

## Basic vs. Intelligent PDUs

Are You Selling the Right Power Strips?



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#### Leading Companies That Know More and Manage Smarter with Intelligent PDUs

















































# What Are the Differences Between Basic and Intelligent PDUs?

#### Let's begin with the basics:

A rack mount power strip, or rack power distribution unit (PDU), is a device fitted with many outlets that distribute electric power to servers, storage devices, and networking equipment located within racks or cabinets in a data center.

Leading analyst firm IHS divides them into two main categories<sup>1</sup>:

- 1) **Basic PDUs** provide reliable power distribution.
- 2) **Intelligent PDUs** provide advanced features like power metering, environmental monitoring, and remote outlet control.

Intelligent PDUs can be broken down into the following subcategories:

- a) Metered Inlet PDUs
- b) Metered Outlet PDUs
- c) Switched PDUs
- d) Switched PDUs with Outlet Metering

Each subcategory of Intelligent PDU has features that can help data centers to reduce operating costs, increase uptime/availability, improve mean time to repair (MTTR), become energy efficient, and manage existing capacity.



 $<sup>^{1}</sup>$  IHS Electronics and Media. (2013, November). The World Market for Rack Power Distribution Units – 2013 Edition

## The Different Types of Intelligent PDUs

#### **Metered Inlet PDUs**

Metered Inlet PDUs meter power at the PDU-level, and display the data both locally and over a network. Metering helps users determine power usage and available capacity of the circuits feeding the rack, which makes it easier to provision equipment.

By metering at the inlet-level, users can avoid overloading circuits and easily calculate efficiency metrics like power usage effectiveness (PUE).

#### **Metered Outlet PDUs**

Metered Outlet PDUs meter power at the outlet-level, and can display the data both locally and over a network. Like metered inlet PDUs, outlet-metered models help users to determine power usage and available capacity at the rack, and facilitate provisioning.

Most importantly, outlet-level metering allows users to understand the actual power consumption at the device or server-level which makes it possible to compare efficiencies and allocate costs to specific business units or customers.

#### **Switched PDUs**

Switched PDUs offer the features of Metered Inlet PDUs and also provide controlled on/off switching of individual outlets or groups of outlets. They enable authorized users to power cycle devices remotely in a specific order, offer power sequencing delays to minimize inrush currents, and prevent unauthorized device provisioning.

They are crucial in remote and colo facility deployments since they allow you to quickly restore service by rebooting servers. Devices that are not in use can be powered off remotely to conserve energy.

#### **Switched PDUs with Outlet Metering**

Switched PDUs with Outlet Metering combine all the capabilities of Switched PDUs with those of Outlet Metered PDUs.



## Why Sell Intelligent PDUs Instead of Basic?

#### A Better Value for You and the Client

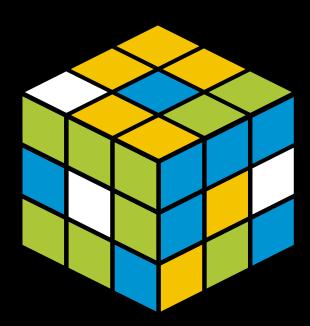
Clients with smaller budgets may feel intelligent PDUs (iPDUs) are out of their price range. Or you may think that you can close the deal faster by pushing a smaller PO. But here's something to consider: Although basic PDUs retail for less, iPDUs provide greater value and cost savings to the client in the long term.

iPDUs are technologically superior to basic PDUs. iPDUs distribute power reliably and support real-time power monitoring, environmental sensors, and data center infrastructure – all of which allow data centers to manage power, space, cooling, and people more effectively. And, they come in colors for easier power chain identification and troubleshooting.



## Why Sell Raritan iPDUs?

- Raritan offers hundreds of standard models that can be delivered in three weeks of less.
- iPDUs can be engineered-to-order, so you can meet virtually any need your client has. Physical and Network Security.
- We offer a standard two-year warranty on all iPDUs so your clients have peace of mind.
- You'll get higher margins on sales, while providing better long term value to your clients.





## F5 Never Runs Out of Cooling Capacity Thanks to Environment Sensors

F5's product development lab in Seattle, WA, houses the work of 25 separate technology teams, and provides access to more than 300 developers and testers who test and deploy new software services while shuffling equipment in and out of the lab. So when the lab began running out of power and cooling capacity, something had to be done urgently.

"First we wanted to monitor all of the power for all of the teams that were in our lab. We wanted to see what they were using and we needed to be able to monitor at a high level," said Kiel Anderson, Senior Lab Network Engineer at F5. "Our next problem was that we were running out of cooling. We had a total AC outage here once and our entire lab had no air conditioning for four hours. About 30 minutes into it, it started getting too hot in there. These were both big drivers for pushing to get software for real-time monitoring," said Anderson.

DCIM software and environmental sensors were deployed as a part of a comprehensive iterative strategy that has produced a marked reduction in energy consumption and an increase in total capacity.

Visit www.raritan.com/f5



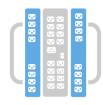
## Help Change the Way Your Clients Manage Their Data Center's Biggest Challenges



#### Why Choose Raritan Power

Trusted by the world's leading companies in mission critical data centers.

**Find Out Why** 



#### **PX Intelligent PDUs**

Learn how Raritan's PX series can change the way your clients manage power in their data center.

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