

PowerChute™ Network Shutdown v4.2 Release Notes

The release notes provide important information about PowerChute Network Shutdown (PowerChute), including known software issues and their solutions. For any additional troubleshooting and background help, see the [PowerChute Network Shutdown Product Center](#). The Product Center contains the most up-to-date troubleshooting and product information.

What's new in v4.2

SNMP Configuration

- PowerChute can be discovered via SNMP by Network Management Systems, such as StruxureWare Data Center Expert.
- SNMPv1 and SNMPv3 can be used to query and configure PowerChute Settings.
- PowerChute can generate SNMP traps for UPS critical events and lost communication events.
- PowerChute SNMP settings can be enabled and configured via the Web Interface and Silent Installation configuration (INI) file.
- SNMP events are logged to the Event Log.

Additional Features

- PowerChute now detects the type of firewall used by Red Hat Linux and CentOS (firewalld) during installation to automatically open the ports required for NMC communication.
- PowerChute Network Shutdown v4.2 now supports SCVMM 2016.

Security Enhancements

- Updated to JRE 8 update 91, and JDK 8 update 91 on Mac OS X.
- Fix for DLL preloading vulnerability in the PowerChute Installer for Microsoft® Windows®, detailed in [Microsoft Security Advisory bulletin 2269637](#).

Issues Resolved in this Release

Visit the [Knowledge base](#) to view more detail on the following documented issues that are now resolved in v4.2.

Issue	Details
Following installation on certain Solaris SPARC systems, the PowerChute Web Server does not start, and the Web User Interface is not accessible.	This issue has been resolved in PowerChute Network Shutdown v4.2.
In an Advanced Configuration, PowerChute incorrectly reports that there are no suitable hosts for VM migration, when there are two hosts available.	This issue has been resolved in PowerChute Network Shutdown v4.2.
The VM inventory on the VM Prioritization page does not load successfully and a message displays indicating that vCenter is inaccessible. This issue occurred when there was a large number of VMs in the inventory.	This issue has been resolved in PowerChute Network Shutdown v4.2.
When vCenter Server is deployed on a VM and ESXi hosts have multiple NICs, host shutdown can take longer than expected. This occurs when PowerChute attempts to connect to the IP address of each NIC configured each ESXi host, and if some NIC IP addresses are not accessible, PowerChute waits a 75 second delay per NIC to attempt connection before timing out.	This issue has been resolved in PowerChute Network Shutdown v4.2.
PowerChute redirects to an incorrect IP address when redirecting from HTTP (port 3052) to HTTPS (port 6547). PowerChute does not correctly redirect to the IP specified in the pcnsconfig.ini file, under property localHostAddress.	This issue has been resolved in PowerChute Network Shutdown v4.2.

Known Issues

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General Issues on all Operating Systems

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Issue	Solution
A PowerChute Network Shutdown (PowerChute) Parallel-UPS Configuration is shutting down on only one critical event	PowerChute should not shut down for critical events when they occur on only one UPS in a Parallel Redundant Configuration. This is a known issue that occurs when the Configuration Wizard is run again after the initial configuration for a Parallel UPS. If you run the Configuration Wizard again after the initial configuration you should re-start the PowerChute service.
PowerChute does not support Parallel Smart-UPS VT, prior to firmware v5.0.	Contact APC to obtain the latest UPS firmware for Parallel Smart-UPS VT.
After a power outage has been resolved, PowerChute shuts down the Operating System every time it is started. This happens with a Redundant-UPS configuration and when using the Network Management Card (NMC) firmware v3.2.x through v3.5.5.	Upgrade the firmware on the Network Management Card to the latest version, see downloads. To resolve the issue once it has started happening: <ol style="list-style-type: none">1. Temporarily remove the network cable from the PowerChute machine before powering it on (this will prevent PowerChute from communicating with the NMC and triggering a shutdown).2. Power on your PowerChute machine.3. Upgrade the firmware on the NMC. The upgrade tool will automatically reboot the NMC during the upgrade process.4. Re-attach the network cable to the PowerChute machine and ensure communication is established with the NMC.
When several actions are selected for the same event, and the actions all have the same delay time, some actions do not occur.	Threading issues in Java occasionally cause the actions to interfere with each other. Use different delay times for each action.

<p>PowerChute does not recognize a temperature or humidity probe on the AP9631 Network Management Card.</p>	<p>Switch the probe from the AP9631 Universal I/O port on the right (labelled 2) to the port on the left (labelled 1). PowerChute will then recognize the probe.</p>
<p>PowerChute does not support an SMX or SMT UPS device that is part of a Synchronized Control Group (SCG). An SCG is set up using the Network Management Card (NMC) user interface.</p>	<p>Disable the SCG option for these devices using the NMC UI.</p>
<p>The PowerChute user interface is not available immediately after restarting a service or daemon. The delay is caused by PowerChute carrying out background validations and checks.</p>	<p>Wait a few minutes.</p>
<p>PowerChute does not allow you to log on again if you exit the Setup Wizard by closing the Web browser. A message is displayed that another user is already logged in.</p>	<p>If you accidentally close the browser, re-start the PowerChute service or daemon. Open the User Interface and complete the Setup.</p>
<p>If you change an existing command file path for an event in the pcnsconfig.ini file (e.g. event_PowerFailed_commandFilePath) by typing an invalid path, PowerChute will subsequently log an error message in relation to an invalid value in the ini file when it starts. It does not restore the previous valid path from the pcnsconfig.ini.bak file.</p>	<p>Change the path to the correct value, in the INI file or by using the PowerChute web user interface.</p>
<p>After an initial configuration, if you subsequently change the IP address of any NMC using the Setup Wizard:</p> <ul style="list-style-type: none"> a. the establishment of communications with the card is not recorded in the event log, and b. when the IP address is for a different UPS model type, the PowerChute list of events does not automatically update. 	<p>For a) no workaround. For b) you need to re-start the service or daemon.</p>
<p>When the PowerChute service or daemon starts, it validates the Pcnconfig.ini value named localhostAddress. (This is the PowerChute IP address that is registered with the NMC). If PowerChute has not already acquired an IP address when this check occurs, PowerChute will report an invalid value. PowerChute will report this as an invalid value in the ini file.</p>	<p>Run the Setup Wizard again to set the correct PowerChute IP address.</p>
<p>In a Parallel Redundant UPS configuration, PowerChute might incorrectly report Lost communications while on Battery when communications are lost and only one UPS has been on battery. The event log does not record the On Battery event prior to this.</p>	<p>No workaround.</p>
<p>Following silent installation using IPv6, the Network Management Card shows two entries for the PowerChute client unicast address. This occurs if a short format IPv6 address is entered in silentInstall.ini for UNICAST_ADDRESS e.g.</p>	<ol style="list-style-type: none"> 1. Use the full format address when entering IPv6 address e.g.: UNICAST_ADDRESS=fe80:0:0:0:80e9:7d49:2793:3616 before running the silent install. 2. If installation is already completed, the short format

<p>UNICAST_ADDRESS=fe80::80e9:7d49:2793:3616</p> <p>This can result in the NMC sending unnecessary packets.</p>	<p>IPv6 address can be removed from the Network Management Card via Configuration > PowerChute clients.</p>
<p>When PowerChute is installed on an IPv6 only machine the CN (Container Name) value in the self-signed SSL Certificate is set to 127.0.0.1.</p>	<p>Replace the Self-Signed SSL cert using the steps outlined in Kbase FA176886.</p> <ol style="list-style-type: none"> 1. Re-enable IPv4 on the machine and stop the PowerChute Service. 2. Delete PowerChute-Keystore file from group1 folder where PowerChute is installed. 3. Re-start the service. <p>On Linux/Unix/Mac OSX:</p> <ol style="list-style-type: none"> 1. Stop the PowerChute service. 2. Add the IPv6 addresses and the Fully Qualified Domain Name of the machine to /etc/hosts file. 3. Re-start the Service.
<p>IPv6 support for PowerChute is only available for NMC Firmware v6.0.X or higher</p>	<p>Upgrade the NMC firmware to v6.0.X or higher for IPv6 support.</p>

User Interface Web Browser Issues

[↑ Known Issues](#)

Issue	Solution
If the browser window remains open during an upgrade to PowerChute v4.2 the PowerChute user interface does not display correctly following the upgrade, and a notification to delete the log file appears.	Close and re-open the affected web browser and access the PowerChute user interface. The user interface will display correctly.
Mozilla Firefox does not load the PowerChute web interface when the Fully Qualified Domain Name is used.	Use the short hostname in Mozilla Firefox to load PowerChute the web interface. View the Mozilla Firefox Support - Server Not Found issue for more information.
A security warning is displayed when launching the PowerChute User Interface in a browser stating that the Web Server SSL cert is not trusted. This occurs because PowerChute uses a self-signed SSL cert by default.	There are two possible solutions: <ol style="list-style-type: none"><li data-bbox="862 632 1520 695">1. You can choose to add the PowerChute self-signed SSL cert as a trusted cert and ignore the warning.<li data-bbox="862 705 1484 768">2. You can replace the default self-signed SSL cert with a trusted SSL cert. See the Product Center.
PowerChute is not compatible with IE 10 Metro Version.	Use the desktop version of IE 10 to access the PowerChute UI on Windows 2012 and Windows 8. The start menu item for PowerChute will launch using the desktop version of IE for these operating systems .

Network Configuration

[↑ Known Issues](#)

Issue	Solution
PowerChute Network Shutdown web interface will not load using the Fully Qualified Domain Name in a private network using a static IP address - FQDN cannot be resolved. This issue only occurs if there is no DNS server configured for the network card.	On a private network using a static IP address, use http://localhost:6547 to load the PowerChute web interface.
After you uninstall PowerChute Network Shutdown, the Network Management Card (NMC) still lists the IP address on the PowerChute agents page.	Delete the IP address from the list of PowerChute agents in the NMC User Interface.
On a machine with multiple network cards, when PowerChute issues a UPS/Outlet Turn off command, the Network Management Card (NMC) may show the IP address of one of the other network cards instead of the IP address that was used to register with the NMC.	None. There is no functional impact caused by this issue.

SNMP Configuration

Issue	Solution
PowerChute reports a failed SNMPv3 connection attempt in the Event Log, though the SNMPv3 connection has been successful. Certain MIB browsers attempt initial connections before using the correct user name specified in PowerChute.	SNMPv3 connection has been successful, and Event Log reports indicating a failed connection attempt can be disregarded in this scenario.

Event Configuration and Logging

[↑ Known Issues](#)

Issue	Solution
<p>PowerChute reports Communications established with the NMC, and then reports that PowerChute cannot connect to the NMC. This issue occurs when PowerChute is configured to use IPv6, when PowerChute is installed on a vMA and the vMA is restarted following configuration.</p>	<p>There is no loss of communications with the NMC and this issue does not impact the functionality of the vMA in any way.</p>
<p>A UPS Critical event is reported twice with a delay between each event logged. This issue can occur in the following scenarios:</p> <ul style="list-style-type: none">• When a host has been removed from the Host Protection page in any UPS configuration, or• When a host has been linked to a different UPS/Outlet group on the Host Protection page, or• When ESXi hosts have Multiple Kernel Adapters with multiple IPs associated for each Kernel Adapter.	<p>There is no workaround to this issue. This issue may cause a slight delay in starting the shutdown sequence, as PowerChute checks if the target ESXi hosts are available in the inventory.</p>
<p>Hostlist key is not removed from HostConfigSettings section in the pcnsconfig.ini file when switching from Single to Advanced UPS Configuration, and the following event appears in the Event log:</p> <p>WARNING: The invalid key hostlist should be deleted from section HostConfigSettings in the ini file</p>	<p>Restart the PowerChute Service.</p>
<p>The Multiple Critical Events Occurred event is logged with "On Battery" displaying twice: "Multiple Critical Events occurred: On Battery, On Battery, UPS Turn Off Initiated".</p>	<p>You can ignore the second instance of "On Battery" in this logged event.</p>
<p>Clicking on the Export button on the Event Log page does not save a copy of the Event Log on the local machine.</p>	<p>Click on Tools - Internet Options in Internet Explorer and click on the Advanced tab. Disable the option "Do not save encrypted pages to disk". For more information see http://support.microsoft.com/kb/2549423.</p>
<p>When you switch PowerChute to connect to a different type of UPS device the list of configurable events is not updated in the UI. (Different UPS devices can have different configurable events).</p>	<p>Restart the PowerChute service to display the correct list of events.</p>

<p>On MGE Galaxy 300/ 7000 UPS devices: sometimes the Runtime: Exceeded event is incorrectly cleared in the event log.</p>	<p>With the MGE Galaxy 300/ 7000 devices, on the NMC user interface ensure that the Maximum Required Delay is always equal to or greater than the Maximum Negotiated Delay.</p>
<p>After the PowerChute service or daemon start, PowerChute does not log the communications established event for a Parallel system until all of the NMCs are in communication with PowerChute. It should report communication established when at least one NMC is communicating with PowerChute.</p>	<p>No workaround.</p>

Windows

[↑ Known Issues](#)

Issue	Solution
<p>Command files do not run properly when called by PowerChute. The command file stops before all of the statements have executed.</p>	<p>The command file must use the @START command to run executable programs, and use the full path name of the program. Path names that include spaces must be enclosed in quotes. Arguments for the executable must be outside the quotes.</p> <p>For example, if you must run HyperTerminal and Backup in your command file, use the syntax:</p> <pre>@START "c:\Program Files\Windows NT\hypertrm.exe" arguments @START c:\Winnt\system32\backup arguments</pre>
<p>A PowerChute client that acquires its IP address through DHCP will lose communications with the Network Management Card when the client renews its DHCP address lease and acquires a different IP address.</p>	<p>Each system using PowerChute must have a permanent IP address. Reserve IP addresses in DHCP by using the MAC address, so that they never change for specified machines.</p>

<p>After a graceful shutdown by PowerChute, the server does not turn on when utility power is restored.</p> <p>Due to changes in the power management feature in Windows XP SP1 and Windows 2003, some servers with an ACPI (Advanced Configuration and Power Interface) BIOS will not turn on when utility power is restored after an outage.</p> <p>The following is an example of what may occur:</p> <ul style="list-style-type: none"> • A server is attached to a UPS and running PowerChute. PowerChute is configured to shut down the operating system when the UPS has been on battery for a specific time. • With a utility power outage, causing the on-battery event, PowerChute commands the operating system to shut down gracefully. • Because ACPI power management is controlled by the operating system rather than by the BIOS, when the operating system completes its graceful shutdown, it commands the server to turn off. • The UPS remains on battery until its shutdown delay time has expired. When utility power is restored, the UPS provides power; the server does not turn on. 	<p>At this time, there are no updates available for this issue. Check Windows Update for the latest updates and service packs for your operating system.</p>
<p>On Windows 2003 (without SP1 installed), when a "Low Battery" event occurs or any event with "Shut Down System" enabled, the operating system should shut down but it does not.</p>	<p>Install the SP1 update for Windows 2003.</p>
<p>The UDP and TCP exceptions for PowerChute are only applied to the active profile in the Windows Firewall (and only one profile can be active at a time). If the active profile is changed you will need to manually add exceptions for TCP ports 3052 and 6547 and UDP port 3052.</p>	<p>See Microsoft TechNet.</p>

VMware

[↑ Known Issues](#)

Issue	Solution
<p>If VM shutdown is enabled but the duration value is set to 0 seconds the shutdown sequence will not proceed.</p>	<p>Set a non-zero value for VM shutdown duration.</p>
<p>In an Advanced UPS configuration, if the vCenter Server IP address is changed on the Communication Settings page, the VMware hosts that were previously associated with UPS's are not removed from the target host list.</p>	<p>Re-start the PowerChute service and associate the VMware hosts in the new vCenter Server Inventory with the UPS's.</p>

When there are multiple vApps in different clusters, PowerChute may log events for vApps that are not running on the VMware Hosts being protected.	None. PowerChute does not perform any operations on these vApps.
If the ESXi Host running vCenter Server VM is not added on the Host Protection page during the Setup Wizard, or if the Setup Wizard is exited without applying the vCenter Server VM Shutdown duration on the Virtualization Settings page, the vCenter Server VM shutdown duration is not applied correctly when the Host is added on the Host Protection page and Virtualization Settings are updated in the Main UI.	Run the Setup Wizard again, ensure that the vCenter Server VM Host is added to the Host Protection page and complete the Setup Wizard.
PowerChute Web UI is inaccessible via vSphere Web Client plug-in on first launch. The following error message is displayed: "Content was blocked because it was not signed by a valid security certificate."	In the information bar select the option to display blocked content or install the PowerChute SSL certificate to the Trusted Root Certification Authority Store, or replaced the default self-signed SSL cert with a trusted cert per the instructions in FA176886 .
Following a service re-start on a vMA or PowerChute Virtual Appliance, VMs which contain High ASCII or DBCS characters in their name may be stored in pcnsconfig.ini file using a different encoding. This can cause issues for VM Prioritization and VM startup, as the name stored in the INI file will not match what appears in the vCenter Server inventory.	No workaround.
Importing the Virtual Appliance on ESXi 5.0 may present some warning messages.	No workaround necessary - the messages can be ignored. The functionality of the virtual appliance is not affected.

Linux

[↑ Known Issues](#)

Issue	Solution
HP-UX	
PowerChute fails to shutdown HP-UX machine when installed via iLO/MP Console. This can also occur if the PowerChute daemon is restarted via iLO/MP Console.	Do not install or restart the PowerChute daemon using the iLO/MP Console. Either log on directly or use SSH/rlogin to connect remotely.
Solaris	
When configuring the "Notify User" option in PowerChute, if a Single User is chosen, the user does not receive the notification.	Specify All Users when configuring the "Notify User" option.
Ubuntu	
On Ubuntu with KDE 4.8.5, clicking the Close button in the PowerChute About box will crash the Rekonq browser.	Update to KDE 4.9.0.

Red Hat Enterprise Linux (RHEL)

PowerChute fails to install on 32-bit RHEL 5.x. A permission-denied error message for the file libjvm.so is displayed.

This occurs due to a bug in SELinux.

1. Temporarily disable SELinux to complete the installation:
/usr/sbin/setenforce 0
2. Run the following command after completing the installation:
chcon -t textrel_shlib_t
'/opt/APC/PowerChute/jre1.7.0_45/lib/i386/client/libjvm.so'
3. Re-enable SELinux:
/usr/sbin/setenforce 1

Mac OS X Issues

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Issue	Solution
Following silent installation using IPv6 on MAC OSX the event log reports the following error: "ERROR: The ini contains an invalid value for localHostAddress in section Networking."	In SilentInstall.ini add the IPv6 address of the PowerChute machine to the key: "LOCAL_IP_ADDRESS=000.000.000.000" and remove the comment symbol: #. This needs to be done in addition to specifying the IPv6 address in the #UNICAST_ADDRESS= key.

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