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# Intelligent PDUs Help K-12 Schools Integrate New Technology Solutions

Schools incorporating new digital equipment can benefit from smart power distribution units.



by **Doug Cofer**

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For K-12 schools interested in integrating state-of-the-art education technology, IT teams would do well to first invest in power distribution units. These solutions will help handle the load of any new technology in the school, whether adding new whiteboards or executing an entire digital overhaul.

[Oak Ridge Schools](#) chose monitored PDUs for its digital transformation; however, **intelligent PDUs are available** in several functional levels.

The level selected impacts the granularity and detail of the power information needed.

## 4 Types of PDUs K-12 Schools Should Know

PDU manufacturers use various names for the functions, but these are the four basic models of intelligent PDUs.

**Monitored:** Monitored PDUs provide measurement at the rack-level and measure total power used by all attached equipment. Ideally, a monitored PDU will also provide input monitoring, and branch monitoring for proper load balancing.

**Monitored Pro (outlet monitored):** This model includes measurement at each outlet to provide device-level monitoring. Ideally, it will also include the ability to **group outlets across multiple units** to show the total power for dual-corded devices.

**Switched:** Switched PDUs provide the ability to turn outlets on and off remotely, allowing remote reboot of equipment and forced-off conditions for unused outlets. This feature is especially beneficial for collocated equipment, as it may reduce inadvertent charges by the collocation provider, and simplify and speed correction in enterprise sites. Forcing outlets off also prevents accidental overloads and requires a separate process to energize any new equipment in the rack. This typically involves **grouping outlets to toggle dual-corded equipment and timed responses** to control the order and timing of reboots.

**Switched Pro (all features):** Switched Pro PDUs are **the most robust solution**. They control all functions mentioned above, providing unit-level (rack) monitoring, outlet-level (device) monitoring and outlet-level (device) control. Other critical features to look for in an intelligent PDU include:

- Locking outlets to prevent accidental disconnections
- High temperature rating to ensure monitoring as temperatures within the rack rise
- IP consolidation to reduce networking costs
- Secondary IP to provide a redundant connection and failover capability
- Integrated environmental monitoring for inlet and outlet temperatures, ensuring a properly conditioned air supply and to avoid the expense of a separate subsystem
- Integrated electronic locks to provide physical security and meet regulatory compliance requirements
- Built-in administration, security, threshold, notification and logging functions

To learn more about how PDUs helped Oak Ridge Schools prepare to roll out their personalized device program, read *"Intelligent, Connected PDUs Save Time and Money When Going 1:1."*