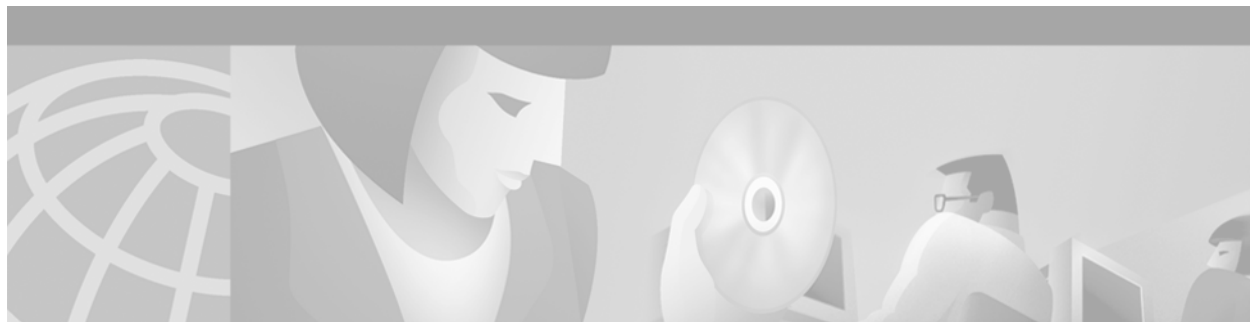




Configuring Compressed Real-Time Protocol

This chapter describes the tasks for configuring the Compressed Real-Time Protocol (CRTP) header.

For complete conceptual information, see the section [“Compressed Real-Time Protocol”](#) in the chapter [“Link Efficiency Mechanisms Overview”](#) in this book.

For a complete description of the CRTP commands in this chapter, refer to the *Cisco IOS IP Command Reference*. To locate documentation of other commands that appear in this chapter, use the command reference master index or search online.

To identify the hardware platform or software image information associated with a feature, use the Feature Navigator on Cisco.com to search for information about the feature or refer to the software release notes for a specific release. For more information, see the [“Identifying Supported Platforms”](#) section in the [“Using Cisco IOS Software”](#) chapter in this book.

Compressed Real-Time Protocol Configuration Task List

To configure the CRTP header, perform the tasks described in the following sections. Either one of the tasks in the first two sections is required; the tasks in the remaining sections are optional.

- [Enabling CRTP on a Serial Interface](#) (Required)
- [Enabling CRTP with Frame Relay Encapsulation](#) (Required)
- [Changing the Number of Header Compression Connections](#) (Optional)
- [Displaying System and Network Statistics](#) (Optional)



Note

You must enable compression on both ends of a serial connection.

See the end of this chapter for [“Compressed Real-Time Protocol Configuration Examples.”](#)

Prerequisites

CRTP is supported on serial lines using Frame Relay, High-Level Data Link Control (HDLC), or PPP encapsulation. It is also supported over ISDN interfaces.

You should configure CRTP if the following conditions exist in your network:

- Slow links
- The need to save bandwidth

**Note**

CRTP should not be used on links greater than 2 Mbps.

Enabling compression on both ends of a low-bandwidth serial link can greatly reduce the network overhead if it carries a substantial amount of Real-Time Protocol (RTP) traffic. Although the multicast backbone (MBONE)-style RTP traffic has higher payload sizes, compact encodings such as code excited linear prediction (CELP) can also help considerably.

Before you can enable RTP header compression, you must have configured a serial line that uses either Frame Relay, HDLC, or PPP encapsulation, or an ISDN interface. To configure RTP header compression, perform the tasks in the following sections.

Enabling CRTP on a Serial Interface

To enable CRTP header for serial encapsulations on a serial interface, use the following command in interface configuration mode:

Command	Purpose
Router(config-if)# ip rtp header-compression [passive]	Enables RTP header compression.

If you include the **passive** keyword, the Cisco IOS software compresses outgoing RTP packets only if incoming RTP packets on the same interface are compressed. If you use the command without the **passive** keyword, the software compresses all RTP traffic.

Enabling CRTP with Frame Relay Encapsulation

To enable the CRTP header with Frame Relay encapsulation, use the following commands in interface configuration mode, as needed:

Command	Purpose
Router(config-if)# frame-relay ip rtp header-compression [passive]	Enables RTP header compression on the physical interface. All interface maps will inherit it. Subsequently, all maps will perform RTP/IP header compression.
Router(config-if)# frame-relay map ip <i>ip-address</i> <i>dlci</i> [broadcast] rtp header-compression [active passive]	Enables RTP header compression only on the particular map specified.
Router(config-if)# frame-relay map ip <i>ip-address</i> <i>dlci</i> [broadcast] compress	Enables both RTP and TCP header compression on this link.

Changing the Number of Header Compression Connections

By default, the software supports a total of 16 RTP header compression connections on an interface. To change that number, use the following command in interface configuration mode:

Command	Purpose
Router(config-if)# ip rtp compression-connections <i>number</i>	Specifies the total number of RTP header compression connections supported on an interface.

Displaying System and Network Statistics

You can display specific statistics such as the contents of IP routing tables, caches, and databases. Information provided can be used to determine resource utilization and solve network problems. You can also display information about node reachability and discover the routing path that the packets of your device are taking through the network.

To display various routing statistics, use the following commands in EXEC mode, as needed:

Command	Purpose
Router# show frame-relay ip rtp header-compression [interface <i>type number</i>]	Displays Frame Relay RTP header compression statistics.
Router# show ip rtp header-compression [<i>type number</i>] [detail]	Displays RTP header compression statistics.

Compressed Real-Time Protocol Configuration Examples

This section provides CRTP configuration examples.

For information about configuring CRTP, see the section [“Compressed Real-Time Protocol Configuration Task List”](#) in this chapter.

The following example enables RTP header compression for a serial, ISDN, or asynchronous interface. For ISDN, you also need a broadcast dialer map.

```
interface serial 0 :or interface bri 0
 ip rtp header-compression
 encapsulation ppp
 ip rtp compression-connections 25
```

The following example for Frame Relay encapsulation enables RTP header compression on the specified map:

```
interface serial 0
 ip address 1.0.0.2 255.0.0.0
 encapsulation frame-relay
 no keepalive
 clockrate 64000
 frame-relay map ip 1.0.0.1 17 broadcast rtp header-compression
```

