



Deliver business continuity across HPE hybrid cloud infrastructures with Eaton solutions

Eaton provides intelligent, integrated and scalable solutions designed to organize, protect and manage HPE integrated systems, servers, storage, network and software solutions. Eaton's power infrastructure solutions, which easily integrate with HPE products, simplify power management and ensure business continuity, helping empower your customers' IT transformation.

Hybrid IT infrastructures rely on power management solutions to supply:

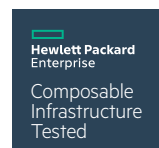
- ✓ Clean, reliable backup power and power distribution
- ✓ Safe and secure racks for IT equipment
- ✓ Simplified, integrated power management software

Attaching Eaton solutions adds value

Increase revenue and margin potential – Intelligent Power Manager's (IPM) integration with HPE OneView opens up power management sales opportunities. You can attach and drag-along products from the full Eaton power management portfolio to increase revenue potential.

Better account control – By offering a complete solution, including power management, you can simplify the buying experience and lend your comprehensive expertise to the customer, strengthening your relationship and creating long-term growth.

Tested for use with HPE – As a registered HPE Technology Partner, you can be assured that Eaton solutions have been tested for interoperability with leading and open platforms of HPE. Our IPM software is an HPE Composable Infrastructure Tested solution which links power and environmental monitoring and management to data center IT devices to automate provisioning, configuration and monitoring of the infrastructure.



What do these HPE hybrid IT infrastructures have in common?

Integrated Systems – a new flexible approach to infrastructure



Converged Systems



Hyperconverged Systems

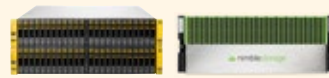


Composable Infrastructure

Industry-leading IT infrastructure – servers, storage and networking



Servers








Storage



Campus/branch and data center networking

They all need clean, reliable power to effectively deliver critical IT applications to their users. With Eaton's solutions, users can manage their entire IT environment, including power devices, from a single dashboard, as well as ensure the integrity of valuable data and continuity of the entire business by implementing effective disaster recovery policies.

Eaton technology organizes, protects and manages HPE hybrid IT solutions with:

Organize		<p>Racks and enclosures Secure and preserve the integrity of IT equipment</p>		<p>Cable management Maximize airflow and rack organization to reduce cooling costs</p>
Protect		<p>Uninterruptible power supplies (UPS) Supply clean, reliable backup power to ensure critical systems retain a continuous flow of power</p>		<p>Rack power distribution units (PDU) Distribute stable, conditioned power from UPS to IT equipment utilizing best-in-class technologies</p>
Manage		<p>Intelligent Power Manager (IPM) Manage power devices in physical and virtual environments to maintain business continuity using automated, policy-based remediation</p>		<p>Visual Power Manager (VPM) Obtain a full, visual view of large or distributed power infrastructures to stay in-tune with trends allowing users to identify and resolve issues.</p>

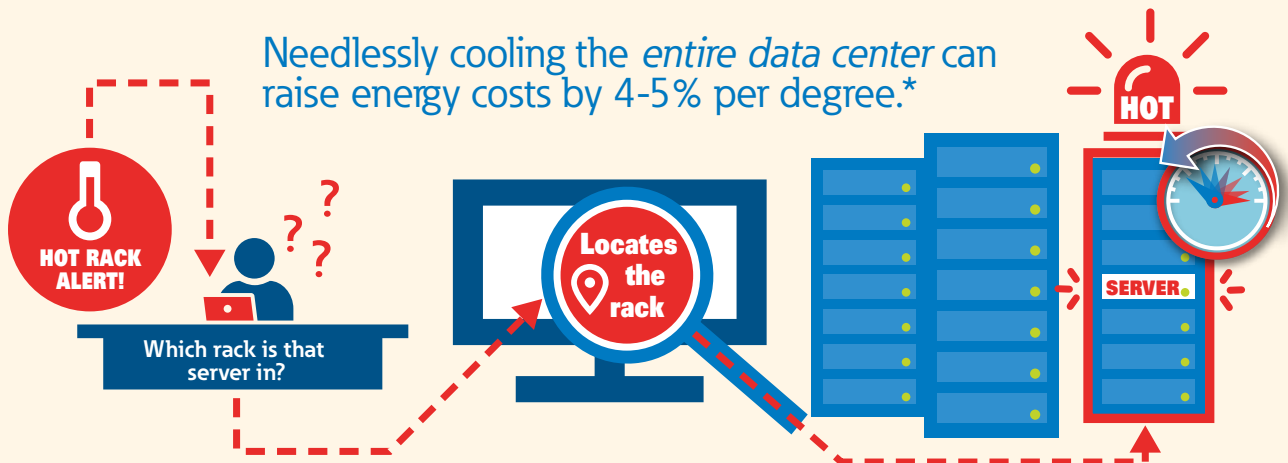
Unique benefits of IPM with HPE OneView

By joining HPE OneView and Eaton’s IPM software, customers can automate their response to power anomalies and environmental issues within their data center. This can be achieved through power capping HPE servers via HPE iLO or transferring virtual machines from an impacted area to mitigate existing power issues. These actions allow users to:

- ✓ **Prevent downtime** by load shedding and/or power capping servers to extend UPS battery runtime during a power event to keep most critical workloads running
- ✓ **Optimize cooling expenses** by regulating cooling at the rack level instead of the entire data center to address an issue within a single rack
- ✓ **Increase productivity** by reducing technician troubleshooting time through pinpointing a server’s specific rack location

IPM in action

In this scenario, IPM receives a high temperature alert from a rack. Using spatial relationships, IPM identifies which servers are located in that rack. IPM sends a command through HPE iLO management system to power cap—limit power consumption—one or more of the servers within that rack. This action lowers the temperature within the rack, keeping the critical equipment from overheating.



*Source: 42U Data Center Solutions; "Data Center Temperature"

IPM integrates with top hypervisors

Feature	VMware	Microsoft	OpenStack
Targeted virtual machine management	×	×	×
Virtualized host shutdown	×	×	
Infrastructure shutdown	×		
Load shedding	×		

Pair IPM with Visual Power Manager (VPM) for maximum performance

IPM and VPM complement each other with VPM exceling at monitoring large deployments of power devices and IPM focusing on automating policy-based actions in virtualized environments. VPM is a robust monitoring tool that displays a live data center map view for up-to-the-minute health status and delivers intelligent reports such as capacity and billing, keeping the user completely informed of his environment. In conjunction with the hypervisor, IPM can migrate virtual machines and trigger automatic actions based on predetermined power and environmental events to ensure system uptime. VPM monitors. IPM controls.

Feature	IPM Basic	IPM Silver	IPM Gold	VPM
Supported UPS nodes	Up to 10	Up to 100	Up to 500	Up to 500,000
Supported rack PDU nodes	Up to 10	Up to 100	Up to 200	Up to 500,000
Auto discovery	✓	✓	✓	✓
Mass firmware upgrade tool	✓	✓	✓	✓
Mass node-settings configuration tool	✓	✓	✓	✓
Send email notifications	✓	✓	✓	✓
Virtualized host shutdown	✓	✓	✓	✗
Power capping of compatible servers	✓	✓	✓	✗
Gracefully shutdown compatible storage	✓	✓	✓	✗
Targeted VM migration	✗	✓	✓	✗
Targeted VM graceful shutdown	✗	✓	✓	✗
Shares data with VMware's vRealize Operations Manager	✗	✓	✓	✗
Trigger actions from third party devices	✗	✗	✓	✗
Integrated reporting engine	✗	✗	✗	✓
Microsoft Active Directory integration	✗	✗	✗	✓
Supports LDAP authentication	✗	✗	✗	✓
Floor and rack layout builder	✗	✗	✗	✓
Remote control of rack PDUs	✗	✗	✗	✓
Dashboard with trend analysis	✗	✗	✗	✓
Power aggregation through the power chain	✗	✗	✗	✓
Multi-tenant user access control	✗	✗	✗	✓

Learn more today at Eaton.com/IntelligentPower