Prisma II 2.5G 2:1 bdr-I Receiver and Prisma II Chassis Issue Technical Bulletin

Overview

Customers using the Prisma® II 2.5G 2:1 bdr-I Receiver may experience communication problems with the receiver when installed in a Prisma II Chassis configured with an ID ending in 2 through 5.

Purpose

The purpose of this document is to inform users of the Prisma II 2.5G 2:1 bdr-I Receiver, part numbers 4018935 and 4018938, of possible problems with the receiver when used with chassis ID ending in 2 through 5. This technical bulletin defines the issue and provides the corrective measures that should be taken by qualified and skilled personnel.

Audience

This technical bulletin applies to system engineers, managers, and customers who are responsible for operating or maintaining Prisma II equipment.

Qualified Personnel

Only appropriately qualified and skilled service personnel should attempt to install, operate, maintain, and service this product.

WARNING:

Allow only qualified and skilled personnel to install, operate, maintain, and service this product. Otherwise, personal injury or equipment damage may occur.

Issue

It has been determined that the new Prisma II 2.5G 2:1 bdr-I Receiver has the two chassis ID pins swapped on the main PCB resulting in the module not being able to communicate with an ICIM or LCM when installed in a chassis configured with an ID ending in 2 through 5. This issue was not observed with chassis IDs ending in 0, 1 and 6-9.

Resolution

For the units that exhibit this behavior, a software update has been made available to correct this issue. Refer to the ***Software Upgrade Procedure*** (on page 3).

Safe Operation for Software Controlling Optical Transmission Equipment

If this manual discusses software, the software described is used to monitor and/or control ours and other vendors' electrical and optical equipment designed to transmit video, voice, or data signals. Certain safety precautions must be observed when operating equipment of this nature.

For equipment specific safety requirements, refer to the appropriate section of the equipment documentation.

For safe operation of this software, refer to the following warnings.

WARNING:

- **Ensure that all optical connections are complete or terminated before using this equipment to remotely control a laser device. An optical or laser device can pose a hazard to remotely located personnel when operated without their knowledge.**
- **Allow only personnel trained in laser safety to operate this software. Otherwise, injuries to personnel may occur.**
- **Restrict access of this software to authorized personnel only.**
- **Install this software in equipment that is located in a restricted access area.**

In This Document

Software Upgrade Procedure

Scope

Upgrading a Prisma II module (CCB3-based or equivalent) involves using a Windows application called the Prisma II Software Upgrade Program (SOUP) and an FTP server that contains the current entire Prisma II software release.

SOUP is a user-friendly application that allows users to perform software upgrades on Prisma II modules. The SOUP utility simplifies the software upgrade process by providing a graphical user interface (GUI) that requires little training and eliminates equipment downtime.

When connected to an ICIM2, the program shows the user the current versions of software on all modules and allows the user to download and activate new versions from system release files. The SOUP utility works with the ICIM2 to send the binary image files and appropriate commands to the modules to upgrade their software. As the modules are being upgraded, the SOUP utility displays relevant progress information for the user.

Applicability

This procedure specifically applies to upgrading bdr-I modules from 1.01.10 to 1.01.11 to fix the chassis ID recognition problem.

Reference Documents

- *Prisma II XD Platform System Guide, System Release 2.03*, part number 4025479
- Prisma II Software Upgrade Program (SOUP, V2.00)
- Cerberus or equivalent FTP Server software (if FTP server not available).

Equipment

- Computer with Prisma II Software Upgrade Program (SOUP V2.00) installed
- Access to an FTP server. Can be on same computer as above or a computer where an FTP server can be installed and accessed
- Prisma II ICIM (R013 or better) (optional)
- Prisma II ICIM2

Pre-Work Procedure

If the bdr-I modules to be upgraded are in a chassis ID ending with 0, 1, 6, 7, 8 or 9 (e.g., 01, 16, etc), then skip ahead to Procedure; otherwise, the following steps must be performed to make the bdr-I modules visible to the ICIM2.

Making the bdr-I Module Visible to ICIM2

There are several ways to make the bdr-I modules visible to the ICIM2.

1 Set the chassis ID to a value that the bdr-I modules work with (e.g., 11) and cycle power on the bdr-I module by removing or inserting the module.

Important: This will cause a temporary outage.

2 Daisy-chain a second chassis (with fan tray and power supply) to the first chassis and set its ID to the value the bdr-I module thinks it is (see table below). This will not cause an outage, but may not be workable depending on the customer's SMC layout.

Physically installed in chassis	**Thinks it is in chassis**
02, 12, 22, 32, …	04, 14, 24, 34, …
03, 13, 23, 33, …	05, 15, 25, 35, …
04, 14, 24, 34, …	02, 12, 22, 32, …
05, 15, 25, 35, …	03, 13, 23, 33, …

3 Set the ID bits to a legal unused value and use an ICIM (not ICIM2) to force the bdr-I modules to read the new ID settings. This will not cause an outage, but may impact the customer's SMC layout.

4 Install the ICIM (not ICIM2) in the domain. Only one ICIM type module can be installed in a domain at any given time.

5 Set the chassis ID switches to a legal value.

6 Send the **Update Address** command via the ICIM.

a. Press the **ICIM** button.

b. Press the **DOWN** button three times to highlight "Update Adr".

c. Press the **SEL** button (all module LEDs should blink). All modules will now be at the new chassis ID.

d. Remove the ICIM.

Upgrade Procedure

1. Verify that Prisma II chassis contains an ICIM2, and that the ICIM2's domain contains the modules to be updated.
2. Set up the RS-232 interface to the ICIM2.

   Note: this interface will be used to change and/or read settings such as IP address, gateway address, subnet mask, etc.
3. Open a Hyperterm session and set up a COM port as follows:
   - Baud: **9600**
   - No of data bits: **8**
   - Parity: **N**
   - Stop bits: **1**
   - Flow control: **None**
4. Connect an RS-232 cable from a COM port on the PC to the RS-232 port of the ICIM2.
5. Press **Enter** and verify a response from the ICIM2. If no response, cycle power on the ICIM2 and observe the Hyperterm display. The messages from the ICIM2 boot process should be visible.
6. Set up an FTP server. If an FTP server not available, refer to ***Setting Up FTP Server Software on Your Local Computer*** (on page 11) for information about installing and setting up an FTP server using Cerberus.
7. Add an account to the FTP server, specifying a username and a password.

   Note: An account without a password will not work.
8. Install SOUP. If SOUP is not present on PC, install it. For general information, refer to *Prisma II XD Platform System Guide, System Release 2.03*, part number 4025479. The revision being used in this procedure is 2.01.
9. Establish an IP connection with the ICIM2.

Obtain the ICIM2 IP address

1. Using the RS-232 interface and Hyperterm, log into the ICIM2 with a valid username and password.
2. Type **CLI** and press **Enter.**
3. Type **ICIM** and press **Enter.**
4. Type **SHOW IP** and press **Enter.** The ICIM2 IP address will be shown.

Pinging the ICIM2

1. From the PC containing SOUP, ping the ICIM2.
2. On the Windows desktop, select: **Start -> Run.**
3. Type **cmd** and press **Enter.**
4. Type **ping xxx.xxx.xxx.xxx** and press **Enter** where xxx.xxx.xxx.xxx is the IP address of the ICIM2.
5. If the response is "Reply from xxx.xxx.xxx.xxx …", then the connection is good.

   If the response is "Request timed out.", then the connection failed, and support from the IT group is needed.

Changing the IP Settings

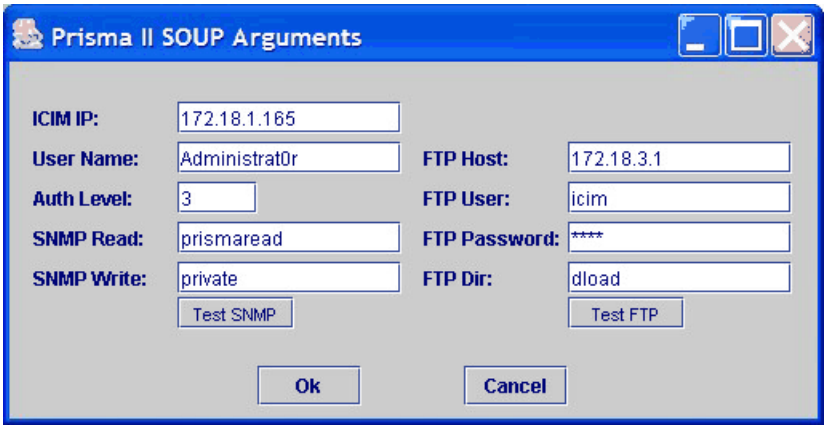
The IT group may need to change the IP settings on the ICIM2. The following are the commands most likely needed to do this.

1. Set IP xxx.xxx.xxx.xxx and press **Enter.** This will set the IP address of the ICIM2.
2. Set gateway xxx.xxx.xxx.254 and press **Enter.** This will set the gateway address of the ICIM2. It is usually the same as the IP address except for the last octet, which is usually 254.
3. Set subnet 255.255.255.0 and press **Enter.** This is the most common subnet mask used. IT should know if a different mask is needed.
4. Reboot the ICIM2 module by pulling it from the chassis far enough to remove power, re-install module, and wait for the boot process to complete.
5. Go back to ***Pinging the ICIM2*** to re-attempt to ping the ICIM2.

Downloading the New Firmware

1 Double-click **SOUPLauncher.**

Result: The following screen appears.



- ICIM IP: Enter the IP address of ICIM2 module.
- User Name: Enter the username of valid account on the ICIM2.
- Auth Level: **3**

Setting Up the SNMP Connection

1 Enter the appropriate SNMP read string. If it's unknown, enter "prismaread".

2 Enter the appropriate SNMP write string. If it's unknown, enter "prismawrite".

3 Verify IP connectivity and SNMP setup by clicking on "Test SNMP". If the message "SNMP Connection OK" is displayed, go to ***Setting Up the FTP Connection*** (on page 8).

4 Obtain the SNMP read and write string from the ICIM2.

a. Log into the ICIM2 using Hyperterm.

b. Type **CLI** and press **Enter.**

c. Type **ICIM** and press **Enter.**

d. Type **SHOW COMMREAD** and press **Enter.**

e. The SNMP read string should be displayed. Record it for later use.

f. Type **SHOW COMMWRITE** and press **Enter.**

g. The SNMP write string should be displayed. Record it for later use.

h. Re-attempt to set up the SNMP connection.

Setting Up the FTP Connection

1 Enter the IP address of the FTP server in the “FTP Host:” cell.

2 Enter the FTP User and FTP Password for the account set up earlier.

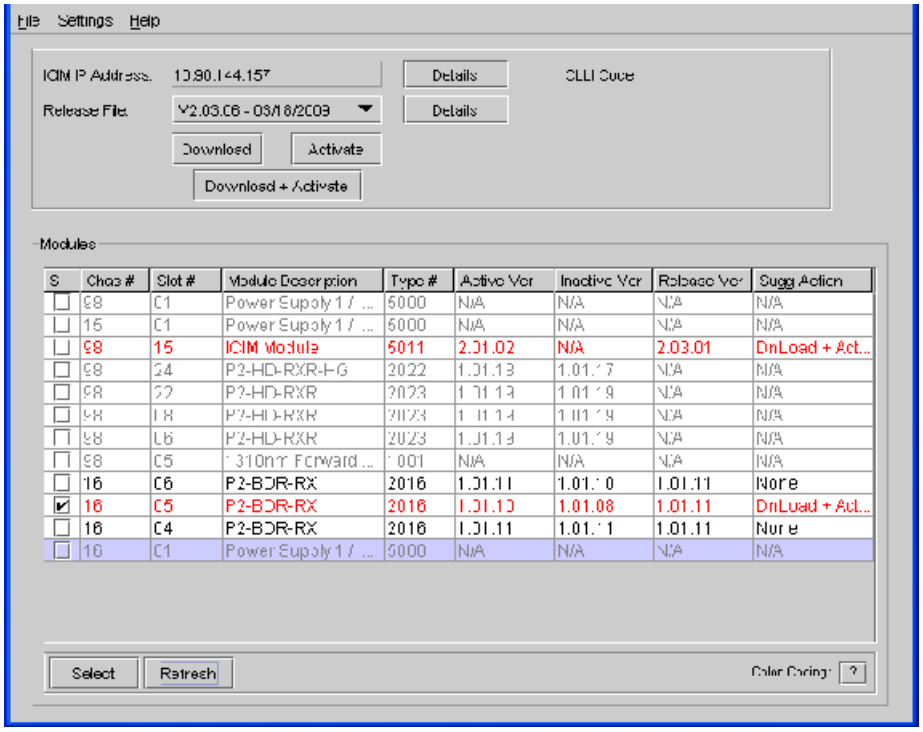
3 Enter the directory on the FTP server that contains the current Prisma II release files.

4 Verify the FTP connection by clicking on “Test FTP”. The message “FTP Connection OK” should be displayed. If not, then troubleshoot the FTP connection. The FTP server should be able to ping the ICIM2.

5 Click **OK.**

6 SOUP should display a list of the installed Prisma II modules.

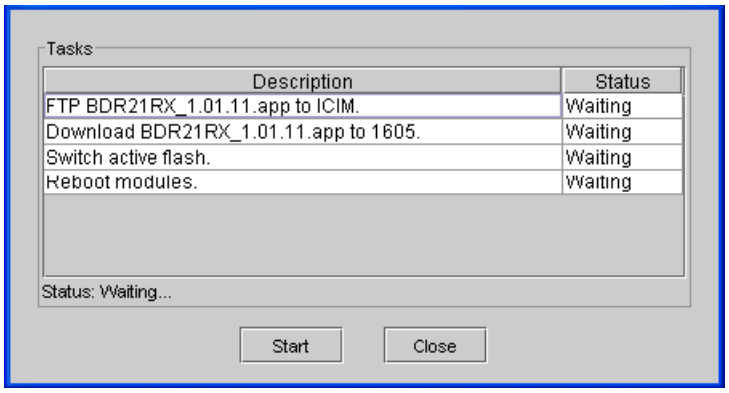
Result: The following screen or one similar appears.



7 SOUP should identify the modules in need of updating by placing a check in the box in the first column. If any modules are identified for updating that the operator does not wish to upgrade at this time, unselect these modules.

8 Click **Download + Activate.**

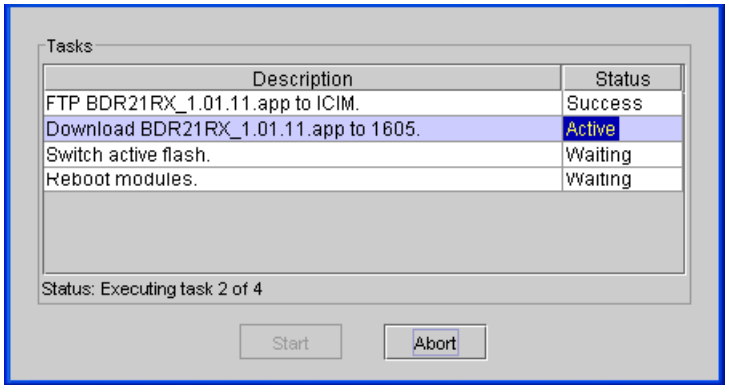
Result: The following screen or one similar appears.



9 Click **Start.**

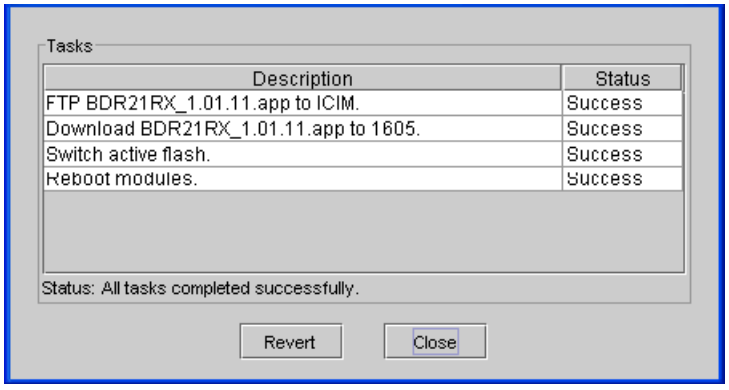
10 The new firmware should start downloading.

Result: The following screen or one similar appears.



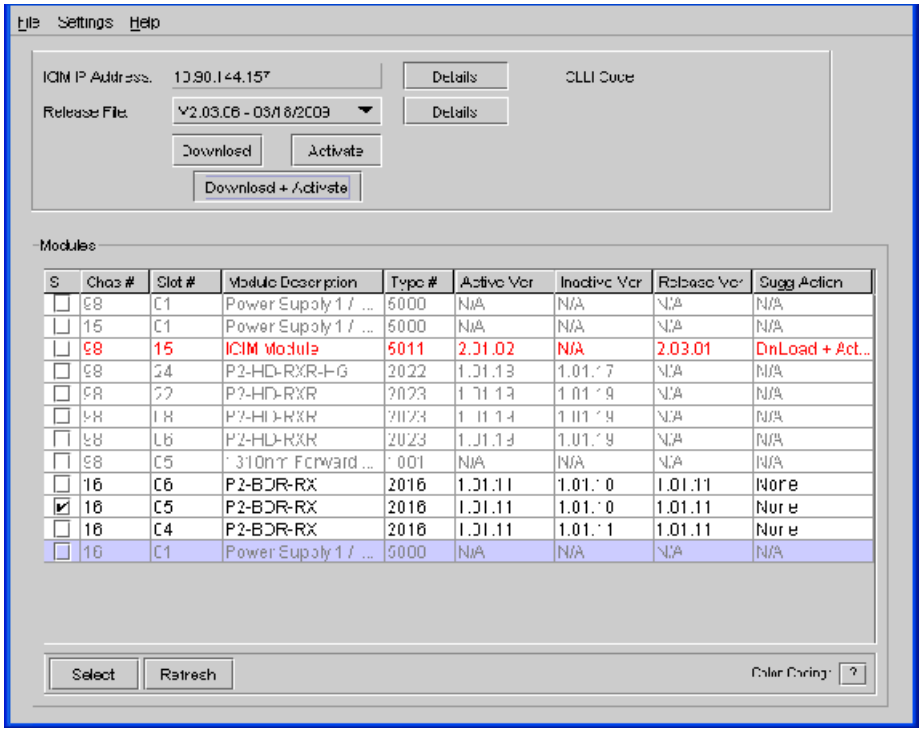
11 When the download(s) are finished, the firmware will be activated, and the module(s) will be rebooted.

Result: The following screen appears after successfully upgrading the modules.



12 Click **Close.**

Result: The following screen appears after the modules have been successfully upgraded, and should reflect the new versions of the firmware just downloaded.



Setting Up An FTP Server

You may prefer to store and serve the firmware upgrade files on the same local computer on which you run the Transport System firmware upgrade utility. This can be done by installing FTP server software on the local computer and making the firmware upgrade files available from there.

Setting Up FTP Server Software on Your Local Computer

FTP server software is available for download from various Internet sites. An Internet search on the term "FTP server" will yield many results. The software used in this example is Cerberus FTP Server software, which is available for download from the Cerberus web site at www.cerberusftp.com.

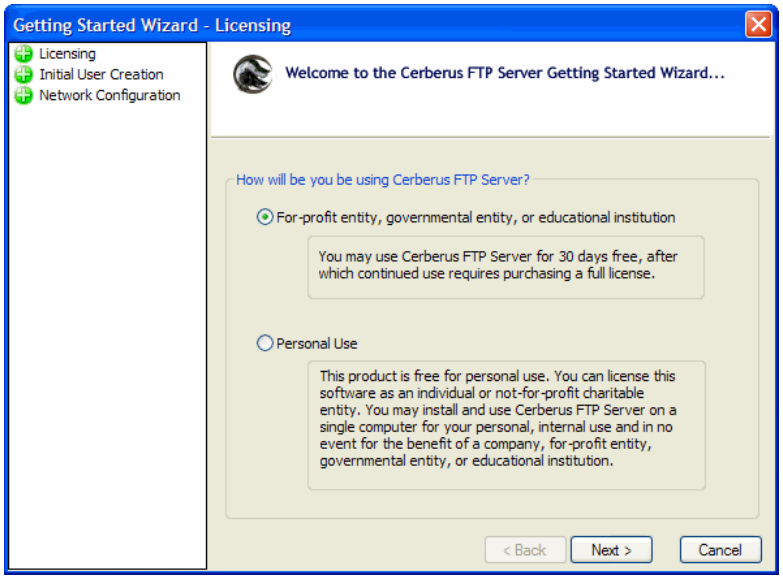
Disclaimer: Cerberus is used as an example only. The version you download may be different from the one shown below. This example is meant to be a general guideline for setting up a local FTP server. Use the FTP server software that you are familiar with. Consult your Information Technology department for support.

Complete the following steps to install and configure the Cerberus FTP Server software.

1 Download the Cerberus FTP Server software from **www.cerberusftp.com** and follow the installation instructions to install the software on your computer.

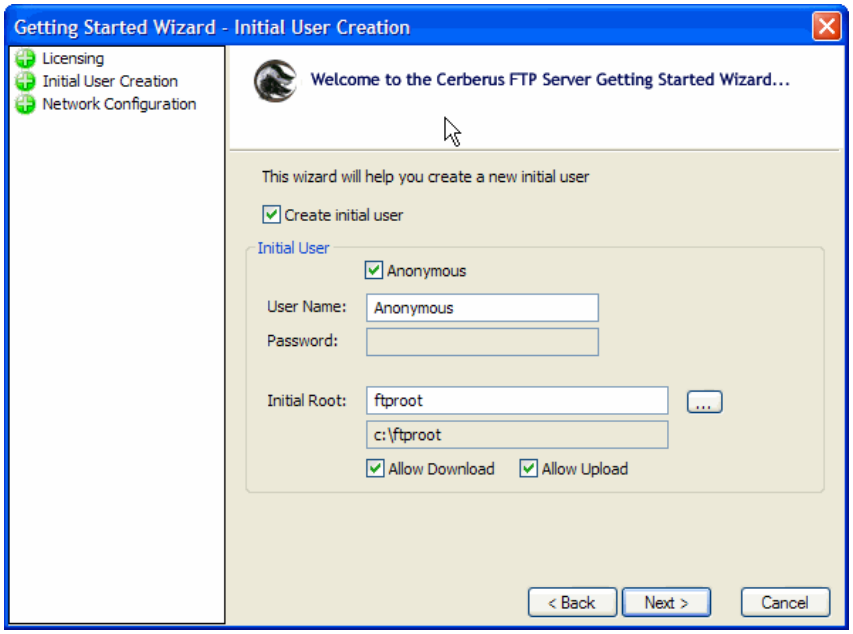
2 When installation is complete, start the Cerberus FTP Server program.

Result: The following Cerberus Getting Started Wizard – Licensing screen appears.



3 Select the appropriate use type and click **Next** to continue.

Result: The **User Creation** screen appears. When it appears, create a user with the settings shown below.

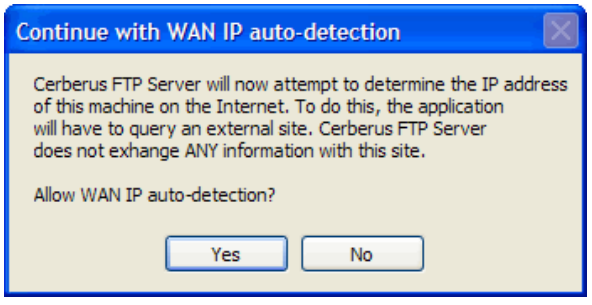


- Create initial user: Yes (box checked)
- Anonymous: Yes (box checked)
- User Name: **Anonymous** (this is the default)
- Password: (leave this field blank)
- Initial Root: **ftproot** (this is the default)
- Allow Download: Yes (box checked)
- Allow Upload: Yes (box checked).

Note: Uncheck this box if you do not want to allow uploads

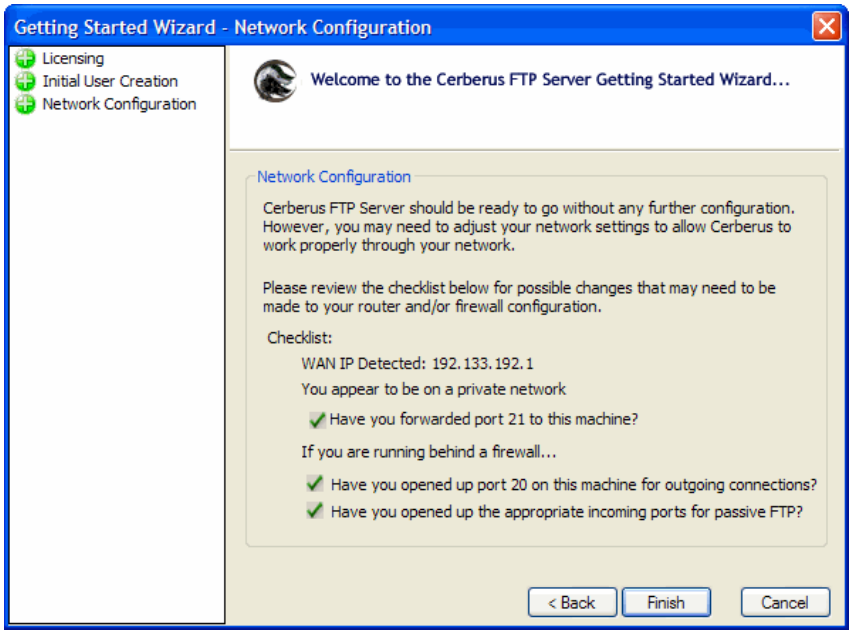
4 Click **Next** to continue with network configuration.

Result: The following WAN IP auto-detection warning message appears.



5 Click **Yes** to continue with WAN IP auto-detection.

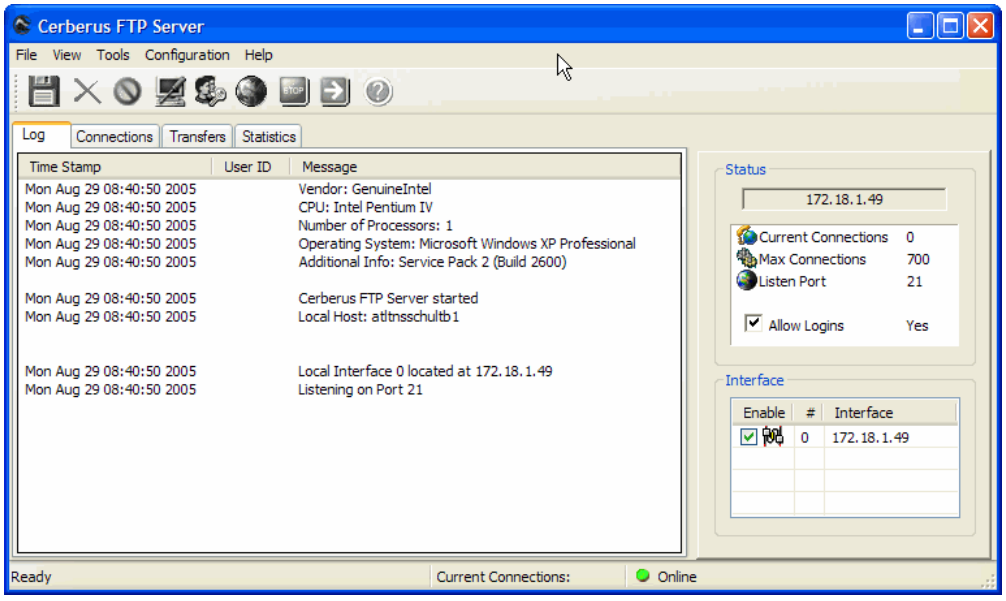
Result: When auto-detection completes, the Network Configuration window appears.



Review the checklist regarding router and firewall configuration requirements.

6 Click **Finish** to complete the user setup and network configuration.

Result: The Cerberus FTP Server main screen appears.



7 Click **File - Shutdown and Exit** to exit the Cerberus FTP Server program.

Result: The program closes.

8 Using Windows Explorer, examine the C drive, and check for the presence of a folder named "ftproot". If the ftproot folder exists, open it and check that it contains a sub-folder named "dload".

If these folders do not exist, create the following folder structure:

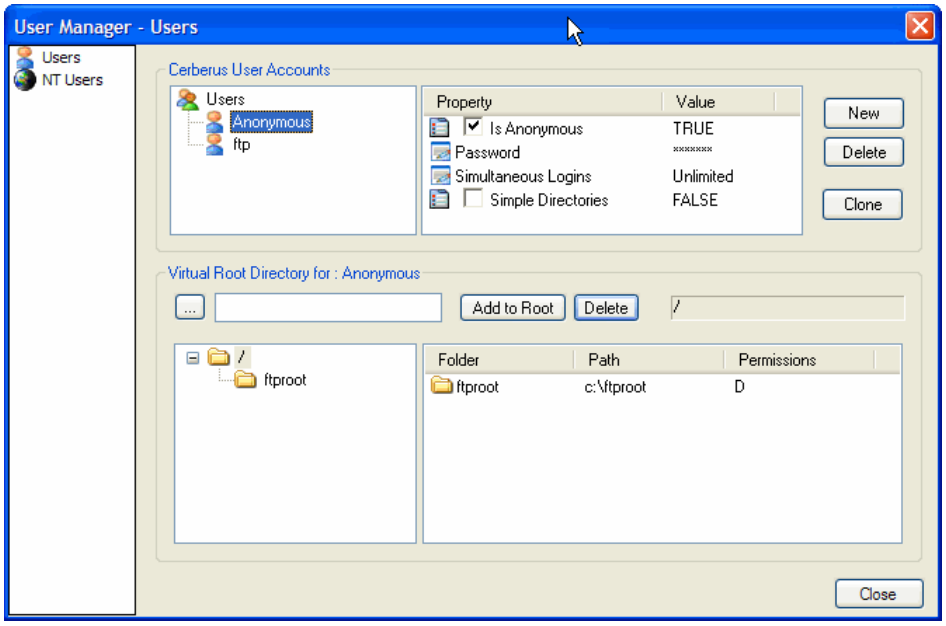
C:\ftproot\dload

9 Restart the Cerberus FTP Server program.

Result: The Cerberus FTP Server main screen appears.

10 Click **Configuration** from the main screen and then choose **User Manager**.

Result: The following screen appears (with user Anonymous selected).



Important: Make sure the **Simple Directories** check box is **un**checked.

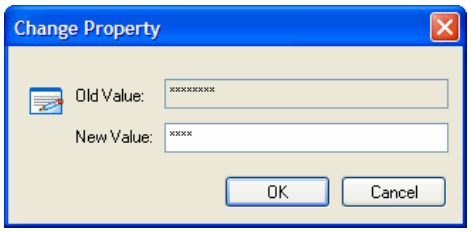
11 If the user "ftp" does not appear in the Cerberus User Accounts window as shown above, click the **New** button and create a new user named "**ftp**". If user "ftp" does appear, go to step 12.

12 Proceed as follows:

a. Select the user named "**ftp**" in the Cerberus User Accounts window.

b. Double-click **Password** in the Properties window.

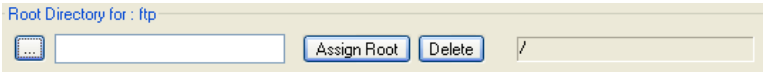
c. Enter the password "**@ftp**", and re-type it to confirm.



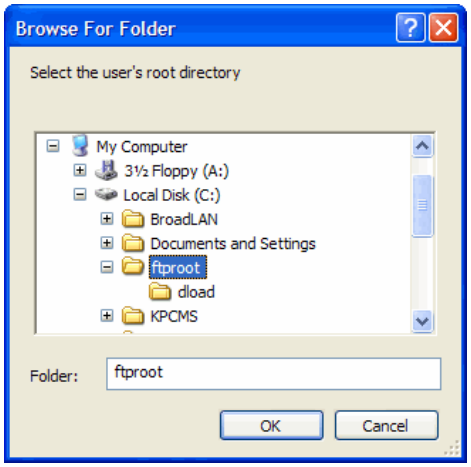
d. Click **OK**.

13 If the folder "ftproot" already exists in the folder list for the selected user, go to step 15. Otherwise, continue with this step.

a. Click the **browse** button  in the "Root Directory for:" dialog box.



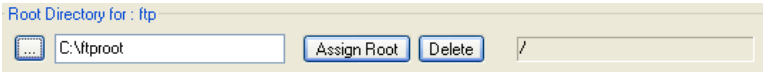
Result: The Browse for Folder window appears.



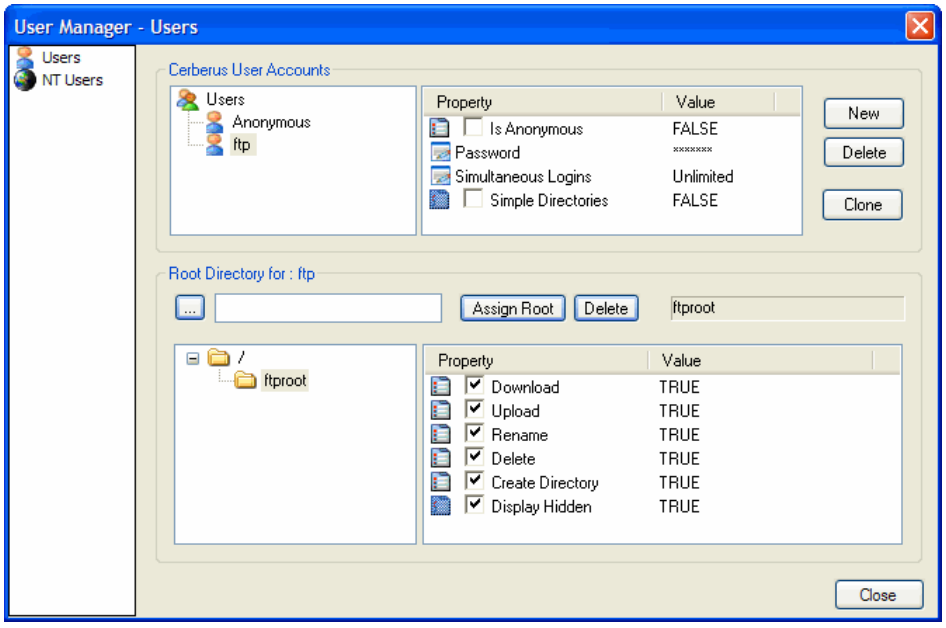
b. Browse to My Computer, then to Local Disk (C:), and then select the folder named **ftproot**.

c. Click **OK**.

14 Click the **Assign Root** button  in the "Root Directory for:" dialog box.



Result: The **ftproot** folder is added to the folder list as shown.

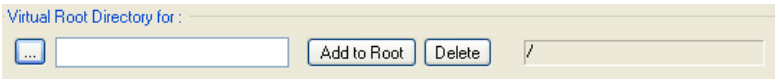


15 Select the new **ftproot** folder and then click all of the check boxes in the **Properties** window so that all of the values read **TRUE** as shown above.

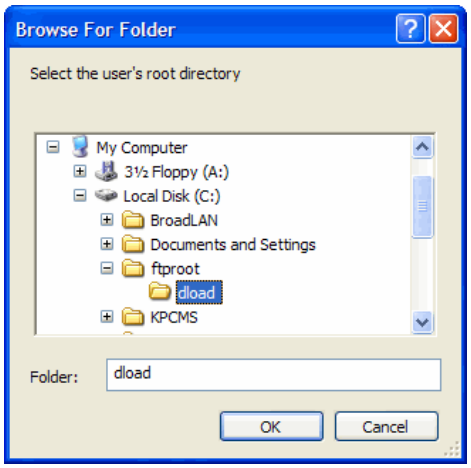
Result: The ftproot folder is added to the root for the current user.

16 Proceed as follows:

a. Click the **browse** button ... in the "Virtual Root Directory for:" dialog box.



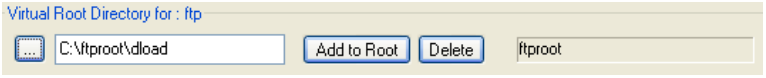
Result: The Browse for Folder window appears.



b. Browse to My Computer, then to Local Disk (C:), then to ftproot, and then select the folder named **dload**.

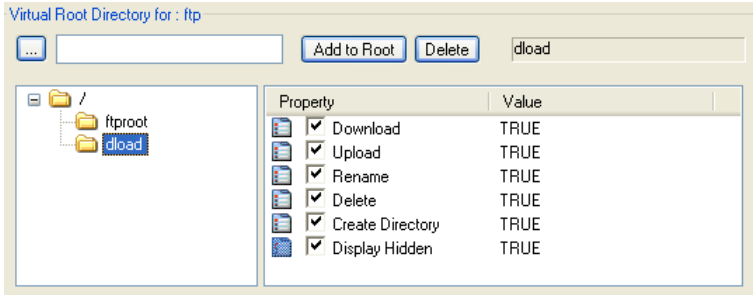
c. Click **OK**.

17 Click the **Add to Root** button Add to Root in the "Virtual Root Directory for:" dialog box.



Result: The **dload** folder is added to the folder list.

18 Select the new **dload** folder and then click all of the check boxes in the **Properties** window so that all of the values read **TRUE**.



Result: The dload folder is added to the root for the current user.

19 Select the user named "**Anonymous**" in the Cerberus User Accounts window.

Important: Make sure that the **Is Anonymous** checkbox in the Properties window is checked.

20 Repeat steps 13 through 18 to add the two folders to the root for user "Anonymous", and click **Close**.

Result: The ftproot and dload folders are added to the root for user "Anonymous".

21 Copy the Transport System firmware upgrade files into the upgrade folder on your local computer's hard drive. (In this example, the "C:\ftproot\dload" folder.)

For Information

Support Telephone Numbers

If you have technical questions, call Cisco Services for assistance. Follow the menu options to speak with a service engineer.

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