

How do I use SPM to manage multiple data centers?

APPLICATION NOTE SPM-004 | June 2014

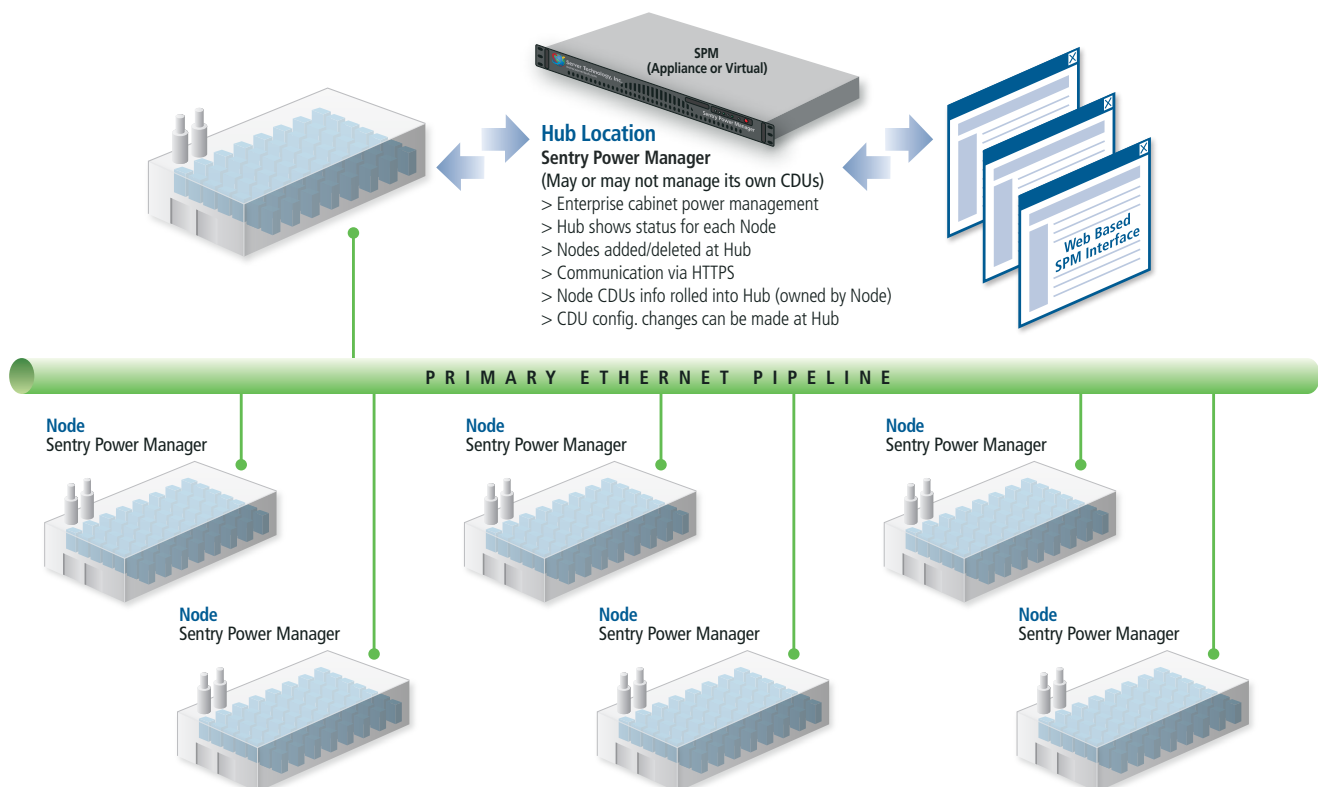
Sentry Power Manager (SPM) with the Hub-and-Node feature gives data center managers the necessary tools to monitor and manage cabinet PDUs at multiple large data centers.

Typical Application

I am responsible for several large data centers around the world. One of the data centers is currently monitored and managed by an SPM system, in which we have found many benefits. In order to take that model to the other data centers, is it better to add the PDUs from the other data centers into that same SPM, or to install an SPM into each of those data centers?

Our Solution

Sentry Power Manager (SPM) is the ideal, cost-effective way to aggregate the monitoring and management of a data center full of intelligent cabinet PDUs. With the Hub-and-Node architecture, each data center can be administered via its own SPM for maximum performance and access control, while still maintaining the central configuration and monitoring features at HQ.



Local Admin Access with SPM Hub & Node

In today's distributed data center, there are often the competing needs to have on-site administrative control and to have centralized monitoring.

Data center managers require a means to monitor racked IT equipment and manage change as it occurs. At the same time, upper-level management at headquarters often needs to get high-level information from their many sites. Administrators at each location need secured authentication and the ability to manage user access for that particular location without interacting with any other location.

SPM Hub-and-Node provides a secured connection between an SPM system at headquarters, or other central location, and any number of locally managed data center SPM systems. Each locally managed Node SPM allows for users from Administrator down to View Only as if it were a stand-alone system, but the centrally managed Hub SPM allows for an ultimate Administrator to remotely monitor and manage, as needed.

The screenshot shows the 'Manage Users' interface in the Sentry Power Manager. The table below represents the data displayed in the interface:

Name	Capabilities	Default Permission	TACACS+ Privilege Level
Setup	Regular	Setup	
Power	Power	Setup	
Group_6	Administrator	Setup	
TC_Admin	Administrator	Setup	15
TC_Power	Power	Setup	5
TC_User	Regular	View Only	0
test	Regular	No Access	
ViewOnly	Regular	View Only	
Administrators	Administrator		

Key Intelligent PDU Benefits:

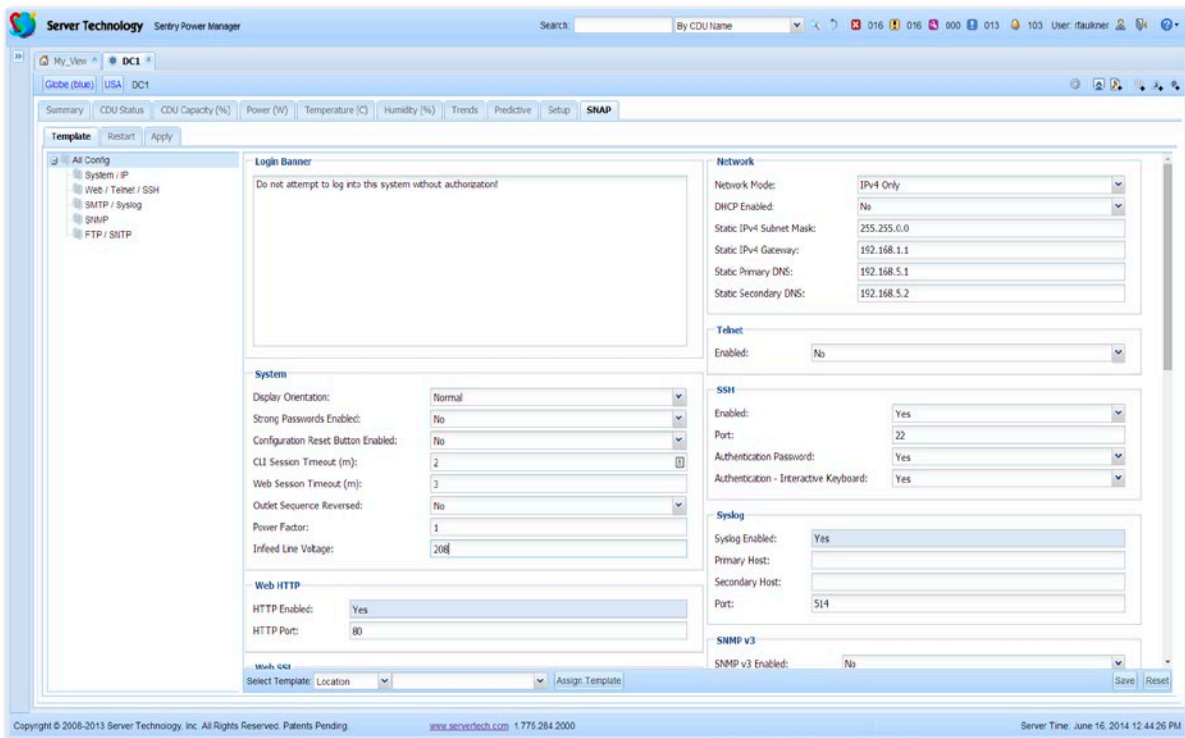
- > PIPS® and/or POPS® high-accuracy measurements of current, voltage, power, etc.
- > Environmental measurements via plug-and-play probes
- > SNMP traps and email alerts
- > Master-Expansion linking allows single-IP access to the cabinet pair of PDUs

Configuration Across Data Centers with SPM Hub & Node

Organizations with multiple data centers often need to apply a consistent security framework at all locations around the world.

Whether it be the need to disable unsecured connections such as Telnet, or to change default administrative passwords, there are times that action must be taken in bulk to maintain security of installed PDU hardware. Additionally, for consistency, it is often desirable to provide updated firmware to all affected hardware when a bug fix or feature upgrade is available as well as confirm the updated status of the firmware.

SPM Hub-and-Node provides an encrypted connection to every Server Technology CDU within a multiple data center environment up to the centrally located Hub SPM system. Using the SNAP configuration feature, the administrator of the Hub SPM can push bulk configuration changes, including security and firmware changes, to one CDU, a group of CDUs, or all CDUs across the entire data center network.



Key SPM Benefits:

- > Mass configuration of Server Technology PDUs through secure SNAP™ feature
- > Easy to use for capacity planning and power monitoring
- > Custom Views for each user for quick access to relevant data
- > Alarm monitoring and management from the data center level down to the outlet
- > Setup cabinet-level redundancy checks
- > Identify temperature variation across the data center
- > Manage user rights to access and control equipment power
- > Convert continual data polling from all cabinets into actionable information in a variety of forms

Energy Consumption Reporting with SPM Hub & Node

Senior management must take into account the cost of power in the data center.

These personnel often need to look at the big picture, comparing one data center to another, and analyzing energy consumption with local costs and the resulting carbon footprint. With limited time, they need the simplest solution to provide this information in order to make decisions.

SPM Hub-and-Node provides reports for energy consumption, energy costs, and carbon footprint on a per-location basis. These reports of CDU measurements that are monitored by local Node SPMs distributed around the world can be run as needed or on a schedule from the Hub SPM. This gives quickly accessible data to the busy executive.

	Location	Energy (kWh)
5/1/2014		
	Data Center West	4777.7
	Data Center East	3898.2
5/2/2014		
	Data Center West	4893.1
	Data Center East	3991.8
5/3/2014		
	Data Center West	4998.2
	Data Center East	4008.6
5/4/2014		
	Data Center West	4558.8
	Data Center East	3919.3

Interested in learning more about how SPM can help you with Managing Your Large Data Centers? Visit us online and download a FREE Demo at: www.servertech.com/products/sentry-power-manager



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