



Configuring Multicast VPN Extranet Support

This chapter describes how to configure Multicast Virtual Private Network (MVPN) Extranet support on Cisco 7600 series routers. MVPN is supported when a PFC3B, PFC3BXL, PFC3C, or PFC3CXL is installed on the router.

This chapter contains the following sections:

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- [Extranet MVPN Architecture](#)
- [Configuring MVPN Extranet](#)
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Overview

Extranet is a virtual private network that allows an external user to access intranet of an organization. An external user may be a business partner, customer, or a supplier to the organization. The MVPN Extranet feature allows service providers to distribute multicast content originating from an enterprise site to other enterprise sites or between different VRF configurations. It allows different closed user groups to share multicast information across multiple VPN customers. This feature enables a service provider to offer advanced flexible extranet services that aid in business partnerships between different enterprises. Using the MVPN Extranet feature, a service provider can provide efficient content distribution between:

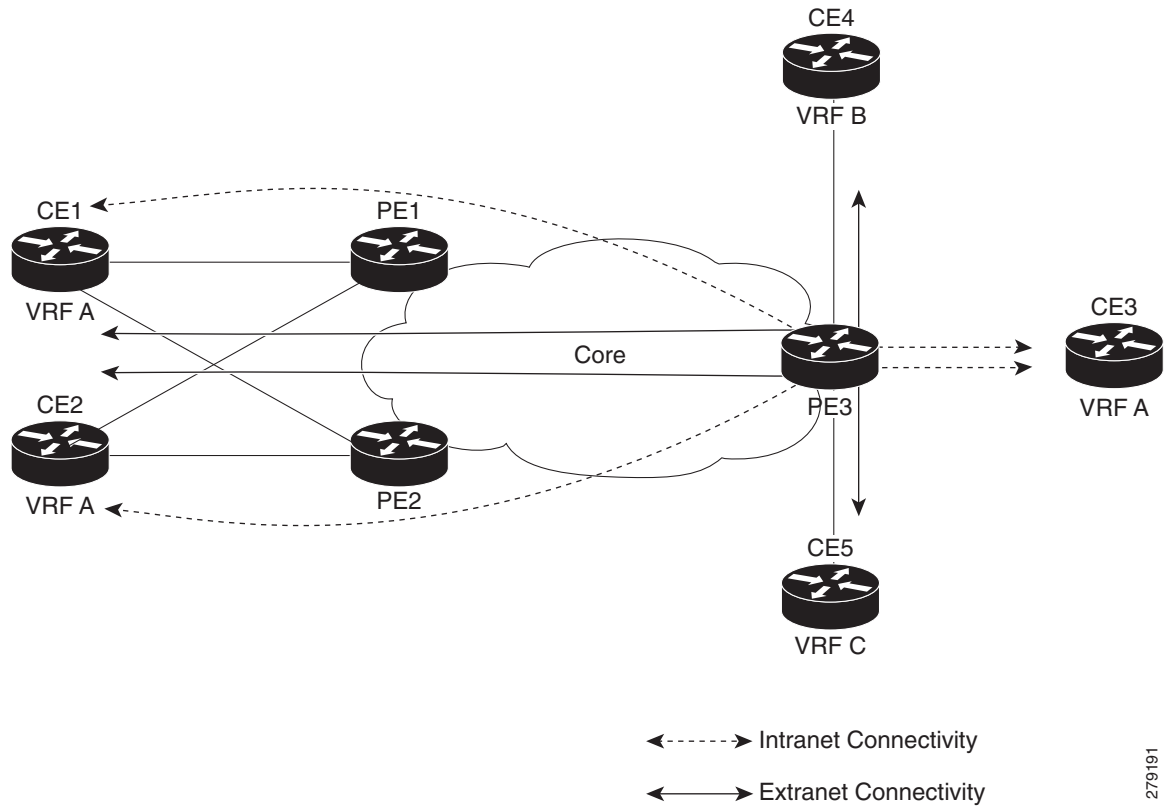
- Different enterprises.
- Service provider or content provider and VPN customers.

MPLS VPNs ensures that users access only authorized information. MPLS VPN extranet services offer extranet users unicast and multicast connectivity without comprising the security and integrity of sensitive data. The Multicast VPN Extranet Support feature extends this functionality to include multicast connectivity to the extranet user.

Extranet MVPN Architecture

[Figure 28-1](#) shows the Extranet MVPN architecture:

Figure 28-1 Extranet MVPN Architecture



Configuring MVPN Extranet

To provide extranet MVPN services to enterprise VPN customers, you need to configure a source Multicast Virtual Routing and Forwarding (MVRF) on a receiver Provider Edge (PE) router using this procedure:

- On a receiver PE router that has one or more receivers in an extranet site behind a directly connected CE router, configure an additional MVRF having the same default Multicast Distribution Tree (MDT) group as the site connected to the multicast source (if the MVRF is not configured).
- On the receiver PE router, configure the unicast routing policy similar to the routing policy used for importing routes from the source MVRF to the receiver MVRF.

MVPN Extranet works in both ingress replication and egress replication modes. The platform programs the hardware entries based on the Multicast Forwarding Information Base (MFIB) notifications, in both the modes. For an end user, the extranet works in a similar way irrespective of the mode used by the platform to switch the packets.



Note

For more information on Configuring MVPN Extranet Support, see [Configuring Multicast VPN Extranet Support](#).

Restrictions and Usage guidelines

Follow these restrictions and usage guidelines when configuring the Multicast VPN Extranet support on a Cisco 7600 Series Router, :

- IPV6 based MVPN Extranet is not supported on Cisco 7600 Series Routers.
- Data traffic performance, latency, and convergence is the same for MVPN extranet and MVPN intranet.
- The scale data for MVPN extranet is as follows:
 - Maximum number of mVRFs supported is 100.
 - Maximum number of mroutes supported in each MVRF is 100.
- Extranet content group mode should be consistent across all the VRFs, the following modes are supported:
 - The MVPN Extranet feature supports Protocol Independent Multicast (PIM) sparse mode (PIM-SM) and Source Specific Multicast (SSM) traffic, PIM dense mode (PIM-DM) and bidirectional PIM (bidir-PIM) traffic are not supported.
 - PIM-Sparse Mode is supported only if the RP is configured behind the PE router (on CE) and the source is in the same intranet-MVPN and behind the CE router.
- Only the static mroute with *fallback-lookup* option is supported for RPF lookup.
- To configure MVPN extranet support, configure the Source MVRF on the Receiver PE. Configuring the Receiver MVRF on the Source PE to implement MVPN Extranet support is not possible.

