



Release Notes for Cisco 8110 Broadband Network Termination Unit for Cisco Software Release 5.2

Contents

These Release Notes describe the following topics:

- Introduction
- Upgrading to a New Software Release
- Hardware Supported
- Version 5.2 Feature List
- Version 5.2 Optional Features
- MIB's
- Limitations and Restrictions
- Important Notes
- Service and Support
- Obtaining Documentation
- Obtaining Technical Assistance

Introduction

The Cisco 8110 Broadband Network Termination Unit is a multiservice IP+ATM CPE device which enables service providers worldwide to cost effectively offer carrier class managed services to enterprise customers with high bandwidth needs and stringent service level agreements. The Cisco 8110 is optimized to enable a wide range of services including IP, ATM, Private Line, Voice and Video services over a single high-speed access link.



Determining the Software Version

There are two methods of determining the 8110 Software Version:

- From booting up the system while the 8110 is switched off.
- From the system menu while logged in to the 8110.

Determining the Software Version by booting up the System

In order to determine the Software Version, the system needs to be booted up. Following the boot up, the system will perform a series of self tests. The Software Version is displayed at the end of the tests just before the Login prompt as shown in *figure 1*.

Figure 1 Software Version 5.2 self test following boot up example

```
Self Test...
test serial passed
test PPI passed
test Timer passed..
.
.
.
..Warm Start Self Tests - OK
Version v5.2
Login :
```

Determining the Software Version from the 8110 System Menu

To determine the Software Version of the 8110 Broadband Network Termination Unit, from the Configuration Menu type the **SHOW** command and press RETURN.

The **SHOW** command is used to display the global configuration information for this particular Cisco 8110 System as shown in Figure 1. The display includes: EPROM version, Operational software version, Cisco 8110 Address. At the prompt, type the command and press RETURN. The following screen is displayed:

Figure 2 Global Configuration Information

```
Cisco 8110:~# show
EPROM version   : 1.6 1998/02/19 13:53:33
Created on      : Tue Feb 24 07:34:23 IST 1998
Software version : v5.2b
Created on      : Thu Mar 15 17:01:38 IST 2001
XILINX QLAN version : Sun Mar 8 13:50:33 IST 1998
Kernel version  : WIND version 2.4
OS version      : 5.2
MAC Address     : 00:40:0d:fa:af:01
```

**Note**

After booting up the system, it is required to input passwords for both User and Supervisor. only after the passwords are inputted into the system, the user can begin working. It is also necessary to input read and write password for Community.

Upgrading to a New Software Release

Software download procedure

This section assume you are familiar with the software release already installed, and download procedure in particular.

Upgrading from version 3.3g3

1. Verify that version 3.3g3 is loaded into Flash A, If not please download version 3.3g3 first.
2. type "op init" to initialize the configuration NVRAM.
3. Set the download configuration (file, server access)
4. Type the command " configuration boot from B" (Change boot parameter to run from Flash B)
5. Type "op load" which result in version 5.2 loaded into Flash A

Upgrading from version 5.1c

1. Set the download configuration (file, server access)
2. Type the command " configuration boot from B" (Change boot parameter to run from Flash B)
3. Type "op load" which result in version 5.2 loaded into Flash A

Hardware Supported

Broadband Network Termination Units

Cisco Software Release Version 5.2 supports the following Broadband Network Termination Unit products:

- Cisco 8110 Broadband Network Termination Unit
- Fast Ethernet ports

Line Interface Modules (LIMs)

Table 1 Line Interface Modules (LIMs) and Power Supply sources supported by Cisco Software Release Version 5.2

LIM Model	Revision
LIM-155MM	A0
LIM-155MM-SH	A0
LIM-155SM-I	A0
LIM-155SM-I-SH	A0
LIM-T3-BNC	A0
LIM-T3-BNC-SH	A0
LIM-E3-BNC	A0
LIM-E3-BNC-SH	A0
LIM-E3-1.6/5.6	A0
LIM-E3-1.6/5.6-SH	A0
LIM-E1T1	A0
LIM-E1T1-SH	A0
CSM-4E1T1	A0
8110-PS-110	A0
8110-PS-220	A0
8110-PS-DC	A0



Note

Software Version 5.2 is based on Version 5.1c and supports all the features included in Version 5.1c

Version 5.2 Feature List

Log On Security

Secure Log-on procedure, to protect and ensure confidentiality, integrity and availability of the Cisco 8110 configuration, control and maintenance.

UBR+

Support ATM forum UBR (Unspecified bit rate) with minimum cell rate for ATM network. Normally used for non real time application.

PPD

Frame base traffic control discard the remainder of a packet that is known to be incomplete due to cell loss. This feature enable packet base traffic to be more efficient.

VLAN Tagging

Support VLAN Tagging Per 802.1q.

E1 Fractional

Support Fractional E1 per AF-Phy-0130.00

AAL5 And Ethernet Statistics

AAL5 And Ethernet statistics of 15 minutes intervals, which can be accessed via SNMP or user interface.

Cisco Cookie Support

Enables Cookie format support, in line with Cisco standards.

IP Forwarding

This feature supports level three static IP forwarding which enables specific IP packets to be forwarded to a pre defined PVC.

TOS to QoS Mapping

QoS mapping establishes an association between a Behavior Class and a dedicated ATM VC – where a bundle of such VCs to the same IP destination will provide a full transport packet service with different QoS. Each VC is configured with different ATM QoS parameters.

PVC Alternate Route

This feature enables automatic traffic transfer to a n Alternate PVC in case of failure on the active or primary PVC.

Version 5.2 Optional Features

1. Cisco 8110 LIC - FE - Transparent LAN License for Ethernet/Fast Ethernet for the Cisco 8110

The Ethernet interface is either used as an Ethernet to ATM uplink or as Ethernet access to Management. The Ethernet supports auto negotiation 10/100 baseTx standards. There is no forwarding between the ports. The Ethernet interfaces support the relay layer of the IEEE 802.1 MAC Layer Bridge. Ethernet packets are bridged over ATM using RFC 1483, LLC for Bridging encapsulation. The bridge learns MAC addresses and forwards the required MAC addresses. Using Traffic Shaping, Per-Class-Queuing and Performance Monitoring, each LAN interconnection is assigned with required QoS and the performance of each connection is constantly monitored and measured End-to-End. Early Packet Discard mechanism yield an excellent goodput on the Ethernet uplink VCs.



Note

Cisco 8110 LIC - FE - Transparent LAN License for Ethernet/Fast Ethernet for the Cisco 8110 can be ordered through Cisco.com

MIBs

The SNMP Cisco 8110 MIB is being provided with the delivery of Release 5.2 of the Cisco 8110 software on CCO. The MIB is in standard ASN.1 format and is located in the same directory within CCO. These files may be compiled with most standards-based MIB compilers. The following files are required:

Unchanged MIBs

- ATOMV1.MIB
- BRIDGE.MIB
- CES.MIB
- DS0.MIB
- DS0BUNDLE.MIB
- DSX1.MIB
- DSX3.MIB
- ETHER.MIB
- HYNEX-APS.MIB
- HYNEX-CES.MIB
- HYNEX-DSX1.MIB
- HYNEX-DSX3.MIB

- HYNEX-FEATURES.MIB
- HYNEX-LIM.MIB
- HYNEX-PRIVATE.MIB
- HYNEX-SHAPER.MIB
- HYNEX-SONET.MIB
- MIB2.MIB
- MIB2IFE.MIB
- MODULES.MIB
- SONNET.MIB
- TIME.MIB

Changed MIBs in Version 5.2

- SWC.MIB
- HYNEX-ETHER.MIB
- HYNEX-COMMON.MIB

Limitations and Restrictions

Traffic interruption while inserting or extracting LIM (Bug id: CSCds82824)

- When inserting / extracting LIM, it causes short period traffic interruption for the non-related traffic.
 - There is no workaround to this problem.

Activating CSM causes cell loss for ATM traffic (Bug id: CSCds72383)

- Activating CSM causes (due to the self test) other non-related traffic to loss cells.
 - There is no workaround to this problem.

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- Activating CSM causes (due to the self test) other non-related traffic to loss cells.
 - There is no workaround to this problem.

Traffic Stop for E1/T1 LIM while inserting and extracting (bug Id -CSCdt80513 / CSCdt80524)

- LIM extraction and insertion **not** according to activation / deactivation procedure may cause Traffic interruption. It may appear also when activating the LIM while traffic inserted.

Workaround :

- 80513 - Follow activation / deactivation procedure.
- 80524 - Repeat OOS / active procedure.

Fix - It will be fix in release 6.0

False BER indications (Bug Id - CSCdt80533 / CSCdt80540 / CSCdt80548)

- 80533 - Mismatch Low BER declaration for E1/T1 interface
- In DS1, when high BER threshold is set to 10e-4 and inserted BER is 10e-4, alarm LOW BER was declared, should declare HIGH BER.
- In E1, when high BER threshold is set to 10e-5 and inserted BER is 10e-5, alarm LOW BER was declared, should declare HIGH BER.
- 80540- False BER declaration removal
- When low BER threshold is set to 10e-6 / 10e-7 and inserted BER is 10e-6 / 10e-7, low BER declaration appear and removed about 10 sec. from appearance. It should be removed only after BER insertion removal.
- 80548 - Low BER not declared
- High BER threshold is set to 10e-6 (Low set to 10e-7) and inserted BER 10e-7, LOW BER alarm was not declared.
 - Workaround: none.

Fix - It will be fixed in release 6.0

Important Notes

Deployment of the 8110 system involves a configuration and installation process. Please refer to the User Guide (78-11666-01) for guidance. Updating software version from older version should be done according to the software download procedure. Updating not according to the procedure will result in unexpected behavior.

Obtaining Documentation

The following sections provide sources for obtaining documentation from Cisco Systems.

World Wide Web

You can access the most current Cisco documentation on the World Wide Web at the following sites:

- <http://www.cisco.com>
- <http://www-china.cisco.com>

- <http://www-europe.cisco.com>

Documentation CD-ROM

Cisco documentation and additional literature are available in a CD-ROM package, which ships with your product. The Documentation CD-ROM is updated monthly and may be more current than printed documentation. The CD-ROM package is available as a single unit or as an annual subscription.

Ordering Documentation

Cisco documentation is available in the following ways:

- Registered Cisco Direct Customers can order Cisco Product documentation from the Networking Products MarketPlace:
http://www.cisco.com/cgi-bin/order/order_root.pl
- Registered Cisco.com users can order the Documentation CD-ROM through the online Subscription Store:
<http://www.cisco.com/go/subscription>
- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco corporate headquarters (California, USA) at 408 526-7208 or, in North America, by calling 800 553-NETS(6387).

Documentation Feedback

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You can e-mail your comments to bug-doc@cisco.com.

To submit your comments by mail, use the response card behind the front cover of your document, or write to the following address:

Attn Document Resource Connection
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Obtaining Technical Assistance

Cisco provides Cisco.com as a starting point for all technical assistance. Customers and partners can obtain documentation, troubleshooting tips, and sample configurations from online tools. For Cisco.com registered users, additional troubleshooting tools are available from the TAC website.

Cisco.com

Cisco.com is the foundation of a suite of interactive, networked services that provides immediate, open access to Cisco information and resources at anytime, from anywhere in the world. This highly integrated Internet application is a powerful, easy-to-use tool for doing business with Cisco.

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To access Cisco.com, go to the following website:

<http://www.cisco.com>

Technical Assistance Center

The Cisco TAC website is available to all customers who need technical assistance with a Cisco product or technology that is under warranty or covered by a maintenance contract.

Contacting TAC by Using the Cisco TAC Website

If you have a priority level 3 (P3) or priority level 4 (P4) problem, contact TAC by going to the TAC website:

<http://www.cisco.com/tac>

P3 and P4 level problems are defined as follows:

- P3—Your network performance is degraded. Network functionality is noticeably impaired, but most business operations continue.
- P4—You need information or assistance on Cisco product capabilities, product installation, or basic product configuration.

In each of the above cases, use the Cisco TAC website to quickly find answers to your questions.

To register for Cisco.com, go to the following website:

<http://www.cisco.com/register/>

If you cannot resolve your technical issue by using the TAC online resources, Cisco.com registered users can open a case online by using the TAC Case Open tool at the following website:

<http://www.cisco.com/tac/caseopen>

Contacting TAC by Telephone

If you have a priority level 1 (P1) or priority level 2 (P2) problem, contact TAC by telephone and immediately open a case. To obtain a directory of toll-free numbers for your country, go to the following website:

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

P1 and P2 level problems are defined as follows:

- P1—Your production network is down, causing a critical impact to business operations if service is not restored quickly. No workaround is available.
- P2—Your production network is severely degraded, affecting significant aspects of your business operations. No workaround is available.

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