PowerPanel® Business Edition Installation Guide

For

Power Distribution Unit

Rev. 6

2011/10/04

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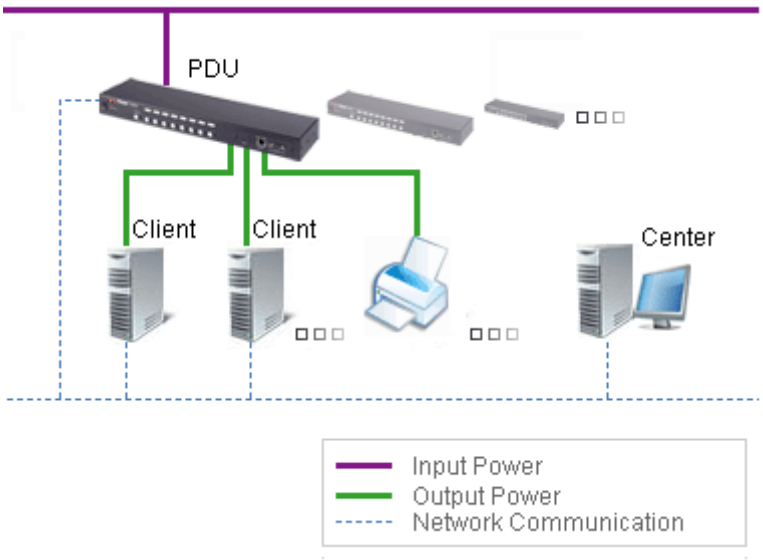
Introduction

A **Power Distribution Unit** (PDU) provides power output controls for individual outlets to your connected equipment. The PDU can establish communication with PowerPanel® Business Edition Center via the network. It can relay its state to Center and accepts commands to turn off or turn on the outlets. When the PDU turns off an outlet, any connected computers running PowerPanel Business Edition Client are shut down in an orderly fashion, preventing data loss or a system crash due to an immediate power loss. Refer to the illustration below.



PowerPanel® Business Edition Center allows the administrator to simultaneously monitor the status and events from multiple PDUs. Center establishes communication with multiple PDUs via the network and sends commands to each PDU to turn off or turn on the outlets. The powered computers which have installed the Client will initiate shutdown sequences prior to turning off outlets.

PowerPanel Business Edition software can be installed on various platforms including Windows, Linux, Citrix XenServer and VMware ESX/ESXi. Following sections describe conditions specific to these platforms individually.

Hardware Installation

Before installing PowerPanel Business Edition software, make sure that the following hardware installations are configured properly:

- Verify the computer's power is connected to the PDU outlet properly.
- Verify the computer's network is connected.
- Verify the PDU's network is connected.

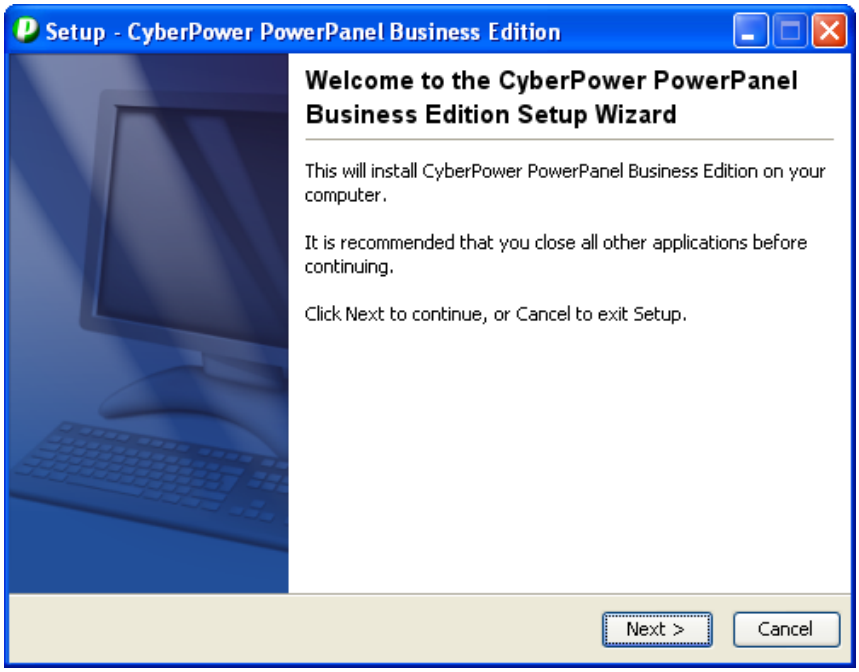
Please refer to the **Power Distribution Unit User's Manual** for a proper hardware installation.

Install PowerPanel® Business Edition Software

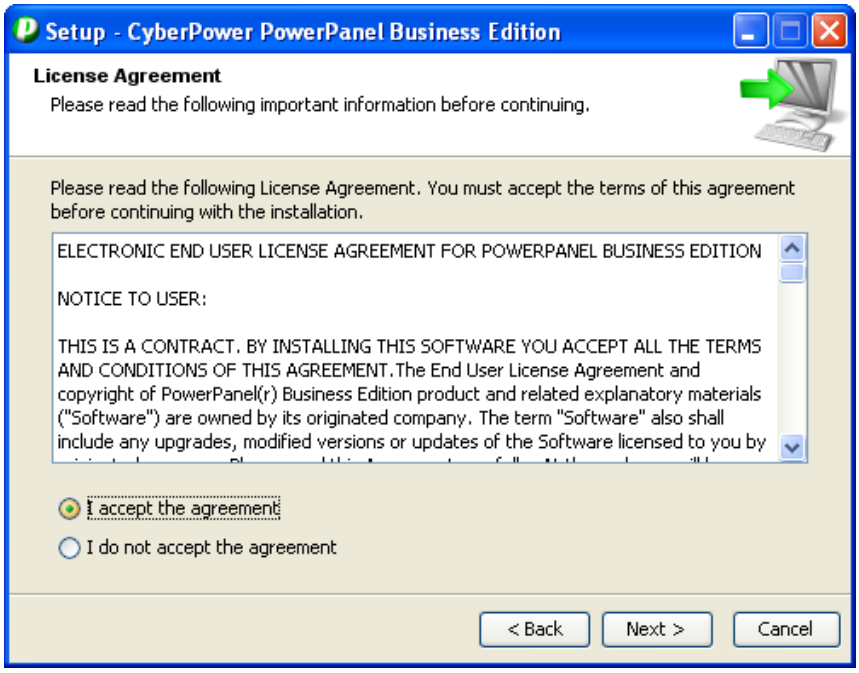
Installation on Windows

A popup page will be displayed automatically when inserting the PowerPanel® Business Edition installation CD. Users can click the **Install PowerPanel Business Edition software** shortcut on the popup page to initiate the installation procedure. If the popup page is not displayed when inserting the CD, browse to the CD drive and open the folder which locates at **/Software/Windows**, and then double click the file named **Setup.exe** to start the installation procedure. To install follow these steps:

- Click the **Next** button to start an installation.

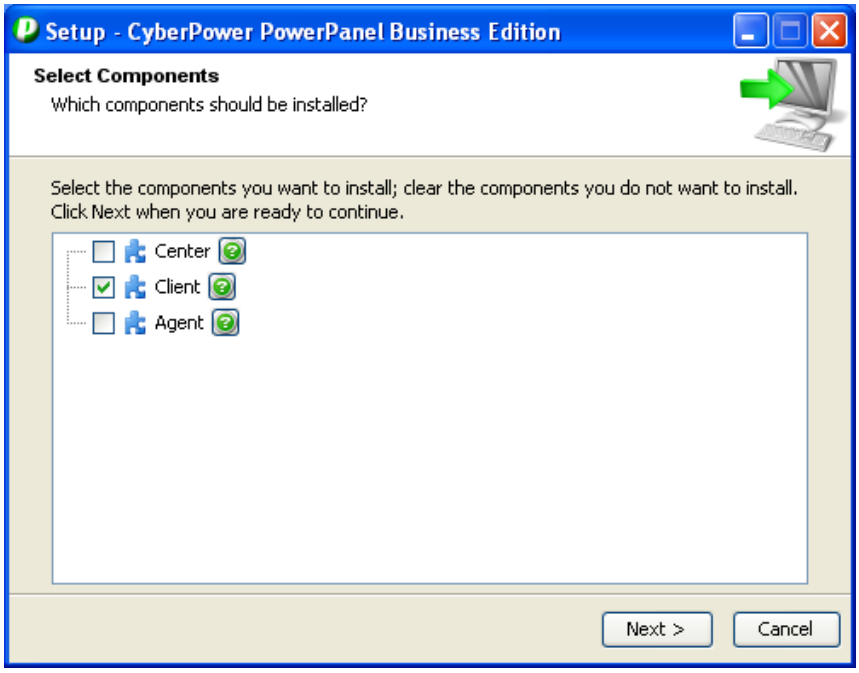


- Accept the license agreement.

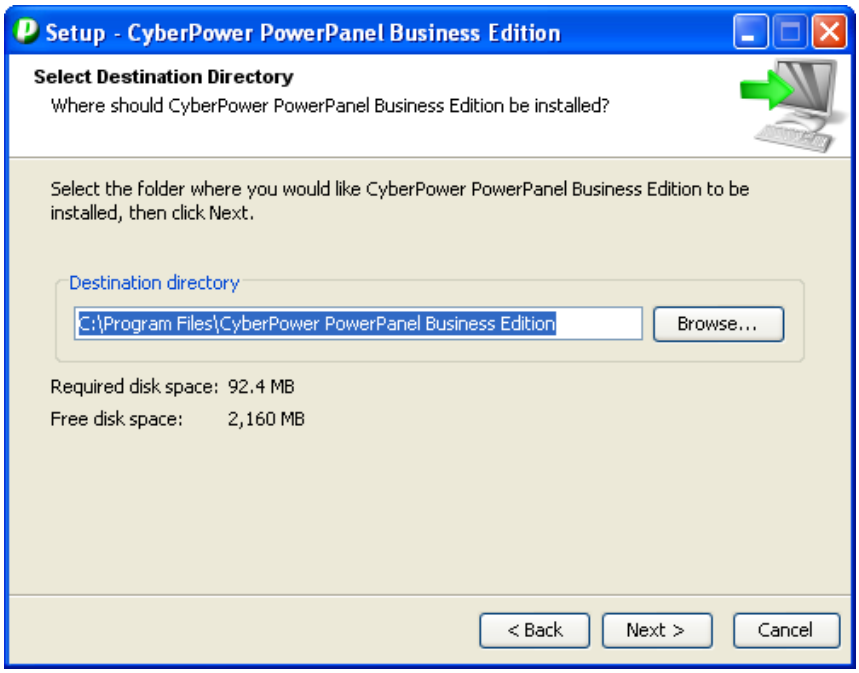


- **Choose the component.** In order to monitor multiple PDUs, Center should be installed. In order to monitor on a single computer powered by the PDU, Client should be installed.

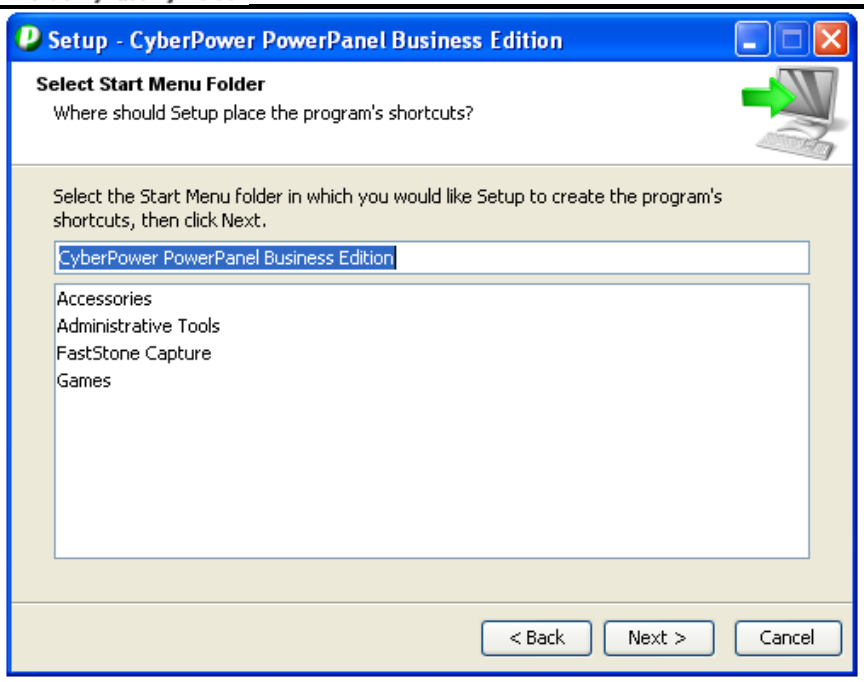
  Note: *Agent should not be selected because of ability to access to UPS instead of PDU.*



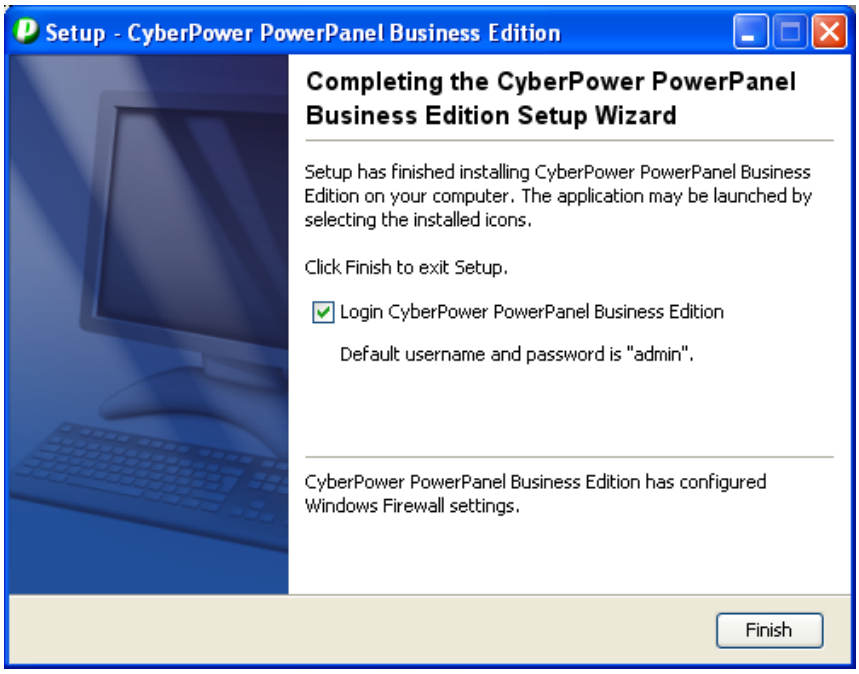
- Choose the destination directory.



- Choose the start menu folder.



- Click the **Finish** button to complete the installation.



Installation on Linux

The installer requires root permission to install the Client. The installation wizard will guide users to complete the installation. Initiate an installation wizard by running the **./ppbe210-linux-x86.sh** command or double clicking **ppbe210-linux-x86.sh** from the desktop on 32-bit systems. Initiate an installation wizard by running the **/.ppbe210-linux-x64.sh** command or double clicking **ppbe210-linux-x64.sh** from desktop on 64-bit systems.

Note: *On Linux systems, users may mount the CD by use the mount command. Execute* ***mount –t iso9660 /dev/cdrom /mnt/cdrom*** *as a root user. /dev/cdrom is the CD drive and /mnt/cdrom will be the mount point.*

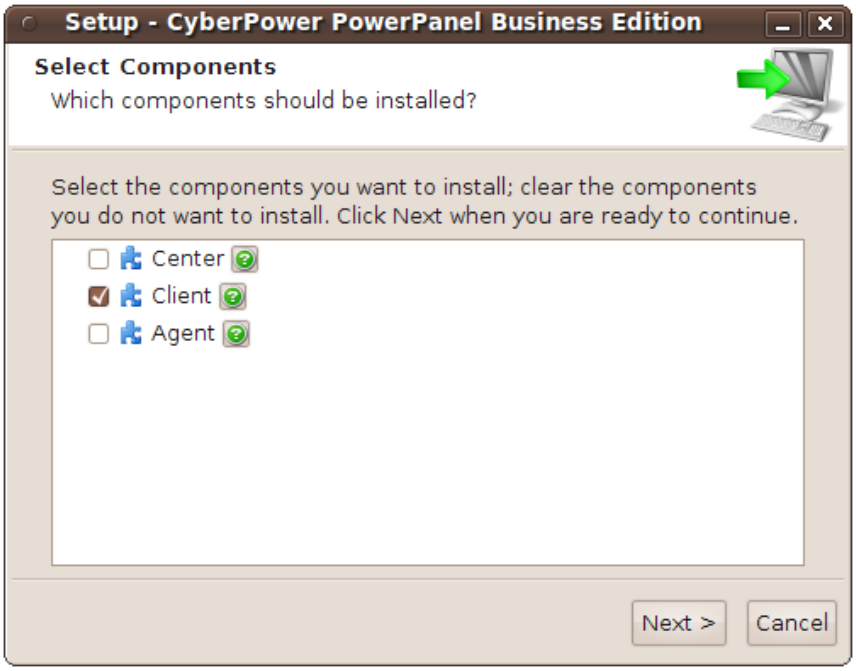
To install follow these steps:

- Click the **Next** button to start an installation.

- Accept the license agreement.

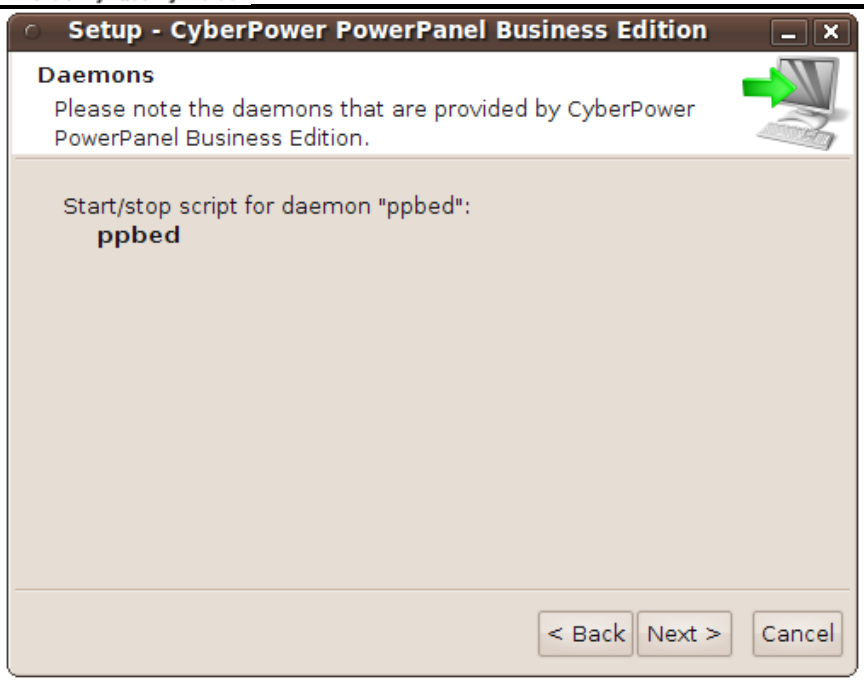
- **Choose the component.** In order to simultaneous monitor multiple PDU, the Center should be installed. If one single computer which is powered by the PDU requiring protection, the Client should be installed.

  ***Note: Agent** should not be selected because of ability to access to UPS instead of PDU.*



- Choose the destination directory.

- The daemon **ppbed** will start during installation.



- Click the **Finish** button to complete the installation**.**

Note: *If the Linux installation needs to be initiated in the terminal, use the* ***./ppbe210-linux-x86.sh –c*** *on 32-bit systems or use the* ***./ppbe210-linux-x86_64.sh -c*** *command on 64-bit systems. Detailed installation steps are described in the* ***Installation on Citrix XenServer and VMware ESX/ESXi*** *section.*

Installation on Citrix XenServer and VMware ESX/ESXi

The installer is used to install the Client and requires root permission. The installation wizard will guide users to complete the installation. Browse to the CD drive and find the installer in the /**Software/Linux** folder. Initiate an installation procedure by running the **./ppbe210-linux-x86.sh** command on Citrix XenServer or running **./ppbe210-linux-x86_64.sh** command on VMware ESX/ESXi.

Installation for **ESX** server must be launched on the **Service Console** (aka **Console Operation System**); installation for **ESXi** server must be launched on the **vMA** (**vSphere Management Assistant**) installed on the VMware ESXi host computer.

Note: *On ESX/ESXi, users may mount the CD by using the mount command. Run* ***mount –t iso9660 /dev/cdrom /mnt/cdrom*** *as a root user. /dev/cdrom is the CD drive and /mnt/cdrom will be the mount point.*

Note: *On VMware ESXi, users can also upload the installer to vMA by using* ***vSphere Client*** *tool. Visit VMware website to download vSphere Client tool and refer to FAQ chapter of PowerPanel Business Edition User's Manual to know how to upload installer by using* ***vSphere Client*** *tool.*

Note: *On VMware ESXi, users can deploy vMA by using a file or from an URL. Visit VMware website for vSphere Management Assistant Guide document about vMA deployment on VMware ESXi.*

The installation procedure will be initiated as following steps:

- Press **Enter** to start an installation.

```
Starting Installer ...
This will install CyberPower PowerPanel Business Edition on your computer.
OK [o, Enter], Cancel [c]
```

- **Accept the license agreement.**

```
YOUR ACCEPTANCE OF THE FOREGOING AGREEMENT WAS INDICATED DURING
INSTALLATION.

I accept the agreement
Yes [1], No [2]
```

- **Choose the component.** In order to simultaneous monitor multiple PDU, Center should be installed. If one single computer which is powered by the PDU requiring protection, Client should be installed.
  Note: Agent *should be not selected because of ability to access to UPS instead of PDU.*

```
Which components should be installed?
1: Center
2: Client
3: Agent
Please enter a comma-separated list of the selected values or [Enter] for the de
fault selection:
```

- **Choose the destination location.**

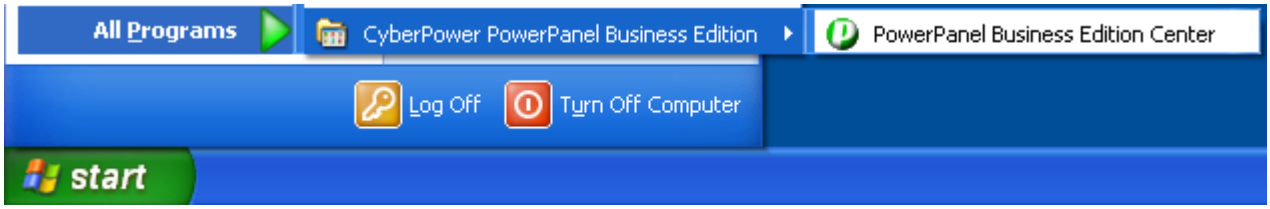
```
Where should CyberPower PowerPanel Business Edition be installed?
[/usr/local/ppbe]
```

- Installation procedure starts and once finished. It will end automatically.

```
Please wait for CyberPower PowerPanel Business Edition configuring
Default username and password is "admin".
CyberPower PowerPanel Business Edition may not do hibernation.
Finishing installation...
```

Access PowerPanel® Business Edition Software Interface

To access the PowerPanel® Business Edition interface in Windows, go to **Start > All Programs > CyberPower PowerPanel Business Edition > PowerPanel Business Edition Center** (or **PowerPanel Business Edition Client**) which will take you to the login page.



On Linux, users can also enter the URL as **http://127.0.0.1:3052/** in the address of the web browser to access to the interface. Users can also enter the URL, **http://hosted_computer_ip_address:3052/** in the address of the web browser to access the interface from a remote computer. **hosted_computer_ip_address** is the IP address of the computer which has the PowerPanel® Business Edition installed. For vMA on the ESX or ESXi, **hosted_computer_ip_address** is the IP address of the vMA (**Note**: **hosted_computer_ip_address** is the IP address of the host computer on ESX.)

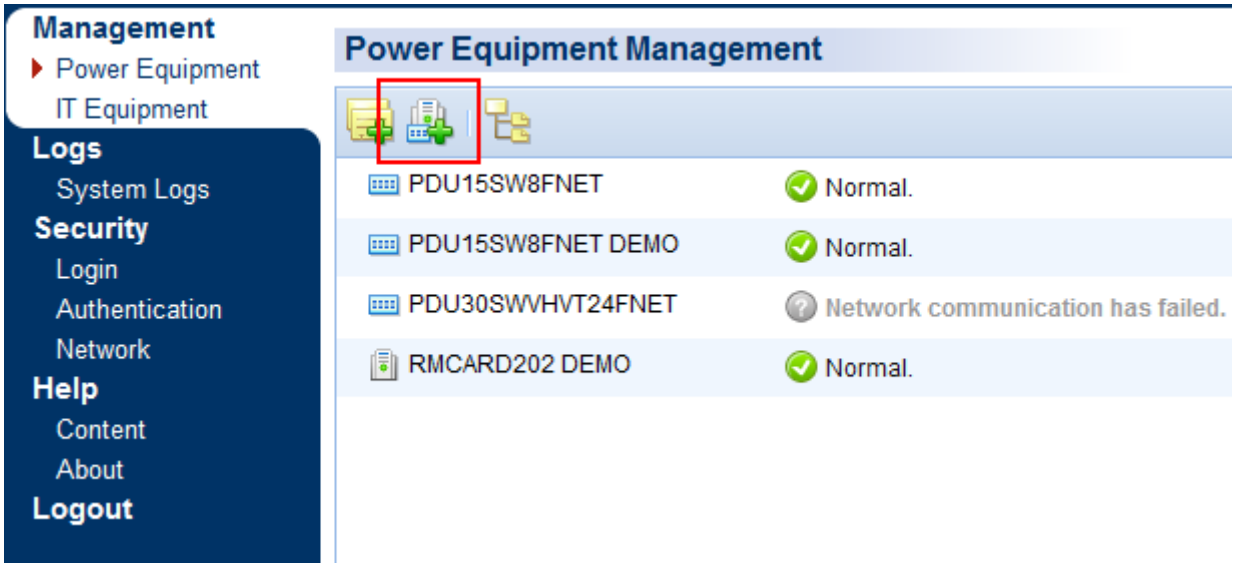
The default username is **admin** and default password is **admin.** For security purposes, it is recommended you change the login username and password after the initial login.

Manage PDUs in Center

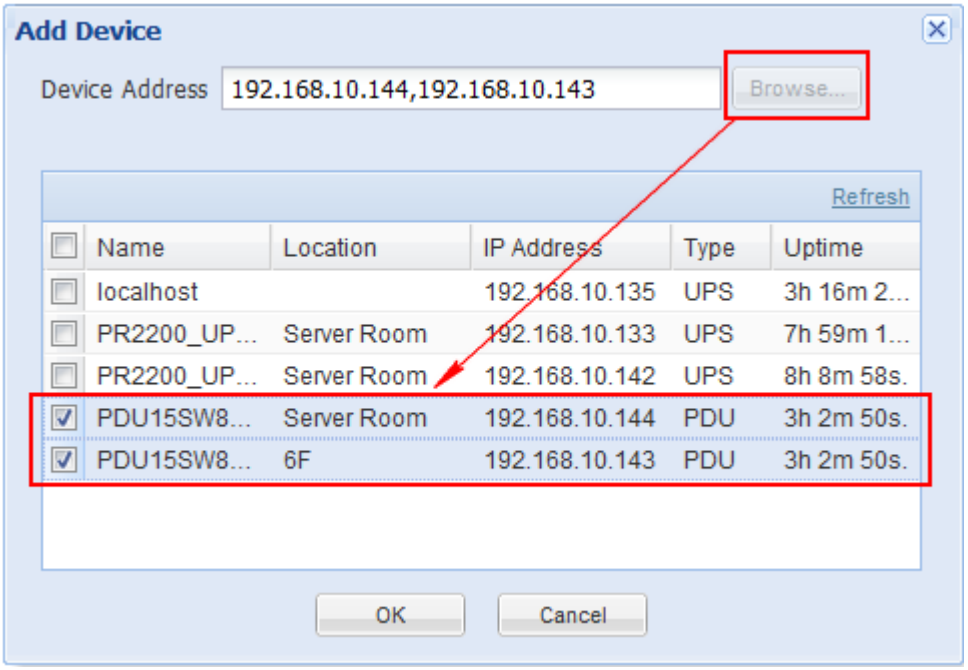
Add PDUs

Users can monitor and control multiple PDUs on the **Management/Power Equipment** page by accessing *Add Device* window in the context menu to add PDUs in Center as below:

The *Add Device* window can be accessed by clicking the *Add Device* button of the toolbar or selecting the *Add Device* of the context menu of any one group.



Either enter the PDU's IP address on the *Device Address* field or click the **Browse** button to display the device list and select the PDU address from this list. Click **OK** to proceed and add the selected PDU.



Note: *If multiple PDUs need to be added to Center, repeat aforementioned steps.*

Note: *Please refer to* ***PowerPanel Business Edition User's Manual*** *about further details of more functions about Center.*

Configure Power Protection for Computers

In order to ensure the computers which connect to the PDU have sufficient time to complete the shutdown prior to the outlets turning off, the Client should be installed. The Client will establish communication with the PDU and receive commands from the PDU to initiate a complete shutdown and avoid data loss or a system crash. Refer to the **Install PowerPanel Business Edition Software** chapter for installing Client.

Assign PDU's IP Address and Connected Outlet in Client

Communication can be established through the network by assigning the IP address of the PDU in Client. The IP address of the PDU can be assigned at the *Address* field on the **Power/Configuration** page in Client. To identify IP address of PDU, users can pick an address from the device list which shows all devices on the local network. In order to ensure the PDU can respond to the Client normally, the secret phrase or SNMP communities must be setup properly. Assign the PDU output outlet which supplies power to Client computer. Click **Apply** button to save changes to take effect.

Note: *Users can also assign the IP Address of PDU to the Client in Center and it is easier for users to attach multiple Clients to the PDU in Center. Communication can be established by configuring Settings of Details on the monitored PDU in Center. Refer to User's Manual to know how to establish communication between Client and PDU.*

Setup Necessary Shutdown Time

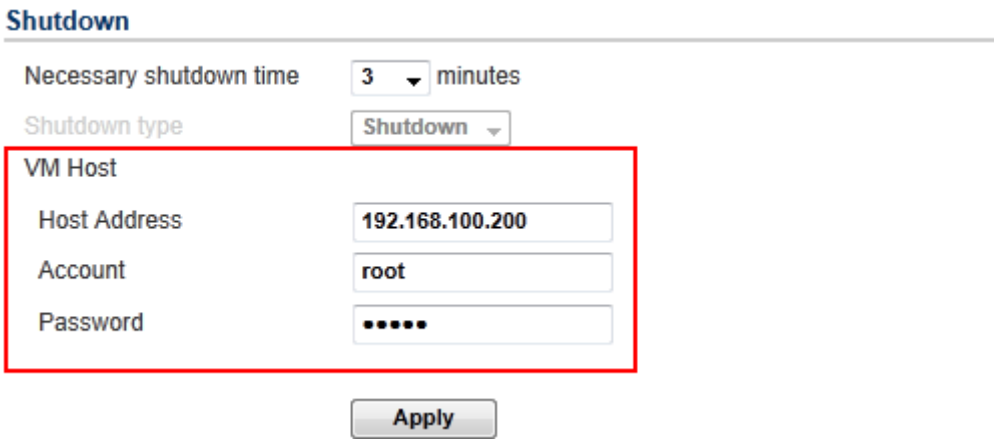
Each computer running the Client requires a sufficient time to shut down completely before the PDU turns off the connected outlet for any reason. Therefore users can set up this sufficient time at the *Necessary shutdown time* option on the **Event Action/Settings** page in the Client.

When the PDU outlet powering to a computer running the Client is going to be turned off, the outlet should not be turned off by the PDU until the Client computer is shut down completely. The Client will detect whether the off-delay time is sufficient for the Client computer to shut down gracefully and give a warning on the **Event Action/Settings** page to users that the computer running the Client may be shut down improperly due to insufficient time. Click the **Setup** button in the warning block to set up a sufficient time for the *Delay Off Time* setting on the connected outlet of the PDU. Users can also set up a sufficient time on the *Delay Off Time* manually in the PDU web interface.

Configure Shutdown Action for VMware ESXi

In order to ensure the ESXi server host and all virtual machines can be shut down correctly in case of power events, users have to configure the ESXi host address, account and password of the root user for the host shutdown from vMA. Because PowerPanel Business Edition software must be installed on the Service Console of ESX instead of vMA, Event Action/Settings page don't provides these shutdown settings for user to configure. Fill in the *Host Address, Account* and *Password* fields with actual username and password for ESX/ESXi host on the **Event Action/Settings** page.

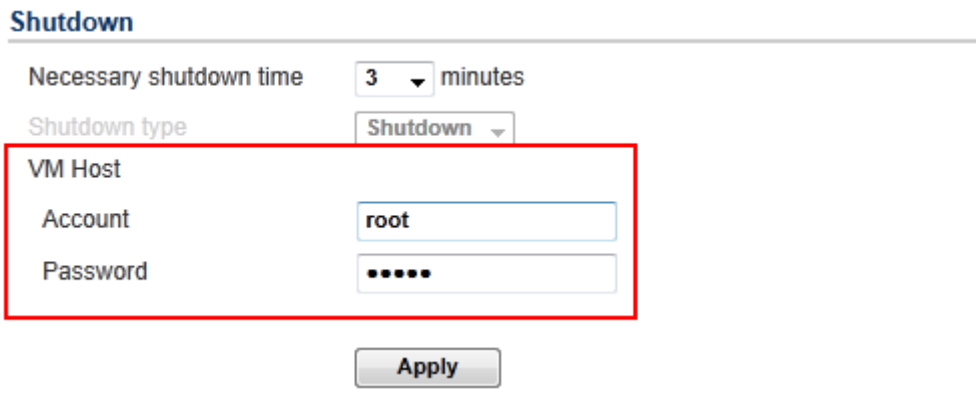
Note: *Host Address is the IP address of the ESXi host computer on which vMA is operating but not the IP address of vMA.*



Note: *In order to allow the interactions between physical and virtual machines, VMware tools must be installed on each virtual machine. Refer to VMware ESX/ESXi Server documentation for further information about VMware Tools.*

Configure Shutdown Action for Citrix XenServer

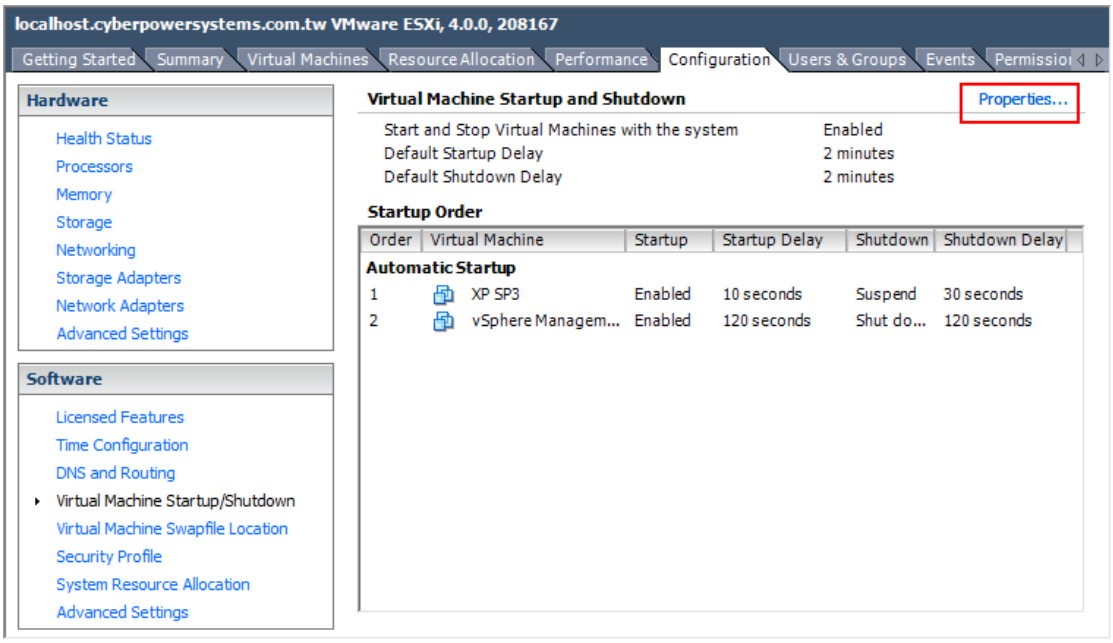
In order to ensure the XenServer server host and all virtual machines can be shutdown correctly, users have to configure the account and password of root user for host shutdown. Fill in the *Account* and *Password* fields with actual username and password for shutdown action on the **Event Action/Settings** page.



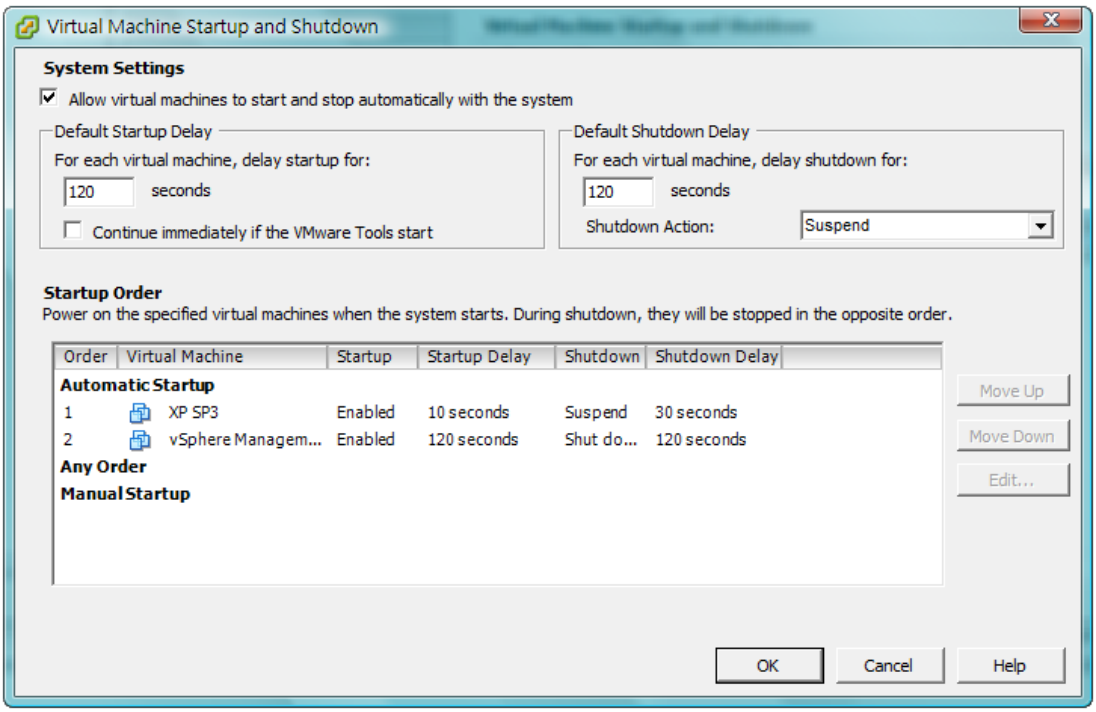
Configure Startup and Shutdown of Virtual Machines on VMware ESX/ESXi

In order to ensure that all virtual machines and the VMware ESX/ESXi server host can be shut down and restart gracefully:

- Select the topmost VMware ESX/ESXi server host from the tree hierarchy on the left side. Go to **Configuration** → **Virtual Machine Startup/Shutdown** menu → **Properties** of the vSphere Client.



- Enable the **Allow virtual machines to start and stop automatically with the system** option


Virtual Machine Startup and Shutdown
System Settings
Allow virtual machines to start and stop automatically with the system
Default Startup Delay
For each virtual machine, delay startup for:
120
seconds
Continue immediately if the VMware Tools start
Default Shutdown Delay
For each virtual machine, delay shutdown for:
120
seconds
Shutdown Action:
Suspend
Startup Order
Power on the specified virtual machines when the system starts. During shutdown, they will be stopped in the opposite order.
Order
Virtual Machine
Startup
Startup Delay
Shutdown
Shutdown Delay
Automatic Startup
1
XP SP3
Enabled
10 seconds
Suspend
30 seconds
2
vSphere Managem...
Enabled
120 seconds
Shut do...
120 seconds
Any Order
Manual Startup
Move Up
Move Down
Edit...
OK
Cancel
Help