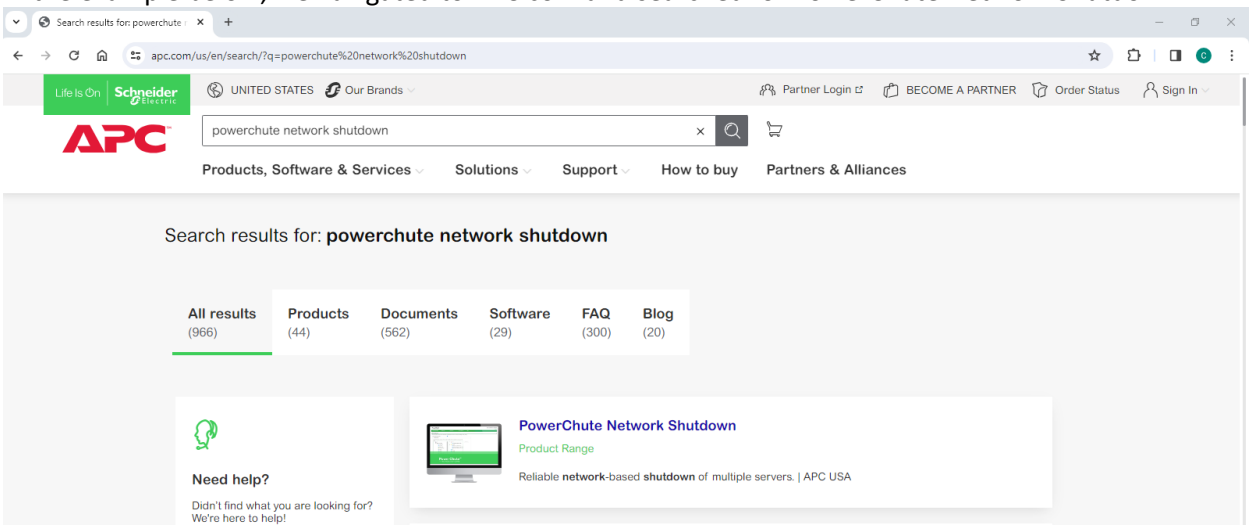
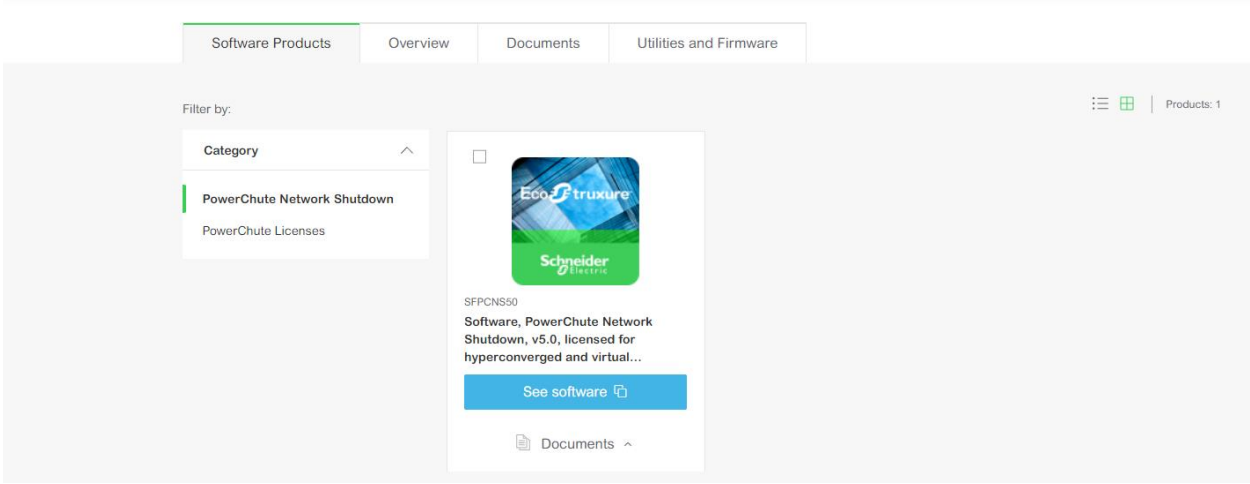
How to install PowerChute Network Shutdown version 5.x onto a VMware ESXi host that VMware vCenter Server does not manage.

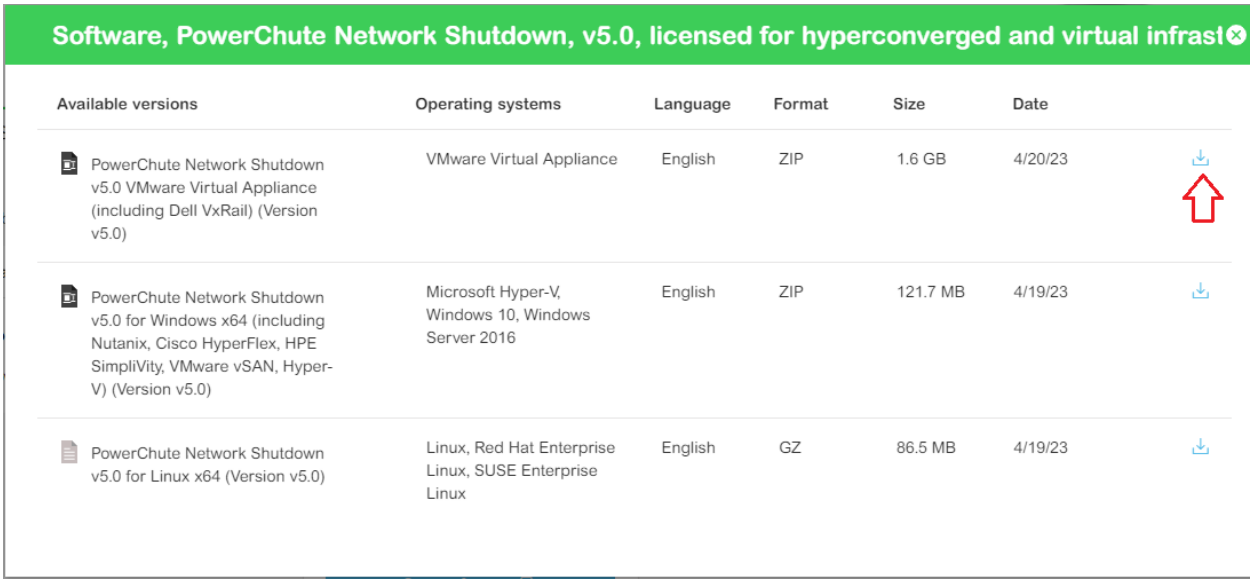
Open a web browser and go to SE.com or APC.com to download the PowerChute installer.
In the example below, we navigated to APC.com and searched for PowerChute Network Shutdown.



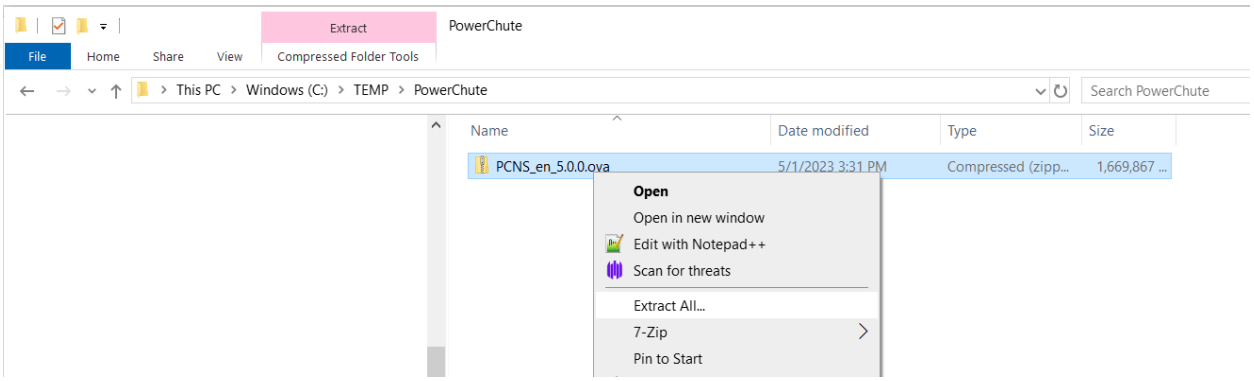
Select PowerChute Network Shutdown, and on the next page, select See Software.



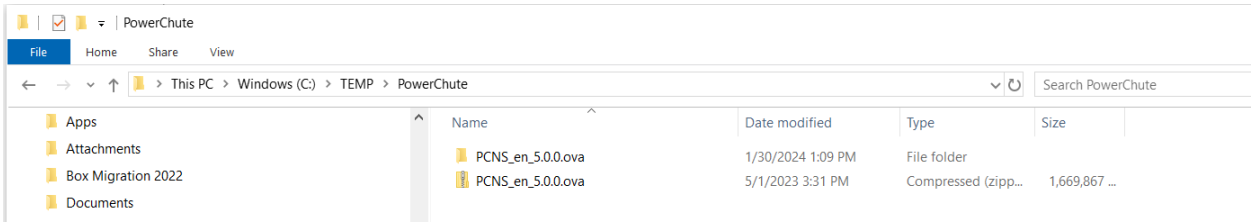
Select PowerChute Network Shutdown v5.0 VMware Virtual Appliance and click download.



Once the file has been downloaded, navigate to the download folder and uncompress the folder.

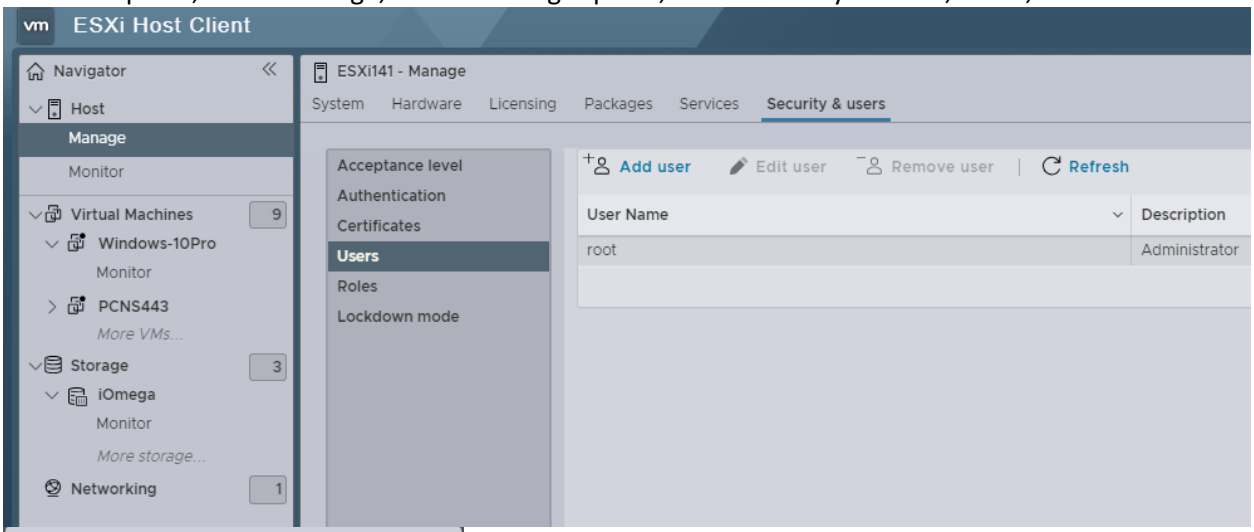


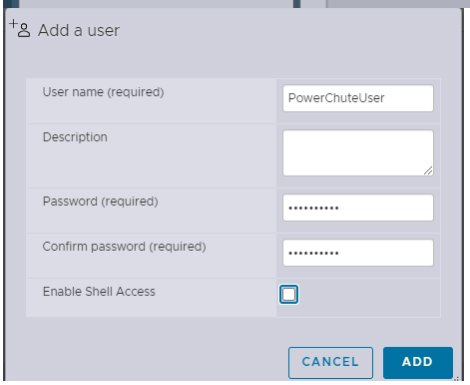
There will be an uncompressed folder named PCNS_en_5.x.x.ova for the English version.



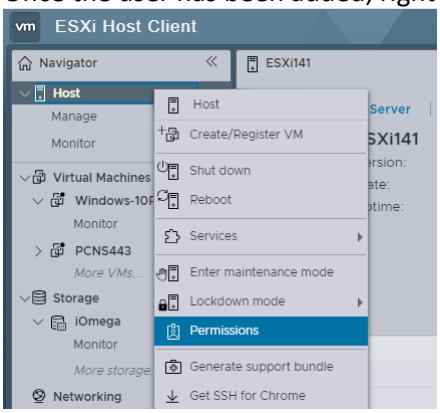
Next, log into the VMware ESXi host.
In the example below, we used a Chrome browser to log into a VMware ESXi version 8 host.

This next step is not necessary. However, we recommend creating an account that only PowerChute will use to communicate with the host.
In the left panel, select Manage, then in the right panel, select Security & Users, Users, and add a user.

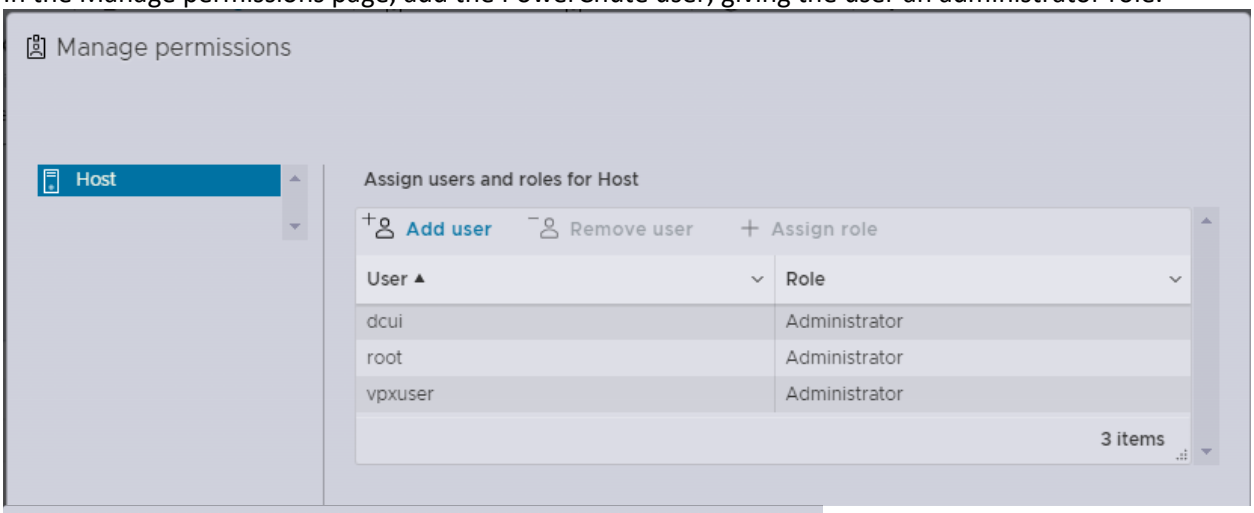


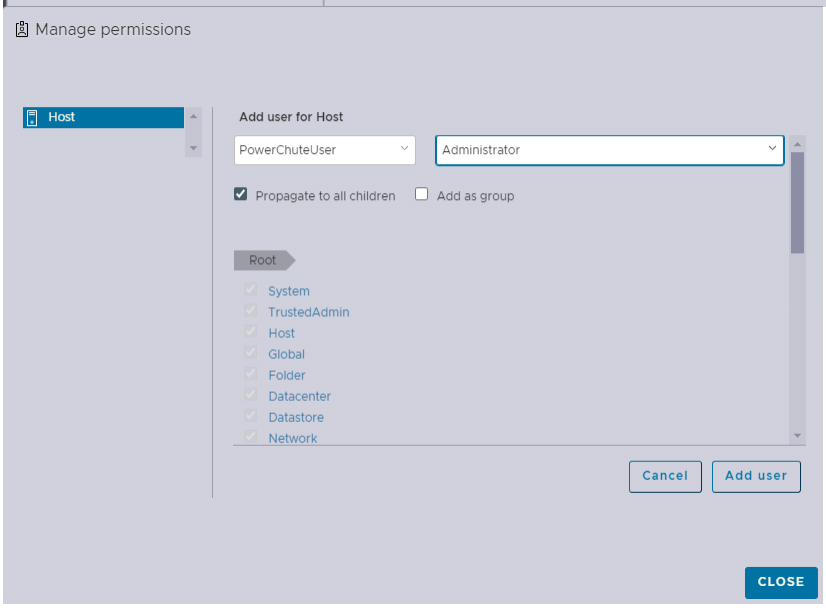


Once the user has been added, right-click Host in the left panel and select Permissions.

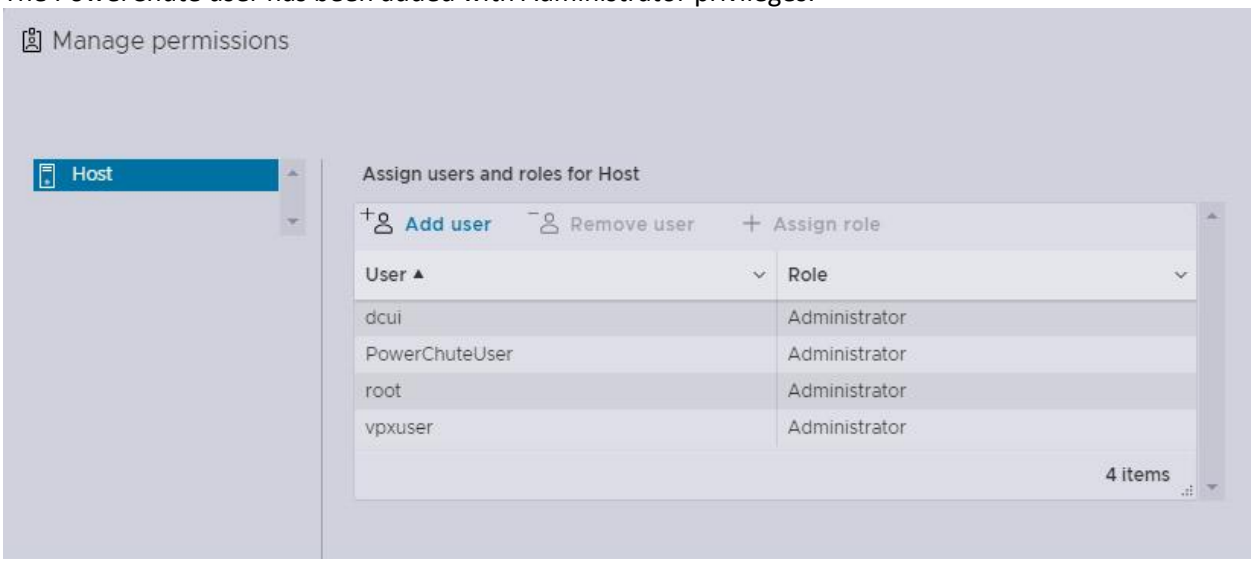


In the Manage permissions page, add the PowerChute user, giving the user an administrator role.

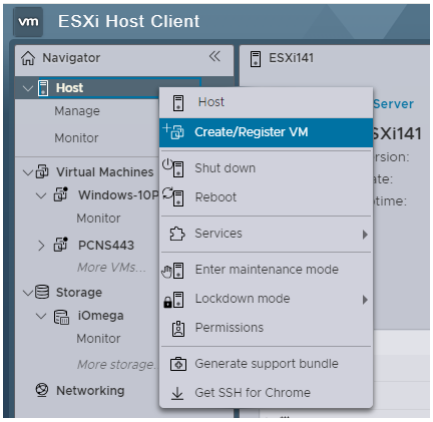




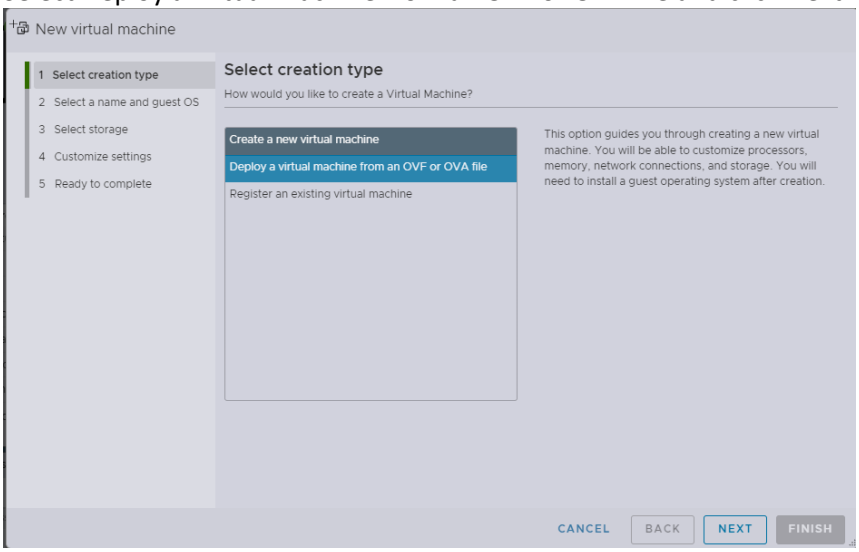
The PowerChute user has been added with Administrator privileges.



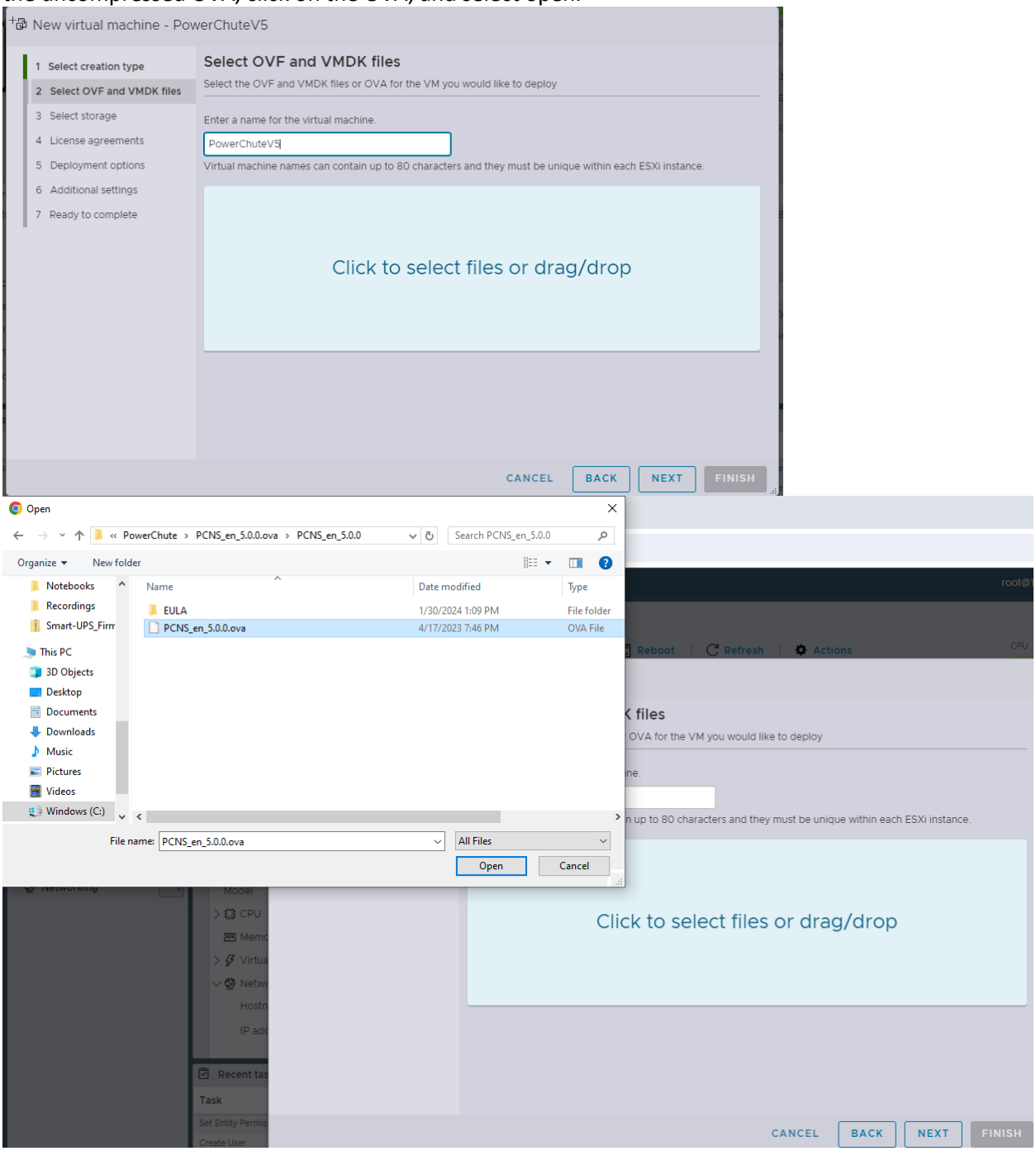
Next, install the PowerChute virtual appliance by right-clicking on Host in the left panel, Create/Register VM



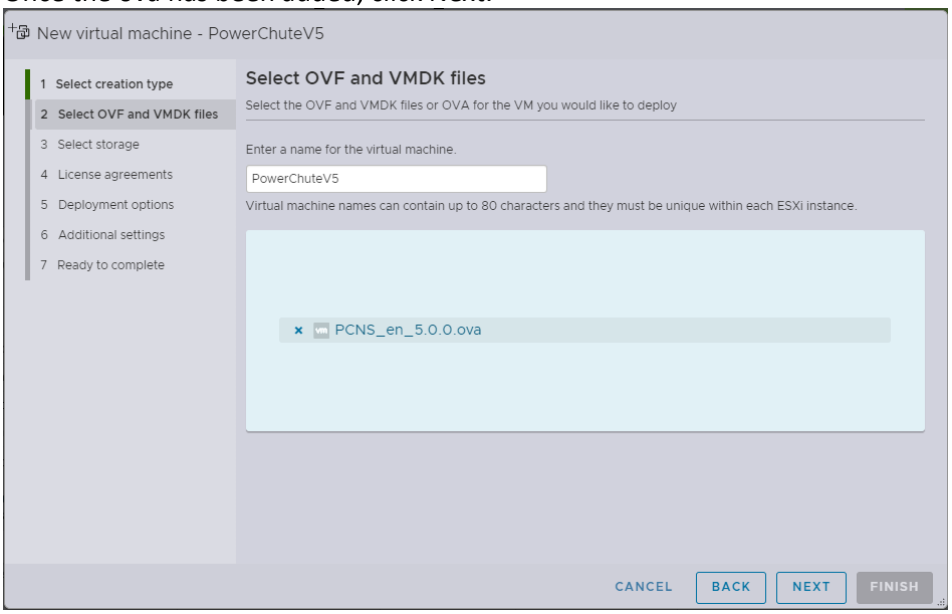
Select Deploy a virtual machine from an OVF or OVA file and click Next.



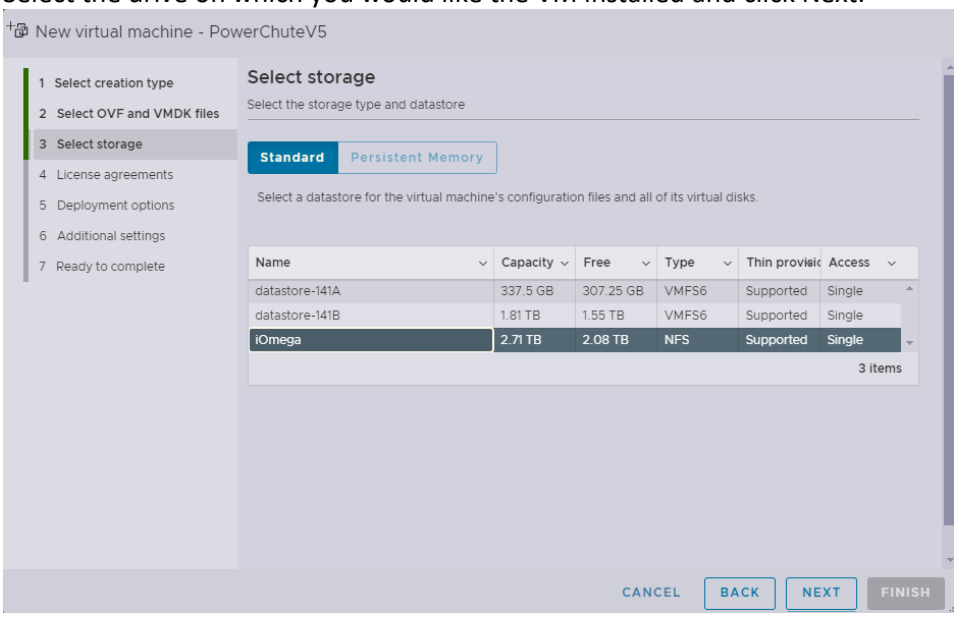
Give the VM a name and either drag and drop the uncompressed OVA onto the window or navigate to the uncompressed OVA, click on the OVA, and select open.



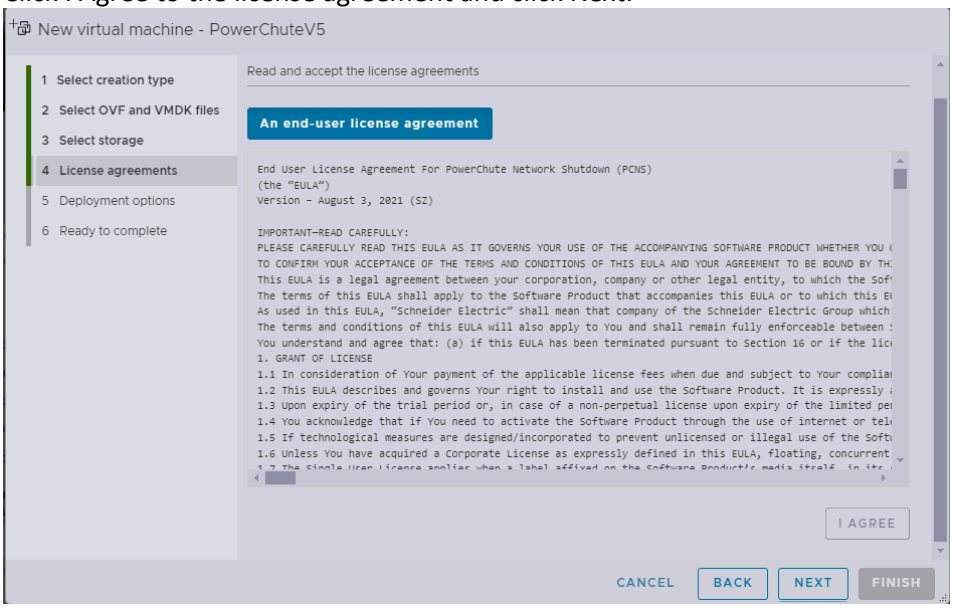
Once the ova has been added, click Next.



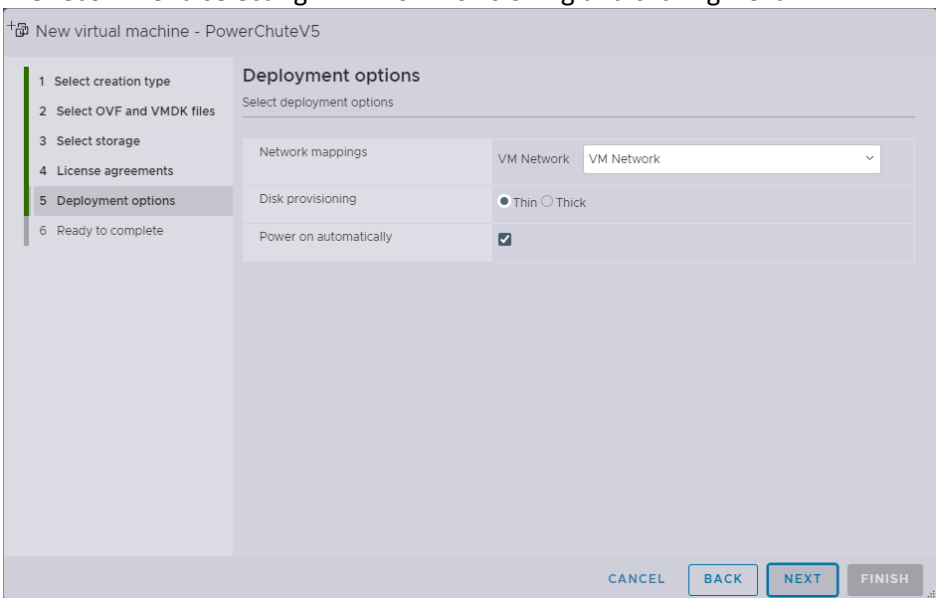
Select the drive on which you would like the VM installed and click Next.



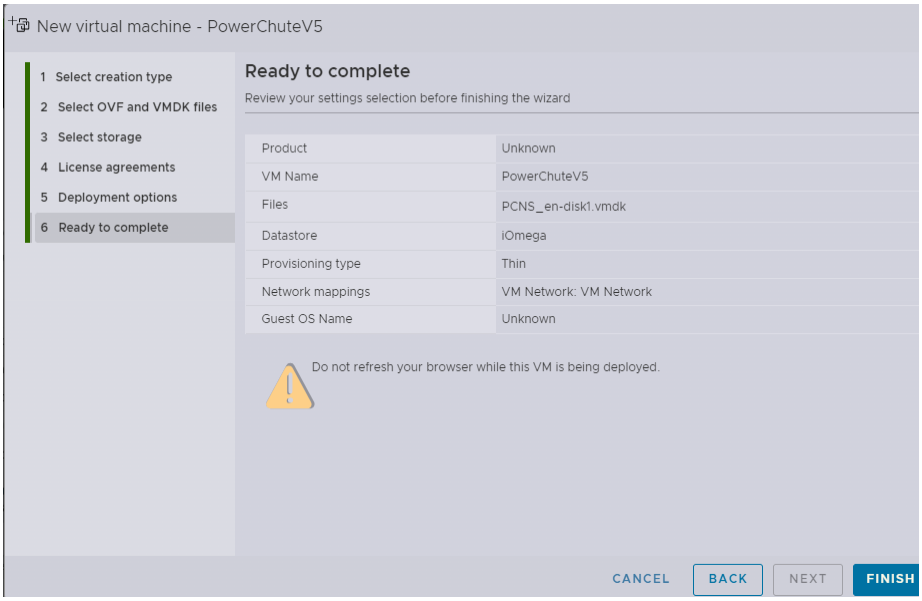
Click I Agree to the license agreement and click Next.



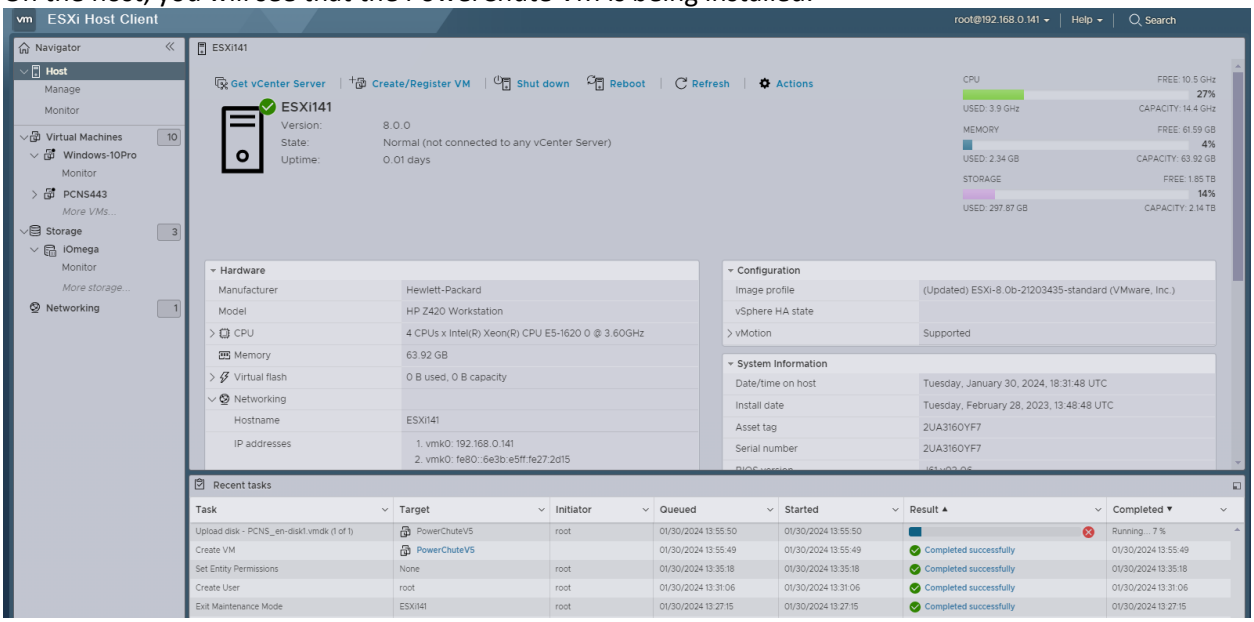
We recommend selecting Thin Disk Provisioning and clicking Next.



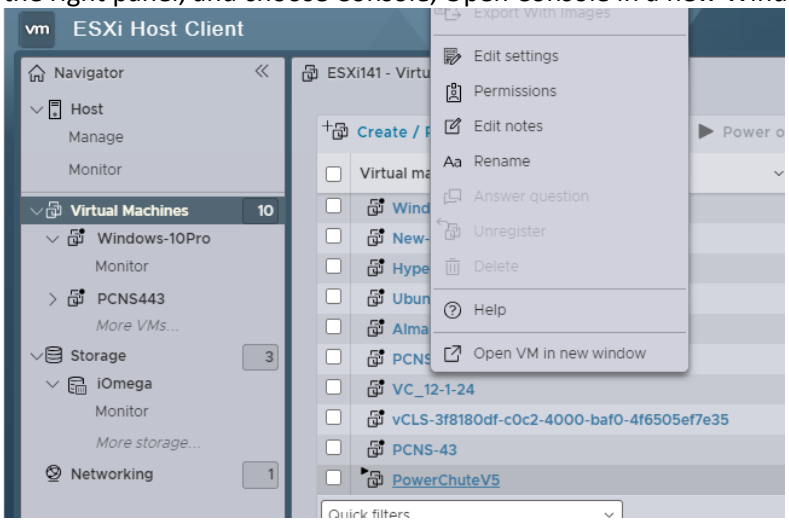
Click Finish to install the VM.



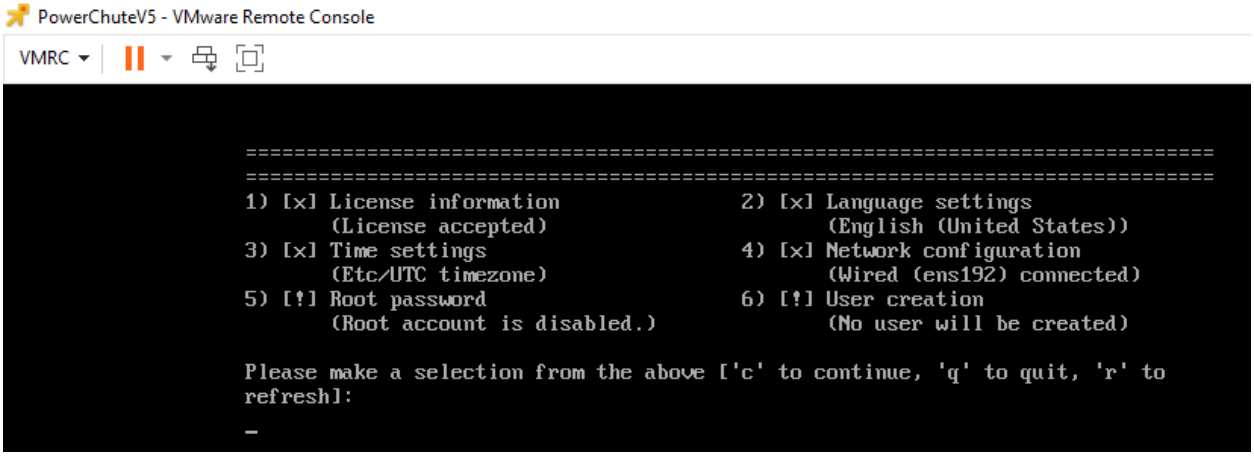
On the host, you will see that the PowerChute VM is being installed.

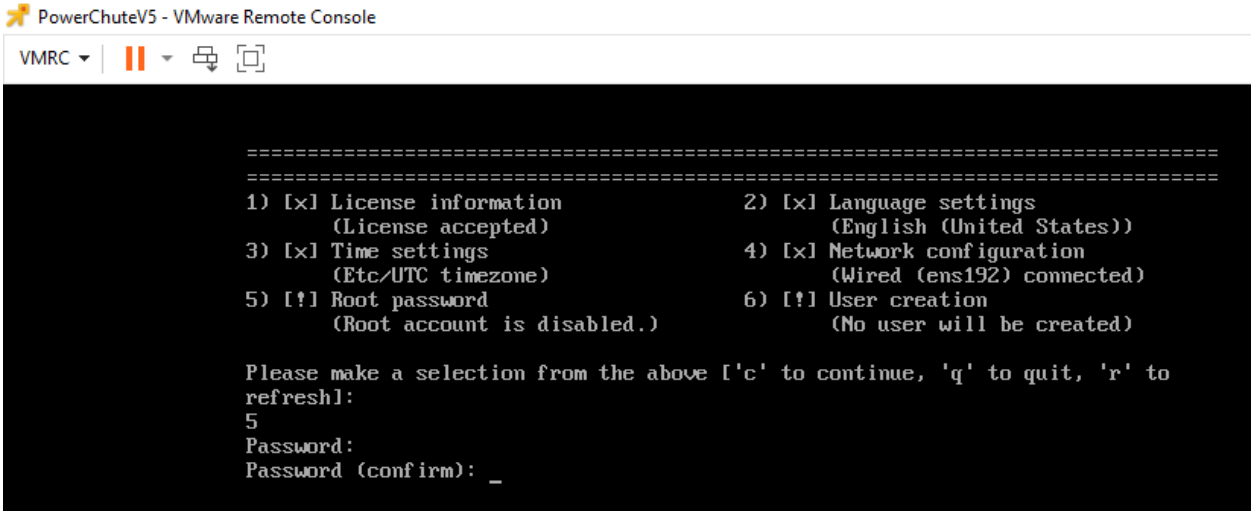


Once the VM has been installed, select Virtual Machines in the left panel, select the PowerChute VM in the right panel, and choose Console, Open Console in a new Window, or Launch remote console.

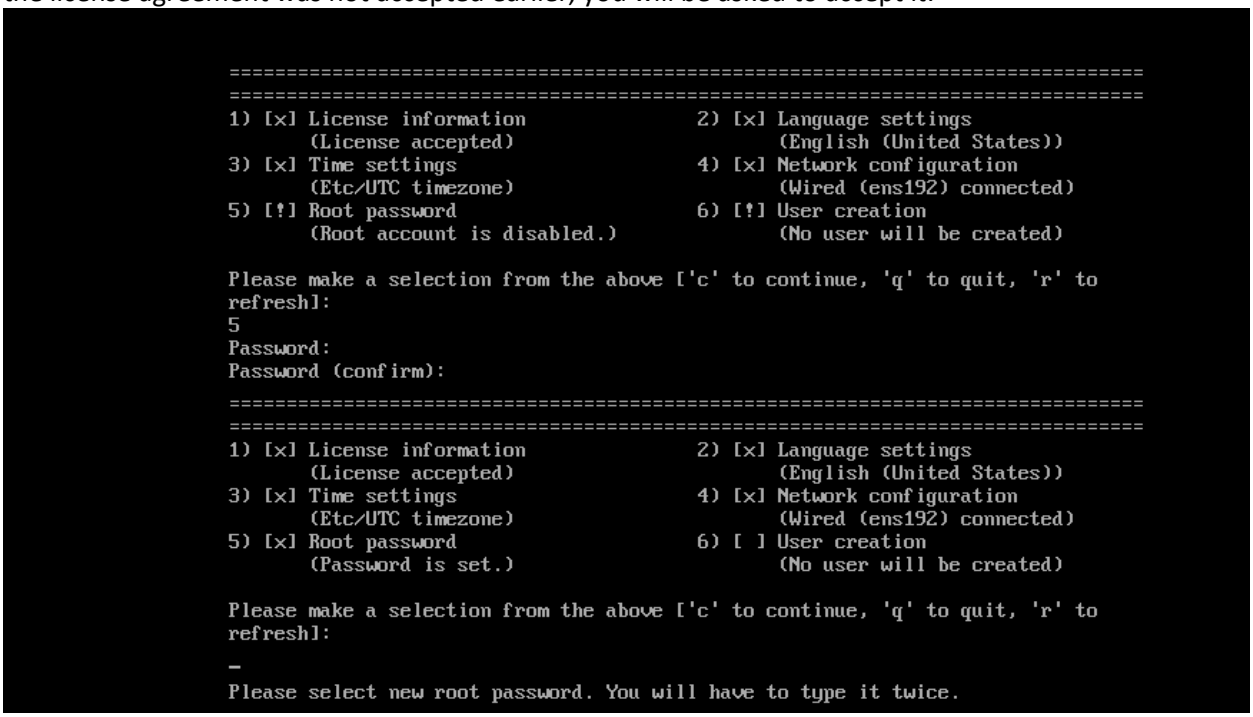


Next, you will be asked to configure the VM. You must set the root password. Enter 5, then enter the password and confirm the password.



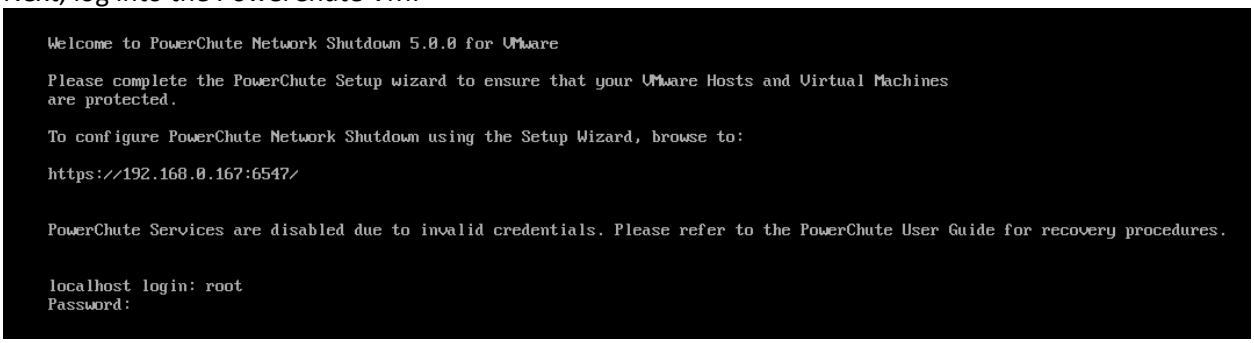


You can also set the network setting (the default is DHCP), set the time zone, and add a user account. If the license agreement was not accepted earlier, you will be asked to accept it.



Once the configuration has been completed, enter c to continue.
NOTE: if you do not set the root password, you cannot log into the PowerChute VM. You must reinstall the VM at that point, as there is no backdoor password.

Next, log into the PowerChute VM.



You will see a message stating, “PowerChute Services are disabled due to invalid credentials. Please refer to the PowerChute User Guide for recovery procedures.”

To correct the issue, start the PowerChute service and log into the PowerChute UI to set the credentials. To start the PowerChute service and to enable it to start each time the PowerChute VM is started, enter the command, **systemctl enable PowerChute; systemctl start PowerChute**.

```
localhost login: root
Password:
Last login: Tue Jan 30 19:30:22 on tty1


PowerChute Services are disabled due to invalid credentials. Please refer to the PowerChute User Guide for recovery procedures.


[root@localhost ~]# systemctl enable PowerChute ; systemctl start PowerChute
```

You will see a message that the symlink has been created.

```
localhost login: root
Password:
Last login: Tue Jan 30 19:30:22 on tty1


PowerChute Services are disabled due to invalid credentials. Please refer to the PowerChute User Guide for recovery procedures.


[root@localhost ~]# systemctl enable PowerChute ; systemctl start PowerChute
Created symlink /etc/systemd/system/default.target.wants/PowerChute.service → /etc/systemd/system/PowerChute.service.
[root@localhost ~]#
```

Next, verify that the PowerChute service has started. The command is **systemctl status PowerChute**.

```
localhost login: root
Password:
Last login: Tue Jan 30 19:30:22 on tty1


PowerChute Services are disabled due to invalid credentials. Please refer to the PowerChute User Guide for recovery procedures.


[root@localhost ~]# systemctl enable PowerChute ; systemctl start PowerChute
Created symlink /etc/systemd/system/default.target.wants/PowerChute.service → /etc/systemd/system/PowerChute.service.
[root@localhost ~]# systemctl status PowerChute
● PowerChute.service - PowerChute Network Shutdown
   Loaded: loaded (/etc/systemd/system/PowerChute.service; enabled; vendor preset: disabled)
   Active: active (running) since Tue 2024-01-30 19:35:27 UTC; 2min 32s ago
  Process: 6159 ExecStart=/usr/bin/PowerChute start (code=exited, status=0/SUCCESS)
 Main PID: 6178 (java)
    Tasks: 72 (limit: 11347)
   Memory: 349.7M
   CGroup: /system.slice/PowerChute.service
           └─6178 /opt/APC/PowerChute/jre-11.0.16.1+1/bin/java -Xrs -Xms32m -Xmx64m -Dfile.encoding=UTF-8 -Dservice=true -Dlog4j.configurationFile=log4j2.xml -D

Jan 30 19:35:24 localhost.localdomain systemd[1]: Starting PowerChute Network Shutdown...
Jan 30 19:35:24 localhost.localdomain PowerChute[6159]: PowerChute Network Shutdown, v5.0.0
Jan 30 19:35:24 localhost.localdomain PowerChute[6159]: Copyright (c) 1999-2023, Schneider Electric.  All Rights Reserved.
Jan 30 19:35:27 localhost.localdomain PowerChute[6159]: Startup completed.
Jan 30 19:35:27 localhost.localdomain systemd[1]: Started PowerChute Network Shutdown.
lines 1-15/15 (END)
```

You should see active (running).
To get the prompt back, enter Crtl c.

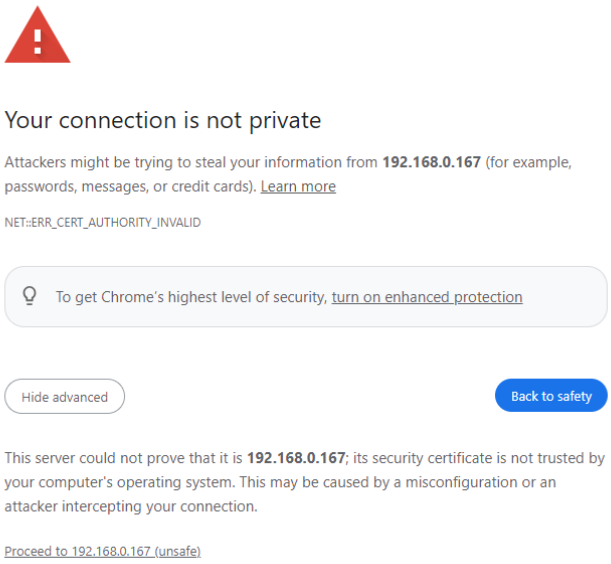
Next, open a web browser from a PC or laptop and navigate to the PowerChute UI. You will see the instructions when opening a PowerChute VM window.

```
Welcome to PowerChute Network Shutdown 5.0.0 for VMware

Please complete the PowerChute Setup wizard to ensure that your VMware Hosts and Virtual Machines
are protected.

To configure PowerChute Network Shutdown using the Setup Wizard, browse to:

https://192.168.0.167:6547/

PowerChute Services are disabled due to invalid credentials. Please refer to the PowerChute User Guide for recovery procedures.


localhost login: _
```

In our example, we must navigate to https://192.168.0.167:6547.

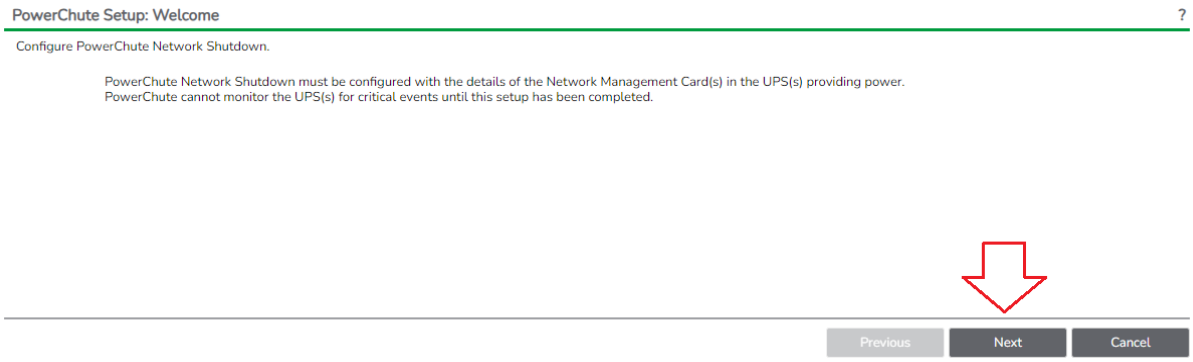
The first time you access the PowerChute web page, you will be warned that the connection is not private. The web browser does not recognize the PowerChute web page security certificate. PowerChute creates a default self-sign security certificate. See the PowerChute Security Handbook for more information.

Select Advanced and Proceed to the PowerChute IP address.

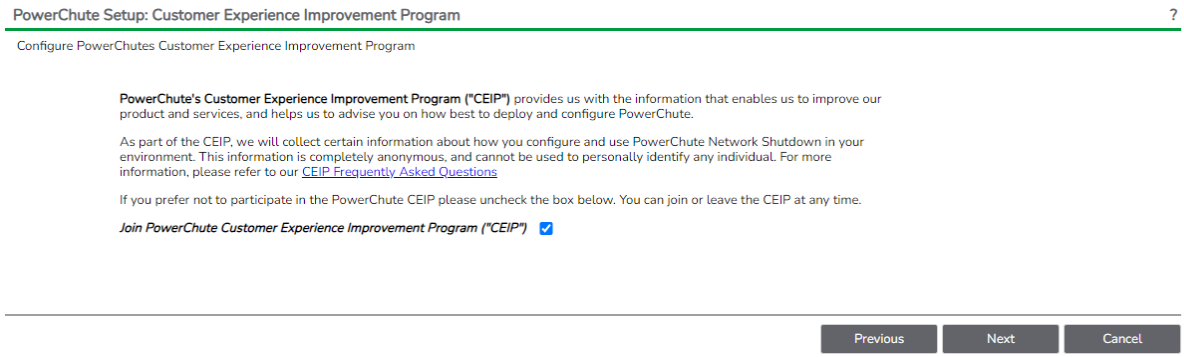


You will now see the PowerChute welcome page, and the setup wizard will walk you through completing the configuration.

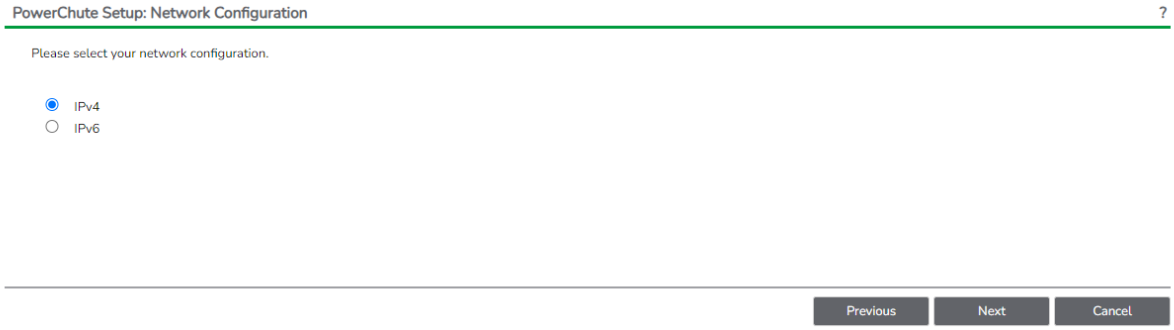
Click Next.



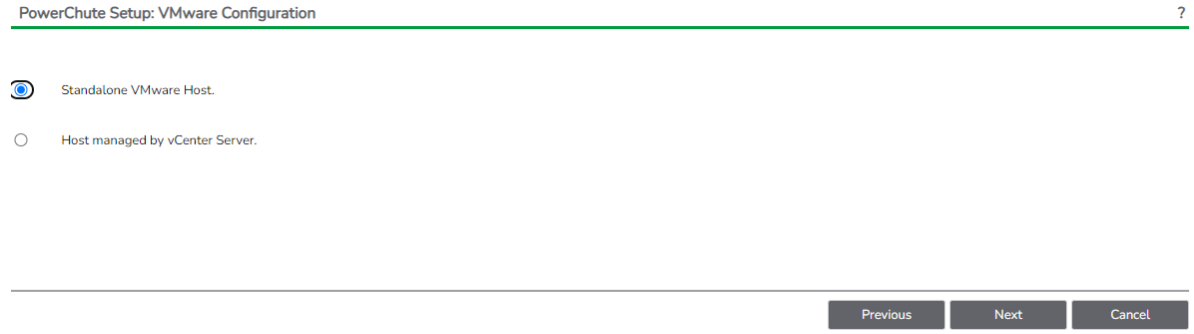
Click Next.



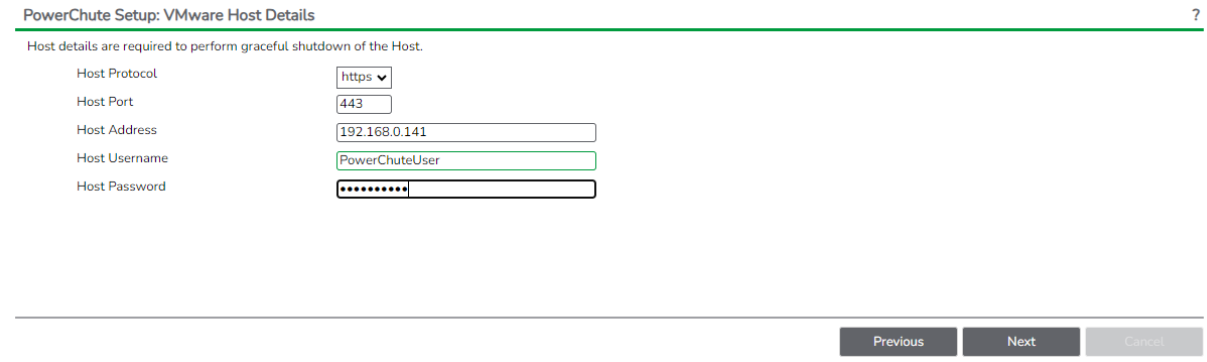
Select the network type and click Next.



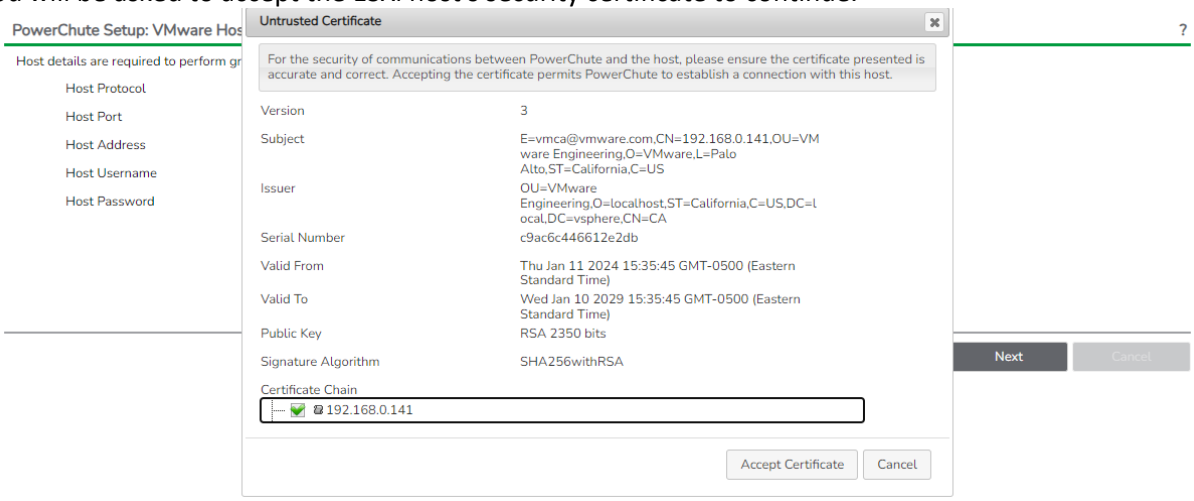
Select Standalone VMware Host and click Next.



Enter the ESXi host's IP address or domain name and the credentials, and click Next.

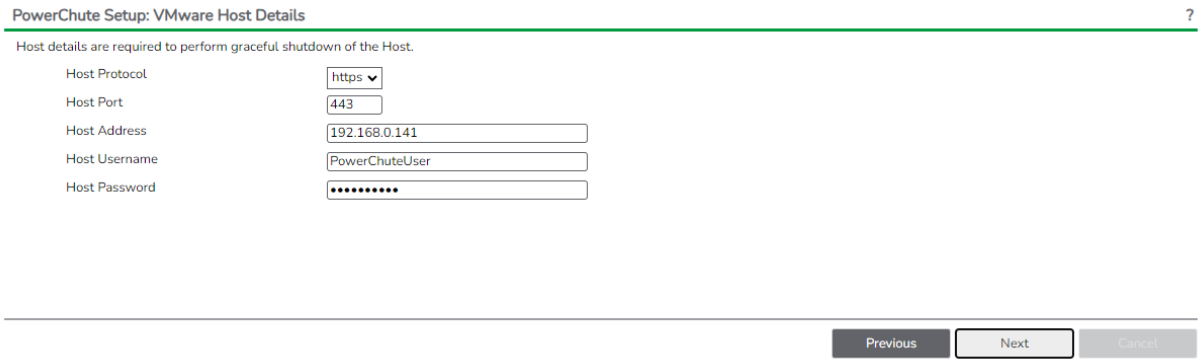


You will be asked to accept the ESXi host's security certificate to continue.



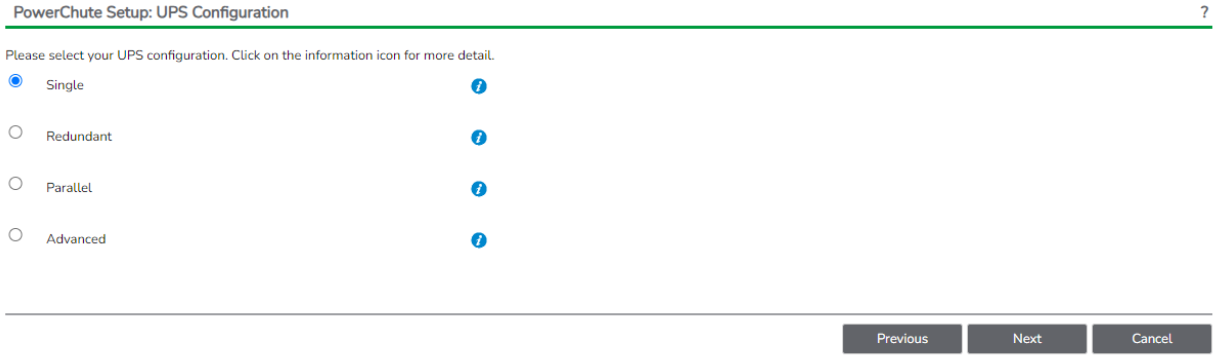
Note: if you do not accept the security certificate, you cannot proceed.
Also, if the security certificate has the canonical name, localhost PowerChute will not connect. See Schneider Electric FAQ000257570 for assistance with correcting the canonical name.

After accepting the host's security certificate, click Next to continue.

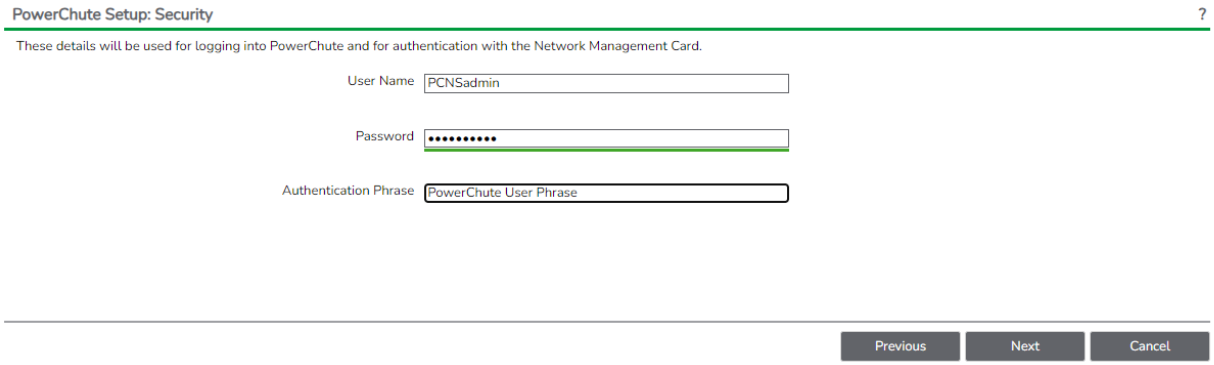


On the next page, set the UPS type. The options are Single, Redundant, Parallel, and Advanced. Click on the next to each option for a description of each option.

For our example, we selected Single and then Next to continue.

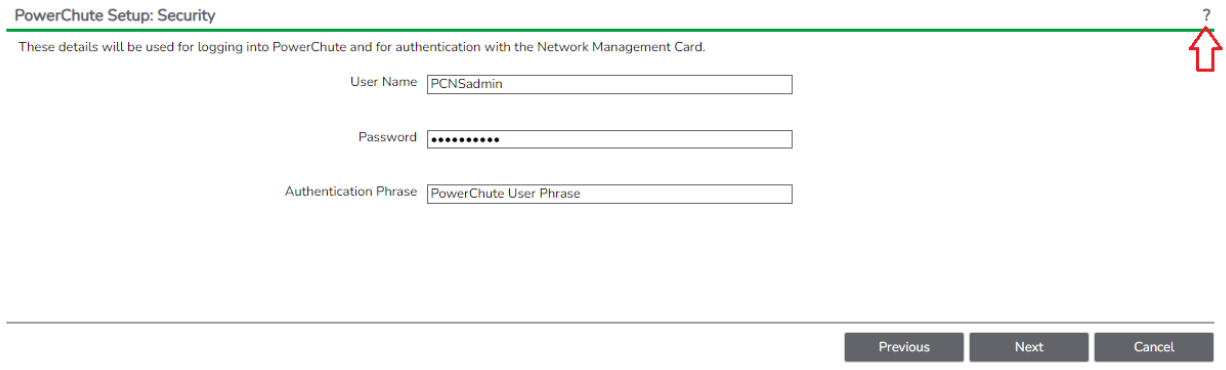


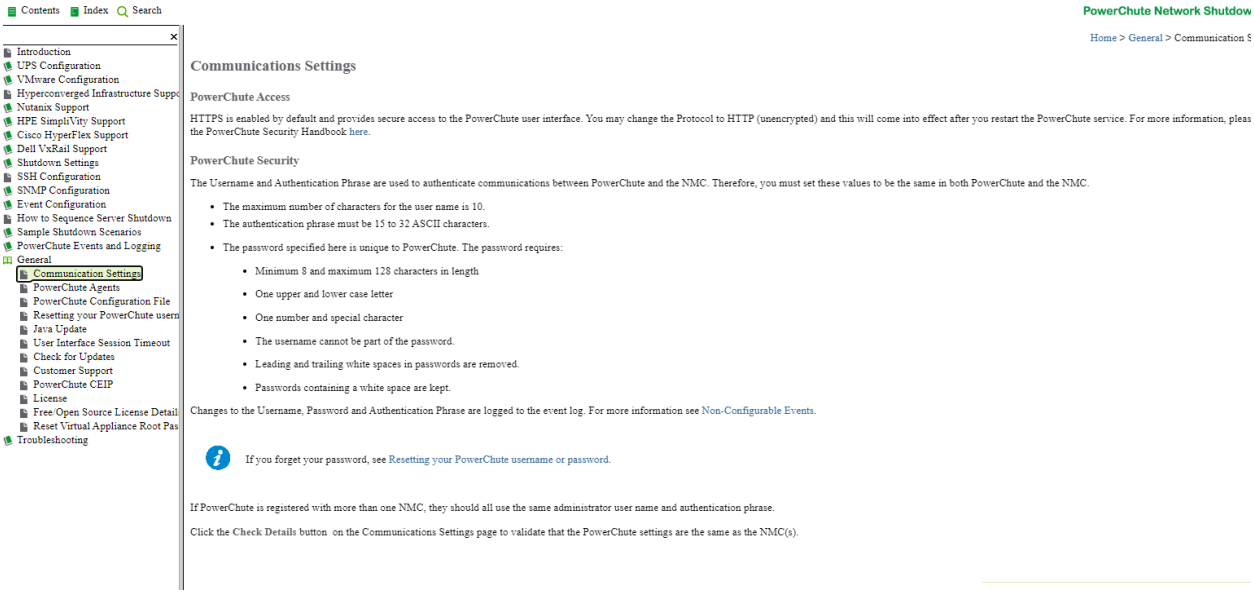
You will be asked to enter the PowerChute username, password, and authentication phrase.



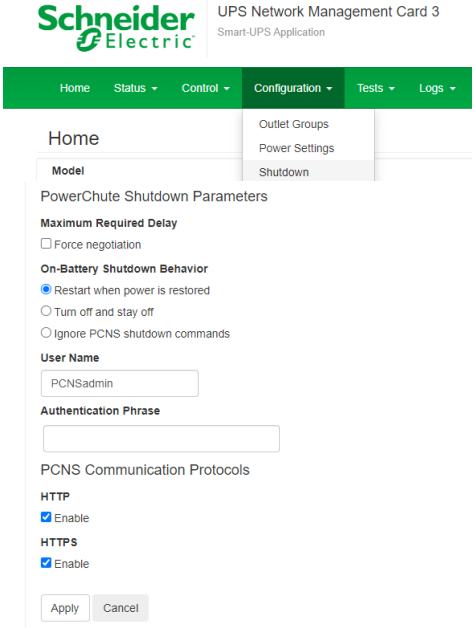
The username entered and the authentication phrase must match the PowerChute username and authentication phrase assigned to the network management card(s) installed in the UPS(s) that PowerChute will communicate with. The password is unique to this PowerChute client.

Click on the question mark at the top right of the web page for information on the username, password, and authentication phrase requirements.

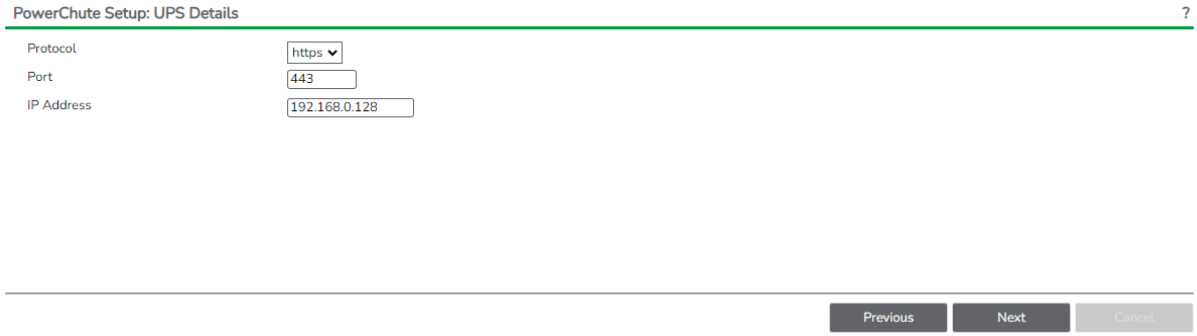




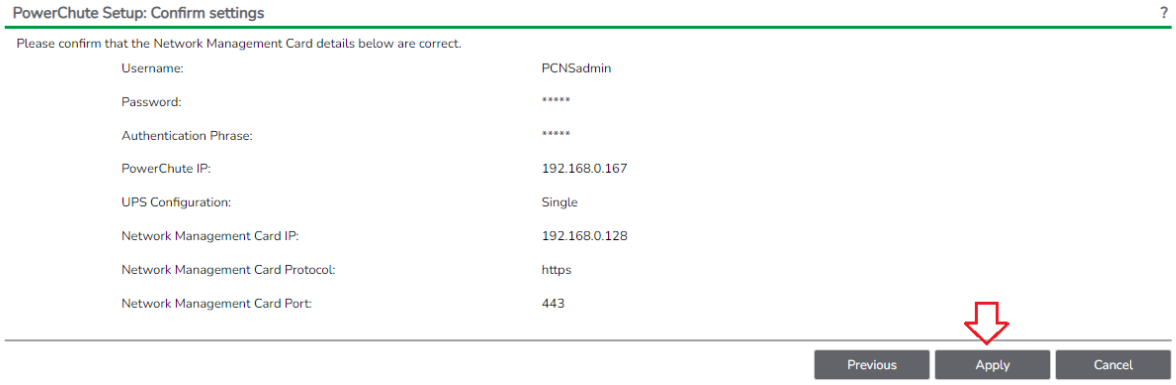
The PowerChute parameters are set on the network card(s) under Configuration and Shutdown.



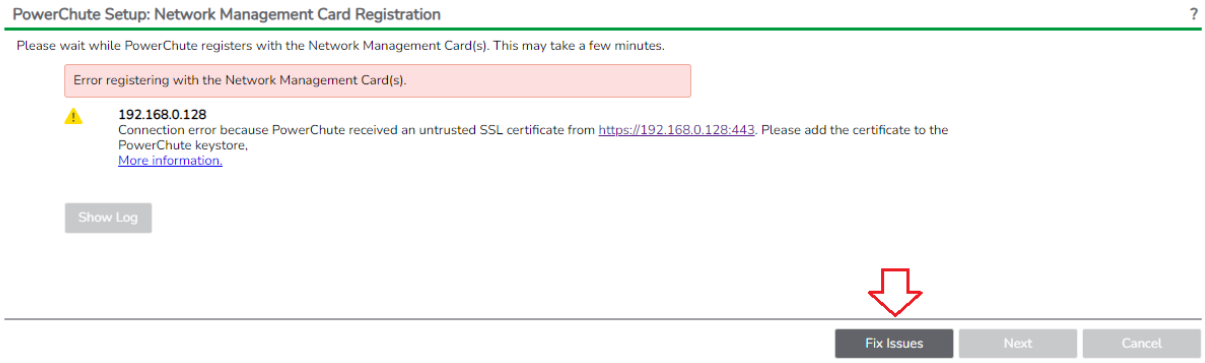
Next, enter the IP address of the network management card and set the protocol. Click Next. The default protocol is HTTPS.



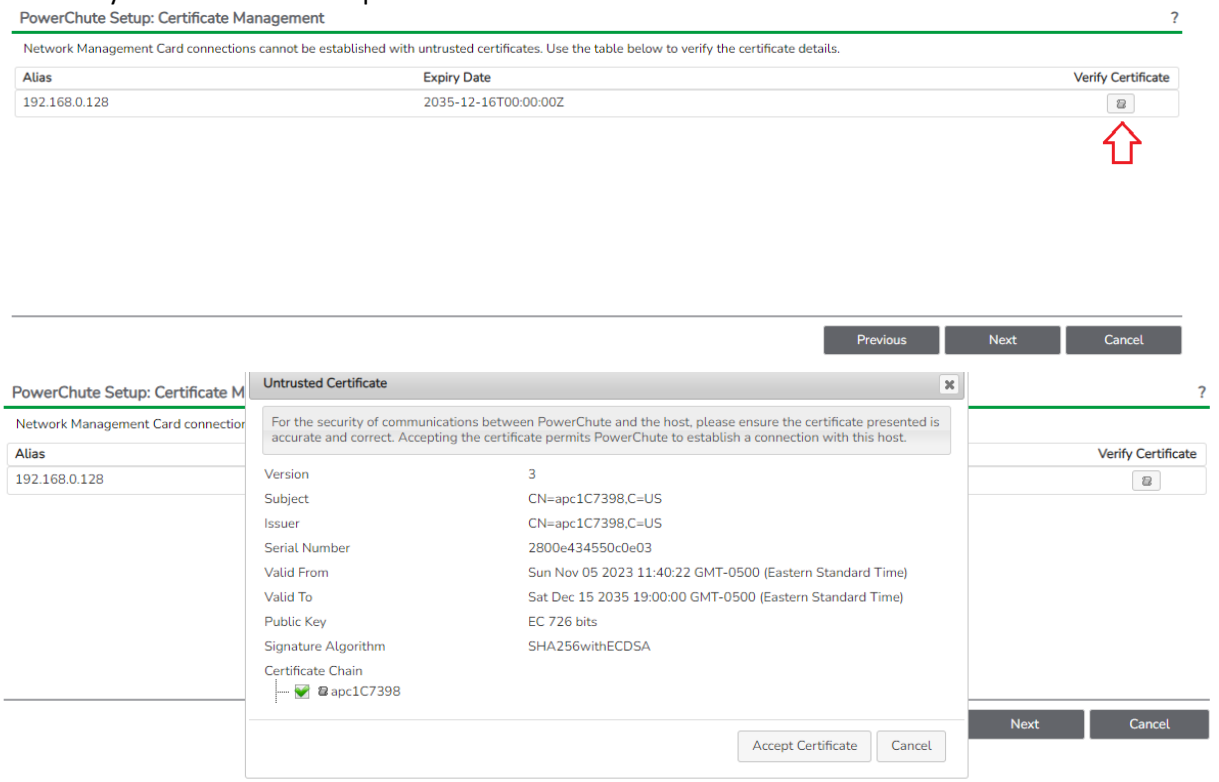
You will be asked to Apply the settings.



Next, you may see an error stating, “Error registering with the Network Management Card(s).” This is due to the network card(s) presenting an untrusted SSL certificate. To correct the error, click Fix Issue.

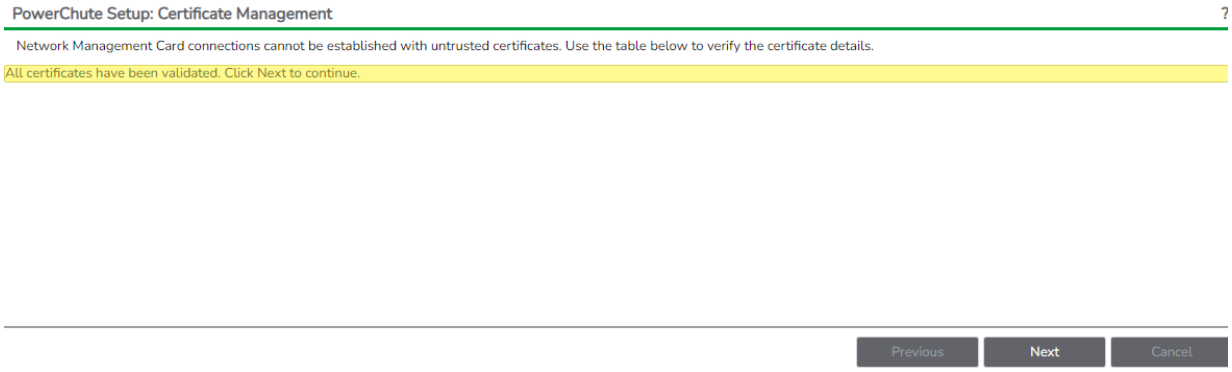


Select Verify Certificate and accept the certificate.

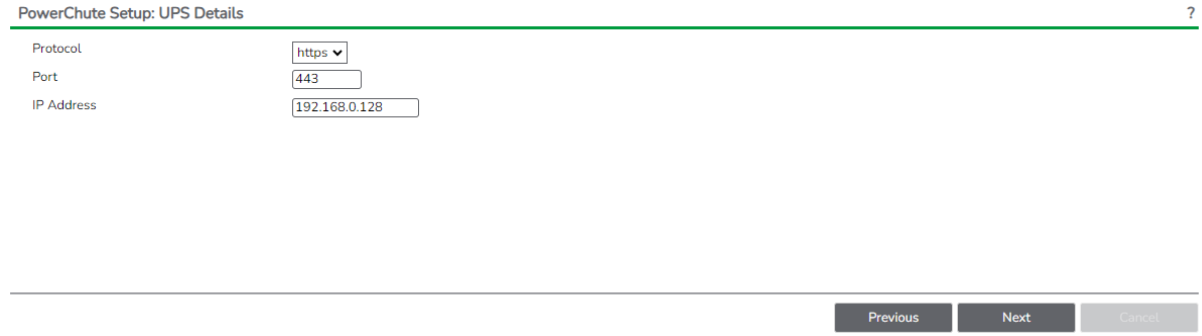


Note: if registering redundant UPSs, see Schneider Electric FAQ000259214 for assistance with the network card certificates.

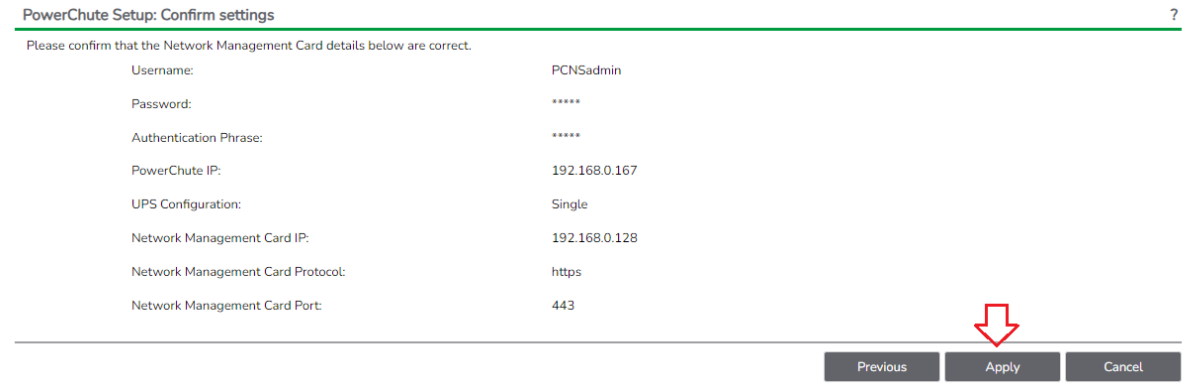
You will see “All certificates have been validated. Click next to continue”.



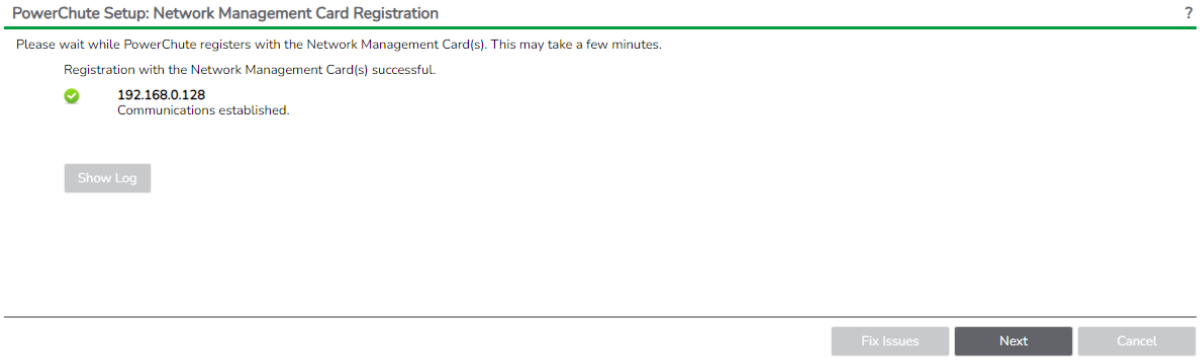
Click Next.



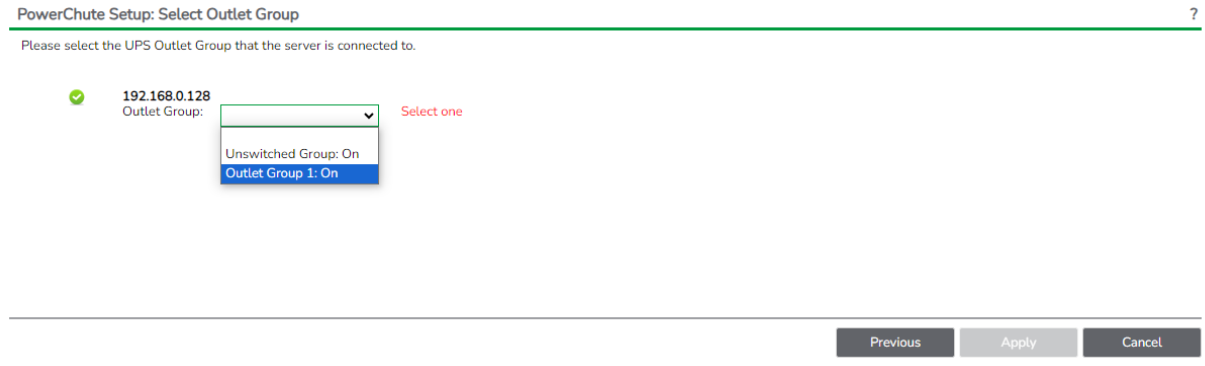
Select Apply.



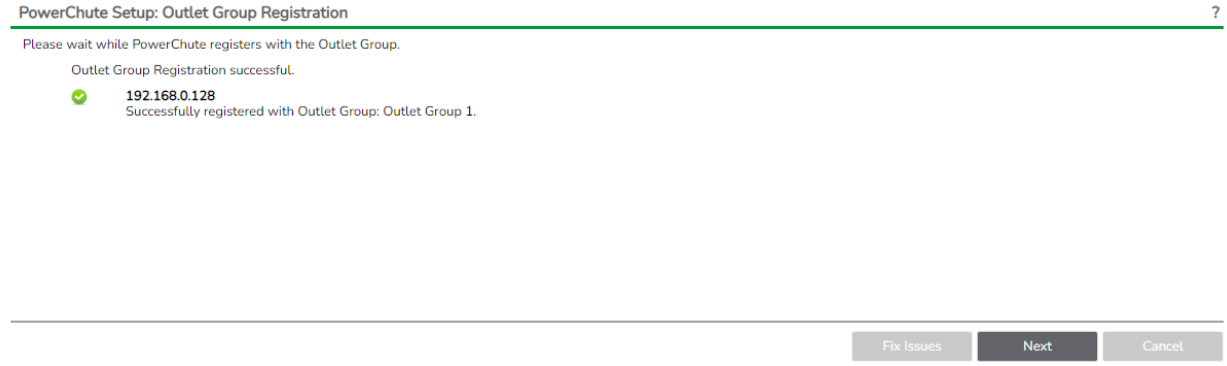
PowerChute will register with the network card.



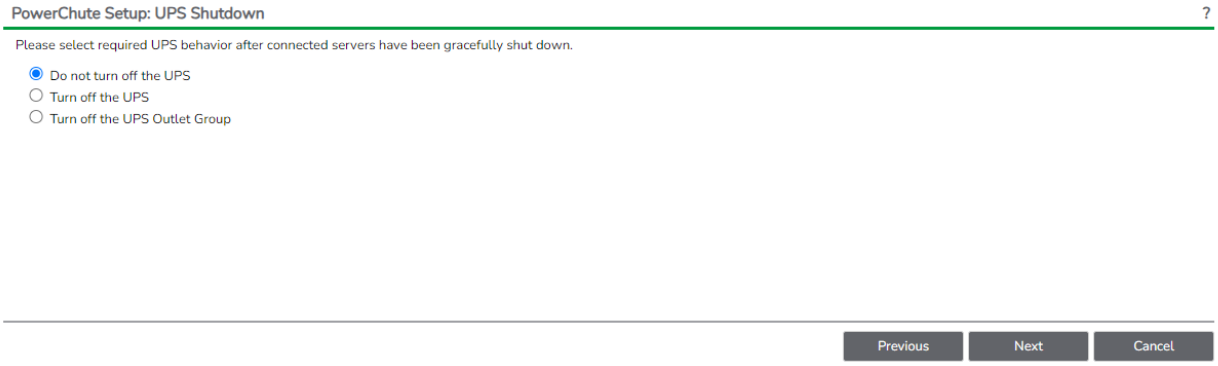
If the UPS has outlet groups, you will be asked to select an outlet group and click Apply.



PowerChute will register with the outlet group, then click Next.

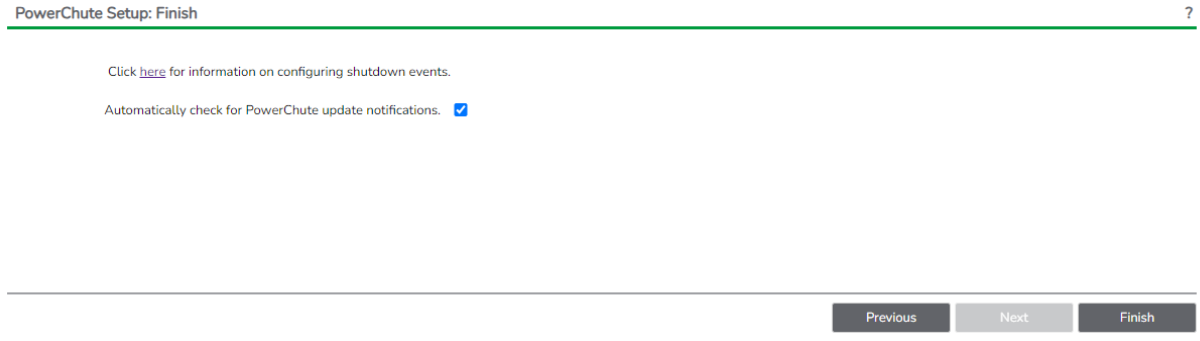


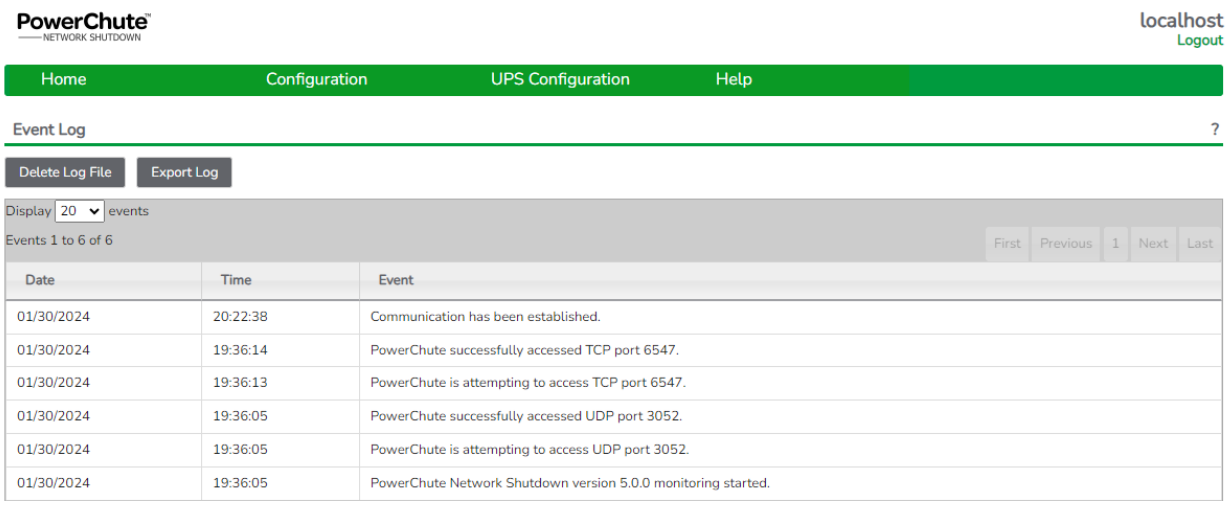
On the next page, you will be asked to select UPS behavior and click Next. Then, select the question mark in the upper right of the page for a description of the shutdown options.



You would want PowerChute to turn off the UPS following an event to allow the UPS to preserve battery life and to start the system once AC has been restored.

The setup is now finished. Click Finish to exit to the PowerChute UI Home page.





For assistance with configuring shutdown settings, see Schneider Electric FAQ FA326148.

To run the setup wizard again, go to Configuration, PowerChute Setup.