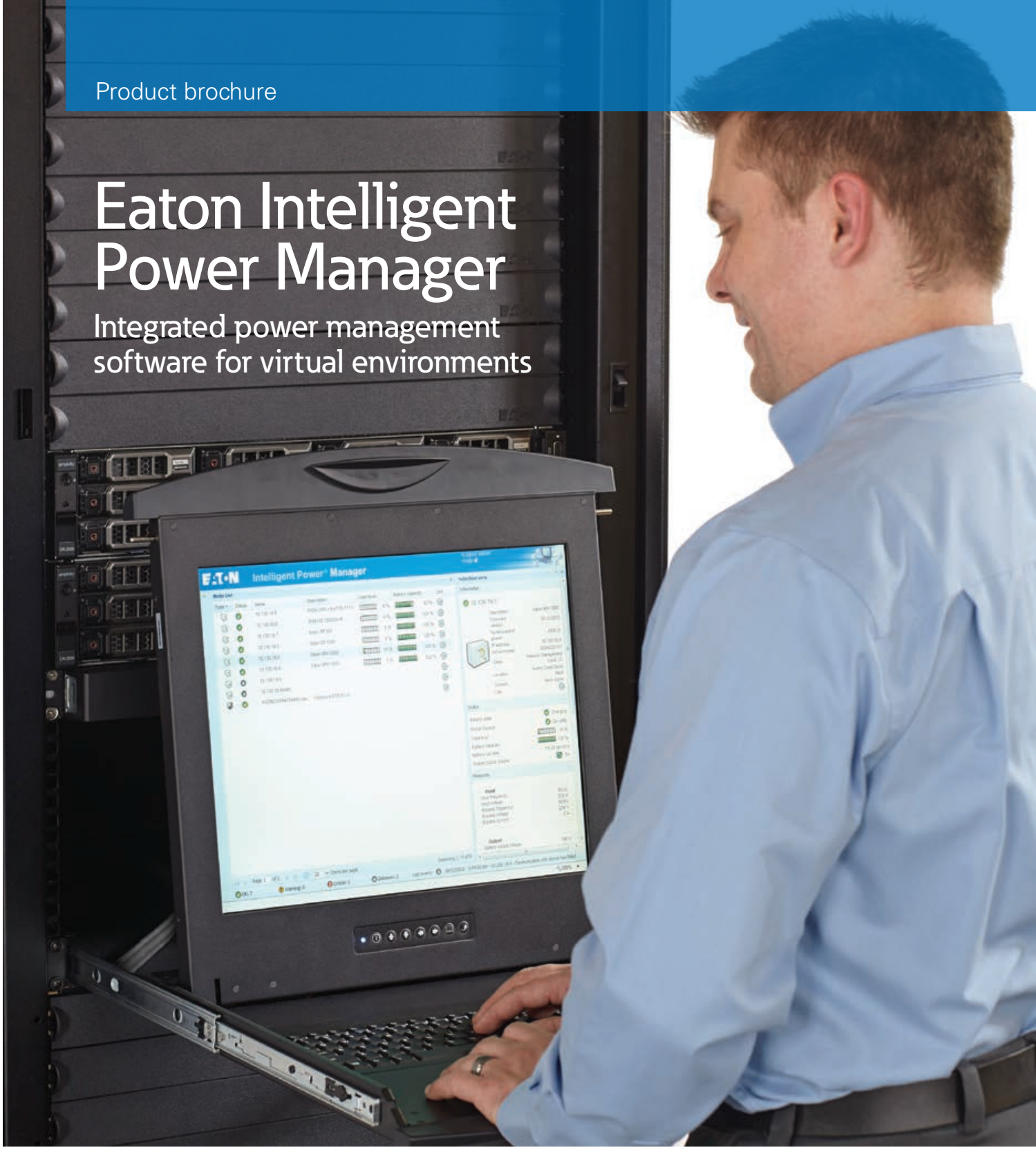
Product brochure

Eaton Intelligent Power Manager

Integrated power management software for virtual environments



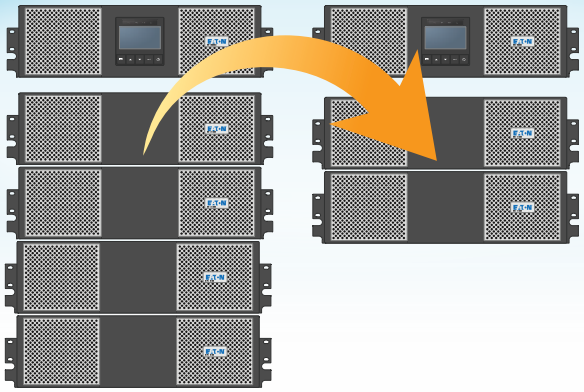
Powering Business Worldwide

Ensure data integrity

Eaton's Intelligent Power Manager (IPM) software provides the tools needed to monitor and manage power equipment in your physical or virtual environment keeping IT devices up and running during a power or environmental event.

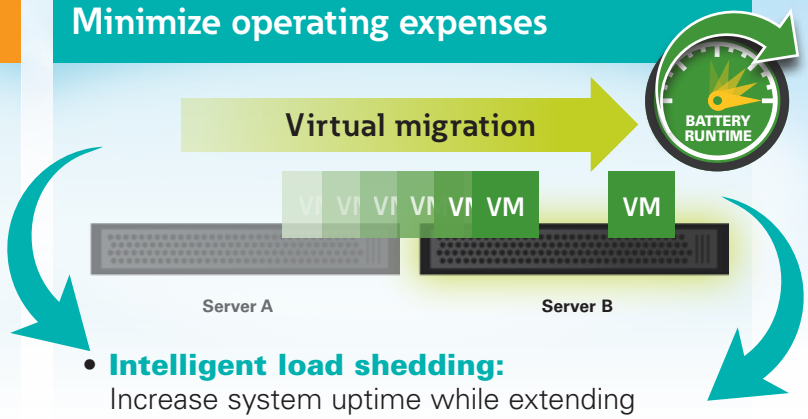
This innovative software solution ensures system uptime and data integrity by allowing you to remotely monitor, manage and control devices on your network. IPM provides a solution that is easy to use, maintains business continuity and allows you to do more with less.

Achieve more with less:
Reduce capital expenses



- **Less initial upfront batteries:** Increase your runtime via software limiting the hardware to be deployed.
- **Reduced battery replacement required:** Use fewer batteries to minimize future battery maintenance and replacement.
- **Promote a greener environment:** Consume less energy and recycle fewer batteries.

Maintain business continuity:
Minimize operating expenses



- **Intelligent load shedding:** Increase system uptime while extending battery runtime and minimizing generator load by suspending non-critical virtual machines.
- **Site Recovery Manager failover:** Reduce data recovery expenses by synching primary and disaster recovery sites prior to power failures.
- **Power capping on demand:** Keep critical workloads running longer during a power outage by limiting server power consumption.

Ease of use: Increase productivity and responsiveness

- **System integration:** Simplify setup and reduce the learning curve by conveniently integrating into existing virtual management systems, allowing you to spend time performing other critical tasks.
- **Remote agentless host management:** Conserve valuable time when remotely shutting down servers by eliminating the need for agents that consume resources and slow performance.

Increasing level of control

IPM offers three versions—a basic edition, silver license and gold license. The gold license—our premium offering—provides the most complete set of capabilities including the ability to optimize power load and monitor and manage third-party power devices in addition to Eaton equipment.

Standard features

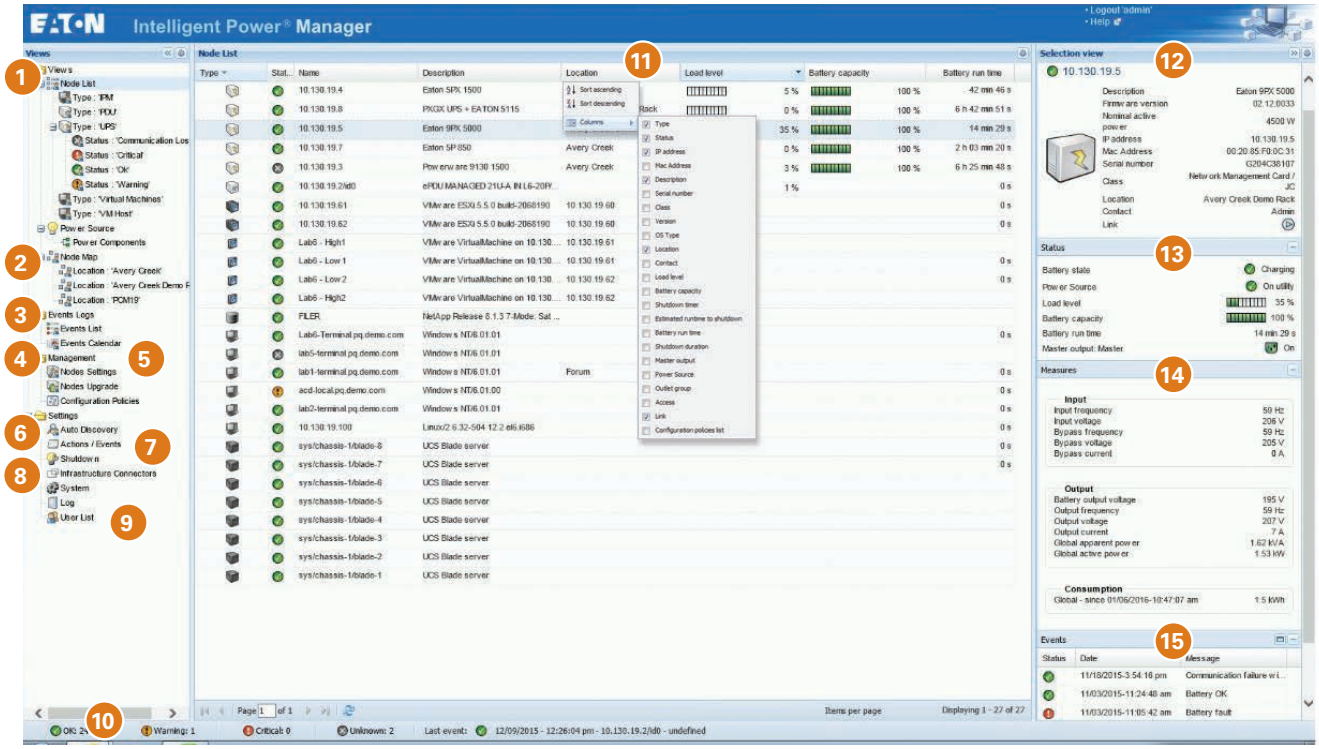
	Basic	Silver	Gold
Number of nodes supported*	**Up to 10**	**Up to 100**	**Up to 500**
Shut down server and host without crashing	★	★	★
Shut down storage module to keep data safe	★	★	★
Discover third-party devices from one dashboard	★	★	★
Customize the data monitored from your device using generic drivers	★	★	★
Group multiple devices to be acted on as a single device with configuration policies	★	★	★
Take basic actions (server, host and storage shutdown)	★	★	★
Plugin for VMware vCenter and Citrix XenCenter	★	★	★

Virtualized features

Power equipment that IPM can monitor and manage**	**Eaton only**	**Eaton only**	**Eaton and third-party**
Enter and exit maintenance mode	★	★	★
Limit server power consumption to save on battery and fuel costs during a catastrophe by power capping on demand		★	★
Shut down specific virtual machines during a power event no matter what physical machine they are on		★	★
Migrate virtual machines to targeted hosts and shut down the non-critical server to conserve energy		★	★
Shut down or suspend a virtual appliance		★	★
Synchronize and start up disaster recovery site during a power or environmental event to avoid data loss using VMware Site Recovery Manager (SRM)		★	★
Trigger an advanced action (power cap, load shed, failover) on configured policies (groups of devices) during specific power or environmental events with a single command		★	★
Control rack PDUs (on, off and reboot sections or outlets)		★	★
Monitor and manage the health, risk and efficiency of your power infrastructure by integrating into **VMware's vRealize Operations Manager**		★	★
Safely shut down and securely restore high availability environments without crashing virtual machines or host server		★	★

*One licensed node is defined as a UPS, ePDU or IPM/IPP instance
**Power equipment includes UPSs, rack PDUs and rack ATSs

IPM dashboard



1. **Node list** – List of all Eaton and third-party power equipment (with a gold license). Subviews show user-created node groups including nodes from a specific region, facility, floor or rack
2. **Node map** – Create custom maps of your environment to show all nodes in a visual format. Load a photo of your facility to see all nodes and create subviews for each floor using floor elevation
3. **Events log** – List or calendar views of all events on all devices or divided by subview
4. **Management (Node settings)** – Completely configure web card of selected node
5. **Management (Configuration policies)** – Group hosts, virtual machines or stand alone servers to be acted on as a single device (See actions/events #7 on how to benefit from this capability)
6. **Settings (Auto discovery)** – Quickly find devices by scanning computer's subnet or user-specified IP addresses. Also prepare for an installation by creating a node for a device before it is installed
7. **Settings (Actions/Events)** – Trigger a preset action on a policy (group of nodes) during specific events. i.e. If your rack gets too hot, automatically power cap to bring down the temperature
8. **Settings (Infrastructure connectors)** – Portal into virtualized equipment like VMware, Cisco UCS and Citrix
9. **Settings (User list)** – Allow admin to have full control and create user accounts with view-only access
10. **Events overview** – Complete overview of all current events
11. **Customizable column layout** – Simply click on any column heading to add or remove columns to show only what you want to see
12. **Selection view** – Real-time characteristics of selected power device including serial number, firmware version and link to web card
13. **Status** – Provides live updates for the selected device including power source, load level and battery run time. Colored icons allow you to quickly see if the status is on (green), off (gray) or requires attention (red)
14. **Measures** – Shows live values of the selected UPS or rack PDU including input and output frequency, voltage and current as well as total power consumption
15. **Events** – Displays all events for the selected device including power failure and on or off battery. Data is exportable to .csv file

Download IPM at Eaton.com/downloads

Eaton IPM software licenses

IPM – Silver license	Part #
Support up to 100 licensed nodes	66925

IPM – Gold license	Part #
Support up to 500 licensed nodes	66926
Upgrade from Silver to Gold edition	66927

On-site service offerings	Part #
IPM installation: One day on-site	SW06NXXX-001X
IPM installation: Two day on-site	SW06NXXX-002X
Power management assessment • Site assessment and disaster avoidance plan development	SW05NXXX-PRE
Software synchronization • Annual software alignment refresh	SW05NXXX-SYNC

Simplify power management

IPM simplifies power management across the network through a single, web-based interface, giving you up-to-the-minute information on the status of power in your network.

IPM provides additional management capability for HPE OneView and Cisco UCS environments. Integration with VMware vRealize Operations Manager and vCenter dashboard lets you manage power to your virtualized environment. Additionally, IPM works seamlessly with several other virtualization platforms, such as Citrix® XenServer, Microsoft SCOM, Microsoft Hyper-V, Red Hat® and other Linux open source platforms.

Validated alliance solution provider

VMware Technology Alliance Partner

- Eaton's IPM and Infrastructure Management Pack for vRealize Operations Manager are VMware Ready for Orchestration and Management

Eaton.com/VMware

HPE Technology Alliance Partner

- Eaton's IPM integrates with HPE OneView unified API for simplified power management of Composable Infrastructures and Integrated Infrastructures
- IPM, rack PDUs and UPSs are Composable Infrastructure Tested
- Reference design and joint solution brief for HPE Integrated Infrastructures

Eaton.com/HPE

Cisco Preferred Solution and DevNet Partner

- Cisco Compatible solution provider of Eaton enclosures and conversion kits for Nexus switches
- Cisco EnergyWise compliant managed rack PDUs
- Eaton's IPM integrates directly with UCS server management to provide power-capping capability, enabling users to extend runtime by setting server consumption limits during extended power outages

Eaton.com/Cisco

Dell EMC Technology Connect Advantage Partner

- Eaton's IPM, rack PDU and UPS are VCE Vblock Ready certified
- Published VxRail, VxRack reference designs, solution overview and joint solution brief

Eaton.com/EMC

NetApp Alliance Partner

- Eaton's IPM integrates directly with NetApp ONTAP operating systems to provide supervision and shutdown capability for FAS storage systems
- Eaton rack PDUs are included in all FlexPod Modular Integration (FMI) systems
- Reference designs and joint solution briefs for FlexPod systems

Eaton.com/NetApp

Nutanix Technology Alliance Partner

- Eaton's IPM, enclosures, rack PDUs and UPSs are Nutanix Ready, including AHV (Acropolis Hypervisor)
- Reference design and joint solution brief for Nutanix hyperconverged infrastructures

Eaton.com/Nutanix

Microsoft Hyper-V Alliance Partner

- Eaton's IPM integrates with Microsoft Hyper-V to allow for improved load shedding capabilities and provide remote agentless shutdown and maintenance mode initiation

IT downtime for businesses

Size of business	Small (<100 employees)	Medium (100-1,000 employees)	Large (>1,000 employees)
Downtime events/year	1.7	3.5	3.0
Average length of event	2.2 hours	3.4 hours	0.8 hours
Downtime cost/hour	$6,900	$74,000	$1,130,000
Downtime cost/year	$25,806	$880,600	$2,712,000

Source: Zetta.net

Power outages cost both time and money

37% of IT professionals suffered an **unplanned outage** in the past 12 months

32% of respondents said those outages last **more than four hours**

34% manage racks in multiple locations or in a **colocation arrangement**

Source: Eaton and Tech Target survey: How "software defined" is redefining the data center

IPM prevents down time and saves you money

IPM Silver license pays for itself in as little as: **4 months**

IPM Gold license pays for itself in as little as: **11 months**

"All of the others say their software integrates into VMware, but when challenged and asked to demonstrate that in house, they couldn't do it. Eaton was the only one who could deliver." —*Tom McNinch, Washington Unified School District IT manager*

For more information, please visit:
Eaton.com/IntelligentPower

Powering Business Worldwide

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