

# Source Route Bridging Enhancements on Cisco 7200 Series Routers

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## Description

The following enhancements have been added to the Cisco 7200 series routers:

- Source route bridging (SRB) is now supported over Fiber Distributed Data Interface (FDDI).
- Particle-based switching is now supported for SRB packets (over FDDI and Token Ring) by default.

Particle-based switching adds scatter-gather capability to SRB to improve performance. Particles represent a communications data packet as a collection of noncontiguous buffers. The traditional Cisco IOS packet has a packet type control structure and a single contiguous data buffer. A particle packet has the same packet type control structure, but also maintains a queue of particle type structures, each of which manages its own block.

The scatter-gather architecture used by particle-based switching provides the following advantages:

- Allows drivers to use memory more efficiently (especially when using media that has a large maximum transmission unit [MTU]). For example, Token Ring buffers could be 512 bytes rather than 16 KB.
- Allows concurrent use of the same region of memory. For example, on IP multicast a single packet is received and sent out on multiple interfaces simultaneously.
- Allows insertion or deletion of memory at any location in a packet (not just at the beginning or end).

## Configuration Task

To enable SRB over FDDI on the Cisco 7200 series routers, use the **source-bridge** interface command. For more information, refer to the “Configuring Source-Route-Bridging” chapter of the *Bridging and IBM Networking Configuration Guide*.

## Configuration Example

For an example of configuring SRB over FDDI, refer to the “FDDI SRB Configuration Example” in the “Configuring Source-Route-Bridging” chapter of the *Bridging and IBM Networking Configuration Guide*.

## Command Reference

For information on the **source-bridge** interface command, refer to the “Source-Route Bridging Commands” chapter in the *Bridging and IBM Networking Command Reference*.

## What to Do Next

For information on FDDI, refer to the “Configuring Interfaces” chapter in the *Configuration Fundamentals Configuration Guide* and the “Interface Commands” chapter in the *Configuration Fundamentals Command Reference*.

For information on Cisco 7200 series routers, refer to the *Cisco 7200 Installation and Configuration Guide*.