Chapter 14

MSDP Overview

Multicast Source Discovery Protocol (MSDP) is used to interconnect multicast routing domains. It is typically run on the same router as the PIM sparse-mode rendezvous point (RP). Each MSDP router establishes adjacencies with internal and external MSDP peers similar to BGP. These peer routers inform each other about active sources within the domain. When they detect active sources, the routers can send PIM sparse-mode explicit join messages to the active source.

The peer with the higher IP address passively listens to a well-known port number and waits for the side with the lower IP address to establish a TCP connection. When a PIM sparse-mode RP that is running MSDP becomes aware of a new local source, it sends Source-Active TLVs to its MSDP peers. When a Source-Active TLV is received, a check is done to make sure this peer is towards the originating RP. If not, the Source-Active TLV is dropped.

For more information on PIM sparse mode, see “Configure Dense, Sparse, or Sparse-Dense Mode” on page 65.

The MSDP peers that receive Source-Active TLVs can be constrained by BGP reachability information. If the AS path of the network layer reachability information (NLRI) contains the receiving peer’s AS number prepended second to last, the sending peer is using the receiving peer as a next hop for this source. If the split horizon information is not being received, the peer can be pruned from the Source-Active TLV distribution list.

MSDP Standards

MSDP is defined in the following documents:

Multicast Source Disco very Protocol (MSDP), Internet draft draft-ietf-msdp-spec-01.txt

Anycast RP Mechanism Using PIM and MSDP , Internet draft draft-ietf-mboned-anycast-rp-05.txt

To access Internet RFCs and drafts, go to the IETF Web site at http://www.ietf.org.