

# Optimizing SNA Traffic in a Frame Relay Network

Document ID: 10753

---

## Introduction

### Prerequisites

Requirements

Components Used

Conventions

### Reduce Queuing Delays

### Reduce the Effects of Trunk Failures

### NetPro Discussion Forums – Featured Conversations

### Related Information

---

## Introduction

Because Systems Network Architecture (SNA) traffic and applications are delay-sensitive, many users want to optimize the flow of SNA within their network. Such optimizations fall into two categories:

- Reducing queuing delays
- Reducing the effect of trunk failures

## Prerequisites

### Requirements

There are no specific requirements for this document.

### Components Used

This document is not restricted to specific software and hardware versions.

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.

## Reduce Queuing Delays

Configure SNA permanent virtual circuits (PVCs) so that the %util = 100 and the minimum information rate (MIR) equal the desired committed information rate (CIR) of the connection. This allows ForeSight to maintain very short trunk queue depths.

- Configure all SNA PVCs as high priority PVCs. This allows SNA traffic to receive preferential treatment in the Frame Relay packet assembler/disassembler (PAD) card (FRP) egress queue.
- Set MIR=CIR=peak-rate-bps (PIR) (to as high a value as possible). This allows the connection to receive CBR-like (or leased-line-like) performance.

- Groom SNA PVCs onto routes with the fewest number of hops or routes, or both, with the shortest propagation delay.

## Reduce the Effects of Trunk Failures

Make all SNA PVCs have COS=0, and all other PVCs have a higher class of service (COs). This gives SNA PVCs the opportunity to reroute first.

- Tune the network for best reroute performance. Cisco support personnel have the expertise to do this.
- Re-examine tuning periodically. For an overview of network tuning, refer to Network Tuning in the IGX/BPX AutoRoute White Paper.
- Groom SNA PVCs onto routes with the fewest number of hops.

## NetPro Discussion Forums – Featured Conversations

Networking Professionals Connection is a forum for networking professionals to share questions, suggestions, and information about networking solutions, products, and technologies. The featured links are some of the most recent conversations available in this technology.

<a href="#">NetPro Discussion Forums – Featured Conversations for WAN Switching</a>
---

<a href="#">Network Infrastructure: WAN Routing and Switching</a>
---

---

## Related Information

- [IGX/BPX AutoRoute White Paper](#)
- [Cisco WAN Switching Solutions – Cisco Documentation](#)
- [Guide to New Names and Colors for WAN Switching Products](#)
- [Downloads – WAN Switching Software](#)
- [Technical Support – Cisco Systems](#)

---

[Contacts & Feedback](#) | [Help](#) | [Site Map](#)

© 2008 – 2009 Cisco Systems, Inc. All rights reserved. [Terms & Conditions](#) | [Privacy Statement](#) | [Cookie Policy](#) | [Trademarks of Cisco Systems, Inc.](#)

---

Updated: Apr 17, 2009

Document ID: 10753

---