

Configuring SDLLC with DLSw+ for Ethernet

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Introduction

This document provides a sample configuration for a Synchronous Data Link Control (SDLC)-to-LAN Conversion (SDLLC) with Data Link Switching Plus (DLSw+) for Ethernet.

Prerequisites

Requirements

Before attempting this configuration, please ensure that you meet the following prerequisites:

- The SDLC controller should be running NRZ encoding (default on the Cisco router).
- When using a 5394 controller, the IBM RPQ 8Q0775 titled "IBM 5394 PU 2.1" is required.

Components Used

The information in this document is based on the software versions below.

- Cisco IOS® Software Release 10.3 or later

The information presented in this document was created from devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If you are working in a live network, ensure that you understand the potential impact of any command before using it.

Conventions

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

Configure

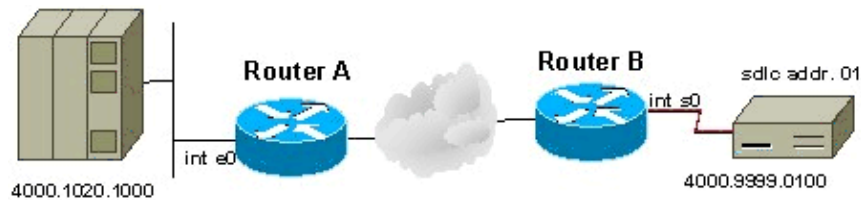
In this section, you are presented with the information to configure the features described in this document.

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 the network setup shown in the diagram below.



Configurations

This document uses the configurations shown below.

- Router A
- Router B

```
Router A
dlsw local-peer peer-id 5.0.0.1
dlsw remote-peer 0 tcp 150.150.10.1
dlsw bridge-group 4

interface ethernet 0
 ip address 5.0.0.1 255.255.255.0
 bridge-group 4

bridge 4 protocol ieee
```

```
Router B
dlsw local-peer peer-id 150.150.10.1
dlsw remote-peer 0 tcp 5.0.0.1

interface loopback 0
 ip address 150.150.10.1 255.255.255.192

interface Serial 0
 encapsulation sdlc
 clockrate 9600
 sdlc role primary
 sdlc vmac 4000.9999.0100
 sdlc address 01
 sdlc xid 01 05d20006
 sdlc partner 4000.1020.1000 01
 sdlc dlsw 1
```

Note: The following is additional information regarding this configuration:

- The **source-bridge ring-group** command is not required on either router.
- WAN and IP routing configurations are not shown (for simplicity).
- The SDLC partner 4000.1020.1000 address is the non-cannonical format (Token Ring format) of the host which, in this case, is 0200.0804.0800.

The Router B configuration works for a Physical Unit (PU) 2.0. This is an example for a PU 2.1:

```

dlsw local-peer peer-id 150.150.10.1
dlsw remote-peer 0 tcp 5.0.0.1

interface loopback 0
 ip address 150.150.10.1 255.255.255.192

interface Serial 0
 encapsulation sdlc
 clockrate 9600
 sdlc role prim-xid-poll
 sdlc vmac 4000.9999.0100
 sdlc address 01
 sdlc partner 4000.1020.1000 01
 sdlc dlsw 1

```

Note: The **sdlc xid** command has been removed since a PU 2.1 handled the exchange identification (XID) directly and the change in the role of SDLC to tell the router to start by polling the device for its XID as opposed to sending a SNRM to a PU 2.0.

PU 2.0 and PU 2.1 can be multidropped on the same line, as shown in this example:

```

dlsw local-peer peer-id 150.150.10.1
dlsw remote-peer 0 tcp 5.0.0.1

interface loopback 0
 ip address 150.150.10.1 255.255.255.192

interface Serial 0
 encapsulation sdlc
 clockrate 9600
 sdlc role primary
 sdlc vmac 4000.9999.0100

sdlc address 02 xid-poll

sdlc partner 4000.1020.1000 02

!--- PU 2.1

sdlc address 02

sdlc address 01
sdlc xid 01 05d20006
sdlc partner 4000.1020.1000 01

!--- PU 2.0

sdlc dlsw 1 2

```

Note: Only the one Virtual MAC (VMAC) can be coded per physical line. The SDLC polling address of the controller is superimposed on the last two digits of the VMAC to generate a unique MAC address for each controller.

Verify

There is currently no verification procedure available for this configuration.

Troubleshoot

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

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Related Information

- [Troubleshooting DLSw](#)
- [DLSw Support Page](#)
- [Technical Support – Cisco Systems](#)

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