

Release Notes 93000221T  
for  
PORTSERVER II Operating System  
40001260S  
Version 3.1.1  
Software Manual P/N 92000246B  
Software Manual P/N 92000271A  
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## Introduction

These release notes provide information on PortServer II OS version 3.1.1. They include information on the following:

Incompatibility between older versions of the PortServer II OS and this one, which can affect your configuration.

1. Pre-3.0 Incompatibility Notice
2. Pre-Rev K Model ROM Limitations
3. Limitations for Systems with 2 Mb of Memory
4. Upgrading flash ROM.
5. Enhancements and added feature sets.
6. Bug fixes in this release. These include both bugs reported in Problem Report numbers.

### 1. Pre-3.0 Incompatibility Notice

This version (3.1.1) of the PortServer II OS is incompatible with versions older than 3.0. Certain parts of the non-volatile storage formats used to store configuration information have been changed. Consequently, if you want to use this version of the OS and preserve your current configuration, you must use the `epconf` command to save your configuration to a host and then restore it once the new version of the PortServer II OS has been installed.

### 2. Pre-Rev K Model ROM Limitations\*

The addition of Frame Relay to 3.0 and later versions of the OS causes the size of the boot image to exceed the space available in the PortServer II flash ROM for units built prior to the Rev K models. Consequently, if you want to use a 3.0 or later OS with these older units, you must do one of the following:

- Boot PortServer II via TFTP over the ethernet port.
- Acquire a smaller version of the OS, which does not have Frame Relay, this is available from the Digi ftp site.

**\*NOTE:** Versions above and including 3.1.0 will no longer be available in the smaller non-frame version.

### 3. Limitations for Systems with 2 Mb of Memory

Testing has determined that the PortServer II's previously standard 2 Mb of installed memory is inadequate in the following instances and is likely to require an expansion to at least 4 Mb.

- Full 64 port configurations in which more than 50 asynchronous and/or TCP users are simultaneously using PortServer II. This include users accessing PortServer II via the ethernet connection or any type of connection using the serial ports.

Note: Exceeding this number of users is unlikely in RealPort environments because each RealPort connection is seen as a single user. This means that while that user may control more than one port, if there is only one host connected to the PortServer II using RealPort, it will use only a little more memory than someone making a telnet connection. If more than one host is using PortServer II as a RealPort server, each host will have it's own TCP connection, and therefore each is considered a user. It is unlikely that a site will have enough RealPort connections to cause problems.

- Sites with heavy traffic on serial ports. Here the problem is simply throughput. Degradation of performance may indicate that additional memory is called for.

#### 4. Upgrading Flash ROM

Should it be necessary to update the PortServer II OS contained in Flash ROM on your PortServer II, the recommended procedure is:

1. Obtain the new version of the software from Digi and place it on your TFTP server.
2. Save your current configuration using cpconf. This should not be necessary, but it is advisable to maintain a backup of your current configuration when re-writing a sizable portion of flash.
3. Boot your PortServer II with the new operating system via TFTP, by using set config boothost=hostip bootfile=filename tftpboot=yes, and then rebooting your PortServer II. See page 45 of the User's Guide and Reference Manual for more details. This step ensures that you have a good copy of the new version of the software, and also that you can still boot your PortServer II in the unlikely event that your flash image gets corrupted in the process of writing it.
4. After booting your PortServer II via TFTP, load the new version of the software into the flash ROM by using the command boot load=host:filename. If all goes well, the PortServer II will reply "The image now in flash memory appears valid."
5. Now you can return your PortServer II to booting from its flash ROM image by entering the command set config tftpboot=no.

#### 5. Enhancements

##### PortServer II OS Driver

- PR#3907 – added ability to specify a range of ports when using the who command. Previous problem was that if more than 24 users were connected and the who command was run from a 24 line terminal some of the info would scroll off of the screen. Ex: who [range=portx-portX].
- PR#1198 – added 'display port' command which gives a remote user the ability to monitor the line status for each serial port.
- PR#401 – added remote authentication using TACACS protocol.
- Removed shorthand command 'b a=e'. Many people were making typing mistakes while trying to do 'b a=r' and they were running this command. The new shorthand is the command 'b a=ee'.
- SNMP enhancements – added Read/Write support for :
  1. PPP-LCP-MIB RFC1471
  2. PPP-IP-MIB RFC1473
  3. Frame-MIB RFC1315

##### PortServer II BIOS

- Changed how MAC address is entered in manufacturing. The first 6 digits which are the same for all new PortServer II's is now fixed and does not have to be entered manually during initial testing. The last 6 digits are entered sequentially without carriage return between them.
- Hyundai ROM parts can now be used in addition to the already used AMD and SGS-Thomson ROM parts. The Hyundai ROMs share the same ID number as the AMD ROMs.

#### 6. Bug Fixes

##### PortServer II OS Driver

- PR#4762 – fixed problem where user Idle-Timeout will act as a session timeout (broke in v3.1.0).
- PR#4728 – fixed problem where accounting on Radius server does not stop; this includes issue where users authenticated through TACACS does not send a RADIUS accounting stop (broke in Beta v3.0.14).
- PR#4671 – fixed problem where reverse telnet would leave phantom sessions open.
- PR#4520 – fixed reboot issue when telneting from a Cisco router to the Portserver II.
- PR#4539 – fixed issue when upgrading firmware from 3.0.12 to 3.0.13 the mask under set config gets set to 255.255.255.0.
- PR#4067 – addressed a memory issue that would arise when we were in a tcp TIME\_WAIT state. At times we would send a reset but would not delete the tcp control block.

- PR#4002 – when a RealPort driver sets rtspace and ctspace when doing a ditty on ports on the attached EM modules the leds for rts and cts stay high after the close.
- PR#3416 – the PortServer II does not support MS-CHAP or SPAP. If the NT Server offers to try PAP we will then work.
- PR#2328 – adjusted the radius Acct-Session-Time so that it will be calculated properly.
- PR#1462 – fixed telnet so that it would allow the use of Extended ASCII character.
- Solved rts/cts flow control issues that were introduced with the new 954 uarts in the Critical Controls prototype EM Modules.
- Fixed 'set user' option 'ipaddr' to correctly negotiate when set to '0.0.0.0'.
- PR#1609 – SNMP fixes – full Read/Write support for:
  1. MIB2                      RFC1213
  2. RS232-MIB               RFC1659 (old - RFC1317)
  3. Character-MIB           RFC1658 (old - RFC1316)

**\*NOTE** – In some instances parameters from 3.0.13 may not translate properly into 3.1.1. In order to insure that the parameters are correct the user can save their parameters from 3.0.13 by doing a cpconf and reloading the parameters back into the PortServer II after 3.1.1 is loaded.

#### PortServer II BIOS

- PR#4820: Fix Bootp to accept reply via broadcast. This fixes the issue where Bootp does not work with Microsoft Windows NT DHCP server.
- Fixed how display characters during bootup were stored. Problem was uncovered during new hardware testing for Critical Controls prototype.