Power Management using Opengear Console Server

Opengear console servers manage serial and network PDUs from over 100 vendors. We do this by embedding the open source PowerMan (serial PDU) and Network UPS Tools (SNMP network PDU) software and providing our own powerstrip drivers. As such we cover models from most vendors (including APC, Baytech, ServerTech, TrippLite etc) however we don't (as yet) cover them all :)

If you have a network connect PDU you would like supported contact us (email: support@opengear.com.cn) and we'll help include your MIB in the NUT supported power devices.

Monitoring and controlling serial PDUs

Serial PDUs are controlled using the command line console on their serial port. So you could manage the PDU through the console server using a remote Telnet or SSH client. Also you could use proprietary software tools no doubt supplied by the vendor.

However to make power control simple, the Opengear Management Console provides tools that locally and remotely control the whole range of serial and network connected power devices including PDUs, UPSes and BMCs - all through the one window.

To set up a serially connected PDUs:

- Connect the PDU to the selected serial port on the console server and configure the Common Settings on Serial and Network: Serial Port menu with the appropriate RS232 properties
- Then select RPC as the Device Type (RPCs are Remote Power Controllers and include PDUs and IPMI power devices)
- Go to the Serial & Network: RPC Connections menu which will display all the RPC connections that have already been configured. Click Add RPC
- Select the appropriate serial port from Connected Via (which shows all the serial ports and network hosts that you have set up with device type RPC but have yet to connect to a specific RPC device). You will be presented with all the serial RPC types currently supported by the embedded PowerMan and Opengear's power manager (shown below)
- Select the RPC type and enter a Name and Description for the PDU and the Username and Password used to login into the RPC. (Note that these login credentials are not related the Users and access privileges you will have configured inSerial & Networks: Users & Groups)
- If you wish the status from this PDU to be logged check Log Status and specify the Log Rate (minutes between samples) These logs can be views from the Status: RPC Status screen
- Click Apply and the console server will probe the configured PDU to confirm the RPC Type matches. It will then report the number of outlets it finds that can be controlled, and create a new Managed Device (with the same name)

To set up a network connected PDUs:

- Connect the PDU to the management LAN and configure the PDU as a connected Host using the Serial & Network: Network Hosts
- Then select RPC as the Device Type (RPCs are Remote Power Controllers and include PDUs and IPMI power devices) and click Apply
- Go to the Serial & Network: RPC Connections menu which will display all the RPC connections that have already been configured. Click Add RPC
- Select the connection from Connected Via (which shows all the serial ports and network hosts that you have set up with device type RPC but have yet to connect to a specific RPC device). Select the appropriate Host and protocol (SNMP/HTTP/HTTPS). When you select to Connect Via a network connection the corresponding Host Name/Description that you set up for that connection will be entered as the Name and Description for the power device
- You will be presented with the IPMI protocol options and the SNMP RPC Types currently supported by the embedded Network UPS Tools. Select the appropriate RPC Type for the PDU being connected
- If you wish the status from this PDU to be logged check Log Status and specify the Log Rate (minutes between samples) These logs can be views from the Status: RPC Status screen
- Click Apply and the console server will probe the configured PDU to confirm the RPC Type matches. It will then report the number of outlets it finds that can be controlled, and create a new Managed Device (with the same name)

Controlling the PDUs

The console server enables both Users and Administrators to access and control the configured serial and network attached PDU power strips, and servers with embedded IPMI service processors or BMCs:

- Select the Manage: Power and the particular Target power device to be controlled (and the Outlet to be controlled if the RPC supports outlet level control)
- The outlet status is displayed and you can initiate the desired Action to be taken by selecting the appropriate icon (Turn ON, Turn OFF, Cycle, Status). You will only be presented with icons for those operations that are supported by the Target you have selected.
- The individual network devices that are

The list of supported PDU can be found at https://opengear.zendesk.com/hc/en-us/articles/216374903-Supported-PDUs-and-UPSes

Opengear can also power cycling a managed device while connected to its console as it manage IT and network infrastructure as well as power infrastructure. Combining these two

capabilities allows you to control power to a target device, e.g. hard reboot a network switch, while connected to it via an out-of-band console session.

Basic configuration steps are:

- Configure the serial console connection to the target device
- Configure the RPC connection to the PDU
- Create a Managed Device associating the console and PDU outlet
- Connect to the console and invoke the pmshell power menu using the ~p hotkey