

IP Addresses and Firmware Downloads for the CDU

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Purpose

This technical note provides instructions for setting IP addresses and downloading firmware versions.

Connectivity Tools

The following connectivity tools allow a connection to the CDU for configuring basic network functions.

Software: Putty or Any Terminal Emulator and TYPSoft FTP Server

- Running TYPSoft FTP Server on your PC enables your PC to act as an FTP Server whereas the CDU is the FTP Client.

Hardware: USB to Serial Connection to PC

- (serial:#CAB-1205)
- (Servertech DB9 – RJ12 adapter number #ADP-0019)

Network Connection Cable

- Download TYPSoft FTP Server and install:
<ftp://ftp.servertech.com/pub/firmware/Sentry3/TYPSoft>
- Default IP address of the CDU is: 192.168.1.254

Connecting by USB to Serial

Serial RS-232/Terminal Login (HyperTerminal)

This method might be the easiest way for initial configuration of the Sentry CDUs, but it requires a PC with a standard DB9-Male-DTE serial port.

Many desktop and laptop PCs are no longer equipped with built-in serial ports like this and will require a USB-to-serial converter cable.

The following instructions assume you are already familiar with using a serial connection and generic ANSI/VT100 terminal application, such as HyperTerminal, Tera Term, PuTTY, etc., to communicate to the serial/console interface of various devices.

Use the black DB9-Female adapter (part #ADP-0019) and the silver-satin RJ45-8P8C-rolled Telco-type patch cable (part #CAB-1205) that were included with the CDU to connect the PC's DB9-Male serial port to the CDU's RJ45-jack serial port labeled "SER".

Configure your choice of terminal application to use the PC's serial COM port, with the following settings:

Baud rate: 9600

Parity: None

Data Bits: 8

Stop Bits: 1

Flow control: None



Note: You can set the IP address of the CDU manually or through a DHCP Server. The following two pages explain both solutions.

Static IP Assignment Through CLI

Enable the terminal connection then press **Enter** to send a carriage-return that starts the session. The CDU will respond with something similar to:

Sentry CDU version 7.0x

Username: Enter "admn" and press **Enter** to receive the following:

Password: Enter "admn" again and press **Enter** to receive the following:

Switched CDU:

At the CDU prompt, enter the following commands to configure the CDU with network IPv4 address values:

1. **set dhcp disabled <Enter>**
2. **set ipaddress xxx.xxx.xxx.xxx <Enter>** ... where "xxx.xxx.xxx.xxx" is the static IP address to assign to the CDU.
3. **set subnet yyy.yyy.yyy.yyy <Enter>** ...where "yyy.yyy.yyy.yyy" is the subnet mask to assign to the CDU.
4. **set gateway zzz.zzz.zzz.zzz <Enter>** ... where "zzz.zzz.zzz.zzz" is the subnet mask to assign to the CDU.
5. **set dns1 ddd.ddd.ddd.ddd**
6. **restart <Enter>** Attach the Ethernet cable for the network to the CDU and wait approximately 90 seconds for the CDU's OS to perform a soft restart and initialize on the network. The CDU will then be reachable remotely via network IP connection using HTTP/web.

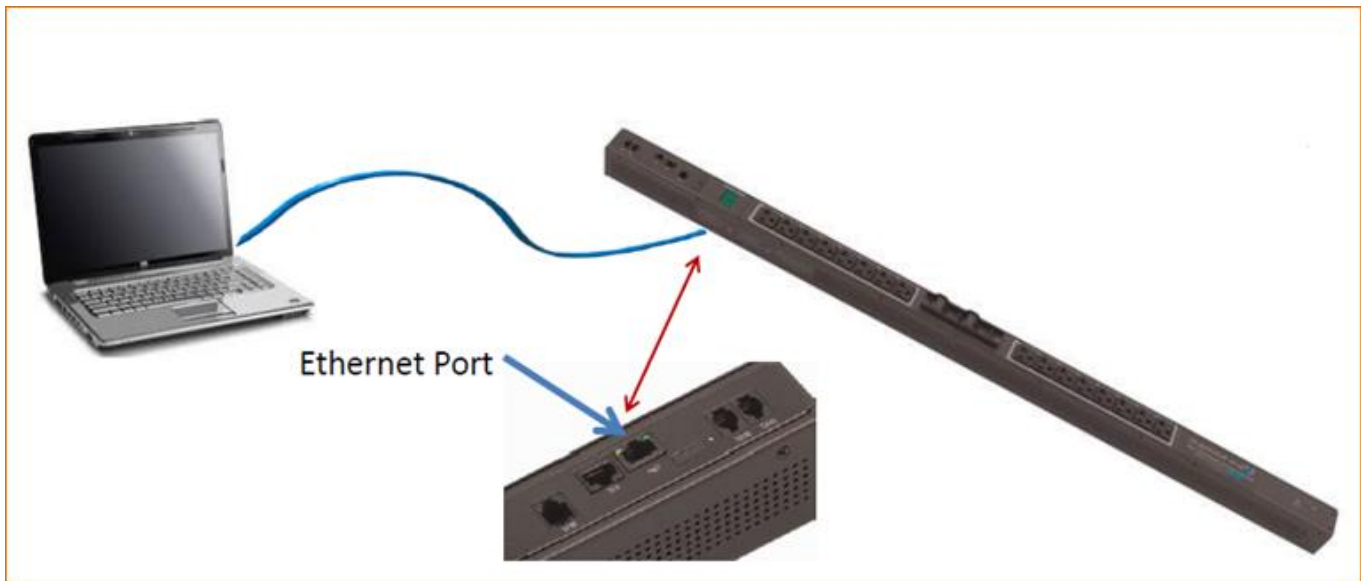


Note: Unless DHCP is going to be used, it is recommended that a network cable connection not be attached to the CDU when it is initially powered up. Otherwise, the CDU may receive network address assignments from a DHCP server that could be unknown, and a local serial/terminal login will then be needed to identify the assigned values.

Connecting by Ethernet

If using a laptop for connecting to the CDU, set your laptop to the settings provided, then reboot your laptop. Use Tera Term or Putty to connect through telnet/ssh or connect through your web browser.

Laptop IP Settings	Default CDU IP Settings
IP: 192.168.1.250	IP: 192.168.1.254
Mask: 255.255.255.0	Mask: 255.255.255.0
Gateway: <blank>	Gateway: <blank>



The default administrative user login is:

Username = **adm**n

Password = **adm**n

Note there is no "i" in admn.

Static IP Assignment Through GUI

Server Technology

Sentry Switched CDU *POPS+PIPS*

Configuration - Network

Network

Configure network settings

Network: IPv4 only

State: Static IPv4

Link: Up

Speed: 100 Mbps

Duplex: Full

Negotiation: Auto

Autocfg IPv6 Address: FE80::20A:9CFF:FE53:FB5/64

IPv4 Address: 10.1.2.146

IPv4 Subnet Mask: 255.255.0.0

IPv4 Gateway: 10.1.1.1

Primary DNS: 10.1.5.133

Secondary DNS: 10.1.5.134

Configure static IPv4/IPv6 settings

IPv6 Address: ::

IPv6 Gateway: ::

IPv4 Address: 10.1.2.146

IPv4 Subnet Mask: 255.255.0.0

IPv4 Gateway: 10.1.1.1

Primary DNS: 10.1.5.133

Secondary DNS: 10.1.5.134

Apply Cancel

Set your Network to IPv4 if not using IP6

Enter in your IPv4 settings here and select Apply at the bottom of the screen once complete

Once logged into the CDU GUI interface, click on Configuration then Network

DHCP IP Assignment

1. Using Putty or another type of Telnet/SSH client, connect to the device serial and login:

Username: admn

Password: admn

2. Enter the command **show network** to view current device settings including the current IP address.
3. Connect the network cable.
4. Once the network cable has been connected, issue the command **restart** to restart the device for the DHCP server to assign the network IP address.
5. Enter the command **show network** to view the new network assigned IP address.
6. Using a web browser, log into the device using the newly assigned IP address.

Downloading CDU Firmware from the Website

1. From your root C:\ drive, create a folder named **temp**.

C:\TEMP

2. Obtain the desired firmware version by going to:

<http://www.servertech.com/support>

3. Click the **Download Latest Firmware** button as shown:

Data center power management products and solutions

Server Technology's experts produce the highest quality rackmount power distribution and monitoring solutions that help manage power capacity, reduce downtime and improve energy efficiency. Our extensive selection of Sentry PDUs is 100% performance tested for reliability and accuracy and is adaptable, enabling quick delivery of solutions that meet customer-specific requirements.



Or From the Support and Downloads page...



- 4. Select the CDU Firmware Download link

Support & Downloads



- 5. Select the desired folder based on the model you have:

CDU Firmware Downloads



Please select the firmware you are interested in above.

In this example, CDU switched firmware is being shown

Switched CDU and PRO2 Firmware Downloads

The screenshot shows two columns of download options. The left column is for 'swcdcu-v70x.bin' and the right column is for 'pro2-v80x.bin'. Each column has a main orange 'Download - BIN' button, followed by five blue buttons: 'ZIP - Bin & History', 'Version History', 'Dictionary', 'Can I Upgrade My CDU?', and 'Upgrade Instructions'. A 'PRO2' logo is visible above the right column. At the bottom, there is a blue button labeled 'TYPSoft FTP Server'.

- 6. Once downloaded, move this file to the C:\TEMP folder you created earlier.

Upgrading Firmware in the CDU Using FTP

1. Configure the screen to be as displayed below with the exception of typing in your IP address for "Host".



Note: The IP Address is the box the firmware bin file was placed in C:\TEMP

The screenshot shows the 'Sentry Switched CDU' configuration interface. On the left is a navigation menu with categories like System, Outlet Control, Power Monitoring, Environmental Monitoring, Smart Load Shedding, Configuration, UPS, Outlets, Shutdown, Groups, Users, and FTP. The main area is titled 'Configuration - FTP' and contains three sections: 'Configure FTP client options' with fields for Host (10.1.8.255), Username (Anonymous), Password, Directory, and Filename (swcdv-v70p.bin); 'Configure FTP automatic update options' with dropdowns for Automatic Updates (Disabled), Scheduled Day (Everyday), and Scheduled Hour (12 AM); and 'Configure FTP server options' with an FTP Server dropdown set to Enabled. Each section has 'Apply' and 'Cancel' buttons, and the client options section has a 'Test' button.

2. Click **Apply**, then click **Test**. It should take about 10-20 seconds for the test to come back as "Test Passed – update available".
3. If the test passed, go to the **Tools > Restart** page, use the drop-down arrow, select "Restart and download firmware via FTP", and click **Apply**.

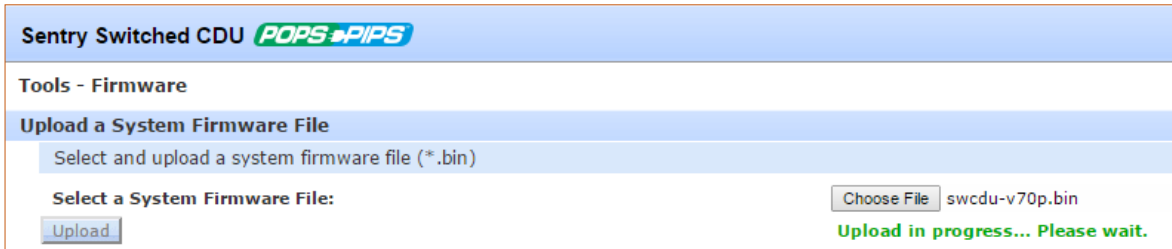
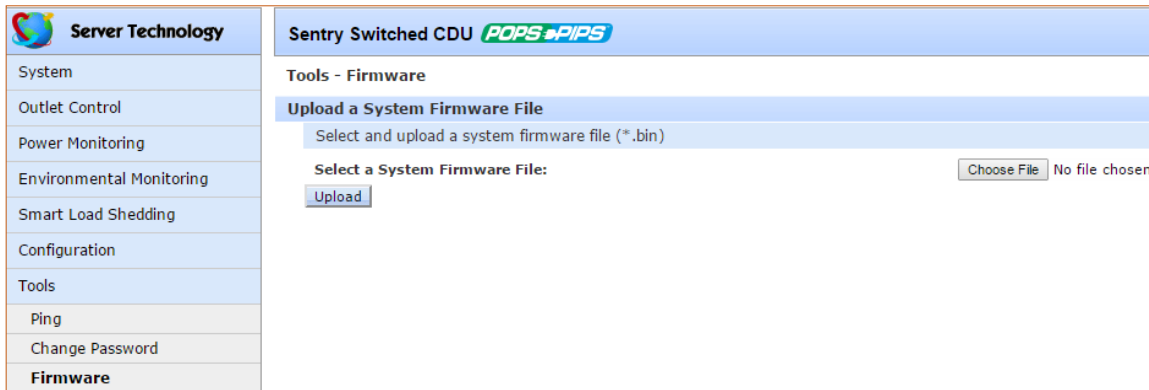
The screenshot shows the 'Tools - Restart' page. It has a 'Restart' section with the text 'Initiate a system restart' and 'Action:' followed by 'Apply' and 'Cancel' buttons. A dropdown menu is set to 'Restart and download firmware via FTP'. Three numbered callouts are present: '1' points to the dropdown menu, '2' points to the 'Apply' button, and '3' points to the 'Restart and download firmware via FTP' option in the dropdown.

Upgrading CDU Firmware



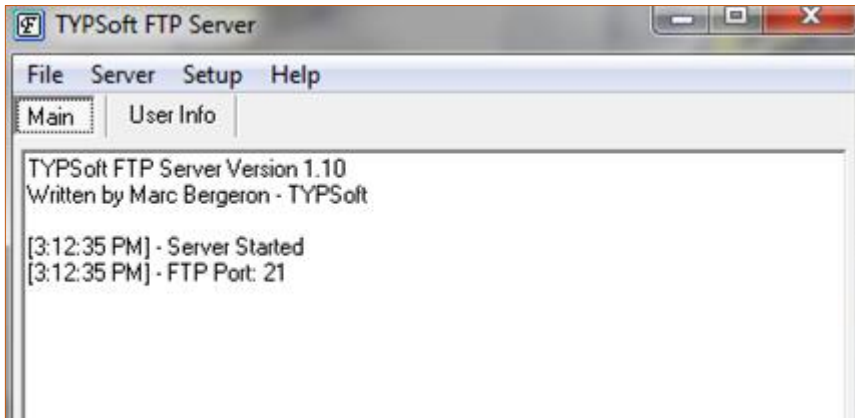
Note: The following instructions are for uploading firmware only if the PDU is already running firmware version 7.0m or later.

1. Choose the desired upgrade file by clicking **Choose File**.
2. To upgrade your CDU, click **Upload**. This will restart the CDU's Management Module but will not interrupt the power the CDU is providing.

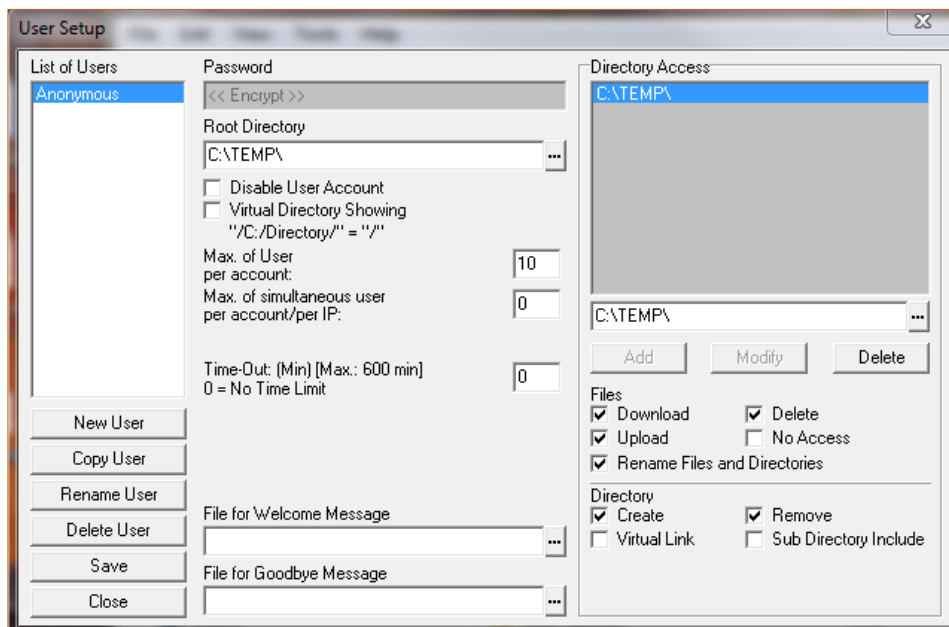


TYPSoft FTP Server Settings

The following instructions show how to work with the TYPSoft FTP windows:



1. To access the next slide, click **Setup** and then click **Users**.
2. In the List of Users in the left-pane, click Anonymous to highlight the option, and make a change by increasing the "Max. of User per account:" value from 0 to 10, as follows:



3. To return to the original TYPSoft window, click **Save**.

 **Note:** If preferred, the User Setup window can remain displayed as shown above.

Notes

To discover the IP Address of the host box where you placed the bin file, perform the following:

1. Click the Start menu and open a command prompt



2. From the DOS prompt, enter >ipconfig/all

3. Search for:

```
IPv4 Address. . . . . : 10.1.8.205<Preferred>
```

4. Use this number for your host address.

If you would like assistance with any of the instructions in this technical note, contact Server Technology's Technical Support department as follows:



Experience Server Technology's FREE SMARTER Technical Support

Server Technology understands that there are often questions when installing and/or using a new product. Free Technical Support is provided from 8 a.m. to 5 p.m. PST, Monday through Friday. After-hours service is provided to ensure your requests are handled quickly no matter what time zone or country you are located in.

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