

CUSTOMER RELEASE NOTES

**Vertical Horizon
VH-2402S - Patch Release
Firmware Version 02.05.00.08
July 24, 2002**

INTRODUCTION:

This document provides specific information for version 02.05.00.08 of the system firmware for the VH-2402S.

It is recommended that one thoroughly review this release note prior to the installation or upgrade of this product.

NOTICE: A Patch Release contains a small set of specific feature corrections. It has not been subjected to the same standard of regression testing that a Generally Available Release would be. A Patch Release has been tested only to confirm that the specific feature set is functioning as expected. Unless otherwise stated in the Release Notes, a Patch Release has the same restrictions and limitations as the code upon which it was based. Please read *all* of the Release Notes pertaining to the Generally Available release prior to installation of any Patch in your production network. Please report any undocumented issues you find using the normal technical support procedures found in your product documentation.

FIRMWARE SPECIFICATION:

Status	Version No.	Type	Release Date
Current Version	2.05.00.08	GA Patch Release	7/24/2002
Current Version	2.05.00	Customer	12/21/2001
Current Version	2.04.07.06_16	GA Patch Release	9/25/2001
Current Version	2.04.07.06_09	GA Patch Release	7/27/2001
Current Version	2.04.07.03	Customer	4/23/2001
Previous Version	2.04.07	Customer	4/12/2001
Previous Version	2.04.05	Customer	3/9/2001
Previous Version	2.04.01	Customer	12/8/2000
Previous Version	2.03.12	Customer	10/19/2000
Previous Version	2.02.02	Customer	8/14/2000
Previous Version	2.01.04.01	Customer	6/27/2000
Previous Version	2.00.07	Customer	1/13/2000

HARDWARE COMPATIBILITY:

The ELS100-S24TX2M Broadcom PHY chip has changed from Rev. 5208 to 5208R. If you are currently using hardware Rev. "0F" or greater, It is necessary to use firmware version 2.01.04.01 or greater on the ELS100-SMGMT module.

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BOOTPROM COMPATIBILITY:

ALL

NETWORK MANAGEMENT SOFTWARE SUPPORT:

NMS Platform	Version No.
NetSight Atlas Console	1.0
NetSight Element Manager	3.0 and above

If you install this image, you may not have control of all of the latest features of this product until the next version(s) of network management software. Please review the software release notes for your specific network management platform for details.

SUPPORTED FUNCTIONALITY:

Features	Support
802.1P - Traffic Management (2 queues)	Yes
802.1Q - VLAN tagging and identification (256 VLANs)	Yes
Spanning Tree support	Yes
IGMP Snooping	Yes
Broadcast Storm Protection	Yes
Address Data Base Maintenance	Yes
Local Management via TELNET (four sessions)	Yes
RMON Groups 1,2,3,9	Yes
Runtime Address Discovery	Yes
Online BOOTP/TFTP	Yes
TFTP download from a host	Yes
Trunking	Yes
SNMP	Yes
Modem support	Yes
Imbedded Http Agent	Yes
Port Mirroring	Yes
Auto-Negotiation	Yes
Stacking	Yes
UPS support	Yes
Configuration upload/download support	Yes
Port Security (MAC Locking)	Yes

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FIRMWARE CHANGES AND ENHANCEMENTS:

The following Known Issues have been fixed in this release of firmware 02.05.00.08.

1. This version of firmware fixes a condition where intermittent loss of communication with the management agent was seen.
2. The Port(s) "lock-up" condition where traffic is not passed through some ports on the switch has been fixed.
3. 10-Half Duplex mismatched issue on 10/100 front panel ports. When manually hard-setting these front panel ports to 10MB Half Duplex, they would revert to 10MB Full Duplex. This issue has been fixed.
4. Forwarding frames out of Blocked Ports. Frames were being forwarded out of blocked ports when an invalid NMS Trap IP address is entered on the VH-2402S. This issue has been fixed.
5. VRRP packet leakage to other VLAN(s). This issue has been fixed.
6. The condition where IGMP Snooping enabled on the Switch was preventing EIGRP, RIP v2, and VRRP protocols from being transmitted has been fixed.
7. The "Port Up" and "Port Down" link status condition when there is no connection (port empty) to a Gigabit uplink module caused the VH-2402S to send multiple link up/down traps has been fixed.
8. The issue where the VH-2402S gets into a state where it generates illegal BPDU's (i.e. where the root bridge MAC address is all zeros) has been fixed.
9. When the VH-2402S receives a configuration BPDU with the root bridge MAC address of all zero's, the packet will now be dropped and a TCN will not be generated.
10. This version of firmware fixes a random reset issue with VH-2402S Stacks consisting of 4 or more units.
11. A TFTP Firmware Download can now be performed immediately after a TFTP Upload Configuration with v02.05.00.08 Agent Firmware.
12. A TFTP Download Configuration can now be performed immediately after a TFTP Upload Configuration with v02.05.00.08 Agent Firmware.
13. The Spanning Tree Bridge Information view via Telnet Session now displays the Root Cost field with a value of five digits correctly.

KNOWN RESTRICTIONS AND LIMITATIONS:

1. When a VLAN is set to "Not in Service" and there are Egress ports assigned to the VLAN traffic with that VLAN tag, traffic is forwarded instead of being dropped. Note: This issue will only occur with an Agent Module in the same Switch within the Stack. A "Learning" Broadcast Packet will cause this event to happen. This issue will be fixed in a future release.
2. The VH-2402S failed the Trap Section of the CERT SNMP Vulnerabilities Test under specific circumstances. This issue will be fixed in a future release. Web Site Reference: http://www.enterasys.com/support/snmp/snmp_statement2.html#vert_horizon
3. Due to a Chip Limitation, the VH-2402S does not support "Admit Only VLAN-tagged frames."
4. The Root Port Cost on a Trunk will change back to the Default Port Cost (i.e. 15) after a respan or a reboot of the VH-2402S. This issue will be fixed in a future release.

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5. VH-2402S modules or stacks with no ports attached will occasionally output console messages for trap allocation errors. These “information only” messages are caused by the overflow of the trap queue for “coldstart” trap messages since it is impossible to send the messages because no ports are active. The following “informative” messages may appear on the LM console continuously:

```
Subprogram: trap_QueueEnqueue
Error: L_MEM_Allocate failed!
Subprogram: trap_QueueEnqueue
Error: L_MEM_Allocate failed!
Subprogram: trap_QueueEnqueue
Error: L_MEM_Allocate failed!
```

The interim “work-around” to resolve this condition is to attach a “Live” connection to a 10/100 Front Panel Port. The informative messages will then disappear approximately 5-10 seconds after the connection is made. This issue will be fixed in a future release.

6. To protect the management agent from excessive levels of broadcast traffic from all ports, the VH-2402S management agent, when overwhelmed, will drop all broadcast traffic directed to it for periods of time. Under these certain conditions, the switch agent will send unsolicited ARPs to each VLAN configured on the switch. This behavior is not detrimental to network operation and ensures that network management communication to the VH-2402S management agent will not be lost for new connections to the agent. Reference: RFC 1868. The mechanism runs independently of any broadcast control capability on the switch.

7. Under high broadcast loads, the VH-2402S implements internal mechanisms to limit broadcast and multicast traffic to the Management Agent. This filtering of traffic to the CPU may cause the CPU not to see the IGMP streams for a group for which no “join” messages have been received. The outcome of this event is flooding of the multicast stream until either a “Join” (or “Leave”) message is received or until the broadcast and multicast traffic is reduced to a small enough level that the Management Agent can process all of them. This issue will be fixed in a future release.

Other restrictions and known issues can be found in the VH-2402S v02.05.00 Release Notes.

Any other problems than those listed above should be reported to our Technical Support Staff.

GENERAL MANAGEMENT CONSOLE MENU INFORMATION:

Internal MAC errors, which appear on the Port Statistics Screen, are for statistical purposes only. This screen shows items other than Runts, Giants, CRC errors etc.

COMPLIANCE SUPPORT:

Compliance Level	Compliant
Year 2000	YES

Known Anomalies: None.

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IEEE STANDARDS SUPPORT:

Standard	Title
IEEE 802.1D	Transparent Bridging Specifications (ISO/IEC 10038)
IEEE 802.1p	Traffic Class Expediting and Dynamic Multicast Filtering
IEEE 802.1Q	Virtual Bridged Local Area Networks
IEEE 802.2	Local Area Networks, Logical Link Control (LLC)
IEEE 802.3	CSMA/CD 9 (ISO/IEC 8802-3)
IEEE 802.3I	10Base-T (ISO/IEC 8802-3, clause 14)
IEEE 802.3u	100Base-TX (ISO/IEC 8802-3, clause 25)
IEEE 802.3u	100Base-FX (ISO/IEC 8802-3, clause 26)
IEEE 802.3x	Flow Control
IEEE 802.3z	1000Base-SX, 1000Base-LX

IETF STANDARDS MIB SUPPORT:

RFC No.	Title	Groups Supported
1157	Simple Network Management Protocol(SNMP)	
1213	MIB-II	System, Interfaces, IP, ICMP, UDP, Transmission (dot3), and SNMP
1493	Bridge MIB	Spanning Tree and various managed objects for bridges
1573	Interfaces Evolution MIB	MIB-II Interfaces Group extensions
1643	Ethernet-like	Various Ethernet specific aspects
1757	RMON MIB	Statistics, History, Alarm, and Event
2674	Definitions of Managed Objects for Bridges with Traffic Classes, Multicast Filtering and Virtual LAN Extensions	Groups in the P-BRIDGE MIB ----- dot1dExtBase OBJECT IDENTIFIER ::= { pBridgeMIBObjects 1 } dot1dPriority OBJECT IDENTIFIER ::= { pBridgeMIBObjects 2 } Groups in the Q-BRIDGE MIB ----- dot1qBase OBJECT IDENTIFIER ::= { qBridgeMIBObjects 1 } dot1qTp OBJECT IDENTIFIER ::= { qBridgeMIBObjects 2 } dot1qStatic OBJECT IDENTIFIER ::= { qBridgeMIBObjects 3 } dot1qVlan OBJECT IDENTIFIER ::= { qBridgeMIBObjects 4 }

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ENTERASYS NETWORKS PRIVATE ENTERPRISE MIB SUPPORT:

Title	Version
NA	NA

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

SNMP TRAP SUPPORT:

RFC No.	Title
RFC 1215	coldStart_trap warmStart_trap linkUp_trap authenticationFailure_trap egpNeighborLoss_trap
RFC 1493	ENTERPRISE dot1dBridge NewRoot 1 topologyChange 2
RFC 1573	SnmpTraps lLinkDown 3 LinkUp 4
RFC 1757	IETF RMON, ENTERPRISE rmon -- 1.3.6.1.2.1.16 risingAlarm 1 fallingAlarm 2

ENTERASYS NETWORKS PRIVATE ENTERPRISE TRAP SUPPORT:

NONE

GLOBAL SUPPORT:

By Phone: (603) 332-9400
By Email: support@enterasys.com
By Web: <http://www.enterasys.com/support>
By Fax: (603) 337-3075
By Mail: Enterasys Networks
P.O. Box 5005
Rochester, NH 03867-5005

For information regarding the latest firmware available, recent release note revisions, or if you require additional assistance, please visit the Enterasys Networks Support web site.