CISCO SYSTEMS

Text Part Number: 78-6494-02

Release Notes for Catalyst GigaStack Gigabit Interface Converter

July 6, 1999

These release notes describe the features and caveats for the GigaStack Gigabit Interface Converter (GBIC). These release notes also contain important information about the device.

Contents

These release notes contain the following topics:

Introduction

The GigaStack GBIC allows you to stack up to nine switches to form an independent backbone that can be managed with a single IP address. This stack gives the appearance of a single large switch for network management purposes. You can also form a point-to-point link between two switches. The GigaStack GBIC supports one full-duplex link (in a point-to-point link) or up to eight half-duplex links (in a stack configuration) to other Gigabit Ethernet devices.

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The GigaStack GBIC can add port density to a Catalyst 3500 XL or Catalyst 2900 XL network. You can install the GigaStack GBIC in a 3500 XL switch or into a 1000BaseX module that resides in a modular 2900 XL switch. When installed in a 3500 XL switch or a 2900 XL module, the GigaStack GBIC supports 1000BaseX connections. The GigaStack GBIC autonegotiates the duplex settings of each port to maximize the bandwidth for your configuration.

The maximum distance for a GigaStack GBIC-to-GigaStack GBIC connection is 1 meter. The GigaStack GBIC requires Cisco proprietary cabling.

Features

The following features are supported on the GigaStack GBIC:

- VLAN integration

  The GigaStack GBIC supports VTP and Media Access Control (MAC) address-based static VLANs. See the *Cisco IOS Desktop Switching Command Reference* publication and *Cisco IOS Desktop Switching Enterprise Edition Software Configuration Guide* for VLAN configuration information.

- Per-VLAN spanning tree plus (PVST+)

  An independent spanning tree instance runs on each VLAN. See the *Cisco IOS Desktop Switching Command Reference* publication and *Cisco IOS Desktop Switching Enterprise Edition Software Configuration Guide* for spanning-tree configuration information.

- Trunking (IEEE 802.1Q and ISL)

  The GigaStack GBIC supports setting a trunk to IEEE 802.1Q or ISL mode. Enter the **switchport mode trunk** command to configure trunk ports and to add VLANs to the allowed VLAN list for existing trunks. See the **switchport mode trunk** command description in the *Cisco IOS Desktop Switching Command Reference* publication.

- Support for IOS Release 11.2(8.1)SA6 or later

Installation Notes

⚠ **Caution**   Do not use standard IEEE 1394 cables with the GigaStack GBIC. You must use one of the Cisco proprietary cables (CAB-GS-50CM or CAB-GS-1M). If you use any other cable, you will not have connectivity.

⚠ **Caution**   Do not use the GigaStack GBIC with standard IEEE 1394 equipment. You might damage the equipment or lose data.

Important Notes

Types of Loops Not Permitted

Do not create a loop in a stack configuration within a single GBIC. A loop occurs when one of the following conditions occurs:

- A GigaStack GBIC port within a daisy-chain stack connection is connected to a GigaStack GBIC port of another device in the stack that already has a GigaStack GBIC port connected to a device in that stack; both ports are in the same stack. See Figure 1.

Figure 1   Incorrect Cabling of Switches in a Stack
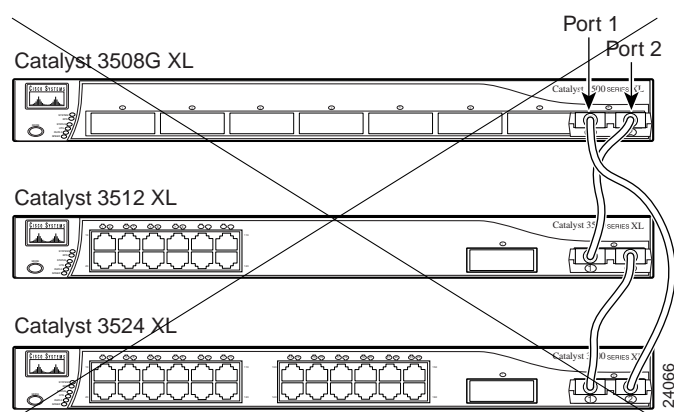
- A single GigaStack cable is inserted in port 1 and port 2 of the same GigaStack GBIC. See Figure 2.

Figure 2   Incorrect Cabling in a Single Switch
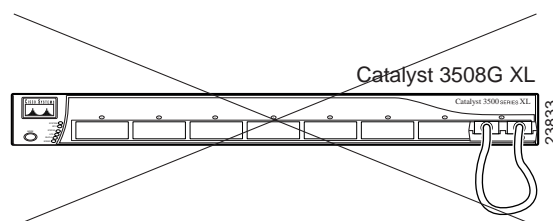
A loop causes excessive collision errors on the port and might cause the link to become unstable. This instability decreases performance on the links, and communication between the switches in the stack is adversely affected. For proper configuration scenarios, see the *Catalyst GigaStack Gigabit Interface Converter Installation Guide.*

Note   You can form a redundant link by connecting two different GigaStack GBICs within the same switch. See the *Catalyst GigaStack Gigabit Interface Converter Installation Guide.*

Maximum GigaStack GBICs in a Daisy-Chain Configuration

The maximum number of GigaStack GBICs allowed in a daisy-chain configuration is nine.

Switch Software Requirement

To use the GigaStack GBIC with a 3500 XL switch or 2900 XL modular switch, ensure that the switch is running IOS version 11.2(8.1)SA6 or later. For software upgrade procedures, see the *Release Notes for Cisco IOS Release 11.2(8.2)SA6.*

Caveats

Cable Insert Might Disable Traffic

With IOS Release 11.2(8.1)SA6, you might experience a problem with traffic flow in one direction when you insert a cable. To determine if this problem exists, use the **ping** command on a station located on one end of the stack to verify connectivity to a station on the other end of the stack.

If this problem exists, you can work around it by doing one of the following:

- Upgrade the software on your switch to IOS Release 11.2(8.2)SA6 or later on the switch. To download the software, go to http://www.cisco.com/cgi-bin/tablebuild.pl/*<platform-type>* if you are a registered Cisco Connection Online (CCO) user or http://www.cisco.com/pcgi-bin/tablebuild.pl/*<platform-type>* if you are a non-registered user. For information about dowloading and upgrading the software, refer to the *Release Notes for the Catalyst 2900 Series XL and Catalyst 3500 Series XL Cisco IOS Release 11.2(8.2)SA6.*

- Remove the cable from the device and then reinsert it.

- Enter the following command-line interface (CLI) commands on each switch in the stack that has this problem:

Step 1   Enter the **enable** command to access privileged EXEC mode:

```
Switch> enable
```

Step 2   Enter global configuration mode by entering the **configure t** command:

```
Switch# config t
```

Step 3   Enter the **interface** command for the port that is not receiving traffic where x is the port number that is not receiving traffic:

```
Switch(config)# interface Gix/y
```

Step 4   Enter the **duplex half** command to set the duplex mode to half duplex:

```
Switch(config-if)# duplex half
```

Step 5   Wait for a few seconds. The link will come down and go back up.

Step 6   Enter the **duplex auto** command to set the duplex mode for autonegotiation:

```
Switch(config-if)# duplex auto
```

Step 7   Exit the configuration mode by using the **end** command:

```
Switch(config-if)# end
```

Note   It is recommended that you upgrade your software to to IOS Release 11.2(8.2)SA6 or later.

Documentation Correction

The *Catalyst GigaStack Gigabit Interface Converter Installation Guide* states that the GigaStack GBIC LED turns amber if you use a cable other than GigaStack cables. This function has changed. The LED remains dark if you use a cable other than the GigaStack cables.

Catalyst 3500 and Catalyst 2900 XL Software Caveats

For a list of Catalyst 3500 and Catalyst 2900 software caveats, refer to the *Release Notes for Cisco IOS Release 11.2(8.2)SA6*.

Related Documentation

The product documentation for the GigaStack GBIC, 3500 XL switches, and the 2900 XL switches is as follows:

- *Quick Start: Catalyst 3500 Series XL Cabling and Setup*
- *Quick Start: Catalyst 2900 Series XL Cabling and Setup*
- *Catalyst 3500 Series XL Installation Guide*
- *Catalyst 2900 Series XL Installation Guide*
- *Cisco IOS Desktop Switching Enterprise Edition Software Configuration Guide*
- *Cisco IOS Desktop Switching Software Configuration Guide*
- *Cisco IOS Desktop Switching Command Reference*
- *Release Notes for Cisco IOS Release 11.2(8.2)SA6*

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For a copy of CCO's Frequently Asked Questions (FAQ), contact cco-help@cisco.com. For additional information, contact cco-team@cisco.com.

Note If you are a network administrator and need personal technical assistance with a Cisco product that is under warranty or covered by a maintenance contract, contact Cisco's Technical Assistance Center (TAC) at 800 553-2447, 408 526-7209, or tac@cisco.com. To obtain general information about Cisco Systems, Cisco products, or upgrades, contact 800 553-6387, 408 526-7208, or cs-rep@cisco.com.

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This document is to be used in conjunction with the documents listed in the *Catalyst GigaaStack Gigabit Interface Converter Installation Guide*.