

Using Uplogix Local Management for intelligent power management

The Current Situation

Power management is a critical part of network IT and has two main components:

- ▶ Managing and monitoring power throughout the infrastructure
- ▶ The ability to control outlets and groups of outlets

Monitoring power includes consumption at various levels such as a specific outlet, rack, room and/or facility. Also the monitoring of power phase in the facility and monitoring and alarming when a UPS goes into battery operations.

Complex IT infrastructure devices such as servers, networking and telecom equipment are prone to entering states that are not recoverable through normal remote administrative commands even at the BIOS level.

This often leads to the inevitable step of a hard reboot, which requires an administrator to physically power cycle the device. This is not only an inconvenience, especially if it is remotely located or if it happens in the middle of the night, but it can lengthen downtime, disrupt business continuity and increase support costs.

Key Power Monitoring and Management Capabilities

Power management is a key component of the Uplogix Local Management platform. Some of the functionality includes:

- ▶ **Power utilization monitoring** | Collects power draw from the power unit at regular intervals to provide an accurate view of power consumption that can be used for capacity planning. By monitoring the power draw, Uplogix Local Managers (LMs) can immediately alert administrators when pre-defined thresholds are hit.
- ▶ **Enhanced security** | Integrates seamlessly with RADIUS, TACACS and other authentication mechanisms to provide very granular levels of access and control, such as power cycling only specified outlets of shared power units
- ▶ **Remote access** | Eliminates the need for human intervention by providing always-on connectivity to the power units to reduce errors, mean-time-to-recovery and support costs
- ▶ **Independent control and redundancy** | Independently controls outlets on power units to provide power management for specific devices. Supports daisy-chained power units, providing redundancy in the remote power management solution.
- ▶ **Executing complex procedures** | Automates hardware-specific tasks that often require sub-second specialized commands and interactions during the power-on self test cycle to facilitate complicated recovery interactions.



Power management is an important component of the Local Management Platform

How Local Management incorporates power management

Using third-party switched power distribution units (PDUs), an Uplogix Local Manager (LM) can map individual outlets to specific ports. This allows power management to be part of Uplogix automation and rules engine inputs/outputs. It also allows users with appropriate privileges to issue power commands by specific port or device.

Uplogix LMs dedicate a serial port for connecting to a smart PDU. Some supported brands include ServerTech, APC, Avocent and Baytech PDUs. Additional capabilities may vary by brand, for example with ServerTech, PDUs may be daisy chained for control of additional ports, as well as support for inline power modules.

Amperage draw can be monitored and fed into the rules engine criteria for automated alarming and prescribed actions when thresholds are exceeded.

How Uplogix power management is different from what you might be familiar with

With the local perspective and continuous monitoring of Uplogix LMs, the addition of a managed power unit allows for power management to be part of automated fault recovery scenarios. It's one thing to have remote access through a console server to cycle power manually, but quite another to have that ability in an automated process.

Uplogix is not a "global" power management solution. It's power control from a device-centric point of view as opposed to the traditional PDU perspective.

Local automation goes far beyond remote access by itself

Finding and fixing IT problems remains a time-consuming, labor-intensive and expensive process. Skilled technicians must be dispatched (whether to remote sites or into the data center), trucks roll or planes fly. Existing management tools are good at monitoring devices and identifying problems, but lack the intelligence and local control to actively fix problems when they occur, forcing IT staff to go on-site to perform routine administration and recovery tasks.

Uplogix lowers the cost and complexity of management by diagnosing and automatically fixing common problems throughout your infrastructure. In fact, Uplogix local management can address and resolve most of the issues that commonly impact distributed networks such as configuration errors, nonresponsive devices and telecom hardware failures.

Using device manufacturers' best practices, direct connections to devices and power control through smart PDUs, the Uplogix Local Management platform provides the equivalent of an IT administrator in-the-box monitoring devices 24x7, taking initial run-book recovery actions when needed, and serving as an onsite toolbox for remote technicians to investigate and recover issues as if they were onsite.

Incorporating smart power for a nightly shutdown, reset

One Uplogix customer uses Local Management to automatically power down and reset equipment to a baseline configuration on a nightly basis.

At night, specific systems are shut down through the CLI and powered off by Uplogix. Then in the morning at a specified time, the systems are powered up and pushed a baseline configuration so they start up the same each morning regardless of changes tested the previous day.

Set up by the customer using the rules engine in the Uplogix Control Center and utilizing direct connections to managed devices and a smart PDU, the case study shows a proactive application for Local Management.

ABOUT UPLOGIX // Uplogix provides the industry's first local management solution. Our co-located management platform automates routine administration, maintenance and recovery tasks—securely and regardless of network availability. In comparison, traditional network and systems management depends on the network, uses multiple tools, and remains labor intensive. Uplogix puts the power of your most trusted IT administrator everywhere, all the time.

Uplogix is privately held and headquartered in Austin, Texas. For more information, please visit www.uplogix.com.

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