



Configuring UPS Notification for

EonStor GS/GSe

Application Note

Abstract:

This application note describes the procedure to configure a UPS to an EonStor GS/GSe system for protection against unexpected power outages.

(APC Smart-UPS is used as an example)



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UPS (Uninterruptible Power Supply)

An UPS is an electrical apparatus to protect electronic devices from unexpected power failures and shut down the devices in a safe manner. UPS provides temporary emergency power using a large capacity battery to an EonStor GS/GSe system when a power outage or other unexpected power failures occur. In addition to supplying power for EonStor GS/GSe systems, the UPS also receives requests from EonStor GS/GSe systems and sends back the status so that EonStor GS/GSe systems can safely turn the system into “safe mode” without losing vital user data.

Infortrend EonStor GS/GSe systems sends SNMP (Simple Network Management Protocol) get-requests every 10 seconds to sync the status of the UPS (SNMP v1 and v2c are supported). Users need to connect the LAN port of the UPS into the same network as the EonStor GS/GSe system. In this case, some amount of configuration is required on both the UPS and the EonStor GS/GSe system.

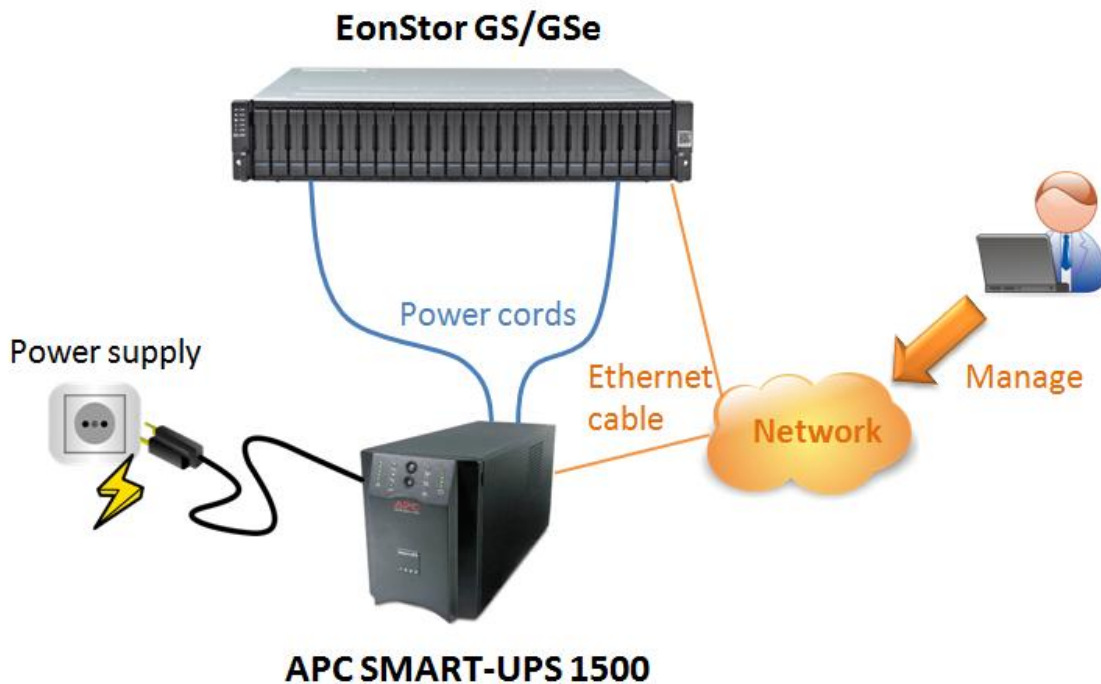
The following sections describe how to configure the EonStor GS/GSe system as well as the UPS (APC SMART-UPS 1500 is used as an example).

For a complete list of UPS devices that are compatible with EonStor GS/GSe Family, please contact your service provider.

Preparing the Environment

Step 1: Cabling

1. Plug the UPS power cord into the power supply.
2. Connect the power cords of the EonStor GS/GSe system to the UPS instead of the usual power socket.
3. Connect the Ethernet cable of the UPS to the same subnet as the EonStor GS/GSe system, preferably the same router/switch.
4. Each of the devices (such as switch or hub) connected to the EonStor GS/GSe should be plugged into the same UPS, so that EonStor GS/GSe could send SNMP get-requests to UPS during power failures.



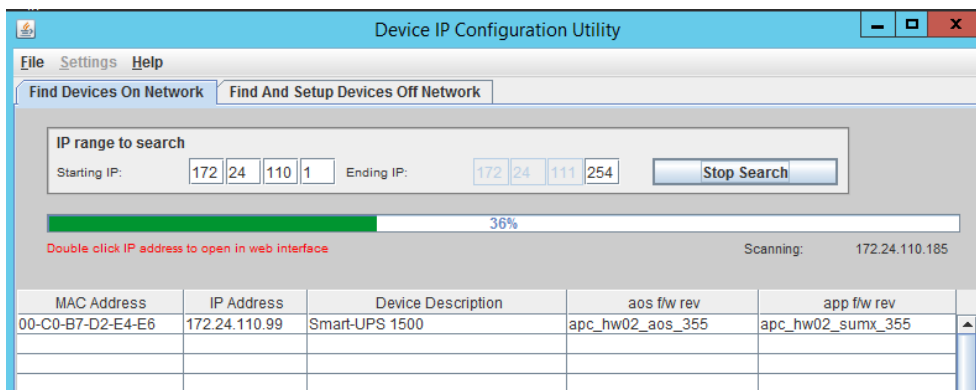
Step 2: Powering on

Turn on the EonStor GS/GSe system and then power up the UPS.

Configuring the UPS

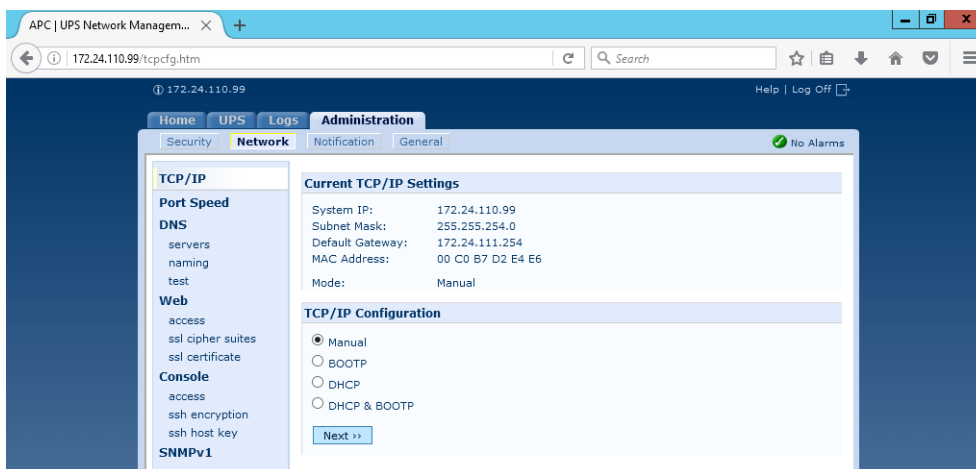
Step 1: Find IP address of UPS

You can find the IP of UPS via IP searching tool (APC SmartUPS 1500 is used here as an example).



Step 2: Setting the IP address of UPS

Enter the management tool via browser for the UPS. Select the Administration tab in the UPS Network Management Card interface and select the Network menu on the top bar. You can change the current TCP/IP settings and note down the IP address of the UPS.

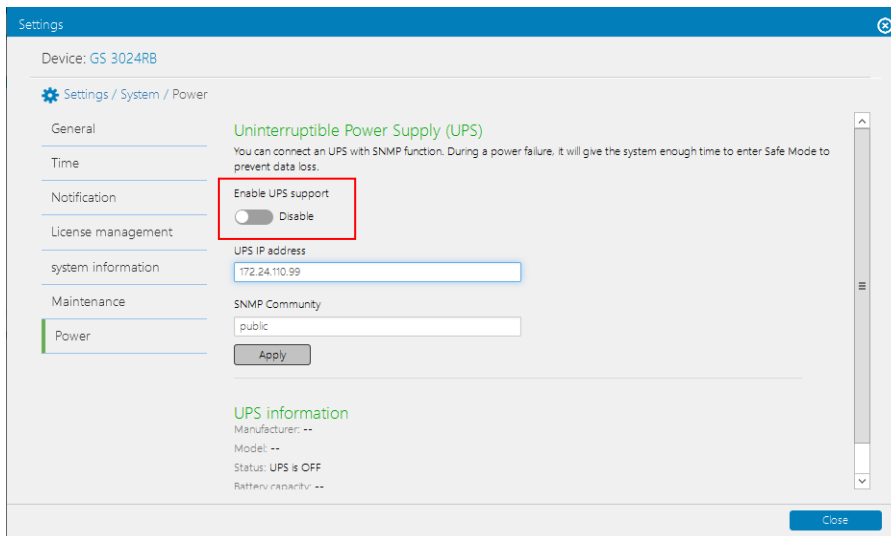




Configuring EonStor GS/GSe

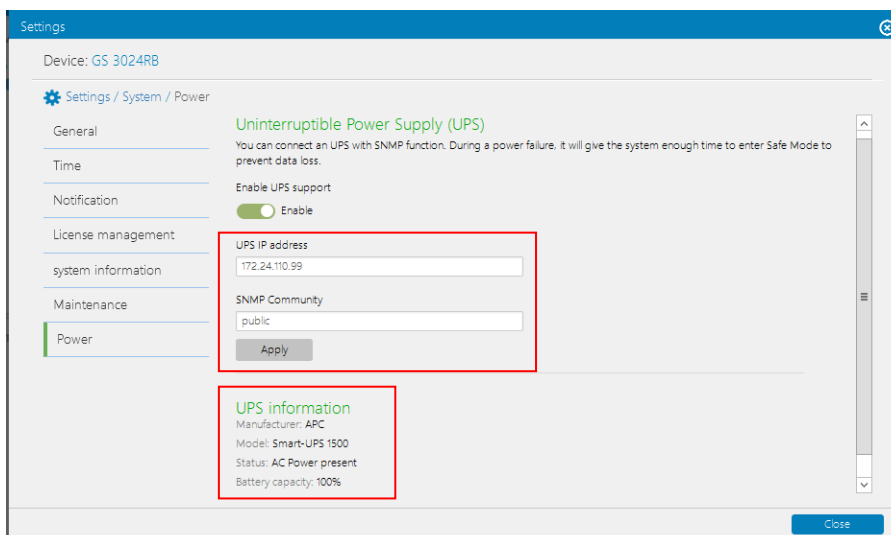
Step 1: Enable the UPS function in EonStor GS/GSe

Access the EonOne web interface of EonStor GS and go to Main menu → Settings → Device → Systems → Power. Enable the UPS function.



Step 2: Add UPS to EonStor GS/GSe

Specify the UPS IP address and SNMP Community, then click the Apply button. The UPS information will show up including Manufacturer, Model, Status and Battery capacity.



Behavior of the UPS feature of EonStor GS/GSe

Event Log message

Device	Level	Type	Date / Time	Event	Event Code
GS 3024RB	Information	Monitor	2016-12-16 06:08:30	UPS AC power was restored. The device has exited safe mode. (slot A)	0x0106A40D
GS 3024RB	Warning	Monitor	2016-12-16 06:06:52	All volumes have been deactivated. (slot A)	0x82460480
GS 3024RB	Error	Monitor	2016-12-16 06:06:50	UPS AC power failure was detected. The device has entered safe mode. (slot A)	0x21062421
GS 3024RB	Information	Monitor	2016-12-16 06:05:06	UPS connection has been restored. (slot A)	0x0106A40C

EonStor GS/GSe sends SNMP requests to get AC power status and remaining battery information. When the power of UPS has failed or is lower than the threshold, EonStor GS/GSe will enter safe mode and display a message in the Event log.

Situation	Level	Event
UPS AC Disconnected	Error	UPS connection failure has been detected. Please check the network status between the device and UPS.
UPS AC Connection Restored	Information	UPS connection has been restored.
UPS AC Power Loss Detected	Error	UPS AC power failure has been detected. The device has entered safe mode.
	Warning	All volumes have been deactivated.
UPS AC Power Restored	Information	UPS AC power has been restored. The device has exited safe mode.
	Information	All volumes have been reactivated.

Table: Event log messages of the UPS on EonOne



Safe Mode

During power failures, the UPS will give the system enough time to enter Safe Mode to prevent data loss.

1. After 30 seconds of AC power failure, Safe Mode will change block-level volumes from write-back to write-through mode.
2. When UPS AC power fails and the battery runtime remaining is less than the 30 minutes threshold, Safe Mode will un-mount file-level volumes.

When power is restored, EonStor GS/GSe will return to its normal state.