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CUSTOMER RELEASE NOTES

X-Pedition Router
System Firmware Version E9.1.9.0
System Firmware Release Date: March 2004

INTRODUCTION:

This document provides specific information relevant to version E9.1.9.0 of the System Firmware for the X-Pedition family of products. It includes content from the **E9.0.7.8** System Firmware Maintenance Release.

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

GLOBAL SUPPORT:

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For the Enterasys Networks Support toll-free number in your country:
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P.O. Box 5005
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For information regarding the latest software available, recent release note revisions, or if you require additional assistance, please visit the Enterasys Networks Support web site.

SYSTEM FIRMWARE SPECIFICATION:

Before installing the E9.1.9.0 System Firmware, the Boot Firmware should be upgraded to at least version E3.3.0.0.
**Refer to the E3.3.0.0 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
xp9190	E9.1.9.0	March 2004
xp9180	E9.1.8.0	November 2003
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

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.

E9.1.9.0 is the final development release of the E9.1 line. E9.1 becomes the maintenance-only line for which only bug fixes are provided. E9.0 has reached end of maintenance meaning it will receive no further code changes. E10.0 is now the development line which receives bug fixes and introduces new features. The figure below illustrates the relationships between these lines.
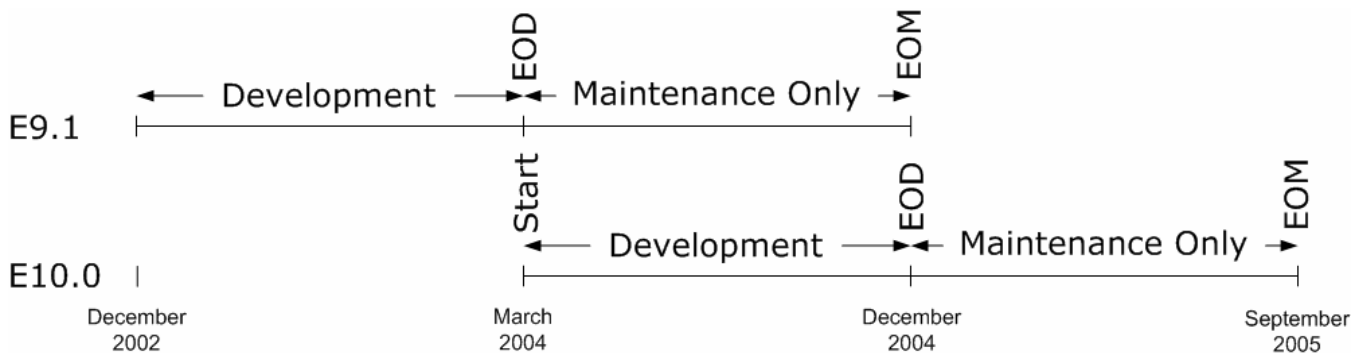
EOD or "end of development" signifies the point at which no new features will be added to the release line. EOM or "end of maintenance" signifies the point where bug fixes are no longer applied to the line.

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 XX**RR**

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	

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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
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						

X-Pedition Feature Set / Part Number	Description	Pre AA – Weighted Fair Queuing	AA – Series – 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	T – Series – Per Port Rate Limiting	Aggregate Rate Limiting	Jumbo Frame Support	Weighted Fair Queuing	Weighted Random Early Detection	802.1Q Multicast Port Replication
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	X
XP-2-FX-AA	8-port 100BASEFX	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						
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	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																
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	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																
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	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						
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		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						

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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						
ER16																	
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

[1] SSR-FDDI-02 jumbo frame support is limited to 4500 bytes.
[2] 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:

NMS Platform	Version	Part Number
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	1.3	NSA-CD NSA-LIC
NetSight Atlas Console Lite	1.3	NSA-L-CD NSA-L-LIC
NetSight Atlas Inventory Manager	1.4	NSA-IM-CD NSA-IM-LIC
NetSight Atlas Router Services Manager	2.1.X	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/ . (If you see a "cannot find server" page, click the Refresh button.) Click **Search by ID** and enter **TK0306-9**.

NEW FIRMWARE SUPPORT

IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)

MSTP expands upon the IEEE 802.1D Spanning Tree Protocol (STP) and IEEE 802.1w Rapid Spanning Tree Protocol (RSTP). MSTP also incorporates many of the major functions of the Enterasys Networks Per-VLAN Spanning Tree protocol (PVST).

MSTP is backwards compatible with the legacy STP and RSTP protocols. MSTP can automatically detect the version of spanning tree being used on a LAN and send out the equivalent type of BPDU. In addition, MSTP incorporates a force version feature where MSTP can be configured to behave as STP or RSTP.

MSTP allows users to group any number of devices into individual regions, with each region behaving and presenting itself as a single device to the rest of the network. A region can contain multiple instances of the spanning tree, where each instance can support multiple VLANs. Each region contains a Common and Internal Spanning Tree (CIST) Regional Root and an MST Regional Root for each instance. The CIST Regional Root provides the connectivity to the CIST, which represents the entire network topology. The MSTI Regional Root is the Root Bridge for that particular instance.

The X-Pedition router does not support MSTP over ATM (Asynchronous Transfer Mode), POS (Packet over SONET), or a WAN (Wide-Area Network). Also, if the X-Pedition routers were previously configured for STP, RSTP, or PVST, these protocols must be disabled before using MSTP.

Enhanced Denial of Service (DoS) Handling

This release adds additional denial of service (DoS) security capabilities that complement the Security Attack Monitor (SAM). For more specific information, refer to the Enterasys Knowledge Base (http://knowledgebase.enterasys.com/esupport/), click **Search by ID** and enter **ent16215**.

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ISSUES RESOLVED IN E9.1.9.0:

The following tables provide brief descriptions of the issues resolved in the E9.1.9.0 release.

5SSRM/6SSRM Modules	I.D.
An incorrect value is returned for an SNMP get of contTypeContainingDevice for 5SSRM in an E5 chassis and 6SSRM in an E7 chassis. This can result in a 5SSRM incorrectly reporting that it is in an E6 chassis.	F4839

X-Pedition 8000/8600	I.D.
When an XP-8000 or XP-8600 router goes into an over-temperature condition (most likely caused by a fan failure), the router will detect this condition and produce a core dump if the fan has failed. This event will send the appropriate traps, Syslog, and console events. If the over-temperature condition still exists, and the fan is still in a failing state when the router reboots, the router will continue to run and generate more heat indefinitely. The E9.1.9.0 release will detect that the router has rebooted from an over-temperature condition with a failed fan, and delay powering-on the line modules and fabric modules until the router cools to a nominal temperature. This delayed boot allows the device to cool.	F5495 F5568

10-Gigabit Ethernet	I.D.
The OutfIndex reported by NetFlow for the 10-Gigabit port may report 0 instead of the valid index.	F3411
Internal debug messages relating to a 10-Gigabit port may be shown after a **port show mirroring-status all-ports** command.	F4828
BMON does not function when applied to a 10-Gigabit port.	F4833
When a 10-Gigabit port is removed from the default VLAN either by adding the port to another VLAN using **vlan add ports** or using **vlan default-vlan ports <10 gig port> to drop-packets**, the **vlan show** command still shows that it is in the default VLAN.	F5122

X-Pedition ER16	I.D.
CDP does not enable on the ER16-OSx6-01 modules.	F5083
Ethernet 10/100 ports on the ER-16 that are set to a speed of 10Mb and half duplex may not correctly establish communications after a reboot. Link will be established, but all received packets will have an error status and not be processed by the system.	F5170
The **statistic show summary-stats** command may show incorrect 1-minute error stats if an ER16-OSx6-01 module is inserted.	F5449
When powering on an ER16 system that contains approximately 56 (or more) gigabit ports, a Control Module (CM) failover happens. After the CM failover, both CMs successfully boot.	F5521

ACL	I.D.
If more than several hundred ACL rules exist within a single ACL, then using the ACL editor to edit those rules may cause time-sensitive routing protocols, such as OSPF and RIP, to temporarily stop responding.	F5039
ACL can be applied to the same interface more than once by using different upper/lower case spellings of the interface name. Configuration commands should not be case sensitive.	F5389

Access Control List (ACL) Edit	I.D.
When **system set show-config alphabetical** is configured and either an access control list (ACL) rule is deleted using the **acl-edit** function or the **port-list** compress/expand is utilized, the router may crash and core dump.	F5569 F5594

AppleTalk	I.D.
When specifying an address for an AppleTalk interface, the router ignores the net portion of the address that the user entered. Instead, it started probing for addresses using the first net in the configured cable-range.	F4966

ARP (Address Resolution Protocol)	I.D.
The **arp show all** command does not decode Enterasys MAC addresses.	F4861

ATM (Asynchronous Transfer Mode)	I.D.
The ATM interface stops passing all traffic when DVMRP is enabled on it and a multicast stream is started.	F4155
Applying an ATM OAM service causes error messages.	F4524
Hotswapping out and in ATM cards results in small permanent memory leaks. While a one-time memory leak does not affect router operations in general, accumulating memory leaks could lead to insufficient memory in the router, which can cause system failure and even core-dumps.	F4954

BGP (Border Gateway Protocol)	I.D.
Core dump may occur if IBGP is configured together with route dampening, during network instability.	F4863

Command Line Interface (CLI)	I.D.
The **cli search** command will not print the "command" portion if the phrase the user is searching is located in the "command" portion of a complete CLI command.	F5165

Control Module Failover	I.D.
An X-Pedition router under heavy traffic learning can experience control module failovers, SmartTRUNK port bouncing, spanning tree recalculations and VRRP failovers. As a result of this fix in E9.1.9.0, a number of commands were removed including **ip disable fast-icmp**, **ip show stack-queues**, **ip set data-receive-size	control-receive-size**, **ipx show stack-queues**, and various system set commands. Refer to the *X-Pedition NATIVE Command Line Interface Reference Manual* for a complete list.	F4135 F4370

DHCP	I.D.
There is no Syslog message if a DHCP client requests a lease and there are no free DHCP leases.	F4717

DVMRP	I.D.
If a multicast stream is stopped long enough for the mroutes table (multicast show mroutes) to be deleted (roughly 12-15 min), the stream will fail to restart. If the stream is restarted prior to it aging out, the client reestablishes the stream without incident by the attached router sending a graft message upstream towards the source. Multicast streams distributed from a DVMRP router will not be forwarded on those branches that have not been pruned until the prune timeout expires, under these conditions: • DVMRP router has pruned some but not all child branches • The multicast stream stops or pauses long enough for the mroute cache entry to expire (15 to 20 minutes)	F5457

FDDI	I.D.
The **port set** command should not allow the options **input-encapsulation** and **ifg** for FDDI ports. These commands will not execute successfully because they are not applicable to a FDDI port.	F4858

Interface	I.D.
Users cannot create an interface name that is 32 characters, which is the maximum interface name length.	F4760

IP	I.D.
The **ip show routes** command allows a **verbose** option with the **show-summary** option, which is not compatible.	F5236
Received IP fragmented TCP/UDP packets that are smaller than the IP header plus the TCP/UDP header are dropped. This affects a number of protocols and can cause problems such as Kerberose login failures.	F5318

Load Balancing	I.D.
The **load-balance set server-status** command only accepts group-names that are entered in lower case.	F4908

NetFlow	I.D.
NetFlow updates to the collector for long lived flows (more than 1 day) may periodically report inaccurate octet and packets counts that are much higher than the actual counts for the update interval.	F5139
When NetFlow is enabled on a SmartTRUNK port, it does not send any NetFlow export records to the collector. It appears that NetFlow can be enabled on SmartTRUNKs, but NetFlow may actually be enabled on ports that have nothing to do with the SmartTRUNK.	F5158
When the system has been running a long time with NetFlow enabled, the flow counts may be displayed as negative values by the **netflow show ports** command.	F5335

OSPF (Open Shortest Path First)	I.D.
No error is given when setting the router dead interval for an interface to a value less than the hello interval.	F4658
Setting the cost of an interface to 65535 causes the associated virtual links to go down.	F4765
The **ospf monitor** command incorrectly displays "Connection timeout; try again..." when trying to access the router's own information at the time when it is not running OSPF.	F4834

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OSPF (Open Shortest Path First)	I.D.
Setting the cost greater than 65535 for the **ospf set ase-defaults cost** command causes a GateD configuration parse error.	F5045
CLI commands are allowed into the configuration for exporting from OSPF to OSPF rather than being rejected.	F5066
The **ospf add stub-host <*ip addr*> to-area <*area*> cost <*value*>** command causes GateD configuration parse errors when given a cost value within the accepted range of 0 - 65535.	F5183
Virtual link remains enabled when configured to be disabled.	F5292
The **ospf set virtual-link <*name*> state enable**" and **ospf set virtual-link <*name*> state disable** commands are allowed in the same configuration.	F5358
If the router receives an LSU with a type 4 advertisement and its mask is incorrectly set to 255.255.255.255 (instead of 0.0.0.0 as per RFC), the OSPF process is unable to find the existing LSA entry and continues to add another to the end of the LSDB. This results in more processing, and the GATED process drives up the CPU utilization.	F5431

PIM (Protocol Independent Multicast)	I.D.
There is a small chance that an X-Pedition router may crash when PIM is active on the router and a port or interface state changes.	F4635
The port mask table is corrupted on a WAN interface when PIM is enabled and a prune message is processed.	F4715
Commenting out or in a port definition that is PIM enabled may cause multicast traffic entering from that port to be lost.	F5132

Port	I.D.
When a **port set et.*x.x* mc-vlan-encap *x*** CLI command is followed by a **save to active**, a router core dump results.	F5232

Port-List	I.D.
If the commands expanded from the **port-list expand** command match any commands that are commented out in the active configuration, a core results when the **show** command is executed in configuration mode.	F5167
Users are allowed to expand some port list commands that contain multiple port lists. Commands with multiple port lists are not to be expanded or compressed.	F5499

Port Mirroring	I.D.
When a port/ACL mirror is removed, unicast traffic routed by the VRRP master router can be flooded across the ingress VLAN. For traffic already being flooded across the VLAN (either because it is broadcast traffic or it has an unknown destination MAC), the X-Pedition router will not forward the packets to ports that were configured as destination ports of the deleted mirror, even if the ports are still added to the same VLAN. In either cases, the X-Pedition router will recover when the router is rebooted, the ingress port is connected then reconnected, or when the traffic is aged out.	F5199

PPP (Point-to-Point Protocol)	I.D.
Hotswapping out a serial or HSSI card configured with MLP will corrupt the MLP configuration lines in the configuration file such that they cannot be commented out. Even after hotswapping the card back in, the MLP bundle will not come back up as expected.	F4914

PPP (Point-to-Point Protocol)	I.D.
Clearing RMON stats on MLP bundles using, for example, the **ppp clear stats-counter rmon ports mp.1** command will generate several error messages and possibly a core dump. The problem can be avoided by specifying the individual ports in the bundle.	F5097
Running the **ppp set ppp-encaps-bgd port...** command on a POS port may cause a core dump.	F5245

RIP (Routing Information Protocol)	I.D.
RIP routes disappear after 2-5 minutes	F5234

RMON (Remote Network Monitoring)	I.D.
When using the **rmon set professional default-tables yes** command, a system core will occur if an IP packet with a destination MAC of the router and a source IP address of 0.0.0.0 is received on an RMON enabled port.	F4481

SAM (Security Attack Monitor)	I.D.
If a suppressed slot is hotswapped out when SAM is activated and if SAM never deactivates before the same module is hotswapped back in, the traffic won't be rate-limited until SAM deactivates and re-activates.	F4876
The X-Pedition router may core dump when SAM deactivates on a 10-Gigabit module because of an attack if both of the following apply: (1) The 10-Gigabit module has an empty slot on its right. (2) There are other modules already under suppression when the 10-Gigabit module is deactivated. In addition, if the 10-Gigabit module occupies slot 16 on the ER16 chassis, SAM might not be fully activated on a multi-slot blade, and it might not be deactivated until the entire ER16 chassis is no longer under attack.	F5161

Security	I.D.
A number of security-related events that can occur on the X-Pedition router are not logged with the 'audit' logging level. The affected events are: user logout, failed SSH user login, timed-out logins, additions and changes to the known hosts database, and generation of local host keys.	F5176
If an authenticated SSH user exits Enable mode, the user's name will not be displayed in audit trail messages while the user is in User mode.	F5188

SmartTRUNK	I.D.
When administratively creating an LACP link aggregation group that allows LACP configured ports to join, STP-I-PORT_STATUS messages indicating that the ports are up can incorrectly display when the ports are already up as normal 802.3 ports, where there was not a previous STP-I-PORT_STATUS message indicating them as down.	F4775
Port mirroring individual LACP ports can cause the ports to not reattach with their respective partner ports if the link is brought down and then back up.	F4882
There is no online help message to explain the legal ranges of SmartTRUNKs for different platforms.	F4912
Non required options in the **smarttrunk lacp actor-parameters** command are allowed to be entered without specifying a corresponding value. This can result in inadvertent changes to the parameter's default settings.	F4965
When a port of a SmartTRUNK goes down that is sending multicast traffic, the multicast traffic will be moved to 2 different ports in the SmartTRUNK duplicating the traffic.	F5085

SmartTRUNK	I.D.
When changing the aggregation value from **individual** to **aggregatable** on a port configured for LACP with a partner port that is already configured as **aggregatable**, the port will not transition to a forwarding state and will remain inactive.	F5182
Saving commands, like the following, from the scratch pad to active configuration will result in the loss of the **vlan make trunk-port** for the SmartTRUNK: smarttrunk create st.1 protocol no-protocol smarttrunk add ports et.5.6-8 to st.1 vlan make trunk-port et.5.1 vlan make trunk-port st.1	F5363

SNMP (Simple Network Management Protocol)	I.D.
The **snmp disable time-filter-walk-detect** command is not grouped with other SNMP commands in the configuration.	F4728
If the **acl <aclname> apply** CLI command contains the **deny-trap** option followed by any **logging** option, the **deny-trap** option will have no effect.	F4917
On any X-Pedition router, starting a system image upgrade via SNMP (such as NetSight Atlas) during a DoS attack may cause the SNMP task to hang until the DoS attack is stopped.	F4924
SNMP may take a long time to respond to ctCDP Neighbor table queries. During this time other tasks may not get a chance to run. The amount of time SNMP takes to respond to these queries is directly related to the value of sysUpTime.	F4948
When you query these three MIBs, no information gets populated to them. ifMauAutoNegCapabilityBits=1.3.6.1.2.1.26.5.1.1.9 ifMauAutoNegCapAdvertisedBits=1.3.6.1.2.1.26.5.1.1.10 ifMauAutoNegCapReceivedBits=1.3.6.1.2.1.26.5.1.1.11	F5135
SNMP management stations may report an incorrect ifOperStatus for a port containing multiple frame-relay DLCIs.	F5136
Once modified, the dot1dPortDefaultUserPriority and dot1qPortGvrpStatus MIB values cannot be modified through the MIB again. Furthermore, SNMP returns a success but the CLI actually fails to write this value to the device. You need to go to the CLI and negate the line in order to set it again.	F5154
The password length for the **snmp set user**, **auth**, or **priv** options is only 127 characters. It should allow up to 128 characters.	F5261

Spanning Tree	I.D.
On any X-Pedition router, some configurations that include STP and SmartTRUNKs may lead to temporary loops in the network.	F5048

Statistics	I.D.
The **statistics clear port-packets all-ports** command does not have any affect on frame-relay port statistics. If the frame-relay ports are listed individually (i.e., **statistics clear port-packets se.4.1.100**) then the statistics are cleared as expected.	F5301

System	I.D.
The **system show environmental-info** command displays **unknown** when there is an over temperature condition on the 2000/8000/8600.	F2647
Commands that record when they were issued, such as **statistics clear port-errors**, may display a different time value than the **system show date** command.	F4131

System	I.D.
Audit trail messages that should be printed to the serial console do not always get printed to the serial console. Note that not all audit trail messages are supposed to be printed at the console. Detailed command execution audit logs, for example, can only be logged via a Syslog server.	F4805
Hotswapping out the active switching fabric module via the CLI **system show switching fabric** command will report that the hotswap occurred as a result of pressing the hotswap button rather than the CLI.	F4963
If the **system set poweron-selftest on|quick** command is in the startup configuration file, the system displays the message: In order for the new diagnostic mode to take effect after reboot, you must save the active configuration to Startup (use "copy active to startup"). This appears upon every boot-up. The message should only appear when the CLI command is initially entered by the user.	F5104
For any X-Pedition router configured with a Syslog server, if the Syslog server goes down (e.g., route disappears or Syslog server crashes) and then is later restored, the router will not send messages to the Syslog server if errlog messages are being generated on the router at a rate of once-per-30-seconds or faster.	F5112
The **system set poweron-selftest [on|quick]** command, which is used to execute system diagnostics, can cause a system crash with certain module types.	F5144
Audit messages sent to any Syslog server about outbound SSH client sessions will always indicate that execution of the SSH command failed, even if the outbound client SSH session was successful.	F5192
When some events within the system occur, the time and date of the event may be recorded. If a command is issued to display the time and date of the event along with the **system show date** command, the output from the two commands may show inconsistent time and date information. An example of this is issuing the following commands that display the system up time: - snmp show statistics - system show uptime	F5244
The **system image list** command shows multiple images selected for the next boot if another image exists with a filename prefix that exactly matches the real chosen image. For example, if the chosen image is "image12" and an image called "image1234" are present, both will be shown as selected for the next boot.	F5307
The **system image add** command will display "ERR-U-UNMAPDERR, unmapped system error number 0x00000000" if a TFTP read error occurs instead of the proper read error message.	F5366

VLAN	I.D.
If a port belonging to a Layer 4 bridging enabled VLAN receives a flow with an inbound ACL applied where the flow is denied by the ACL, then a drop flow entry is written to the hardware. If this happens before the destination MAC address of the flow is learned by the X-Pedition router, and if the destination MAC address is subsequently learned, the traffic for this flow will be forwarded to the destination, regardless of the ACL configuration.	F5134
Adding access ports to a second VLAN that support a different protocol was allowed using the CLI, but was not allowed when configuring the dot1qVlanStaticEgressPorts MIB object using SNMP.	F5155
The **vlan multi-create** command cannot be negated in the configuration file.	F5173
When an IP and AppleTalk interface are attached to the same port-based VLAN, the removal of the AppleTalk interface from the VLAN causes IP traffic to stop.	F5198
After a **vlan add port** command is added to or removed from the active configuration, the CPU utilization increases dramatically if the X-Pedition router is switching broadcast traffic on the VLAN when the reconfiguration occurs. This issue does not affect the health of the network unless the router is under heavy load.	F5214

VLAN	I.D.
When connecting multiple port mirrored ports to a hub, in which the ports are members of the same VLAN and Protocol Type (Bridged-Protocols, IP, IPX, etc.), then any Protocol Type Traffic that is associated with that VLAN is forwarded to the mirrored ports. This will create a Layer-2 loop. A MAC movement error message will be generated to the CLI.	F5216
After entering a VLAN command that causes errors, subsequent similar VLAN commands for different ports will not report the error.	F5229
If the configuration contains a commented line that is a duplicate of a recently expanded port-list command, that port-list command is not be added to the configuration.	F5252
STP fails to converge if a **vlan default-vlan** command is applied to an STP-enabled Q-trunk, thus, causing data loops on the network.	F5257
When a VLAN command which contains a portlist with ports already included in an existing VLAN command, it will not execute or merge correctly. Added ports will be missing from the configuration.	F5361 F5395
If adding new VLAN commands (e.g., **vlan add ports**) with portlists that overlap an existing command in the configuration, any port failing the command will not be marked with the partial flag.	F5435
GVRP over SmartTRUNKs is ineffective and can possibly cause a system crash.	F5468

VRRP	I.D.
While running VRRP, 802.3ad link-aggregation, or in a redundant CM configuration, the X-Pedition router may crash when processing heavy unlearned traffic loads, causing this error message: %NI-F-DBLFREE2, Netbuf #### double freed by 0x8####### 0x8####### 0x8####### 0x8####### 0x8#######. Add system set nbuf debug to config.	F5345
Interface names for IP-redundancy are incorrectly checked with upper/lower case sensitivity.	F5386
When adding or removing ports from a VLAN that is associated with an interface configured for IP-redundancy (VRRP) but has not enabled VRRP, an ARP containing the virtual IP address will be sent out the interface. This results in a duplicate IP error message on the other device connected to the interface and participating in VRRP as the master virtual router.	F5418
When a SmartTRUNK is configured on an X-Pedition router, the router may incorrectly forward VRRP hello packets received on any blocked port to the SmartTRUNK. This could potentially cause routers to toggle between the master and backup states. In addition, the X-Pedition router prioritizes both ingress and egress VRRP hello packets over STP BPDUs. Therefore, if the former issue causes a VRRP hello packet loop in the network, BPDUs could be dropped and STP will fail to maintain a stable and loop-free network topology.	F5437

WAN	I.D.
It is possible for an attacker to decipher encrypted data sent over a PPP link if the attacker has access to view or otherwise intercept the X-Pedition router's active configuration.	F3722
Hotswapping out a SERCE or HSSI card results in a small permanent memory leak for each frame-relay VC configured on the card. While a one-time memory leak does not affect router operations in general, users should be aware that accumulating memory leaks could lead to insufficient memory in the X-Pedition router, which would cause system failure and even core-dumps.	F4896
The allowable portlists for WAN ports on **statistics clear port-errors**, **port-packets** and **port-stats** commands have been modified so that they are consistent with the portlists allowable on the **statistics show port-errors**, **port-packets** and **port-stats** commands. This also allows for proper clearing of port-packet statistics on frame-relay VCs.	F5096
Negating or commenting out a **port set** command that applies to a WAN port may cause the console to lock up for a short period of time.	F5248

KNOWN RESTRICTIONS AND LIMITATIONS:

Known Restrictions and Limitations are sorted alphabetically by topic heading.

AppleTalk	I.D.
Inventory Manager uses the ctDownLoadMib to push firmware upgrades to the X-Pedition routers; however, it uses the ssrConfig MIB to retrieve the configuration from the router. The AppleTalk configuration file is not merged with the rest of the router configuration when the Inventory Manager requests the router's configuration using the ssrConfigMib MIB.	F5209

ATM (Asynchronous Transfer Mode)	I.D.
The X-Pedition router does not support bridging over ATM with the following frame types: 802.2 IPX, 802.3 Raw, and Ethernet Snap.	H0041

BMON (Broadcast Monitor)	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 router 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

CDP (Cabletron Discovery Protocol)	I.D.
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

CLI (Command Line Interface)	I.D.
Creating a new interface causes a memory leak that remains even after the user removes the interface (i.e., negates the **interface create** command).	F4410 F3901

DVMRP (Distance Vector Multicast Routing Protocol)	I.D.
Multicast packets are not tagged before entering an 802.1Q trunk port that connects to another router.	F3612

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

Multicast	I.D.
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. 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)

	I.D.
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.	F4495

Multiple Spanning Tree Protocol (MSTP)	I.D.
Pre-AA line cards will not drop undersized MSTP BPDU packets.	F5598

Network Management	I.D.
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

POST (Power On Self-Test)	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

PIM-SM (Protocol Independent Multicast-Sparse Mode)	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
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
The X-Pedition router does not support more than one PIM sparse domain configuration.	F2165
PIM IGMP does not allow for static joins at this time.	F2166
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

PIM-SM (Protocol Independent Multicast-Sparse Mode)	I.D.
Using the **all** option of the **pim sparse set interface** configuration command fails to set the timer options. Users must set these options individually, using each interface name and IP address.	F3251
Entering the **pim sparse set component mrt-spt-mult #** command from configuration mode places the command in the router's active configuration; however, the command *does not* appear in the configuration for GateD and is therefore *not set*. To view the configuration for GateD, enter the **ip-router show configuration-file** command.	F3253

QoS (Quality of Service)	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

RMON (Remote Monitor)	I.D.
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

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

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

STP (Spanning Tree Protocol)	I.D.
Traffic will not recover when Frame-Relay connections with a lower STP path cost are restored.	F2141

WAN (Wide Area Network)	I.D.
A message fragmentation incompatibility that can result in lost data exists between an XSR router and an X-Pedition router when communicating across an MLPPP bundle. To work around the issue, disable fragmentation on the XSR router	F5415

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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 X-Pedition ER16 Getting Started Guide	GSG

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 **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.	

STP (Spanning Tree Protocol)	Manual
X-Pedition routers 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-Pedition routers 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 802.1s	Multiple Spanning Trees
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 No.	Title
RFC 1349	Type of Service in the Internet Protocol Suite
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:

RFC No.	Title
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
ENTERASYS-MSTP-MIB	Multiple Spanning Tree Protocol MIB
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