

Table of Contents

<u>Configuring DLSw Token Ring to Ethernet</u>	1
<u>Document ID: 12343</u>	1
<u>Introduction</u>	1
<u>Prerequisites</u>	1
<u>Requirements</u>	1
<u>Components Used</u>	1
<u>Conventions</u>	1
<u>Configure</u>	2
<u>Network Diagram</u>	2
<u>Configurations</u>	2
<u>Configuration Notes</u>	3
<u>Verify</u>	3
<u>Troubleshoot</u>	3
<u>Related Information</u>	3

Configuring DLSw Token Ring to Ethernet

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Introduction

Prerequisites

- Requirements

- Components Used

- Conventions

Configure

- Network Diagram

- Configurations

- Configuration Notes

Verify

Troubleshoot

Related Information

Introduction

This document provides a sample configuration for the connection between a Token Ring and Ethernet-attached devices using data-link switching (DLSw).

In this sample configuration, Ethernet devices and Token Ring devices are separated by an IP cloud. DLSw can not be used to make connections from a local-attached Token Ring to local-attached Ethernet devices. For such connections, you need to configure source-route translational bridging (SR/TLB) in a Cisco Router.

Prerequisites

Requirements

Readers of this document should be aware that DLSw is a means of transporting Systems Network Architecture (SNA) and NetBIOS traffic over a campus or WAN.

Components Used

The information in this document is based on Cisco IOS® Software with IBM Feature sets, for example IP Plus, Desktop Plus, Enterprise Plus, and so forth.

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 Cisco Technical Tips Conventions.

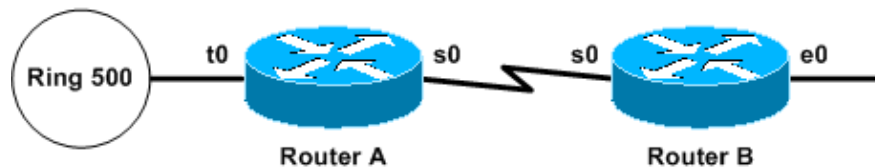
Configure

In this section, you are presented with the information to configure the features described in this document.

Note: To find additional information on the commands used in this document, use the Command Lookup Tool (registered customers only) .

Network Diagram

This document uses this network setup:



Configurations

This document uses these configurations:

- Router A
- Router B

Router A
<pre>hostname RouterA source-bridge ring-group 2000 dlsw local-peer peer-id 150.150.100.1 dlsw remote-peer 0 tcp 150.150.98.1 interface Loopback0 ip address 150.150.100.1 255.255.255.192 interface TokenRing0 ip address 172.16.32.4 255.255.255.192 ring-speed 16 source-bridge 500 1 2000 source-bridge spanning interface Serial0 ip address 150.150.10.2 255.255.255.192 ip route 150.150.98.0 255.255.255.192 150.150.10.1</pre>

Router B
<pre>hostname RouterB dlsw local-peer peer-id 150.150.98.1 dlsw remote-peer 0 tcp 150.150.100.1 dlsw bridge-group 1 interface Loopback0 ip address 150.150.98.1 255.255.255.192</pre>

```
interface Ethernet0
  no ip address
  bridge-group 1

interface Serial0
  ip address 150.150.10.1 255.255.255.192

bridge 1 protocol ieee

ip route 150.150.100.0 255.255.255.192 150.150.10.2
```

Configuration Notes

Router B does not need to define a virtual ring number with the **source-bridge ring-group** command because it has only Ethernet stations.

Note: Both routers accomplish their routing (from loopback-to-loopback) through the use of IP static routes (from the **ip route** command); however, any other type of dynamic routing works.

Remember that, for any Ethernet-attached station, the configured destination MAC (DMAC) field must be the bitswapped MAC address value of the real Token Ring MAC address of the Token-Ring-attached device. For example, if there is a host with a MAC of 4000.3745.0001 adjacent to Router A (in other words, in Ring 500 in the Network Diagram), then the Ethernet stations must be configured with the DMAC of 0200.ECA2.0080. For more information, refer to the Ethernet and Token Ring sections of the Troubleshooting DLSw Tech Notes. Also refer to the Bitswapping Tool (registered customers only).

Verify

There is currently no verification procedure available for this configuration.

Troubleshoot

There is currently no specific troubleshooting information available for this configuration.

Related Information

- [Technology Support](#)
- [Product Support](#)
- [Technical Support – Cisco Systems](#)

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Updated: Sep 05, 2005

Document ID: 12343
