold</i>	Percentage of the primary line's available bandwidth that the traffic load must exceed to enable dial backup.
<i>disable-load</i>	Percentage of the primary line's available bandwidth that the traffic load must be less than to disable dial backup.
<b>never</b>	Sets the secondary line never to be activated due to traffic load.

### Default

No threshold is predefined.

### Command Mode

Interface configuration

### Usage Guidelines

This command first appeared in Cisco IOS Release 10.0.

When the transmitted or received load on the primary line is greater than the value assigned to the *enable-threshold* argument, the secondary line is enabled.

The secondary line is disabled when one of the following conditions occurs:

- The transmitted load on the primary line plus the transmitted load on the secondary line is less than the value entered for the *disable-load* argument.
- The received load on the primary line plus the received load on the secondary line is less than the value entered for the *disable-load* argument.

If the **never** keyword is used instead of an *enable-threshold* value, the secondary line is never activated because of traffic load. If the **never** keyword is used instead of a *disable-load* argument, the secondary line is never activated because of traffic load.

### Example

The following example sets the traffic load threshold to 60 percent of the primary line serial 0. When that load is exceeded, the secondary line is activated, and will not be deactivated until the combined load is less than 5 percent of the primary bandwidth.

```
interface serial 0  
  backup load 60 5  
  backup interface serial 1
```