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CUSTOMER RELEASE NOTES

X-Pedition Router
System Firmware Version E9.0.5.0

System Firmware Release Date: August 2002

INTRODUCTION:

This document provides specific information relevant to version E9.0.5.0 of the System Firmware for the X-Pedition family of products. It includes content from the **E8.3.0.15** System Firmware Patch Release.

Enterasys Networks recommends that these Release Notes be thoroughly reviewed prior to the installation or upgrade of this product.

GLOBAL SUPPORT:

Enterasys Networks Global Technical Assistance Center

By Phone: (603) 332-9400

By Email: Support@enterasys.com

By Web: http://www.enterasys.com/support

By Fax: (603) 337-3075

By Mail: Enterasys Networks, Inc.
35 Industrial Way
P.O. Box 5005
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For information regarding the latest firmware available, recent releases note revisions, or if you require additional assistance, please visit the Enterasys Networks Support web site.

SYSTEM FIRMWARE SPECIFICATION:

Before installing the E9.0.5.0 System Firmware, the Boot Firmware should be upgraded to version E3.2.0.0.

Refer to the E3.2.0.0 Boot Firmware Release Notes, or any X-Pedition Getting Started Guide, for instructions on upgrading the Boot Firmware.

System Firmware File Name	Version No.	Release Date
xp9050	E9.0.5.0	August 2002
xp9040	E9.0.4.0	July 2002
xp9030	E9.0.3.0	June 2002
xp9020	E9.0.2.0	April 2002
xp9010	E9.0.1.0	March 2002
xp9000	E9.0.0.0	December 2001
xp8300	E8.3.0.0	October 2001
xp8210	E8.2.1.0	September 2001
xp8200	E8.2.0.0	June 2001
ssr8100	E8.1.0.0	February 2001
ssr8010	E8.0.1.0	October 2000
ssr8000	E8.0.0.0	September 2000
ssr3200	3.2.0.0	May 2000
ssr3100	3.1.0.0	April 2000
ssr3010	3.0.1.0	March 2000
ssr3000	3.0.0.0	October 1999
ssr2220	2.2.2.0	September 1999
ssr2200	2.2.0.0	April 1999
ssr2100	2.1.0.0	December 1998
ssr2000	2.0.0.0	November 1998
ssr1200	1.2.0.0	September 1998
ssr1100	1.1.0.0	August 1998
ssr1010	1.0.1.0	June 1998
ssr1000	1.0.0.0	April 1998

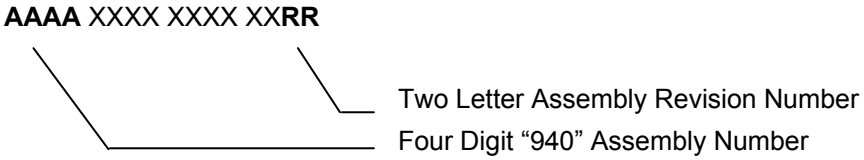
HARDWARE / BOOT FIRMWARE/ SYSTEM FIRMWARE COMPATIBILITY:

The Minimum Boot Firmware Version is a function of:

- The hardware installed in the system (as listed below).
- The version of VFS used. For more information on VFS versions see the "PCMCIA Card VFS Version" sub-section in the "INSTALLATION AND CONFIGURATION NOTES" section of the *X-Pedition Boot Firmware version E3.2.0.0 Release Notes.*
- The need for new features or corrections that are provided in a specific version.

The issue of determining minimum Boot Firmware version can be avoided by installing version E3.2.0.0 of the Boot Firmware.

NOTE: In some cases, the Minimum System Firmware Version depends upon the revision of a particular model number. The revision number appears on the serial number sticker attached to the front of all Enterasys Networks hardware assemblies. These numbers are interpreted as follows:



Example:

3570 0000 0000 000A

This number is broken down as follows:

- Assembly number 9403570 (In this case, the SSR-POS21-04)
- The assembly has a revision number of "0A"

For the two SSR-PCMCIA part numbers listed below, sub-part numbers (e.g., 35-028-02) are also listed. Find the sub-part number on the SSR-PCMCIA card. Match it with a sub-part number to aid in determining the minimum System Firmware and Boot Firmware versions.

For detailed information on managing the Boot Firmware, please refer to version E3.2.0.0 of the *X-Pedition Boot Firmware Release Notes*.

This version of System Firmware supports the X-Pedition Router hardware listed in the following table:

Part	Description	Minimum System Firmware Version	Minimum Boot Firmware Version
5SSRM-02	Router module for the Matrix E5	E8.0.1.0	1.1.0.8
6SSRLC-FX-AA	8-port 100BASE-FX (MT-RJ) module for 5SSRM-02 and 6SSRM-02	3.0.50.11	
6SSRLC-LX-AA	2-port 1000BASE-LX module for 5SSRM-02 and 6SSRM-02	3.0.50.11	
6SSRLC-LX70-AA	1-port 1000BASE-LX 70 KM module for 5SSRM-02 and 6SSRM-02	3.0.50.11	
6SSRLC-SER-AA	2-port Serial module (No compression or encryption) for 5SSRM-02 and 6SSRM-02	3.0.50.11	
6SSRLC-SERC-AA	4-port Serial module with compression (No encryption) for 5SSRM-02 and 6SSRM-02	3.0.50.11	
6SSRLC-SERCE-AA	4-port Serial module with compression & encryption for 5SSRM-02 and 6SSRM-02	3.0.50.11	
6SSRLC-SX-AA	2-port 1000BASE-SX module for 5SSRM-02 and 6SSRM-02	3.0.50.11	
6SSRLC-TX-AA	8-port 1000BASE-TX module for 5SSRM-02 and 6SSRM-02	3.0.50.11	
6SSRM-02	Router module for the Matrix E6 (SS6000) and Matrix E7	3.0.50.11	1.1.0.8

Part	Description	Minimum System Firmware Version	Minimum Boot Firmware Version
ER16-04	4-port 1000BASE GBIC module [T-Series] for ER16	E8.0.0.0	
ER16-08	8-port 1000BASE GBIC module [T-Series] for ER16	E8.0.0.0	
ER16-AC	AC Power Supply for ER16	E8.0.0.0	
ER16-ATM29-02	2-port ATM OC-3c base module [T-Series] for ER16	E8.3.0.0	
ER16-CK	Clock module for ER16	E8.0.0.0	
ER16-CM3-128	Control Module 3 (291 MHz CPU) with 128MB for ER16	E8.0.0.0	E3.0.0.0
ER16-CM4-256	Control Module 4 (380 MHz CPU) with 256MB for ER16	E8.2.0.0	E3.1.0.0
ER16-CS	X-Pedition ER16 Chassis with 16 slots. Includes ER16-CK, ER16-FN, and ER16-SF	E8.0.0.0	
ER16-DC	DC Power Supply for ER16	E8.0.0.0	
ER16-FDDI-02	2-port FDDI base module [T-Series] for ER16	E8.3.0.1	
ER16-FN	Fan Tray module for ER16	E8.0.0.0	
ER16-GTX32-04	4-port 1000BASE-TX module for ER16	E9.0.0.0	
ER16-GTX32-08	8-port 1000BASE-TX module for ER16	E9.0.0.0	
ER16-HFX31-24	24-port 100BASE-FX module [T-Series] for ER16 (MMF)	E8.3.0.0	
ER16-HFX39-24	24-port 100BASE-FX module [T-Series] for ER16 (SMF)	E8.3.0.0	
ER16-HSSI-02-CK	2-port HSSI module for ER16 with external clocking	E8.3.0.0	
ER16-POS-21-04	4-port OC-3/STM-1 Packet over SONET/SDH MMF module [T-Series] ER16	E9.0.3.0	
ER16-POS-29-04	4-port OC-3/STM-1 Packet over SONET/SDH SMF module [T-Series] for ER16	E9.0.3.0	
ER16-POS-31-02	2-port OC-12/STM-4 Packet over SONET/SDH MMF module [T-Series] for ER16	E9.0.3.0	
ER16-POS-39-02	2-port OC-12/STM-4 Packet over SONET/SDH SMF module [T-Series] for ER16	E9.0.3.0	
ER16-SERC-04-AA	4-port Serial module with compression for X-Pedition ER16	E8.3.0.0	
ER16-SERCE-04-A	4-port Serial module with compression and encryption for X-Pedition ER16	E8.3.0.0	
ER16-SF	Switching Fabric module for ER16	E8.0.0.0	
ER16-SX-08	8-port 1000BASE-SX module [T-Series] for ER16	E8.0.0.0	
ER16-TX-24	24-port 10/100BASE-TX module [T-Series] for ER16	E8.0.0.0	
ER16-TX-32	32-port 10/100BASE-TX module [T-Series] for ER16	E8.0.0.0	
SSR-16	X-Pedition 8600 Chassis with 16 slots. Comes with SSR-FAN-16 and SSR-SF-16.	1.2.0.0	
SSR-2-B128	X-Pedition 2000 Chassis with 16-ports 10/100 TX ,128 MB memory, and 2 open slots	3.1.0.0	1.1.0.9
SSR-2-FX	8-port 100BASEFX (MT-RJ) module for X-Pedition 2000	2.1.0.1	
SSR-2-FX-AA	8-port 100BASEFX (MT-RJ) module for X-Pedition 2000	3.0.0.0	
SSR-2-GSX	X-Pedition 2100 Chassis with 8-ports 1000BASE-SX and 64MB Memory	2.2.0.1	1.1.0.5
SSR-2-HSSI-AA	2-port HSSI module for X-Pedition 2000	E8.0.0.0	
SSR-2-LX	2-port 1000BASE-LX module for X-Pedition 2000	1.2.0.0	
SSR-2-LX-AA	2-port 1000BASE-LX module for X-Pedition 2000	3.0.0.0	
SSR-2-LX70	1-port 70 km 1000BASE-LX module for X-Pedition 2000	2.0.0.0	
SSR-2-LX70-AA	1-port 70 km 1000BASE-LX module for X-Pedition 2000	3.0.0.0	
SSR-2-SER	2-port Serial module (No compression or encryption) for X-Pedition 2000	2.1.0.0	
SSR-2-SER-AA	2-port Serial module (No compression or encryption) for X-Pedition 2000	3.0.0.0	
SSR-2-SERC	4-port Serial module with compression (No encryption) for X-Pedition 2000	2.1.0.0	
SSR-2-SERC-AA	4-port Serial module with compression (No encryption) for X-Pedition 2000	3.0.0.0	
SSR-2-SERCE	4-port Serial module with compression and encryption for X-Pedition 2000	2.1.0.0	
SSR-2-SERCE-AA	4-port Serial module with compression and encryption for X-Pedition 2000	3.0.0.0	
SSR-2-SX	2-port 1000BASE-SX module for X-Pedition 2000	1.2.0.0	
SSR-2-SX-AA	2-port 1000BASE-SX module for X-Pedition 2000	3.0.0.0	
SSR-2-TX	8-port 10/100 TX module for X-Pedition 2000	1.2.0.0	
SSR-2-TX-AA	8-port 10/100 TX module for X-Pedition 2000	3.0.0.0	
SSR-8	X-Pedition 8000 Chassis with 8 slots. Comes with SSR-FAN-8.	1.0.0.0	
SSR-ARE	Advanced Routing Engine (currently supports AppleTalk) for X-Pedition 8000/8600	E8.1.0.0	
SSR-ATM29-02	2-port ATM OC-3c base module [T-Series] for X-Pedition 8000/8600	3.1.0.0	
SSR-CM2-128	Control Module 2 (198 MHz CPU) with 128 MB memory for X-Pedition 8000/8600	1.1.0.0	1.1.0.2

Part	Description	Minimum System Firmware Version	Minimum Boot Firmware Version
SSR-CM2-64	Control Module 2 (198 MHz CPU) with 64 MB memory for X-Pedition 8000/8600	1.1.0.0	1.1.0.2
SSR-CM2B-64	Control Module 2 (198 MHz CPU) with 64 MB memory for X-Pedition 8000/8600	E9.0.0.0	E3.2.0.0
SSR-CM3-128	Control Module 3 (291 MHz CPU) with 128MB memory for X-Pedition 8000/8600	E8.0.0.0	E3.0.0.0
SSR-CM4-256	Control Module 4 (375/380 Mhz CPU) with 256MB memory for X-Pedition 8000/8600	E8.2.0.0	E3.1.0.0
SSR-FAN-16	Fan Tray module for X-Pedition 8600	1.0.0.0	
SSR-FAN-8	Fan Tray module for X-Pedition 8000	1.0.0.0	
SSR-FDDI-02	2-port FDDI base module [T-Series] for X-Pedition 8000/8600	3.2.0.0	
SSR-GLH39-02	2-port 1000 LLX / LH module (SCLX for SMF) [T-Series] for X-Pedition 8000/8600	3.1.0.0	
SSR-GLX19-02	2-port 1000 LX module (SCLX for MMF or SMF) with 4 MB for X-Pedition 8000/8600	1.0.0.0	
SSR-GLX29-02	2-port 1000 LX module (SCLX for MMF or SMF) with 16 MB for X-Pedition 8000/8600	1.0.0.0	
SSR-GLX29-02-AA	2-port 1000 LX module (SCLX for MMF or SMF) with 16 MB for X-Pedition 8000/8600	3.0.0.0	
SSR-GLX39-02	2-port 1000 LX module (SCLX for MMF or SMF) [T-Series] for X-Pedition 8000/8600	3.1.0.0	
SSR-GLX39-04	4-port 1000 LX module (SCLX for MMF or SMF) [T-Series] for X-Pedition 8000/8600	E8.3.0.0	
SSR-GLX70-01	1-port 70 Km 1000BASE-LX module with 16 MB for X-Pedition 8000/8600	2.0.0.0	
SSR-GLX70-01-AA	1-port 70 Km 1000BASE-LX module with 16 MB for X-Pedition 8000/8600	3.0.0.0	
SSR-GSX11-02	2-port 1000 SX module (SCSX for MMF Only) with 4 MB for X-Pedition 8000/8600	1.0.0.0	
SSR-GSX21-02	2-port 1000 SX module (SCSX for MMF Only) with 16 MB for X-Pedition 8000/8600	1.0.0.0	
SSR-GSX21-02-AA	2-port 1000 SX module (SCSX for MMF Only) with 16 MB for X-Pedition 8000/8600	3.0.0.0	
SSR-GSX31-02	2-port 1000 SX module (SCSX for MMF Only) [T-Series] for X-Pedition 8000/8600	3.1.0.0	
SSR-GSX31-04	4-port 1000 SX module (SCSX for MMF Only) [T-Series] for X-Pedition 8000/8600	E8.3.0.0	
SSR-GTX32-02	2-port 1000 TX module (Cat 5 RJ-45) [T-Series] for X-Pedition 8000/8600	3.1.0.0	
SSR-GTX32-04	4-port 1000 TX module (Cat 5 RJ-45) [T-Series] for X-Pedition 8000/8600	E9.0.0.0	
SSR-HFX11-08	8-port 100 FX module (MMF SC) with 4 MB for X-Pedition 8000/8600	1.0.0.0	
SSR-HFX21-08	8-port 100BASE-FX module (MMF SC) with 16 MB for X-Pedition 8000/8600	1.0.0.0	
SSR-HFX21-08-AA	8-port 100BASE-FX module (MMF SC) with 16 MB for X-Pedition 8000/8600	3.0.0.0	
SSR-HFX29-08	8-port 100BASE-FX SMF module with 16 MB for X-Pedition 8000/8600	2.0.0.0	
SSR-HFX29-08-AA	8-port 100BASE-FX SMF module with 16 MB for X-Pedition 8000/8600	2.0.0.0	
SSR-HSSI-02	2-port HSSI module for X-Pedition 8000/8600	2.1.0.0	
SSR-HSSI-02-AA	2-port HSSI module for X-Pedition 8000/8600	3.0.0.0	
SSR-HSSI-02-CK	2-port HSSI module for X-Pedition 8000/8600 with external clocking	E8.3.0.0	
SSR-HTX12-08	8-port 10/100 TX module (Cat 5 RJ-45) with 4 MB for X-Pedition 8000/8600	1.0.0.0	
SSR-HTX12-08-AA	8-port 10/100 TX module (Cat 5 RJ-45) with 4 MB for X-Pedition 8000/8600	3.0.0.0	
SSR-HTX22-08	8-port 10/100 TX module (Cat 5 RJ-45) with 16 MB for X-Pedition 8000/8600	1.0.1.0	
SSR-HTX22-08-AA	8-port 10/100 TX module (Cat 5 RJ-45) with 16 MB for X-Pedition 8000/8600	3.0.0.0	
SSR-HTX32-16	16-port 10/100 TX module (Cat 5 RJ-45) with 16 MB [T-Series] for X-Pedition 8000/8600	3.1.0.0	
SSR-MEM-128	128MB Memory Upgrade Kit for SSR-CM2-64, SSR-CM2-128, SSR-CM3-128, and ER16-CM3-128	1.1.0.0	1.1.0.2
SSR-PCMCIA 35-028-01 35-053-01 35-053-02 35-053-03 37-002-01	8MB PCMCIA card for SSR-CM2-64, SSR-CM2-128, SSR-CM3-128, SSR-CM4-256, ER16-CM3-128, and ER16-CM4-256	1.0.0.0	1.0.0.0
SSR-PCMCIA 35-028-02 35-053-04 37-010-01	8MB PCMCIA card for SSR-CM2-64, SSR-CM2-128, SSR-CM3-128, SSR-CM4-256, ER16-CM3-128, and ER16-CM4-256	3.0.1.6, 3.0.1.7, 3.1.0.8 and up excluding 3.2.0.0	E3.0.0.0
SSR-POS21-04	4-port OC-3/STM-1 Packet over SONET/SDH MMF module [T-Series] for X-Pedition 8000/8600	3.1.0.0	

Part	Description	Minimum System Firmware Version	Minimum Boot Firmware Version
SSR-POS21-04 Assy 3570 Rev0A+	4-port OC-3/STM-1 Packet over SONET/SDH MMF module [T-Series] for X-Pedition 8000/8600	E9.0.0.1	
SSR-POS29-04	4-port OC-3/STM-1 Packet over SONET/SDH SMF module [T-Series] for X-Pedition 8000/8600	3.1.0.0	
SSR-POS29-04 Assy 3569 Rev0A+	4-port OC-3/STM-1 Packet over SONET/SDH SMF module [T-Series] for X-Pedition 8000/8600	E9.0.0.1	
SSR-POS31-02	2-port OC-12/STM-4 Packet over SONET/SDH MMF module [T-Series] for X-Pedition 8000/8600	3.1.0.0	
SSR-POS31-02 Assy 3568 Rev0A+	2-port OC-12/STM-4 Packet over SONET/SDH MMF module [T-Series] for X-Pedition 8000/8600	E9.0.0.1	
SSR-POS39-02	2-port OC-12/STM-4 Packet over SONET/SDH SMF module [T-Series] for X-Pedition 8000/8600	3.1.0.0	
SSR-POS39-02 Assy 3567 Rev0A+	2-port OC-12/STM-4 Packet over SONET/SDH SMF module [T-Series] for X-Pedition 8000/8600	E9.0.0.1	
SSR-PS-16	AC Power Supply module for X-Pedition 8600	1.0.0.0	
SSR-PS-16-DC	DC Power Supply module for X-Pedition 8600	1.0.0.0	
SSR-PS-8	AC Power Supply module for X-Pedition 8000	1.0.0.0	
SSR-PS-8-DC	DC Power Supply module for X-Pedition 8000	1.0.0.0	
SSR-SERC-04	4-port Serial module with compression for X-Pedition 8000/8600	2.1.0.0	
SSR-SERC-04-AA	4-port Serial module with compression for X-Pedition 8000/8600	3.0.0.0	
SSR-SERCE-04	4-port Serial module with compression and encryption for X-Pedition 8000/8600	2.1.0.0	
SSR-SERCE-04-AA	4-port Serial module with compression and encryption for X-Pedition 8000/8600	3.0.0.0	
SSR-SF-16	Switching Fabric module for X-Pedition 8600	1.2.0.0	
XP-2100	X-Pedition 2100 Chassis with 8-ports 1000BASE-SX, 64MB Memory	E9.0.1.0	E3.2.0.0
XP-2400	X-Pedition 2400 Chassis with 16-ports 10/100 TX, 128MB expandable memory, and 2 card slots.	E9.0.0.0	E3.2.0.0
XP-2400-256	X-Pedition 2400 Chassis with 16-ports 10/100 TX, 256MB memory, and 2 card slots.	E9.0.0.0	E3.2.0.0
XP-2400-DC	X-Pedition 2400 Chassis with 16-ports 10/100 TX, 128MB expandable memory, and 2 card slots; DC-powered	E9.0.0.0	E3.2.0.0
XP-2-ATM29-02	2-port ATM OC-3c base module [T-Series] for X-Pedition 2400	E9.0.0.0	
XP-2-FX-AA	8-port 100BASEFX (MT-RJ) module for X-Pedition 2400	E9.0.0.0	
XP-2-HSSI-CK	2-port HSSI module for X-Pedition 2400	E9.0.0.0	
XP-2-LX-AA	2-port 1000BASE-LX module for X-Pedition 2400	E9.0.0.0	
XP-2-LX70-AA	1-port 70 km 1000BASE-LX module for X-Pedition 2400	E9.0.0.0	
XP-2-SER-AA	2-port Serial module (No compression or encryption) for X-Pedition 2400	E9.0.0.0	
XP-2-SERC-AA	4-port Serial module with compression (No encryption) for X-Pedition 2400	E9.0.0.0	
XP-2-SERCE-AA	4-port Serial module with compression and encryption for X-Pedition 2400	E9.0.0.0	
XP-2-SX-AA	2-port 1000BASE-SX module for X-Pedition 2400	E9.0.0.0	
XP-2-TX-AA	8-port 10/100 TX module for X-Pedition 2400	E9.0.0.0	
XP-PCMCIA-16AT	16MB ATA PCMCIA card for SSR-CM2-64, SSR-CM2-128, SSR-CM3-128, SSR-CM4-256, ER16-CM3-128, and ER16-CM4-256	E8.2.0.0	E3.1.0.0
XP-PCMCIA-32AT	32MB ATA PCMCIA card for SSR-CM2-64, SSR-CM2-128, SSR-CM3-128, SSR-CM4-256, ER16-CM3-128, and ER16-CM4-256	E8.2.0.0	E3.1.0.0
XP-PCMCIA-16LN	16MB PCMCIA card for SSR-CM2-64, SSR-CM2-128, SSR-CM3-128, SSR-CM4-256, ER16-CM3-128, and ER16-CM4-256	3.0.1.6, 3.0.1.7, 3.1.0.8 and up, excluding 3.2.0.0	E3.0.0.0

The following table lists hardware **not** supported in this System Firmware release. The last System Firmware release to support this hardware was series 3.0.X.X.

Part	Description
SSR-2-B	SSR2000 with 32 MB
SSR-2-B-AA	SSR2000 with 32 MB
SSR-CM-128	Control Module 1 with 128 MB memory for SSR8000 and SSR8600
SSR-CM-64	Control Module 1 with 64 MB memory for SSR8000 and SSR8600

The following table lists supported hardware that is System Firmware and Boot Firmware version independent.

Part	Description
APHY-21	SSR-ATM29-02 1 port OC-3 MMF Physical Interface Module
APHY-22	SSR-ATM29-02 1 port OC-3 UTP Physical Interface Module
APHY-29IR	SSR-ATM29-02 1 port OC-3 SMF-IR Physical Interface Module
APHY-67	SSR-ATM29-02 1 port DS-3/T3 Physical Interface Module (Coax)
APHY-77	SSR-ATM29-02 1 port E-3 Physical Interface Module (Coax)
APHY-82	SSR-ATM29-02 1 port T-1 Physical Interface Module (UTP)
APHY-92	SSR-ATM29-02 1 port E-1 Physical Interface Module (UTP)
FPHY-01	SSR-FDDI-02 MMF DAS/SAS with SC connectors
FPHY-02	SSR-FDDI-02 UTP SAS with RJ-45 connector
FPHY-09	SSR-FDDI-02 SMF DAS/SAS with SC connectors
XP-APHY-21	ER16-ATM29-02/XP-2-ATM29-02 1 port OC-3 MMF Physical Interface Module
XP-APHY-22	ER16-ATM29-02/XP-2-ATM29-02 1 port OC-3 UTP Physical Interface Module
XP-APHY-29IR	ER16-ATM29-02/XP-2-ATM29-02 1 port OC-3 SMF-IR Physical Interface Module
XP-APHY-67	ER16-ATM29-02/XP-2-ATM29-02 1 port DS-3/T3 Physical Interface Module (Coax)
XP-APHY-77	ER16-ATM29-02/XP-2-ATM29-02 1 port E-3 Physical Interface Module (Coax)
XP-APHY-82V	ER16-ATM29-02/XP-2-ATM29-02 1 port T-1 Physical Interface Module (UTP) with over current/voltage protection.
XP-APHY-92V	ER16-ATM29-02/XP-2-ATM29-02 1 port E-1 Physical Interface Module (UTP) with over current/voltage protection.
XP-FPHY-01	ER16-FDDI-02 MMF DAS/SAS with SC connectors
XP-FPHY-02	ER16-FDDI-02 UTP SAS with RJ-45 connector
XP-FPHY-09	ER16-FDDI-02 SMF DAS/SAS with SC connectors
GPIM-01	ER16 Gigabit Ethernet Physical Interface Module, 1000BASESX
GPIM-08	ER16 Gigabit Ethernet Physical Interface Module, Long Haul (70Km)
GPIM-09	ER16 Gigabit Ethernet Physical Interface Module, 1000BASELX
SSR-2-RACKMOUNT	Rack Mount Kit for X-Pedition 2000 and X-Pedition 2100
SSR-449DTE-02	4 meter 2 lead cable with 2 male RS449 DTE (male) connectors
SSR-530DTE-02	4 meter 2 lead cable with 2 male RS530 (male) connectors
SSR-HSSI-CAB	3 meter HSSI cable, male to male connector
SSR-V35-DTE-02	4 meter 2 lead cable with 2 male V35 DTE (male) connectors
SSR-X21DTE-02	4 meter 2 lead cable and 2 make X21 DTE (male) connectors

HARDWARE REQUIREMENTS TABLE:

NOTE: X-Pedition line card hardware makes use of three basic ASIC versions (pre AA-series, AA-series and T-series). The features supported by each line card are roughly defined by which series of ASIC hardware is used on that card.

The following table shows the hardware supporting specific features in this release:

X-Pedition Feature Set / Part Number	Description	Pre AA	AA – Series									T – Series				
		Weighted Fair Queuing	Network Address Translation	Server Load Balancing	Per Flow Rate Limiting	Flow Aggregate Rate Limiting	Per Protocol VLAN	Established Bit ACL	TOS Rewrite	Layer 4 Bridging	Multiple IPX Encapsulation	Per Port Rate Limiting	Aggregate Rate Limiting	Jumbo Frame Support	Weighted Fair Queuing	Weighted Random Early Detection
5SSRM-02																
5SSRM-02	Router Module for the Matrix E5	X	X	X	X	X	X	X	X	X	X					
6SSRM-02																
6SSRM-02	Router Module for the Matrix E6 & E7	X	X	X	X	X	X	X	X	X	X					
5SSRM-02 / 6SSRM-02																
6SSRLC-FX-AA	8-port 100BASE-FX (MT-RJ)	X	X	X	X	X	X	X	X	X	X					
6SSRLC-LX-AA	2-port 1000BASE-LX	X	X	X	X	X	X	X	X	X	X					
6SSRLC-LX70-AA	1-port 1000BASE-LX 70 KM	X	X	X	X	X	X	X	X	X	X					
6SSRLC-SER-AA	2-port Serial	X	X	X	X	X	X	X	X	X	X					
6SSRLC-SERC-AA	4-port Serial, compression	X	X	X	X	X	X	X	X	X	X					
6SSRLC-SERCE-AA	4-port Serial, compression & encryption	X	X	X	X	X	X	X	X	X	X					
6SSRLC-SX-AA	2-port 1000BASE-SX	X	X	X	X	X	X	X	X	X	X					
6SSRLC-TX-AA	8-port 10/100BASE-TX	X	X	X	X	X	X	X	X	X	X					
XP 2000																
SSR-2-B128	X-Pedition 2000	X	X	X	X	X	X	X	X	X	X					
SSR-2-FX	8-port 100BASEFX	X														
SSR-2-FX-AA	8-port 100BASEFX	X	X	X	X	X	X	X	X	X	X					
SSR-2-HSSI-AA	2-port HSSI	X	X	X	X	X	X	X	X	X	X					
SSR-2-LX	2-port 1000BASE-LX															
SSR-2-LX-AA	2-port 1000BASE-LX		X	X	X	X	X	X	X	X	X					
SSR-2-LX70	1-port 70 km 1000BASE-LX															
SSR-2-LX70-AA	1-port 70 km 1000BASE-LX		X	X	X	X	X	X	X	X	X					
SSR-2-SER	2-port Serial	X														
SSR-2-SER-AA	2-port Serial	X	X	X	X	X	X	X	X	X	X					
SSR-2-SERC	4-port Serial, compression	X														
SSR-2-SERC-AA	4-port Serial, compression	X	X	X	X	X	X	X	X	X	X					
SSR-2-SERCE	4-port Serial, compression & encryption	X														
SSR-2-SERCE-AA	4-port Serial, compression & encryption	X	X	X	X	X	X	X	X	X	X					
SSR-2-SX	2-port 1000BASE-SX															
SSR-2-SX-AA	2-port 1000BASE-SX		X	X	X	X	X	X	X	X	X					
SSR-2-TX	8-port 10/100 TX	X														
SSR-2-TX-AA	8-port 10/100 TX	X	X	X	X	X	X	X	X	X	X					
XP 2100																
SSR-2-GSX (AA)	X-Pedition 2100		X	X	X	X	X	X	X	X	X					
XP-2100	X-Pedition 2100		X	X	X	X	X	X	X	X	X					
XP 2400																
XP-2400	X-Pedition 2400	X	X	X	X	X	X	X	X	X	X					
XP-2-ATM29-02	2-port ATM OC-3	X	X	X	X		X	X	X	X	X	X	X	X	X	X
XP-2-FX-AA	8-port 100BASEFX	X	X	X	X	X	X	X	X	X	X					

X-Pedition Feature Set / Part Number	Description	Pre AA	AA – Series									T – Series				
		Weighted Fair Queuing	Network Address Translation	Server Load Balancing	Per Flow Rate Limiting	Flow Aggregate Rate Limiting	Per Protocol VLAN	Established Bit ACL	TOS Rewrite	Layer 4 Bridging	Multiple IPX Encapsulation	Per Port Rate Limiting	Aggregate Rate Limiting	Jumbo Frame Support	Weighted Fair Queuing	Weighted Random Early Detection
XP-2-HSSI-AA	2-port HSSI	X	X	X	X	X	X	X	X	X	X					
XP-2-LX-AA	2-port 1000BASE-LX		X	X	X	X	X	X	X	X	X					
XP-2-LX70-AA	1-port 70 km 1000BASE-LX		X	X	X	X	X	X	X	X	X					
XP-2-SER-AA	2-port Serial	X	X	X	X	X	X	X	X	X	X					
XP-2-SERC-AA	4-port Serial, compression	X	X	X	X	X	X	X	X	X	X					
XP-2-SERCE-AA	4-port Serial, compression & encryption	X	X	X	X	X	X	X	X	X	X					
XP-2-SX-AA	2-port 1000BASE-SX		X	X	X	X	X	X	X	X	X					
XP-2-TX-AA	8-port 10/100 TX	X	X	X	X	X	X	X	X	X	X					
XP 8000 / 8600																
SSR-ARE	Advanced Routing Engine															
SSR-ATM29-02	2-port ATM OC-3	X	X	X	X		X	X	X	X	X	X	X	X	X	X
SSR-FDDI-02	2-port FDDI	X	X	X	X		X	X	X	X	X	X	X	1	X	X
SSR-GLH39-02	2-port 1000 LLX/LH	X	X	X	X		X	X	X	X	X	X	X	X	X	X
SSR-GLX19-02	2-port 1000 LX – 4 MB															
SSR-GLX29-02	2-port 1000 LX – 16 MB															
SSR-GLX29-02-AA	2-port 1000 LX – 16 MB		X	X	X	X	X	X	X	X	X					
SSR-GLX39-02	2-port 1000 LX	X	X	X	X		X	X	X	X	X	X	X	X	X	X
SSR-GLX39-04	4-port 1000 LX	X	X	X	X		X	X	X	X	X	X	X	X	X	X
SSR-GLX70-01	1-port 70 km 1000BASE-LX															
SSR-GLX70-01-AA	1-port 70 km 1000BASE-LX		X	X	X	X	X	X	X	X	X					
SSR-GSX11-02	2-port 1000 SX – 4 MB															
SSR-GSX21-02	2-port 1000 SX – 16 MB															
SSR-GSX21-02-AA	2-port 1000 SX – 16 MB		X	X	X	X	X	X	X	X	X					
SSR-GSX31-02	2-port 1000 SX	X	X	X	X		X	X	X	X	X	X	X	X	X	X
SSR-GSX31-04	4-port 1000 SX	X	X	X	X		X	X	X	X	X	X	X	X	X	X
SSR-GTX32-02	2-port 1000 TX	X	X	X	X		X	X	X	X	X	X	X	X	X	X
SSR-GTX32-04	4-port 1000 TX	X	X	X	X		X	X	X	X	X	X	X	X	X	X
SSR-HFX11-08	8-port 100BASE-FX – 4 MB	X														
SSR-HFX21-08	8-port 100BASE-FX – 16 MB	X														
SSR-HFX21-08-AA	8-port 100BASE-FX – 16 MB	X	X	X	X	X	X	X	X	X	X					
SSR-HFX29-08	8-port 100BASE-FX SMF	X														
SSR-HFX29-08-AA	8-port 100BASE-FX SMF	X	X	X	X	X	X	X	X	X	X					
SSR-HSSI-02	2-port HSSI	X														
SSR-HSSI-02-AA	2-port HSSI	X	X	X	X	X	X	X	X	X	X					
SSR-HSSI-02-CK	2-port HSSI with external clocking	X	X	X	X	X	X	X	X	X	X					
SSR-HTX12-08	8-port 10/100 TX – 4 MB	X														
SSR-HTX12-08-AA	8-port 10/100 TX – 4 MB	X	X	X	X	X	X	X	X	X	X					
SSR-HTX22-08	8-port 10/100 TX – 16 MB	X														
SSR-HTX22-08-AA	8-port 10/100 TX – 16 MB	X	X	X	X	X	X	X	X	X	X					
SSR-HTX32-16	16-port 10/100 TX – 16 MB	X	X	X	X		X	X	X	X	X	X	X		X	
SSR-POS21-04	4-port OC-3/STM-1 POS MMF	X	X	X	X		X	X	X	X	X	X	X	X	X	X
SSR-POS29-04	4-port OC-3/STM-1 POS SMF	X	X	X	X		X	X	X	X	X	X	X	X	X	X
SSR-POS31-02	2-port OC-12/STM-4 POS MMF	X	X	X	X		X	X	X	X	X	X	X	X	X	X
SSR-POS39-02	2-port OC-12/STM-4 POS SMF	X	X	X	X		X	X	X	X	X	X	X	X	X	X
SSR-SERC-04	4-port Serial, compression	X														
SSR-SERC-04-AA	4-port Serial, compression	X	X	X	X	X	X	X	X	X	X					
SSR-SERCE-04	4-port Serial, compression & encryption	X														
SSR-SERCE-04-AA	4-port Serial, compression & encryption	X	X	X	X	X	X	X	X	X	X					
ER16																
ER16-04	4-port 1000BASE GBIC	X	X	X	X		X	X	X	X	X	X	X	X	X	X
ER16-08	8-port 1000BASE GBIC	X	X	X	X		X	X	X	X	X	X	X	X	X	X
ER16-ATM29-02	2-port ATM OC3	X	X	X	X		X	X	X	X	X	X	X	X	X	X
ER16-FDDI-02	2-port FDDI	X	X	X	X		X	X	X	X	X	X	X	1	X	X

X-Pedition Feature Set / Part Number	Description	Pre AA	AA – Series									T – Series				
		Weighted Fair Queuing	Network Address Translation	Server Load Balancing	Per Flow Rate Limiting	Flow Aggregate Rate Limiting	Per Protocol VLAN	Established Bit ACL	TOS Rewrite	Layer 4 Bridging	Multiple IPX Encapsulation	Per Port Rate Limiting	Aggregate Rate Limiting	Jumbo Frame Support	Weighted Fair Queuing	Weighted Random Early Detection
ER16-GTX32-04	4-port 1000BASE-TX	X	X	X	X		X	X	X	X	X	X	X	X	X	X
ER16-GTX32-08	8-port 1000BASE-TX	X	X	X	X		X	X	X	X	X	X	X	X	X	X
ER16-HFX31-24	24-port 100BASE-FX (MMF)	X	X	X	X		X	X	X	X	X	X	X		X	X
ER16-HFX39-24	24-port 100BASE-FX (SMF)	X	X	X	X		X	X	X	X	X	X	X		X	X
ER16-HSSI-02-CK	2-port HSSI with external clocking	X	X	X	X	X	X	X	X	X	X					
ER16-POS-21-04	4-port OC-3/STM-1 Packet over SONET/SDH MMF module [T-Series] for ER16	X	X	X	X		X	X	X	X	X	X	X	X	X	X
ER16-POS-29-04	4-port OC-3/STM-1 Packet over SONET/SDH SMF module [T-Series] for ER16	X	X	X	X		X	X	X	X	X	X	X	X	X	X
ER16-POS-31-02	2-port OC-12/STM-4 Packet over SONET/SDH MMF module [T-Series] for ER16	X	X	X	X		X	X	X	X	X	X	X	X	X	X
ER16-POS-39-02	2-port OC-12/STM-4 Packet over SONET/SDH SMF module [T-Series] for ER16	X	X	X	X		X	X	X	X	X	X	X	X	X	X
ER16-SERC-04-AA	4-port Serial, compression	X	X	X	X	X	X	X	X	X	X					
ER16-SERCE-04-A	4-port Serial, compression & encryption	X	X	X	X	X	X	X	X	X	X					
ER16-SX-08	8-port 1000BASE-SX	X	X	X	X		X	X	X	X	X	X	X	X	X	X
ER16-TX-24	24-port 10/100BASE-TX	X	X	X	X		X	X	X	X	X	X	X		X	X
ER16-TX-32	32-port 10/100BASE-TX	X	X	X	X		X	X	X	X	X	X	X		X	X

[1] SSR-FDDI-02 jumbo frame support is limited to 4500 bytes.

NETWORK MANAGEMENT SOFTWARE SUPPORT:

The following table displays information on the Network Management Software that supports this release:

NMS Platform	Version	Part Number
NetSight Element Manager	3.0	NS-EM-LIC-1 NS-EM-WEB NS-EM-CD NS-EM-LIC-5 NS-EM-LIC-10 NS-EM-LIC-20

NOTE: Network Management Software may not utilize the latest features in the E9.0.5.0 System Firmware. Enterasys Networks recommends reviewing the release notes included with the user's specific Network Management Platform for more information.

NEW FEATURES AND ENHANCEMENTS IN THE E9.0.5.0 SYSTEM FIRMWARE:

NEW FIRMWARE SUPPORT

ospf log router-lsas

Purpose

Logs Router LSAs from incoming link-state update packets to the console and syslog server.

Format

ospf log router-lsas on|off | on detail

Mode

Enable.

Parameters

off Turns logging off (default).

on Turns logging on. Gives the user basic information that states which neighbor sent the update and which router advertised each LSA contained within the update packet

on detail
Logs detailed information from the Router LSA.

Restrictions

None.

Examples

To view basic log information, enter the following command from Enable mode:

```
.
xp# ospf log router-lsas on
2002-07-25 12:09:40 %OSPF-I-UPDATE, Update received from 50.50.50.23 on interface to23.
2002-07-25 12:09:40 %OSPF-I-ADVRTR, Advertising Router: 15.15.15.15
```

To display detailed log information contained within the Router LSA, enter the following from Enable mode:

```
xp# ospf log router-lsas on detail
2002-07-25 12:09:40 %OSPF-I-UPDATE, Update received from 50.50.50.23 on interface to23.
2002-07-25 12:09:40 %OSPF-I-ADVRTR, Advertising Router: 15.15.15.15
2002-07-25 12:09:40 %OSPF-I-LINK, type: TRANS NET Link Id: 40.40.40.23 LinkData: 40.40.40.15
2002-07-25 12:09:40 %OSPF-I-LINK, type: TRANS NET Link Id: 30.30.30.16 LinkData: 30.30.30.15
2002-07-25 12:09:40 %OSPF-I-LINK, type: STUB Link Id: 80.80.80.0 LinkData: 255.255.255.0
2002-07-25 12:09:40 %OSPF-I-LINK, type: STUB Link Id: 15.15.15.15 LinkData: 255.255.255.255
```

New informational messages

%OSPF-I-ADVRTR Advertising Router: <ip address>
%OSPF-I-LINK type: <name> Link Id: <ip address> LinkData: <ip address>
%OSPF-I-UPDATE Update received from <ip address> on interface <if name>.

(Explanations for these error messages are available in the Error Reference Manual.)

SNMP Engine-ID Discovery

The X-Pedition router now attempts to discover remote SNMP Engine-IDs during either of the following events.

1) User creates a target using the command **snmp set target**. If the target is configured to send SNMPv3 Informs, the router will attempt to discover the Engine-ID of the SNMP entity at the IP address / UDP port specified by the target command.

2) User enters the command **snmp show engine-id** with an IP address. If a user specifies an IP address (using the address option), the X-Pedition will display the Engine-ID of the IP address if the router knows the Engine-ID. If the router does not know the Engine-ID for the SNMP engine at the address specified, the router will attempt to discover it.

If a discovery attempt is successful, the X-Pedition will display a message similar to the following:

```
2002-08-23 14:32:00 %SNMP-I-ENGINE_DSCRVD, SNMP has just discovered an engine-
id for: 10.136.136.210 Engine-ID = 0x80:00:07:e5:80:09:86:da:7f:92:1b:58:3d.
```

At this point users can enter the **snmp show engine-id** command to display the Engine-ID.

INSTALLATION AND CONFIGURATION NOTES:

Password Recovery

If an X-Pedition password is lost and the user is unable to log in or enter Enable mode, please refer to the Enterasys Global Knowledgebase at http://knowledgebase.enterasys.com/esupport/ . Click **Search by ID** and enter **TK0306-9**.

ISSUES RESOLVED IN E9.0.5.0:

Because all of the issues in the following tables have been resolved, a statement with each issue declaring its resolution has not been included. Resolved Issues are sorted alphabetically by topic heading.

Address Resolution Protocol (ARP)	I.D.
Executing the **arp add *<ip-address>* vlan mac-addr *<mac address>*** command with the "vlan" option given before the "mac-addr" option, will cause a core dump.	F2934
ATM ARP entries do not learn the PVC for which the ARP entry is intended.	F2971

Cabletron Discovery Protocol (CDP)	I.D.
When the X-Pedition receives Cisco CDP traffic on an STP blocked port that is part of a port-based or bridged-protocol VLAN, the router will process and forward the frame. This may cause a Cisco CDP traffic loop on the VLAN and may result in multiple neighbor entries for the same Cisco box.	F2927

Command Line Interface (CLI)	I.D.
The CLI allows users to enter a list of numeric ranges rather than a single range of numbers for some CLI commands.	F2488
If you use the **copy tftp-server to scratchpad** command to copy a configuration file from a TFTP server to the scratchpad, all commands previously commented out of the active configuration are made active and applied to the configuration.	F2848 F2914
The **move** command does not execute properly when used with a numbered list (e.g., 1-3, 5) in the ACL-editor.	F2907
When commenting out or negating **vlan add ports se.x.x to vlan X** (where these ports are Q-Trunk ports), the Trunk port state changes to *Access* and does not allow users to add more than one VLAN.	F2932
Using the command **comment line *<line number>* *<text>*** will not add the comment to the active configuration if the line number is an additional line at the end of the active configuration.	F2945
The **ip-router global set interface** command produces an error if an interface is not first added using the **ip-router global add interface** command. The error message is incomplete and does not list the interface name or IP address.	F3003

Distance Vector Multicast Routing Protocol (DVMRP)	I.D.
After link transition, unwanted multicast traffic may occur in a multi-path network environment.	F2424
DVMRP tunneling across unicast routes does not function. All multicast traffic must be routed across multicast routes.	F2643
If router A and router B have IGMP clients on the same subnet and router A loses its upstream connection, router B will take over router A's clients. When router A regains its upstream connection, it will take its clients back from router B. At this point router B will drop the flows to its own clients, causing the clients to experience a loss of multicast traffic.	F2835

DNS	I.D.
CERT Advisory CA-2002-19 Buffer Overflow in DNS resolver.	F2994

Frame Relay	I.D.
802.1Q tags do not attach properly to frames transmitted across 802.1Q-trunk enabled Frame Relay links	F2933

IPX	I.D.
When responding to a NASP (service type 278) client request, the X-pedition sends sap servers in order of farthest away to closest. This can cause clients running Windows 2000 to temporarily connect to the server farthest away.	F2898
Adding, negating, or commenting out an ip policy config command on an X-Pedition that contains ipx flows will cause the router to core. This is not a problem in code versions previous to E9.0.1.0 and E8.3.0.6.	F2941

Layer-2	I.D.
Traffic received on multiple ports with the same multicast source mac address may cause a core dump.	F2908
Traffic sent to a station with a valid ARP cache entry may flood that station's VLAN after Layer-2 entries age out. The X-Pedition now preserves these entries as long as an ARP entry is present.	F2957

Layer-3	I.D.
In a VRRP setup involving forwarding traffic paths that traverse both the master and backup VRRP routers, incorrect Layer-3 forwarding information may be maintained after a VRRP failover	F2829

Multicast	I.D.
Multicast traffic replicated across Q-trunks (using T-series hardware) may stop when a user deletes a hardware flow related to the multicast group address.	F2956
Multicast traffic passing out the lower half of any card in the ER16 may stop after a spanning tree reconvergence.	F2988
In large multiple-VLAN configurations, the X-Pedition may duplicate multicast traffic to clients after link failovers.	F3009 F3011
The router fails to switch traffic destined for registered IGMP groups after an STP/PVST topology change—this is particularly noticeable if the network contains redundant multicast routers. Furthermore, the X-Pedition may stop switching multicast streams among these routers after a Layer-2 re-span. Client connections to the server can be lost until multicast routing is reinitialized on the routers.	F3017

NetFlow	I.D.
NetFlow allows users to configure multiple collectors but does not send records to any of them if the primary collector is unreachable on the network.	F2310 F2937

NetSight Atlas ACL Manager Compatibility	I.D.
NetSight Atlas ACL Manager is unable to log into the X-Pedition if the X-Pedition has been configured with a system password, or if the X-Pedition is configured to use RADIUS authentication.	F3006

Protocol Independent Multicast—Sparse Mode (PIM-SM)	I.D.
Simultaneously removing a PIM-configured interface and its associated **interface create** command may cause a core dump. In such an event, the following message will appear: SYS-F-FATAL_ASSERT, Assertion 'vifi < MAXVIFS' failed: In very rare circumstances, an interface going down as the result of a downed port may also cause this error.	F2163
If a user attempts to switch from the Rendevous Point Tree to the Shortest Path Tree on an X-Pedition running PIM-SM, a slow memory leak develops if the data rate does not exceed the threshold. This occurs only when the multicast stream data rate is less than the configured threshold. By default, this threshold is 1000 bytes/sec.	F2967
If a user enables PIM on an interface where a secondary IP address is configured, the network of the secondary IP address will not form a PIM neighbor adjacency. This causes PIM to elect more than one PIM DR in the subnet and may cause clients in that subnet to receive duplicate multicast frames.	F3020
The X-Pedition may crash within a minute after negating a secondary IP address on a PIM enabled interface.	F3029

Port	I.D.
The CLI allows users to use the **port disable** command to disable the same SmartTrunk multiple times—this causes the X-Pedition to re-enable the SmartTrunk even though the **port disable** command is still active in the CLI. Similarly, if users enter the **port disable** command to disable a port specified as a monitor port in the **port mirroring** command, the X-Pedition will re-enable the physical port if either of these commands is negated.	F2883

Port Mirroring	I.D.
Port mirroring may affect traffic flows on ATM cards. Traffic flowing FROM a mirrored port TO an ATM card will stop when port-mirroring is enabled on an X-Pedition that contains ATM cards. Traffic to or from the ATM card to any other non-mirrored port is not affected.	F2659

Q-Trunks	I.D.
The X-Pedition does not process ARPs correctly over Q-Trunked serial links because 802.1Q tags are not preserved.	F2931

RADIUS	I.D.
When configuring the **radius accounting** or **radius accounting shell** commands, some information may be missing from the associated accounting records viewed on the accounting server. The "Session-ID" or "Acct-Authentication" field may contain incorrect information.	F2987

RMON	I.D.
When routing in destination-based forwarding mode, hardware prevents RMON from updating tables that require source information after a packet is learned. As such, nl/al-matrix and addressMap tables will display only the first few packets of unlearned traffic.	F2904

Simple Network Management Protocol (SNMP)	I.D.
The **snmp show mibs** command reports the status of the CTRON-CHASSIS-MIB on all X-Pedition platforms. This status should be reported on the 5SSRM-02 and 6SSRM-02 only.	F1545
The **snmp show access** command does not properly sequence statistics displayed on screen.	F2120
When issuing an SNMP GET request to RMON2 tables nlMatrixSD or nlMatrixDS, a core can occur if the first byte of the first IP address in a table entry is very large.	F2769
Interfaces may stop working when using SNMP to replace your active and startup configurations.	F2606 F2798 F2882
The **snmp disable trap authentication** command does not work—the only way to disable the authentication failure trap is through SNMP.	F2906

Spanning Tree (STP)	I.D.
Recent testing and diagnostics upgrades to the X-Pedition firmware has determined that the Spanning Tree tasks do not have sufficient memory in some cases. The memory size of STP has been increased to allow for proper memory utilization.	F2922

TACACS+	I.D.
When configuring the **tacplus accounting** or **tacplus accounting shell** commands, some information may be missing from the associated accounting records viewed on the accounting server. The "priv_lvl," "port," "remote_addr," and “task_id" fields may contain incorrect information.	F2987
Using the **tacacs-plus set source X.X.X.X** command does not set the correct source IP address.	F3018

TCP	I.D.
Q-Tags are not assigned to ICMP packets utilizing MLP and Q-Trunks. TCP traffic is not affected.	F2944

Telnet	I.D.
When running the **traceroute** command in a Telnet session, the Telnet session will remain active until the **traceroute** command finishes—even if the Telnet client disconnects before the command is finished. The **system kill telnet-session** command will not free the Telnet session.	F2924
A core dump can occur if a new Telnet session begins after an existing Telnet session has begun terminating, but has not yet completed termination. The time window between the start of termination and the end of termination is very small (a few milliseconds), and as a result crashes due to this condition rarely occur.	F2965

Unicast	I.D.
The DHCP relay agent sends Unicast packets using the outgoing interface's IP source address.	F2962

Virtual Local Area Network (VLAN)	I.D.
Deleting a VLAN rate-limiting policy can cause the X-Pedition to crash.	F2896
The first VLAN in a PPP QTRUNK port will not pass traffic.	F2950

Wide Area Network (WAN)	I.D.
The **statistics show port-errors** command shows incorrect values for WAN port errors.	F2831
When booting a fully loaded X-Pedition chassis with at least one WAN module, a CM failover loop can occur.	F2969 F2983

KNOWN RESTRICTIONS AND LIMITATIONS:

Known Restrictions and Limitations are sorted alphabetically by topic heading.

Broadcast Monitor (BMON)	I.D.
When BMON is enabled on a port, if the Layer-2 table for a port is repeatedly filled with incrementing source MAC addresses, the X-Pedition will be unable to remove enough entries to keep pace and will produce the following error message: %L2TM-E-DMND_DEL, could not remove enough entries from L2	F1414

Cabletron Discovery Protocol (CDP)	I.D.
CDP identifies some adjacent device types (such as switches, routers, etc.) incorrectly.	F1324 F1750
If the CDP transmit frequency is altered from its default setting the hold time will not change. Hold time should always equal 3x the increment between transmits. CDP hold time will function normally at the default transmit frequency setting.	F1401
A CDP packet's "device-ip" field may be set incorrectly when transmitted.	F1475 F1748

Distance Vector Multicast Routing Protocol (DVMRP)	I.D.
On a *non*-T-series line card, it is recommended that access ports be used when running DVMRP, due to the fact that multicast packets can be replicated to only one IP VLAN in an 802.1Q trunk port. On a T-series line card, multicast packets will be replicated to multiple IP VLANs in an 802.1Q trunk port. The following table summarizes this capability:	Hardware Limitation

Unique VLAN IDs Per Port	Number of Ports Per Card
8	16 (32 on the ER16)
16	8 (16 on the ER16)
32	1,2, and 4 (2,4, and 8 on the ER16)

Dynamic Host Configuration Protocol (DHCP)	I.D.
After a reboot, a previously assigned DHCP lease address may be reassigned to another router.	F1976

ER16	I.D.
IF DVMRP is configured over redundant links with IP interfaces on the line cards ER16-HSSI-02-CK, ER16-SERC-04-AA, or ER16-SERCE-04-A, duplicate multicast packets may be transmitted. If only one interface exists, duplicate packets will not occur.	F1773

Flow Control	I.D.
Flow Control on X-Pedition Gigabit ports will not slow their link partners to meet the maximum receive rate.	F1683 H0031
The **port set <*port*> auto-negotiation-flowctl off** command will produce the same effect as the **port set <*port*> auto-negotiation-flowctl both** command.	F1832 H0031

Layer-4 Bridging	I.D.
Ports configured with flow-bridging mode and Layer-4 bridging are not supported on T-series modules. T-series modules can be identified using the **system show hardware verbose** command and inspecting the line following the "Service String" line. T-series modules use a SIPP. Using non-T-series modules with IPPs, or using the default address-based bridging mode will avoid this hardware restriction. The configuration commands that would be used to enable the flow-bridging and Layer-4 bridging combination are as follows: **port flow-bridging <*port-list*>** **vlan enable l4-bridging on <*vlan-name*>** **vlan add port <*port-list*> to <*vlan-name*>**	F0760

Network Management	I.D.
The X-Pedition incorrectly allows the query of an SNMP community name having read/write privileges using an SNMP read-only community name. **Example:** Assume there are two community names defined ("privatemibaccess", having read/write privileges, and "r-only", having read only privileges). Using Mibtools or another MIB browser, if snmpCommunityName is queried using the "r-only" community name, both community names will be returned. The read/write community name ("privatemibaccess") should not be returned when using the read only ("r-only") community name.	F1900
Changing the status of an SNMP target to "disable" (through the **snmp set target xxx status disable** command) will not disable the target. Instead, it will continue to send traps.	F2074

Power On Self-Test (POST)	I.D.
Entering the **system set poweron-selftest quick** command in the ER16's configuration causes the system to display the following errors during "DIAG BOOT TEST": %DDT-E-MEMORY_ALIASING, Memory error @ 0x70000000 ; Possible aliasing with: 0x70800000 %DDT-E-MEMORY_ALIASING, Memory error @ 0x70000004 ; Possible aliasing with: 0x70800004 %DDT-E-MEMORY_ALIASING, Memory error @ 0x70000008 ; Possible aliasing with: 0x70800008 %DDT-I-MEM_MAX_ERRORS, Max Errors Reached; Suppressing further errors for this test %DDT-I-MEM_INFO, $Memory Failure : SOPP Memory MAIN DRAM [16775168 bytes] %DDT-E-SOPP_MEM_TEST, (Slot 5) : SOPP Memory Test : FAILED %DDT-E-GE_MODULE, GE Module (Slot 5) : FAILED These errors are incorrect and should be ignored.	F0619

Protocol Independent Multicast (PIM)	I.D.
When an IP interface is configured on a VLAN, and configured to run PIM, multicast data traffic exiting the interface will be sent on all ports belonging to the VLAN.	F2013
PIM-SM and PIM IGMP cannot be enabled on an interface including a SmartTRUNK.	F2025
DVMRP and PIM will not exchange route information or traffic when both exist on the same router. Firmware versions E9.0.5.0 or later do not allow PIM and DVMRP to operate simultaneously.	F2161
OSPF-ASE routes and BGP routes may not import into the multicast Router Information Base (RIB) without a reboot.	F2162
Because DVMRP and PIM-SM run in separate processes on the X-Pedition, PIM-SM cannot use existing IGMP functionality. A separate group of commands (all beginning with **pim igmp**) *must* be used with PIM. Current X-Pedition IGMP functionality may only be used with DVMRP.	F2164
The X-Pedition does not support more than one PIM sparse domain configuration.	F2165
PIM IGMP does not allow for static joins at this time.	F2166

Protocol Independent Multicast (PIM)	I.D.
If multiple WAN Virtual Circuits are added to a VLAN, and an interface is created from that VLAN, multicast traffic will be flooded out both VCs on the interface.	F2167

Quality of Service (QoS)	I.D.
The **qos set l2** command has no effect when the **low**, **medium**, or **high** priority parameters are specified. **Example:** Entering the following command, **qos set l2 name HIGHP in-port-list et.7.2 dest-mac any priority high vlan 100** will not establish the priority of the L2 flow to **high** on vlan 100. Instead, the default priority of **low** will remain in effect for this flow. **NOTE:** The **control** priority parameter will function as expected.	F1950

Remote Network Monitor Device (RMON)	I.D.
RMON must be enabled in the CLI configuration before RMON MIBs may be accessed via SNMP.	F0832
Rapidly querying the MIB object matrixSDOctets via SNMP will cause a core dump.	F2154
Hot-swapping out a SERC line card and then hot-swapping the same card back in will cause RMON to cease gathering statistics on that card.	F2227
Using the **rmon set ports...** command to change selected ports while the Netsight Element Manager RMON tool is monitoring those ports will cause the tool to cease displaying ports. This condition can be resolved by restarting either the Netsight Element Manager, or the X-Pedition.	F2234

Routing Information Protocol (RIP)	I.D.
RIPv2 will not export route tag information learned from other RIP routers.	F1681

Simple Network Management Protocol (SNMP)	I.D.
The **snmp show trap** command will not display any updated target information unless the X-Pedition is rebooted.	F2068

Spanning Tree Protocol (STP)	I.D.
Traffic will not recover when Frame-Relay connections with a lower STP path cost are restored.	F2141
The Configure-mode command **stp enable port** allows the inclusion of an ATM port or VCL despite the fact that STP functionality is not supported on ATM connections. Enabling STP on an ATM port will block that ATM port; therefore, it is not recommended.	F2142

System	I.D.
Entering the **system promimage upgrade** command may incorrectly produce the following error: %HBT-W-BACKUPFAILURE, backup CM in slot 'CM/1' is not operating **NOTE:** In this instance, the backup CM has **not** failed.	F2177

INFORMATIONAL NOTES AND STATEMENTS:

This section contains items previously listed in the Known Restrictions and Limitations section. These items are not limitations, but informational statements and notes about the firmware and hardware features of the X-Pedition products.

The following tables lists the designations used to denote where information on the statement is now located. If there is no manual designation, the information has not yet been moved to the correct reference materials. Once moved, the manual location will be noted.

Book	Designation
X-Pedition Error Reference Manual	ERM
X-Pedition Native CLI Reference Manual	CLI
X-Pedition User Reference Manual	URM

6SSRM-02	Manual
Because important changes were introduced to Spanning Tree in E8.0.1.0 to prevent loops and backplane ports from blocking, a minimum System Firmware version of E8.0.1.0 is recommended for the 6SSRM-02 in a Matrix E7. The new changes are incorporated in firmware version 04.06.05 for the 6E2xx-xx, 6H2xx-xx, 6E3xx-xx, 6H3xx-xx, and 6G3xx-xx, and firmware version 04.11.06 for the 6E1xx-xx, 6H1xx-xx, and 6M1xx-xx.	

AppleTalk / Advanced Routing Engine (ARE)	Manual
The ARE module cannot be installed into slots 0 or 1 on an X-Pedition 8000. In addition, it cannot be installed into slots 0, 1, or 12-15 on an X-Pedition 8600. Attempting to hot-swap this module into any of those slots may cause the router to core dump.	

Bridging	Manual
When using line cards introduced prior to the “AA” series, SNA/DLC/NetBIOS traffic may not be properly bridged across the X-Pedition. The issue in bridging DLC packets occurs where the length field within an IEEE 802.3 frame indicates less than 46 bytes of data. The X-Pedition removes the length field information of incoming IEEE 802.3, 802.2, and Ethernet SNAP packets and recalculates the field prior to retransmission. Consequently, this calculation is based on the entire length of the data field. A packet entering the X-Pedition with a length field indicating a data field of less than 46 bytes will exit with the length field recalculated incorrectly. This can be a problem with LLC2 and legacy IPX applications. Typically, such packets exist only in SNA and NetBIOS/NetBEUI environments.	

Fiber Distributed Data Interface (FDDI)	Manual
Changing the station mode on a FDDI port will negate all previously executed FDDI commands.	

Layer-2	Manual
The priority of Q-tagged packets will be set to “control” (7) instead of the default value of “low” (0).	

Network Address Translation (NAT)	Manual
The X-Pedition's current ACL/NAT implementation does not make provisions for running standard or PASV FTP sessions across a translated interface when only ports 20 (FTP data port) and 21 (FTP command port) are open for communication. Because FTP will use other higher-numbered ports to establish TCP sessions, FTP sessions established across a NAT-translated interface may hang if these other TCP ports are not open for communication. **Workaround:** In order to allow FTP to establish a TCP session on higher-numbered ports, the NAT-associated ACL must be set up to allow incoming traffic from any port. When running this configuration, it is suggested that NAT secure-plus is enabled (**nat set secure-plus on**) in order to increase security and prevent private address leaks. For more information, please reference RFC 1579 ("Firewall-Friendly FTP").	

Protocol Independent Multicast (PIM)	Manual
PIM will not function over Q-Trunks.	
The X-Pedition does not allow users to enable DVMRP and PIM simultaneously. If a user attempts to enable both of these protocols, one of the following messages will appear: %CLI-E-NODVMRPFAC, This command cannot be used when PIM has been configured %CLI-E-NOPIMFAC, This command cannot be used when IGMP or DVMRP has been configured.	

Routing	Manual
Aggressive internal testing has uncovered a weakness in some configurations containing static routes. Configurations using only dynamic routing are unaffected. Erroneously configured static routes may produce a routing loop. As a result, excessive CPU utilization can occur when an improperly configured upstream router sends ICMP redirect messages to a downstream router. It appears this problem has been present in the Enterasys Networks System Firmware since the 2.1.0.0 release. Routing protocols (e.g. OSPF, BGP, RIP) automatically discover and correct any loops in dynamic routing configurations. In these cases, no excessive CPU utilization will occur.	

SERIAL Module	Manual
Ports on SERIAL modules that have not been configured with the **port set** command before their cables are connected may not process received data when an unused port receives status changes from a CSU/DSU (Channel Service Unit/Data Service Unit). **Workaround:** hot-swap out and hot-swap back in the affected module with the **system hotswap** command and avoid connecting anything to WAN ports that will not be in use.	

Spanning Tree Protocol (STP)	Manual
X-Peditions with System Firmware version E8.2.0.3 and above will switch VLAN-tagged BPDUs received on a trunk port as normal traffic rather than processing it. Since older X-Pedition System Firmware versions are known to incorrectly forward VLAN-tagged BPDUs when STP is disabled, Enterasys Networks recommends upgrading the X-Peditions on both sides of a Q-trunk connection to System Firmware version E8.2.0.3 or above. If this is not feasible, STP or BPDU filtering should be enabled on ports connected to possible BPDU sources.	

Terminal Access Controller Access Control System (TACACS)	Manual
TACACS support has been removed in this release, as well as from the CLI. If, however, an existing configuration includes TACACS commands, these commands will neither produce an error nor be executed. **NOTE:** TACACS+ is still fully supported.	

COMPLIANCE SUPPORT:

Compliance Level	Compliant
Year 2000	Yes

IEEE STANDARDS MIB SUPPORT:

Standard	Title
IEEE 802.3ad	LACP

IEEE STANDARDS SUPPORT:

Standard	Title
IEEE 802.1D	Spanning Tree
IEEE 802.1p	Traffic Prioritization
IEEE 802.1Q	VLAN Trunking
IEEE 802.1w	Rapid Spanning Tree
IEEE 802.3	10 Mbps Ethernet
IEEE 802.3ad	LACP (Link Aggregation)
IEEE 802.3u	100BASE-T Ethernet
IEEE 802.3x	Full Duplex Ethernet
IEEE 802.3z	1000 Mbps Ethernet

IETF STANDARDS SUPPORT:

RFC No.	Title
RFC 1058	RIP v1
RFC 1075	DVMRP
RFC 1105	BGP
RFC 1157	SNMPv1
RFC 1163	BGP-2
RFC 1256	ICMP Router Discover Message
RFC 1265	BGP Protocol Analysis
RFC 1267	BGP-3
RFC 1293	Inverse ARP
RFC 1332	PPP Internet Protocol Control Protocol (IPCP)
RFC 1349	Type of Service in the Internet Protocol Suite
RFC 1397	BGP Default Route Advertisement
RFC 1483	Multiprotocol Encapsulation over ATM Adaptation Layer 5
RFC 1490	Multiprotocol Interconnect over Frame Relay
RFC 1519	CIDR
RFC 1552	The PPP Internetwork Packet Exchange Control Protocol (IPXCP)
RFC 1570	PPP LCP Extensions
RFC 1583	OSPF v2
RFC 1631	IP Network Address Translator

RFC No.	Title
RFC 1638	PPP Bridging Control Protocol (BCP)
RFC 1657	BGP-4 Definitions of Managed Objects
RFC 1661	PPP (Point-to-Point Protocol)
RFC 1662	PPP in HDLC-like Framing
RFC 1723	RIP v2
RFC 1771	BGP-4
RFC 1772	Application of BGP in the Internet
RFC 1812	Router Requirements
RFC 1966	BGP Route Reflection
RFC 1990	PPP Multi-Link Protocol
RFC 1997	BGP Communities Attribute
RFC 2131	Dynamic Host Configuration Protocol
RFC 2138	RADIUS
RFC 2225	Classical IP and ARP over ATM
RFC 2236	Internet Group Management Protocol, Version 2
RFC 2338	VRRP
RFC 2391	Load Sharing using IP Network Address Translation (Load Balance)

IETF STANDARDS MIB SUPPORT:

RFC No.	Title
RFC 1213	MIB-2
RFC 1471	PPP LCP (Link Control Protocol)
RFC 1472	PPP Security Protocol
RFC 1473	PPP IP NCP (Network Control Protocol)
RFC 1474	PPP Bridge NCP
RFC 1493	Definitions of Managed Objects for Bridges
RFC 1512	FDDI MIB
RFC 1595	SONET / SDH MIB
RFC 1643	Ethernet Like Interface MIB
RFC 1657	BGP4 MIB
RFC 1695	ATM MIB
RFC 1724	RIPv2 MIB
RFC 1742	AppleTalk Management Information Base II
RFC 1850	OSPF MIB
RFC 1907	SNMP v2 MIB
RFC 2011	Internet Protocol (IP) MIB using SMIv2
RFC 2012	Transmission Control Protocol (TCP) MIB using SMIv2
RFC 2013	User Datagram Protocol (UDP) MIB using SMIv2
RFC 2021	Remote Network Monitoring Version 2 (RMON 2)
RFC 2096	IP Forwarding MIB
RFC 2115	Frame Relay DTE using SMIv2
RFC 2358	Ethernet-like Interface Types MIB
RFC 2495	E1 / DS1 MIB
RFC 2496	E3 / DS3 MIB
RFC 2571	SNMP Framework MIB
RFC 2572	SNMP Message Processing and Dispatching MIB
RFC 2573	SNMP Target and Notifications MIBs
RFC 2574	SNMP User-Based Security Model MIB
RFC 2575	SNMP View-Based Access Control Model MIB
RFC 2576	SNMP Community and Target Extensions MIBs

RFC No.	Title
RFC 2618	Radius Authentication Client
RFC 2668	IEEE 802.3 Medium Attachment Units (MAUs) MIB
RFC 2674	IETF Q MIB for Bridge with Traffic Classes, Multicast Filtering and VLAN Extension
RFC 2737	Entity MIB
RFC 2790	Host Resources MIB
RFC 2819	Remote Network Monitoring (RMON) Management Information Base
RFC 2863	Interfaces Group using SMIv2

IETF EXPERIMENTAL MIB SUPPORT:

Function	Draft
DVMRP	Draft 3.10
IGMP	Draft 5
VRRP	Draft 9

IETF STANDARDS SNMP TRAP SUPPORT:

RFC No.	Title
RFC 1157	linkDown, linkUp, authenticationFailure Traps
RFC 1493	newRoot, topologyChange Traps
RFC 1850	OSPF Traps

FRAME RELAY STANDARD SUPPORT:

Standard	Title
Frame Relay Forum FRF.1.1	User-to-Network (UNI) Implementation Agreement
Frame Relay Forum FRF.3.1	Multiprotocol Encapsulation Implementation Agreement
ITU-T Q.922/ANSI T1.618	ISDN Core Aspects of Frame Relay Protocol
ITU-T Q.933	Access Signaling Annex A
ITU-T I.122/ANSI T1S1	Standards-Based Frame Relay Specification
ITU-T Annex D/ANSI T1.617	Additional Procedures for PVCs Using Unnumbered Information Frames

FDDI STANDARD SUPPORT:

Standard	Title
ANSI X3T9.5	Fiber Distributed Data Interface (FDDI)
ANSI X3T9.5/84-49 Rev 7.2	FDDI Station Management (SMT)
ANSI X3.139-1987	FDDI Media Access Control (MAC)
ANSI X3.148-1988	FDDI Physical Layer Protocol (PHY)
ANSI X3.166-1990	FDDI Physical Medium Dependent (PMD)

ENTERASYS NETWORKS PRIVATE ENTERPRISE MIB SUPPORT:

Title	Description
NOVELL-IPX-MIB	Novell Netware
CTRON-SSR-HARDWARE-MIB	Device specific hardware objects
CTRON-SSR-POLICY-MIB	L2 filters, L3 ACL set/get ability
CTRON-SSR-SERVICE-MIB	Status of major subsystems
CTRON-SSR-CAPACITY-MIB	New with 3.0 use for performance/capacity
CTRON-SSR-CONFIG	Retrieve/send configuration file via tftp
NOVEL-RIP-SAP-MIB	Novell Netware RIP SAP
CT-CONTAINER-MIB	Cabletron container MIB
CTRON-CHASSIS-MIB	Cabletron chassis MIB (6SSRM-02 Only)
DEC-ELAN-MIB	FDDI Extensions
CTRON-CDP-MIB	Cabletron Discovery Protocol MIB
CTRON-DOWNLOAD-MIB	Cabletron Download MIB

Enterasys Networks Private Enterprise MIBs are available in ASN.1 format from the Enterasys Networks Support web site at: http://www.enterasys.com/support/mibs/. Indexed MIB documentation is also available.