

**CUSTOMER RELEASE NOTES**

***X-Pedition Router***  
***System Firmware Version E9.1.7.0***  
***System Firmware Release Date: September 2003***

**INTRODUCTION:**

This document provides specific information relevant to version E9.1.7.0 of the System Firmware for the X-Pedition family of products. It includes content from the **E9.0.7.7** System Firmware Maintenance Release and the **E9.1.3.0A** 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

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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 E9.1.7.0 System Firmware, the Boot Firmware should be upgraded to at least 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.

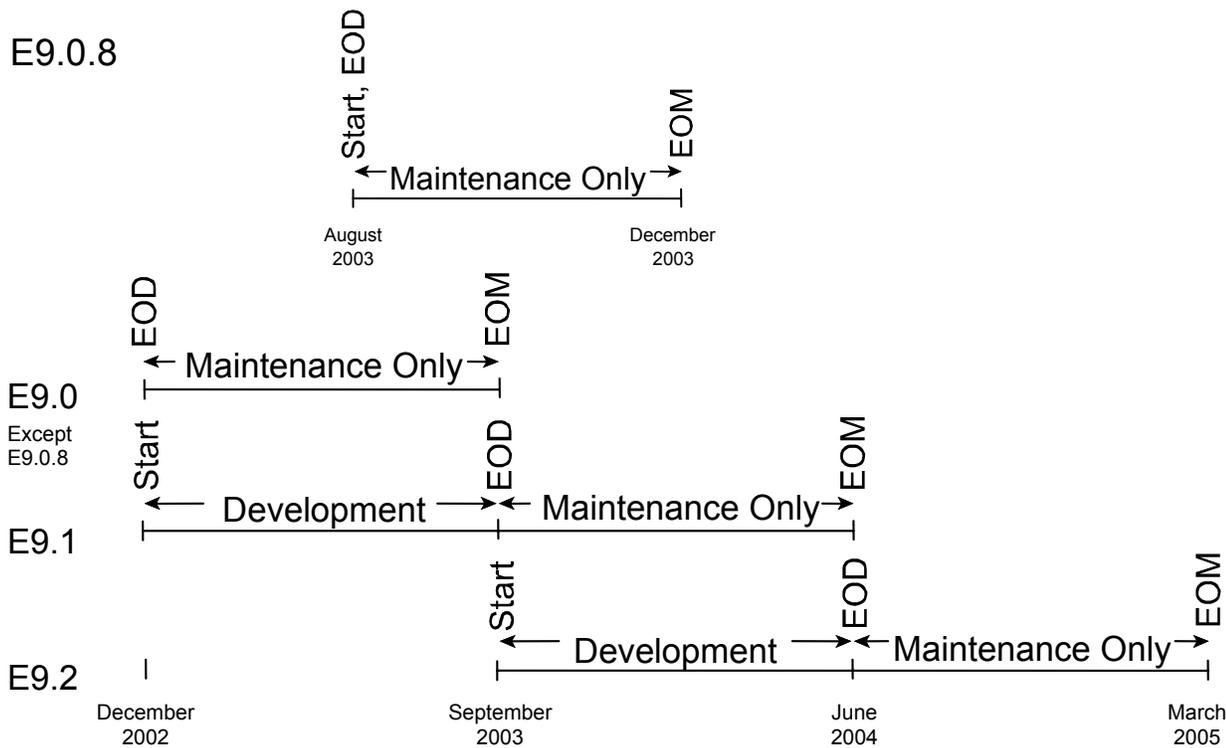
System Firmware File Name	Version No.	Release Date
xp9170	E9.1.7.0	September 2003
xp9078	E9.0.7.8	September 2003
xp9080	E9.0.8.0	July 2003
xp9077	E9.0.7.7	July 2003
xp9076	E9.0.7.6	June 2003
xp9075	E9.0.7.5	May 2003
xp9074	E9.0.7.4	March 2003
xp9130	E9.1.3.0	March 2003
xp9073	E9.0.7.3	February 2003
xp9120	E9.1.2.0	January 2003
xp9072	E9.0.7.2	January 2003
xp9100	E9.1.0.0	December 2002
xp9071	E9.0.7.1	December 2002
xp9070	E9.0.7.0	November 2002
xp9060a	E9.0.6.0A	October 2002
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

**RELEASE NAMING CONVENTION:**

Normally, the X-Pedition product family supports two active release lines. The older line is always in maintenance only mode and receives only maintenance improvements—the newer line receives maintenance improvements and introduces new features. For a brief time, however, the X-Pedition will support a special third line—E9.0.8. This line introduces the Security Attack Monitor (SAM) feature on the E9.0 code base. E9.0.8 is a maintenance only line with end of maintenance scheduled for December 2003.

The new E9.0.8 line does not alter the maintenance only characteristics of the E9.0.7.X releases as no new features including SAM will be introduced in this line. SAM will be incorporated into the normal development line in release E9.1.8.0.

E9.0 is the maintenance only line to which only bug fixes are provided. E9.1 is the development line that receives new features and bug fixes. The figure below illustrates the relationships between these lines. Support for E9.0 as the maintenance only line and E9.1 as the development line will be extended briefly beyond that shown below to permit the release of E9.1.8.0.



EOD or “end of development” signifies the point at which no new features will be added to the release line. EOM or “end of maintenance” signifies the point where bug fixes are no longer applied to the line. The naming convention is as follows.

**E<R1>.<R2>.<D>.<M>**

Where:

- R1 – Release line digit 1
- R2 – Release line digit 2
- D – A release during the development period
- M – A release during the maintenance-only period

A release line is defined by the first two digits in the name, e.g. E9.0 and E9.1. The third digit increments with each release during the **development** phase of a line. For example, E9.0.7.0 is the seventh development release for the E9.0 line. The fourth digit is incremented with each release during the **maintenance-only** period of a release line. Thus E9.0.7.4 is the fourth maintenance-only release for the E9.0 line.

Should a bug fix be required between regularly scheduled releases, a patch release is provided. Patch releases are designated with a trailing letter. For example, E9.0.6.0B is the second patch to the sixth development release of the E9.0 line. E9.0.7.2A is the first patch to the second maintenance-only release of the E9.0 line.

**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 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 (or later) 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:

**AAAA XXXX XXXX XXRR**



Two Letter Assembly Revision Number  
Four Digit “940” Assembly Number

**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 (or later) 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
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-OS16-01	1-port 10-Gigabit Ethernet module for ER16 (1 slot configuration)	E9.1.7.0	E3.2.0.0
ER16-OS26-01	1-port 10-Gigabit Ethernet module for ER16 (2 slot configuration)	E9.1.0.0	E3.2.0.0
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	

Part	Description	Minimum System Firmware Version	Minimum Boot Firmware Version
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
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	

Part	Description	Minimum System Firmware Version	Minimum Boot Firmware Version
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-MEM-256	256MB ECC Memory Upgrade Kit for SSR-CM4-256 and ER16-CM4-256	E9.0.7.4 or E9.1.3.0	E3.3.0.0
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	
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	

Part	Description	Minimum System Firmware Version	Minimum Boot Firmware Version
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	802.1Q Multicast Port Replication	
<b>5SSRM-02</b>																		
5SSRM-02	Router Module for the Matrix E5	X	X	X	X	X	X	X	X	X	X	X						
<b>6SSRM-02</b>																		
6SSRM-02	Router Module for the Matrix E6 & E7	X	X	X	X	X	X	X	X	X	X	X						
<b>5SSRM-02 / 6SSRM-02</b>																		
6SSRLC-FX-AA	8-port 100BASE-FX (MT-RJ)	X	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	X						
6SSRLC-LX70-AA	1-port 1000BASE-LX 70 KM	X	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	X						
6SSRLC-SERC-AA	4-port Serial, compression	X	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	X						
6SSRLC-SX-AA	2-port 1000BASE-SX	X	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	X						
<b>XP 2000</b>																		
SSR-2-B128	X-Pedition 2000	X	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	X						
SSR-2-HSSI-AA	2-port HSSI	X	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	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	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	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	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	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	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	X						
<b>XP 2100</b>																		
SSR-2-GSX (AA)	X-Pedition 2100		X	X	X	X	X	X	X	X	X	X						
XP-2100	X-Pedition 2100		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	802.1Q Multicast Port Replication	
<b>XP 2400</b>																		
XP-2400	X-Pedition 2400	X	X	X	X	X	X	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	X	X	
XP-2-FX-AA	8-port 100BASEFX	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
XP-2-HSSI-AA	2-port HSSI	X	X	X	X	X	X	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	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	X	X	X	X	X	X	
XP-2-SER-AA	2-port Serial	X	X	X	X	X	X	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	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	X	X	X	X	X	X	
XP-2-SX-AA	2-port 1000BASE-SX		X	X	X	X	X	X	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	X	X	X	X	X	X	
<b>XP 8000 / 8600</b>																		
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	X	
SSR-FDDI-02	2-port FDDI	X	X	X	X		X	X	X	X	X	X	X	1	X	X	X	
SSR-GLH39-02	2-port 1000 LLX/LH	X	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		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
SSR-GLX29-02-AA	2-port 1000 LX – 16 MB		X	X	X	X	X	X	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	X	
SSR-GLX39-04	4-port 1000 LX	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	
SSR-GLX70-01	1-port 70 km 1000BASE-LX		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
SSR-GLX70-01-AA	1-port 70 km 1000BASE-LX		X	X	X	X	X	X	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	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	X	
SSR-GSX31-04	4-port 1000 SX	X	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	X	
SSR-GTX32-04	4-port 1000 TX	X	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	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	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	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	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	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	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	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	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	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	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	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	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	802.1Q Multicast Port Replication
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						
<b>ER16</b>																	
ER16-04	4-port 1000BASE GBIC	X	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	X
ER16-ATM29-02	2-port ATM OC3	X	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
ER16-GTX32-04	4-port 1000BASE-TX	X	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	X
ER16-HFX31-24	24-port 100BASE-FX (MMF)	X	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	X
ER16-HSSI-02-CK	2-port HSSI with external clocking	X	X	X	X	X	X	X	X	X	X						
ER16-OS16-01	1-port 10-Gigabit Ethernet module for ER16 (1 slot configuration)	X	X	X	X	X	X	X	X	X	X	X	2	X	X	X	X
ER16-OS26-01	1-port 10-Gigabit Ethernet module for ER16 (2 slot configuration)	X	X	X	X	X	X	X	X	X	X	X	2	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	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	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	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	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	X
ER16-TX-24	24-port 10/100BASE-TX	X	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	X

<sup>1</sup> SSR-FDDI-02 jumbo frame support is limited to 4500 bytes.

<sup>2</sup> The ER16-OS16-01 and ER16-OS26-01 perform aggregate rate limiting in firmware only.

**NETWORK MANAGEMENT SOFTWARE SUPPORT:**

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

<b>NMS Platform</b>	<b>Version</b>	<b>Part Number</b>
NetSight Element Manager	3.1	NS-EM-CD NS-EM-LIC-1 NS-EM-LIC-5 NS-EM-LIC-10 NS-EM-LIC-20
NetSight Atlas Console	1.2	NSA-CD NSA-LIC
NetSight Atlas Console Lite	1.2	NSA-L-CD NSA-L-LIC
NetSight Atlas Inventory Manager	1.3	NSA-IM-CD NSA-IM-LIC
NetSight Atlas Router Services Manager	2.0	NSA-RSM-CD NSA-RSM-LIC

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

**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**.

**NEW FEATURES AND ENHANCEMENTS IN E9.1.7.0:****NEW FIRMWARE SUPPORT**

The E9.1.7.0 system firmware provides support for the new features and enhancements below. For more information on any of these enhancements, please see the *Enterasys X-Pedition User Reference Manual* or *Native CLI Reference Manual*.

**10-Gig Support of Link Aggregation**

SmartTRUNK no protocol link aggregation is now supported on 10-Gig interface modules (ER16-OS26-01 and ER16-OS16-01). This capability permits users to aggregate two or more 10-Gig interfaces and removes the restriction previously identified as F3493. No support for DEC Hunt Group or 802.3ad (LACP) is provided at this time although 10-Gig compatibility with 802.3ad is planned for a subsequent release.

**PIM-SM Support of 802.1Q trunks**

Compatibility between PIM-SM multicast routing and 802.1Q trunks is now provided allowing users to utilize PIM-SM multicast capabilities on interfaces with 802.1Q tagged packets.

**AppleTalk Features**

Two new AppleTalk capabilities are introduced with this release: QoS and CPU utilization.

All ingress and egress AppleTalk traffic is normally passed through the system on the low priority queue. Using a CLI command, one can now specify which of the four X-Pedition queues (control, high, medium or low) will carry AppleTalk egress traffic thus providing a measure of outbound QoS control.

Introduced in this release is an informational error message that is generated when the CPU utilization of the Advanced Routing Engine (ARE), which supports AppleTalk data forwarding, exceeds 95% for one minute.

**File Delete Command Enhancement**

For ER16 or 8x00 systems configured with two control modules, users may now delete files from the backup control module using the **file delete** command.

**Display of Host Name in Syslog Messages**

Introduced in this release is an improvement to Syslog message output that includes the host name. The message format is <###> Mmm dd hh:mm:ss HOSTNAME MESSAGE where:

Mmm dd – month and day

hh:mm:ss – hour:minute:second

HOSTNAME – the name of the host machine

MESSAGE – the actual message

**Display of the System FPGA Revision**

A capability has been added that permits the display of the system FPGA revision number as illustrated in the example below.

SYSTEM# system show hardware

```
Hardware Information      :
  System type             : ER16, Rev. 0
  CPU Module type         : CPU-ER16 (CM4), Rev. 0
  Processor               : R7000, Rev 3.2, 380.00 MHz
    Icache size           : 16 Kbytes, 32 bytes/line
    Dcache size           : 16 Kbytes, 32 bytes/line
  CPU Board frequency     : 95.00 MHz
  Backplane frequency     : 62.50 MHz
  System FPGA             : Rev. 20 ← New Line
  Switching Fabrics       : 1 (Active = Fabric 2)
  PCMCIA card             : 32MB flash memory card (mounted on slot0: or slot1:)
  System Memory size      : 256 Mbytes
  Network Memory size     : 256 Mbytes
MAC Addresses
  System                  : 0001f4:c2ff6d
  10Base-T CPU Port       : 0001f4:c2ff6e
  Internal Use            : 0001f4:c2ff6f -> 0001f4:c2ffac
CPU Mode                  : Active
Redundant CPU slot        : Not present
```

**NEW HARDWARE SUPPORT****10-Gigabit Ethernet (ER16-OS16-01)**

This release introduces support for the ER16-OS16-01, an optical fiber-based 10-Gigabit Ethernet module for the ER16 platform. This one slot card provides a single modular port of IEEE 802.3ae standards-based connectivity and its optical interfaces are based on fully compliant IEEE 802.3ae SC duplex fiber-optic connectors. Supported interfaces include the following:

<b>Part Number</b>	<b>Connectivity Description</b>	<b>Maximum Length</b>
10GBASE-ER	Single port 1550 nm serial SMF	40 km
10GBASE-LR	Single port 1310 nm serial SMF	10 km
10GBASE-LX4	Single port 1310 nm serial SMF Single port 1310 nm serial MMF	10 km 300 m
10GBASE-SR	Single port 850 nm serial MMF	300 m

**ISSUES RESOLVED IN E9.1.7.0:**

The following tables provide brief descriptions of the issues resolved in this release. E9.1.7.0 includes all issues resolved in the E9.0.7.7 System Firmware Maintenance Release (see the E9.0.7.7 Release Notes for details).

<b>10-Gigabit</b>	<b>I.D.</b>
Priority queue settings on the ER16-OS26-01 may cause the X-Pedition to experience ingress buffer overflows.	F4188
Entering the <b>port show mc-vlan-encap all-ports</b> command from the CLI erroneously displays the ER16-OS26-01 system ports.	F4319

<b>Access Control List (ACL)</b>	<b>I.D.</b>
If a user applies multiple ACLs to a port, the <b>acl show</b> command may not display all of the ports in the "Applied Port(s)" field.	F4115 F4357
When using the <b>acl-edit &lt;acl_name&gt;</b> command to edit ACL data, users cannot remove all commands associated with the ACL from the active configuration without rebooting the router.	F4328

<b>Advanced Routing Engine (ARE)</b>	<b>I.D.</b>
The ARE learns MAC addresses from all forwarded AppleTalk packets. The ARE should learn MAC addresses from AARP Response packets only.	F4142
The <b>appletalk ping &lt;address&gt;</b> command will fail if the target address belongs to an AppleTalk interface on the same router that initiated the ping.	F4147

<b>Border Gateway Protocol (BGP)</b>	<b>I.D.</b>
Although the BGP Import policy filters routes correctly, these routes do not appear in the route table.	F4347

<b>Command Line Interface (CLI)</b>	<b>I.D.</b>
The <b>system image</b> command options use inconsistent naming schemes and may generate messages that are unclear to users. Furthermore, default behavior varies between commands.	F3609
If a serial console session times out after the X-Pedition prompts the operator for a reply to a command they entered, the router may core the next time the console is activated.	F4272
Negating or removing a command that contains a quoted string from the active configuration may cause the router to core.	F4299
When a user adds commands to the CLI through a cut-and-paste operation, the router may display the "more" prompt before the CLI finishes processing the commands.	F4325
When a user enters the <b>copy active to scratchpad</b> command from a CLI session, then closes the session without issuing the <b>logout</b> or <b>exit</b> command, future CLI sessions will hang when attempting to perform any operations that involve accessing the active configuration.	F4387
Users cannot select the <b>unicast</b> or <b>multicast</b> options with the <b>ip-router policy import source</b> and <b>ip-router policy aggr-gen destination</b> commands.	F4448

<b>Distance Vector Multicast Protocol (DVMRP)</b>	<b>I.D.</b>
Clients attached to a DVMRP-enabled interface that is also an 802.2Q trunk port may see multicast traffic requested by a client in a different VLAN that is also part of that trunk port.	F4316

<b>Hot Swap</b>	<b>I.D.</b>
Under rare circumstances, the system may occasionally core when hot swapping a line card into the router.	F2333
<b>Internet Protocol (IP)</b>	<b>I.D.</b>
If an X-Pedition with <b>ip enable reverse flow all</b> configured receives an invalid TCP/UDP packet of a specific type, the router may core.	F4345
<b>Layer-4</b>	<b>I.D.</b>
An X-Pedition configured with Layer-4 bridging will respond incorrectly to an ICMP request that is not destined for the router.	F4359 F4297
<b>Link Aggregate Control Protocol (LACP)</b>	<b>I.D.</b>
LACP SmartTRUNK connections that use either the default timeout value or the "short" timeout value may not successfully restore the connection with another system that has rebooted.	F4405 F3910
<b>Load Balancing</b>	<b>I.D.</b>
The load-balancing group and server options <b>app-int</b> and <b>ping-int</b> will not function properly if set to a value greater than 255.	F4421
<b>Memory</b>	<b>I.D.</b>
When a user adds ports to a SmartTRUNK via the <b>smartrunk add ports &lt;portlist&gt; to &lt;smartrunk&gt;</b> command, a small memory leak may occur if the command fails.	F4443
If an X-Pedition SSH client using SSHv1 fails to connect to a remote SSH server during the key exchange phase, the router may leak up to several hundred bytes of memory (based on system configuration).	F4456
<b>Multicast</b>	<b>I.D.</b>
When a multicast index changes, some flows may not update to the new index, causing the X-Pedition to send untagged flows over a Q-trunk.	F3794
UDP multicast packets with a TTL=1 cause the X-Pedition to allocate Q-trunk replication indices without an associated hardware flow.	F4446
<b>Open Shortest Path First (OSPF)</b>	<b>I.D.</b>
Under extremely rare circumstances, the X-Pedition may core if it attempts to calculate the SPF on an entry that is no longer valid when the router adds or deletes large amounts of OSPF ASE routes.	F4273
The default route is missing from the route table for a stubby or totally stubby area.	F4554
<b>Protocol Independent Multicast (PIM-SM)</b>	<b>I.D.</b>
An unlikely sequence of route changes may cause the X-Pedition to core.	F3283 F3758
If the X-Pedition's configuration contains the <b>pim igmp trace local-options none</b> and <b>ip-router global set trace-state on</b> commands, PIM IGMP trace messages continue to display on the screen.	F4313

<b>Protocol Independent Multicast (PIM-SM)</b>	<b>I.D.</b>
When running PIM in an equal cost multi-path environment, if a multicast traffic link goes down and comes back up, the client may receive duplicate packets.	F4436
If a user comments the <b>pim global start</b> command out of the configuration, the router will write a Layer-3 drop flow when it receives a new multicast stream. The status of the stream does not change when the command is commented back into the configuration.	F4440
An X-Pedition running PIM-SM will not allow the re-routing of multicast traffic out of the Q-trunk port on which it was received. Furthermore, the router may assign a multicast stream to an incorrect replication index	F4500 F4523 F4676
If PIM-SM is enabled on an interface associated with a VLAN whose ID is greater than 2,047, the router may drop packets.	F4518 F4463
If a multicast server sends traffic across a Q-trunk to a PIM-SM-enabled router during a reboot, the client may not receive the packets after the router finishes booting.	F4601 F4439

<b>Remote Authentication Dial-In Service (RADIUS)</b>	<b>I.D.</b>
An issue was found and corrected that involves users who authenticate through an X-Pedition to a RADIUS server. Contact Enterasys Networks Global Technical Assistance Center for additional information.	F3720

<b>Remote Monitor (RMON)</b>	<b>I.D.</b>
Packet and byte counts for RMON2 tables are inaccurate.	F4031
Changing the RMON configuration from <b>rmon set lite  standard  professional default-tables yes</b> to <b>rmon set lite  standard  professional default-tables no</b> while RMON is enabled may cause the router to core.	F4331
When a user executes the help (?) option for the <b>rmon show packet-capture captured-packets</b> command, a description is not available for the <b>control-index</b> option.	F4386

<b>Secure Shell (SSH)</b>	<b>I.D.</b>
The SSH client leaks 136 bytes of memory for each outbound SSH client session established to a remote SSH server. To reclaim this memory, users must reboot the X-Pedition.	F3432
Continuous attempts (in quick succession) to connect to another device via SSH may cause the router to stop responding.	F4234

<b>Simple Network Management Protocol (SNMP)</b>	<b>I.D.</b>
The read-only community string may discover a read-write community string when querying particular MIBs.	F3396
The <b>snmp set mib</b> command lists MIBs that users may not enable or disable.	F4141
When querying a ctdp MIB on a VLAN whose ID is greater than 512, the X-Pedition may core.	F4303
The X-Pedition implements the <b>any</b> option of the <b>snmp set group</b> command only partially.	F4382

<b>SmartTRUNK</b>	<b>I.D.</b>
The <b>smarttrunk show distribution</b> command may display statistics for a blocked STP-enabled SmartTRUNK.	F4186
Using the <b>vlan multi-add</b> command to add a non-existing SmartTRUNK port to a multi-VLAN group will cause the router to core.	F4508

<b>SmartTRUNK</b>	<b>I.D.</b>
When SmartTRUNK links carrying multicast traffic go down in a Layer-2 IGMP environment, traffic may not fail over to active links in the SmartTRUNK. Furthermore, after the downed links are re-established, multicast traffic may travel over more than one link in the SmartTRUNK, causing the client to receive duplicate packets.	F4546
<b>Spanning Tree Protocol (STP)</b>	<b>I.D.</b>
Entering the <b>system show hardware</b> command when STP is enabled on the X-Pedition may cause the router to delay BPDUs and cause a network re-span.	F3491 F3565
<b>Syslog</b>	<b>I.D.</b>
Login Audit messages will not report the IP address of a remote Telnet or SSH login if no local users or passwords are configured on the router.	F3932
<b>System</b>	<b>I.D.</b>
If the X-Pedition's startup configuration contains the <b>system set dst-manual</b> command, the system time will advance one hour each time the router reboots.	F2808
<b>Terminal Access Controller Access Control System (TACACS+)</b>	<b>I.D.</b>
An issue was found and corrected that involves users who authenticate through an X-Pedition to a TACACS+ server. Contact Enterasys Networks Global Technical Assistance Center for additional information.	F3720

**KNOWN RESTRICTIONS AND LIMITATIONS:**

Known Restrictions and Limitations are sorted alphabetically by topic heading.

<b>10-Gigabit Ethernet</b>	<b>I.D.</b>
PIM is not currently supported.	F2025
If a single <b>smarttrunk add ports</b> command contains more than one 10-Gig port, hot swapping one of the ports out of, then back into the router prevents the port from rejoining the SmartTRUNK.	F4528
Hot swapping an ER16-OS16-01 or ER16-OS26-01 module that belongs to a SmartTRUNK out of the router will disable all ports in the SmartTRUNK.	F4575
<b>Asynchronous Transfer Mode (ATM)</b>	<b>I.D.</b>
The X-Pedition does not support bridging over ATM with the following frame types: 802.2 IPX, 802.3 Raw, and Ethernet Snap.	H0041
<b>Broadcast Monitor (BMON)</b>	<b>I.D.</b>
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
<b>Cabletron Discovery Protocol (CDP)</b>	<b>I.D.</b>
CDP identifies some adjacent device types (such as switches, routers, etc.) incorrectly.	F1324 F1750
A CDP packet's "device-ip" field may be set incorrectly when transmitted.	F1475 F1748
<b>Distance Vector Multicast Routing Protocol (DVMRP)</b>	<b>I.D.</b>
Multicast packets are not tagged before entering an 802.1Q trunk port that connects to another router.	F3612
<b>Dynamic Host Configuration Protocol (DHCP)</b>	<b>I.D.</b>
After a reboot, a previously assigned DHCP lease address may be reassigned to another router.	F1976
<b>Flow Control</b>	<b>I.D.</b>
Flow Control on X-Pedition Gigabit ports will not slow their link partners to meet the maximum receive rate.	F1683 H0031
The <b>port set &lt;port&gt; auto-negotiation-flowctl off</b> command will produce the same effect as the <b>port set &lt;port&gt; auto-negotiation-flowctl both</b> command.	F1832 H0031

Multicast	I.D.								
<p>On a non-T-series line card, it is recommended that access ports be used when running a multicast routing protocol such as PIM or DVMRP, due to the fact that multicast packets can be replicated to only one IP VLAN in an 802.1Q trunk port.</p> <p>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:</p> <table border="1" data-bbox="321 464 1167 636"> <thead> <tr> <th data-bbox="321 464 716 506">Unique VLAN IDs Per Port</th> <th data-bbox="716 464 1167 506">Number of Ports Per Card</th> </tr> </thead> <tbody> <tr> <td data-bbox="321 506 716 548">8</td> <td data-bbox="716 506 1167 548">16 (32 on the ER16)</td> </tr> <tr> <td data-bbox="321 548 716 590">16</td> <td data-bbox="716 548 1167 590">8 (16 on the ER16)</td> </tr> <tr> <td data-bbox="321 590 716 636">32</td> <td data-bbox="716 590 1167 636">1,2, and 4 (2,4, and 8 on the ER16)</td> </tr> </tbody> </table>	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)	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)								
<p>When using Cisco IP/TV version 3.2, multicast traffic that crosses several consecutive Q-trunk links may experience a slight delay when setting up the hardware flows. This can cause the first IP/TV client on a subnet's Video and Audio stream to be out of sync (by less than 1 second) and the stream will not play properly on the first try. Stopping or pausing the stream, then restarting it will usually re-sync the buffers. Other clients on the subnet do not experience delays.</p>	F4495								

Network Management	I.D.
<p>Changing the status of an SNMP target to “disable” (through the <b>snmp set target xxx status disable</b> command) will not disable the target. Instead, it will continue to send traps.</p>	F2074

Power On Self-Test (POST)	I.D.
<p>Entering the <b>system set poweron-selftest quick</b> command in the ER16’s configuration causes the system to display the following errors during “DIAG BOOT TEST”:</p> <pre data-bbox="250 1115 1300 1304"> %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 </pre> <p>These errors are incorrect and should be ignored.</p>	F0619

Protocol Independent Multicast (PIM-SM)	I.D.
<p>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.</p>	F2013
<p>PIM-SM and PIM IGMP cannot be enabled on an interface including a SmartTRUNK.</p>	F2025
<p>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.</p>	F2161
<p>OSPF-ASE routes and BGP routes may not import into the multicast Router Information Base (RIB) without a reboot.</p>	F2162
<p>The X-Pedition does not support more than one PIM sparse domain configuration.</p>	F2165
<p>PIM IGMP does not allow for static joins at this time.</p>	F2166
<p>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.</p>	F2167

<b>Protocol Independent Multicast (PIM-SM)</b>	<b>I.D.</b>
Using the <b>all</b> option of the <b>pim sparse set interface</b> configuration command fails to set the timer options. Users must set these options individually, using each interface name and IP address.	F3251
Entering the <b>pim sparse set component mrt-spt-mult #</b> command from configuration mode places the command in the router's active configuration; however, the command <i>does not</i> appear in the configuration for GateD and is therefore <i>not set</i> . To view the configuration for GateD, enter the <b>ip-router show configuration-file</b> command.	F3253
<b>Quality of Service (QoS)</b>	<b>I.D.</b>
The <b>qos set I2</b> command has no effect when the <b>low</b> , <b>medium</b> , or <b>high</b> priority parameters are specified. <b>Example:</b> Entering the following command, <b>qos set I2 name HIGHP in-port-list et.7.2 dest-mac any priority high vlan 100</b> will not establish the priority of the L2 flow to <b>high</b> on vlan 100. Instead, the default priority of <b>low</b> will remain in effect for this flow. <b>NOTE:</b> The <b>control</b> priority parameter will function as expected.	F1950
<b>Remote Monitor (RMON)</b>	<b>I.D.</b>
RMON must be enabled in the CLI configuration before RMON MIBs may be accessed via SNMP.	F0832
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
<b>Routing Information Protocol (RIP)</b>	<b>I.D.</b>
RIPv2 will not export route tag information learned from other RIP routers.	F1681
<b>Simple Network Management Protocol (SNMP)</b>	<b>I.D.</b>
The <b>snmp show trap</b> command will not display any updated target information unless the X-Pedition is rebooted.	F2068
<b>Spanning Tree Protocol (STP)</b>	<b>I.D.</b>
Traffic will not recover when Frame-Relay connections with a lower STP path cost are restored.	F2141

**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
X-Pedition 8000/8600 Getting Started Guide	GSG
X-Pedition ER16 Getting Started Guide	

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.	

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 <b>port set</b> 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). <b>Workaround:</b> hot-swap out and hot-swap back in the affected module with the <b>system hotswap</b> 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.	

**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 768	User Datagram Protocol
RFC 791	Internet Protocol
RFC 792	Internet Control Message Protocol
RFC 793	Transmission Control Protocol
RFC 826	An Ethernet Address Resolution Protocol
RFC 854	Telnet Protocol Specification
RFC 894	IP over Ethernet
RFC 951	Bootstrap Protocol (BOOTP)
RFC 1058	RIP v1
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 No.	Title
RFC 1350	The TFTP Protocol (Revision 2)
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 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 DRAFT STANDARDS SUPPORT:**

Draft No.	Title
draft-ietf-pim-sm-v2-new-02	PIM-SM
draft-ietf-idmr-dvmrp-v3-10	DVMRP
draft-ietf-idr-bgp-4-17	Breaking Ties (Phase 2), Sect. 9.1.2.2
draft-ylonen-ssh-protocol-00	SSH-1 IETF draft
draft-ietf-secsh-architecture-14 draft-ietf-secsh-transport-16 draft-ietf-secsh-userauth-17 draft-ietf-secsh-connect-17 draft-ietf-secsh-assignednumbers-03 draft-ietf-secsh-dh-group-exchange-04 draft-ietf-secsh-fingerprint-01	SSH-2 IETF drafts

**IETF STANDARDS MIB SUPPORT:**

<b>RFC No.</b>	<b>Title</b>
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 1657	BGP4 MIB
RFC 1695	ATM MIB
RFC 1724	RIPv2 MIB
RFC 1742	AppleTalk Management Information Base II
RFC 1757	Remote Network Monitoring (RMON) Management Information Base
RFC 1850	OSPF MIB
RFC 1901	Introduction to Community-based SNMPv2 (SNMPV2c)
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 MIB
RFC 2358	Ethernet-like Interface Types MIB
RFC 2495	E1 / DS1 MIB
RFC 2496	E3 / DS3 MIB
RFC 2576	Coexistence between Version1, Version2, and Version 3 of Internet-standard Network Management Framework
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 2787	VRRP
RFC 2790	Host Resources MIB
RFC 2863	Interfaces Group using SMIv2
RFC 3411	An Architecture for Describing Simple Network Management Protocol (SNMP) Management Frameworks
RFC 3412	Message Processing and Dispatching for the Simple Network Management Protocol (SNMP)
RFC 3413	Simple Network Management Protocol (SNMP) Applications
RFC 3414	User-based Security Model (USM) for version 3 of the Simple Network Management Protocol (SNMPv3)
RFC 3415	View-based Access Control Model (VACM) for the Simple Network Management Protocol (SNMP)
RFC 3416	Version 2 of the Protocol Operations for the Simple Network Management Protocol (SNMP)

**IETF EXPERIMENTAL MIB SUPPORT:**

Function	Draft
DVMRP	Draft 4
IGMP	Draft 5

**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
CTIF-EXT-MIB	MIB-II Extnsns
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.

**SNMP TRAP SUPPORT:**

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

**ENTERASYS NETWORKS PRIVATE ENTERPRISE TRAP SUPPORT:**

Title
envPowerSupplyFailed
envPowerSupplyRecovered
envFanFailed
envFanRecovered
envTempExceeded
envTempNormal
envHotSwapIn
envHotSwapOut
envBackupControlModuleOnline
envBackupControlModuleFailure
envLineModuleFailure
envCPUThresholdExceeded
polAclDenied