

Particle-Based Transparent Bridging on Cisco 7200 Series Routers

Description

Particle-based transparent bridging (TRB) adds scatter-gather capability to transparent bridging by default to improve performance on Cisco 7200 series routers.

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.

This scatter-gather architecture 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 Tasks

None

Configuration Examples

None

Command Reference

None

