

How Does Multicast NAT Work on Cisco Routers?

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Introduction

When you configure Network Address Translation (NAT) on a Cisco IOS® router, multicast sources and receivers, or Protocol Independent Multicast (PIM) entities, such as Rendezvous Points (RPs) or RP mapping agents, work on either side of the NAT router without additional configuration commands.

You must fully enable multicast on all the routers (inside, outside, and the NAT router itself).

Prerequisites

Requirements

Readers of this document should have knowledge of these topics:

- Configuring Network Address Translation: Getting Started
- Multicast Quick–Start Configuration Guide

Components Used

The feature described in this document was introduced in Cisco IOS Software Release 12.0(1)T.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Conventions

For more information on document conventions, refer to the Cisco Technical Tips Conventions.

Supported Address Translation

- Data packet source address translation.
- PIM control packet (PIM payload) address translation, including Auto–RP and PIM Version 2 bootstrap router (BSR).
- The **mstat**, **mrinfo**, and **mtrace** command requests and responses.
- SDR advertisement or application payload.

With the above translations, PIM works in an enterprise domain even if part of the domain is behind NAT. All sources and receivers behind the NAT router can send and receive packets to the rest of the PIM cloud, and take advantage of the RP/RP mapping agent on either side of the cloud.

Caveats

- Terminate tunnels on the NAT router using the **ip nat inside/outside** command. Tunnels cannot run through the NAT router with end points on either side.
 - Addresses in Real-Time Transport Protocol (RTP), RTP Control Protocol (RTCP), or other application payloads are not translated.
 - This feature does not translate destination group addresses.
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Related Information

- [Sample Configurations of BGP across a PIX Firewall](#)
 - [NAT Support Page](#)
 - [Technical Support – Cisco Systems](#)
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