

# Troubleshooting DLSw

Document ID: 17561

## Contents

### Document Contents

#### Prerequisites

- Requirements
- Components Used
- Conventions

#### Introduction and Flow Chart

#### Related Information

## Document Contents

- Introduction and Flow Chart
- Troubleshooting DLSw IP Connectivity Issues
- Troubleshooting DLSw Configuration
- Troubleshooting DLSw+ Circuit Connectivity
  - ◆ Check Circuit Status
    - ◇ Circuit Start
    - ◇ Circuit Established
    - ◇ Connected
    - ◇ Common DLSw Issues
  - Troubleshooting DLSw Reachability
  - Troubleshooting DLSw: SDLC
    - ◆ Troubleshoot SDLC
      - ◇ PU Type
      - ◇ Common SDLC Issues
      - ◇ Sample Session Establishment Flows for a PU 2.0 Device
      - ◇ Sample Session Establishment Flows for a PU 2.1 Device
      - ◇ Debug SDLC Events or Packets
      - ◇ SDLC Packets During DLSw with SDLC for PU 2.1
    - Troubleshooting DLSw: Token Ring and SRB Internetworking
      - ◆ Token Ring and SRB Internetworking Issues
        - ◇ Router Is Unable to Connect to Token Ring
        - ◇ Routing in SRB Network Fails Unexpectedly
        - ◇ No Communication over SRB
      - Troubleshooting DLSw: Ethernet and Qualified Logical Link Control
        - ◆ Ethernet
        - ◆ QLLC
          - ◇ QLLC Implementation Overview and Message Flows
          - ◇ PU 2.0 Normal QLLC Connection Initiated by X.25 Device

- ◇ PU 2.0 Normal QLLC Connection Initiated by a LAN PU 2.0 Device to FEP Running NCP Packet Switching Interface
- ◇ PU 2.1 Normal QLLC Connection Initiated by an X.25 Device
- ◇ PU 2.1 QLLC Connection Initiated by the LAN Device
- ◇ DLSw/SDLC over QLLC Sample Configuration and Debug
- ◇ Troubleshooting Steps
- ◇ QLLC Debugs
- Troubleshooting DLSw with debug Commands
  - ◆ Debugs
    - ◇ DLSw Media Translation
    - ◇ DLSw Conducting Reverse Media Translation
    - ◇ Local DLSw Media Translation
  - ◆ Performance Issues

## Prerequisites

## Requirements

There are no specific requirements for this document.

## Components Used

This document is not restricted to specific software or hardware versions, but Cisco IOS?? software with the IBM Feature Set is required to run DLSw in Cisco Routers.

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.

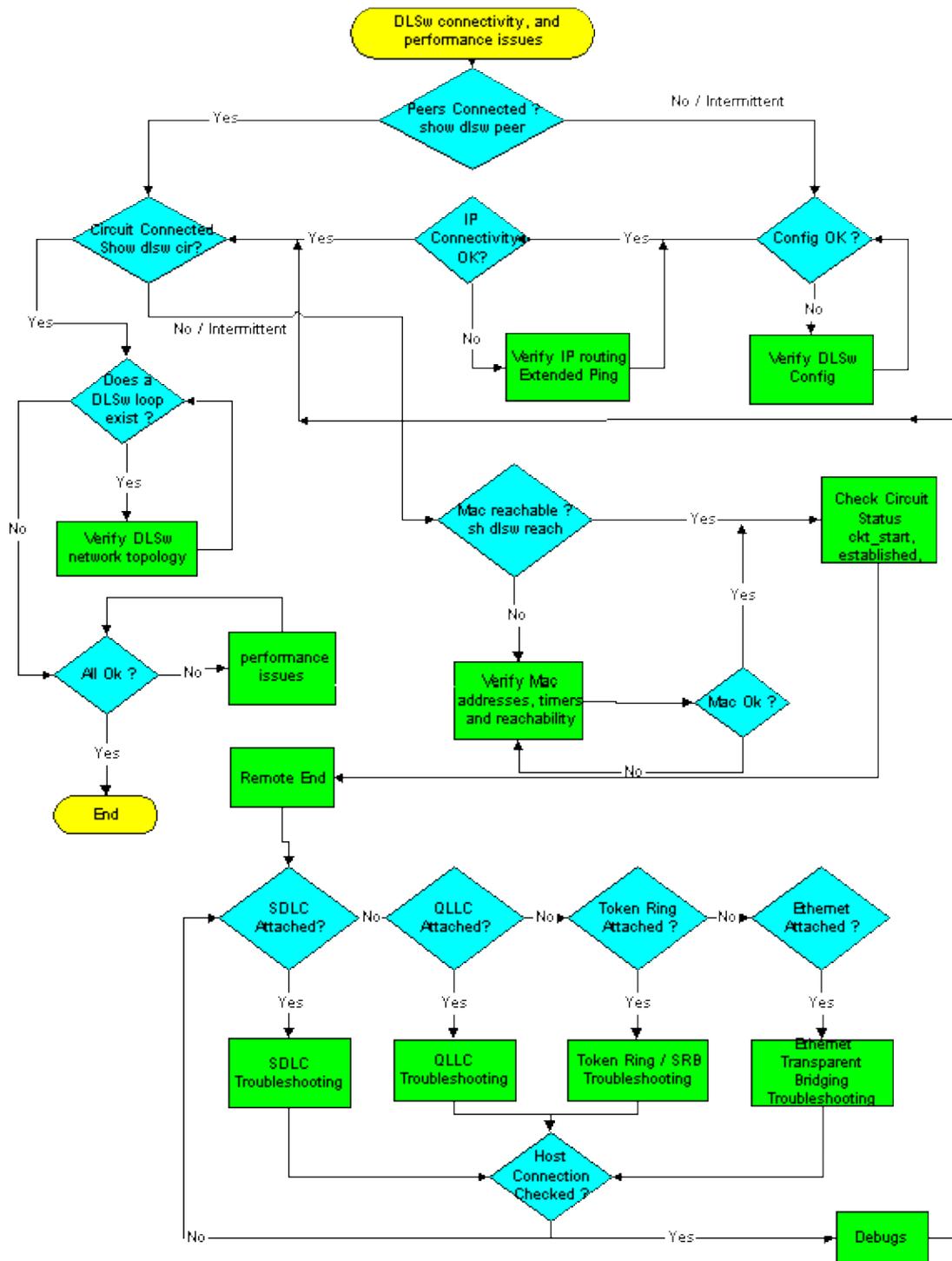
## Conventions

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

## Introduction and Flow Chart

This document provides troubleshooting techniques and solutions to the most common data-link switching (DLSw) issues. Navigate this flow chart to locate where a problem resides.

Click any of the green rectangles to view detailed information about that step in the flowchart.



## Related Information

- **DLSw and DLSw+ Support**
- **Technology Support**
- **Product Support**
- **Technical Support – Cisco Systems**

