

APC's Integration with AdventNet's ManageEngine OpManager®



Abstract

High availability of any network is dependent on several factors, two of which are adequate power and access to real-time information about the status of the various network devices. This application note explains the integration between APC and AdventNet's ManageEngine OpManager™, which enables IT managers to monitor all of their network devices, including SNMP-enabled APC Uninterruptible Power Supplies (UPSs) within the APC InfraStruXure™ architecture from one application.

The APC & AdventNet Partnership

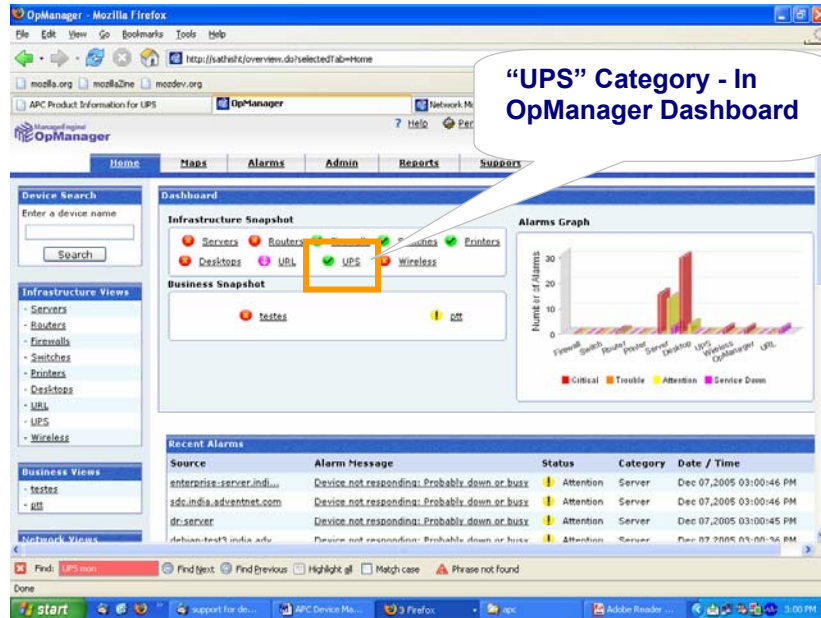
AdventNet's ManageEngine OpManager is a complete network monitoring software that offers comprehensive APC UPS monitoring capabilities in addition to WAN, Server, and Applications monitoring with integrated help desk, asset management and WAN traffic analysis functionality. OpManager automates several network monitoring tasks and removes the complexity associated with network management, helping enterprises worldwide to ensure high availability of their critical network components. AdventNet and APC have partnered to provide built-in support for APC's InfraStruXure UPS products; this application note demonstrates how one can take advantage of this integration.

OpManager's built-in APC UPS support provides the following capabilities:

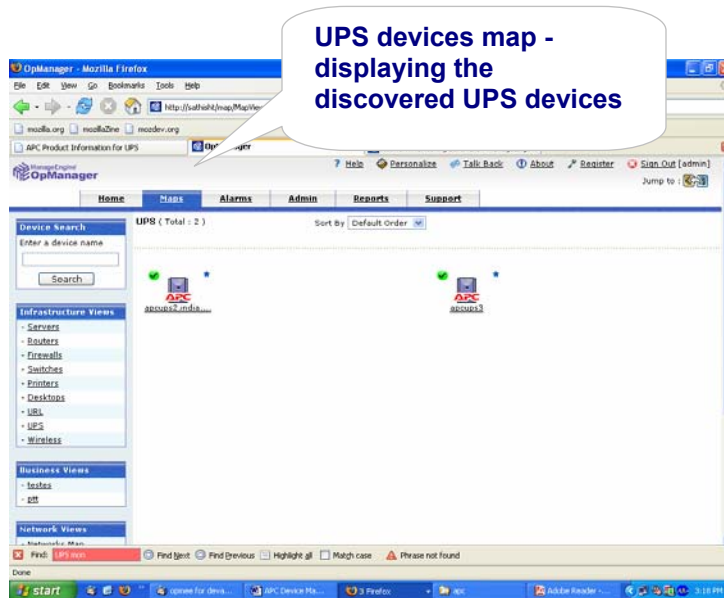
- Automatic discovery of SNMP-enabled APC UPSs
- Real-time visibility to the health of the UPS
- Critical UPS health parameters, such as UPS battery charge, input line voltage, UPS load, output current & output voltage
- Alerting through e-mail and/or SMS when a fault condition is detected, or a threshold violation of any of the above parameters has occurred

Automatic Discovery of APC UPSs

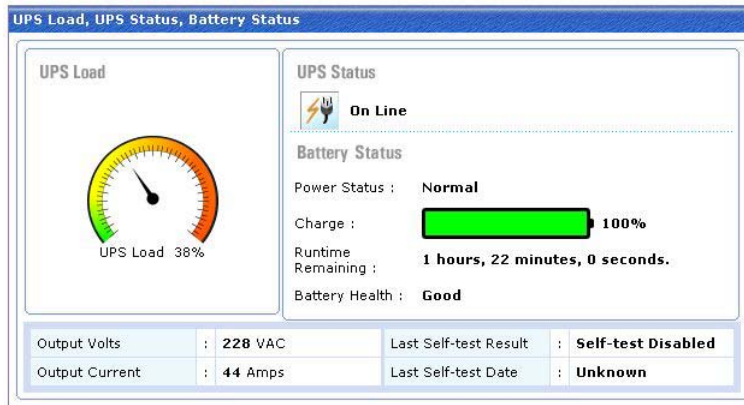
OpManager offers comprehensive monitoring for APC UPS devices. All APC UPS devices which support SNMP are automatically discovered and added by OpManager. The discovered UPS devices are grouped and can be accessed using the "UPS" category link:



Clicking on the UPS category will bring up the UPS devices map, which displays all the discovered UPSs in the network:



The UPS device snapshot page shows important details about the UPS in a single screen. The load of the UPS, the UPS status (whether it is online or not), and the battery status are shown:



Key parameters monitored by OpManager

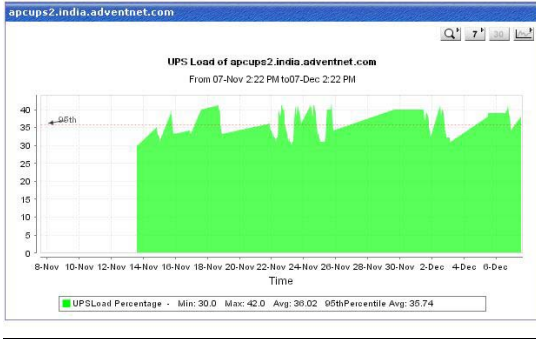
OpManager monitors the following key parameters and stores their historic values for trending reports:

- UPS load
- Battery health
- Battery self-test results
- UPS power status
- Battery charge percentage
- Battery runtime remaining
- UPS input line voltage
- UPS output current and output voltage

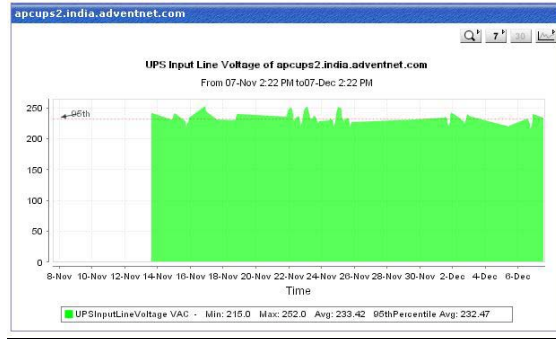
Detailed UPS Monitoring Reports

OpManager provides in-depth reporting capabilities to analyze the performance of UPS devices for various parameters over a period of time:

UPS Load: 30-Day Report



UPS Input Line Voltage: 7-Day Report



Alerts

OpManager generates alerts whenever the monitored values exceed the set threshold levels. Administrators can configure OpManager and set threshold levels for UPS load, Battery health, Battery self-test results, UPS power status, Battery charge percentage, Battery runtime remaining, UPS input line voltage, UPS output current, and UPS output voltage. The alert messages are customizable based on need, and can also be sent as SMS messages over GSM/ CDMA networks directly to the service engineers' mobile phone:

UPS Load exceeded the Threshold Value for APC UPS 1

Source	Alert Message	Status	Technician	Category	Date / Time
APC UPS 1	UPS Load exceeded the Threshold Value - UPS Load - Current Value : 40 - Threshold Value : 35 - Severity : Attention - Reason Value: 30	Attention	UnAssigned	UPS	Feb 11, 2006 12:04:15 PM
WIN Server	Device Down: No response from device for last 5 polls	Critical	UnAssigned	Server	Feb 11, 2006 11:32:07 AM
te_router	Interface IFindex3 is down	Trouble	UnAssigned	Router	Feb 10, 2006 03:22:03 PM
te_router	Interface IF-20.0.0.1 is down	Trouble	UnAssigned	Router	Feb 10, 2006 03:22:03 PM
te_router	Interface IFindex2 is down	Trouble	UnAssigned	Router	Feb 10, 2006 03:22:03 PM
WIFI 1200 AP	Device Down: No response from device for last 5 polls	Critical	UnAssigned	Wireless	Feb 09, 2006 04:04:02 PM
WorkStation1	MySQL Service is Down	Service Down	UnAssigned	Server	Feb 09, 2006 11:36:43 AM
ORA Server	Oracle_FOP_Services are Down	Service Down	UnAssigned	Server	Feb 09, 2006 11:17:24 AM
192.168.195.201	Interface connected to Unknown Device is down	Trouble	UnAssigned	Router	Jan 04, 2006 02:26:47 PM

Conclusion

AdventNet's ManageEngine OpManager is comprehensive network monitoring software that automates several network monitoring tasks and removes the complexity associated with network management. OpManager's built-in APC InfraStruXure UPS support enables APC and AdventNet's mutual customers to conveniently and easily monitor both the APC UPSs and the network gear they are protecting from one application.