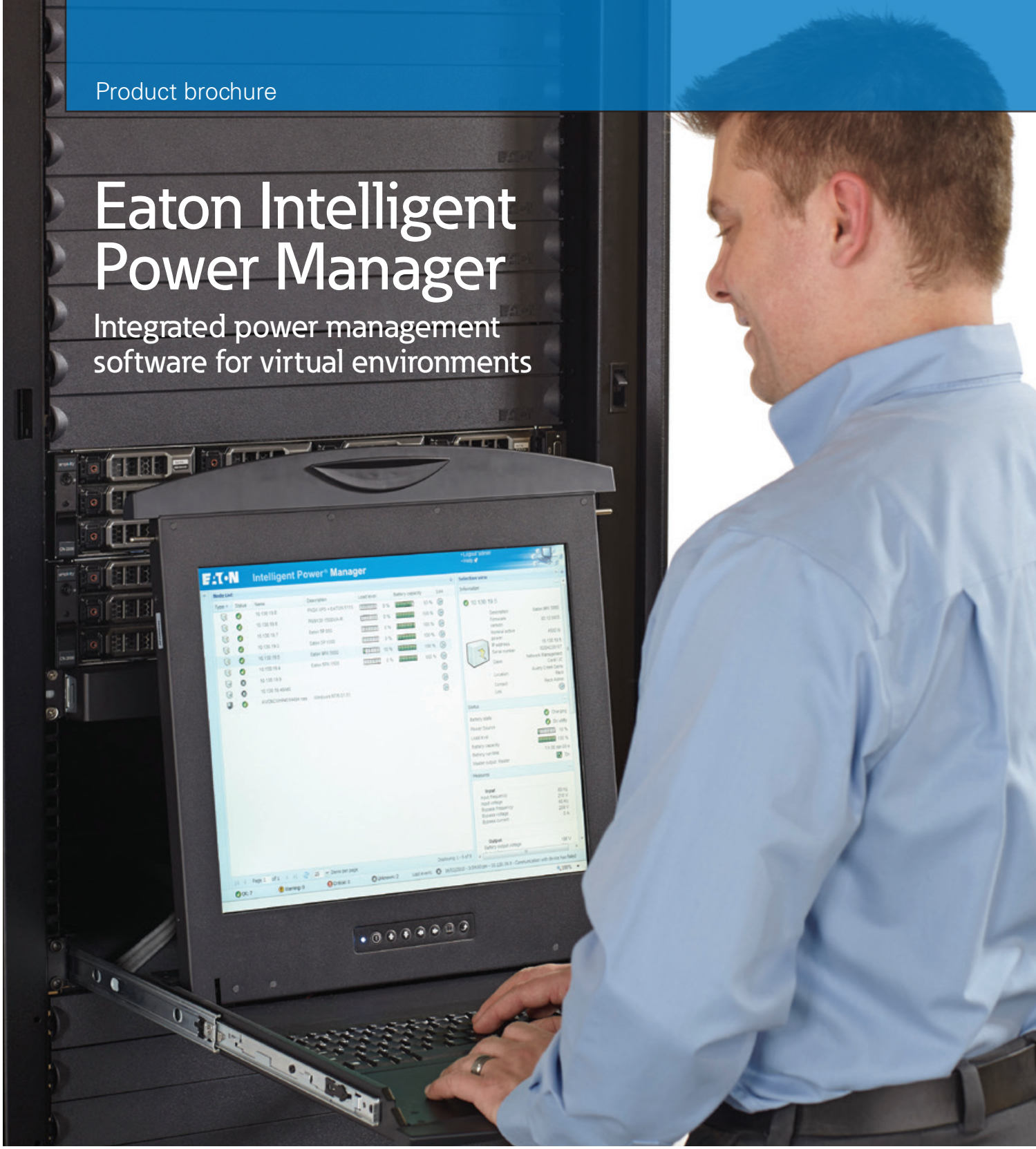
Product brochure

Eaton Intelligent Power Manager

Integrated power management software for virtual environments



Powering Business Worldwide

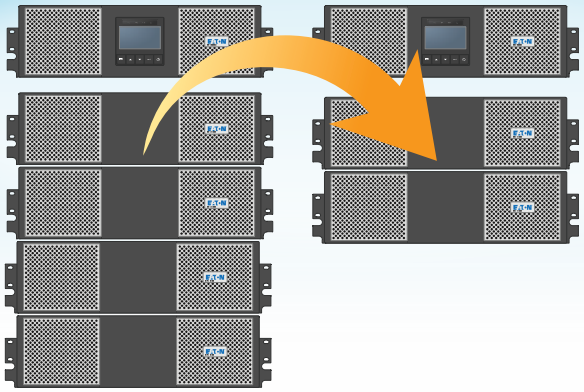
BEST OF vmworld 2013
Gold Award

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.

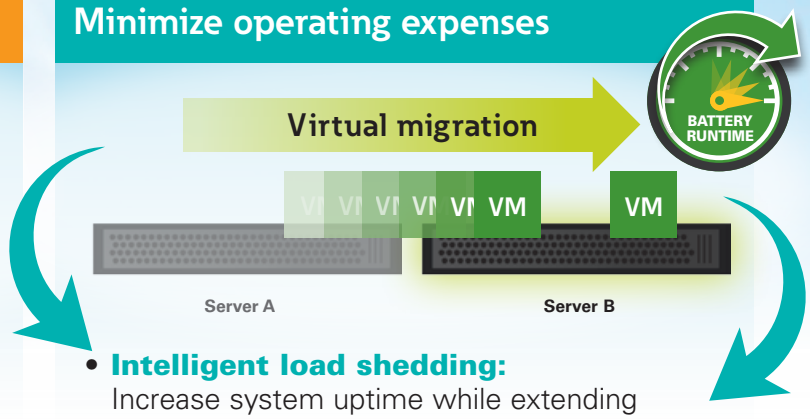
This innovative software solution ensures system uptime and data integrity by allowing you to remotely monitor, manage and control devices on your network. IPM provides a solution that is easy to use, maintains business continuity and allows you to do more with less.

Achieve more for less:
Reduce capital expenses



- **Less initial upfront batteries:** Achieve same amount of runtime with less batteries using load shedding.
- **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:** Avoid data loss and ensure data integrity at all times. 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

Intelligent Power Manager (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 monitor and manage third-party power devices in addition to Eaton equipment.

Standard features

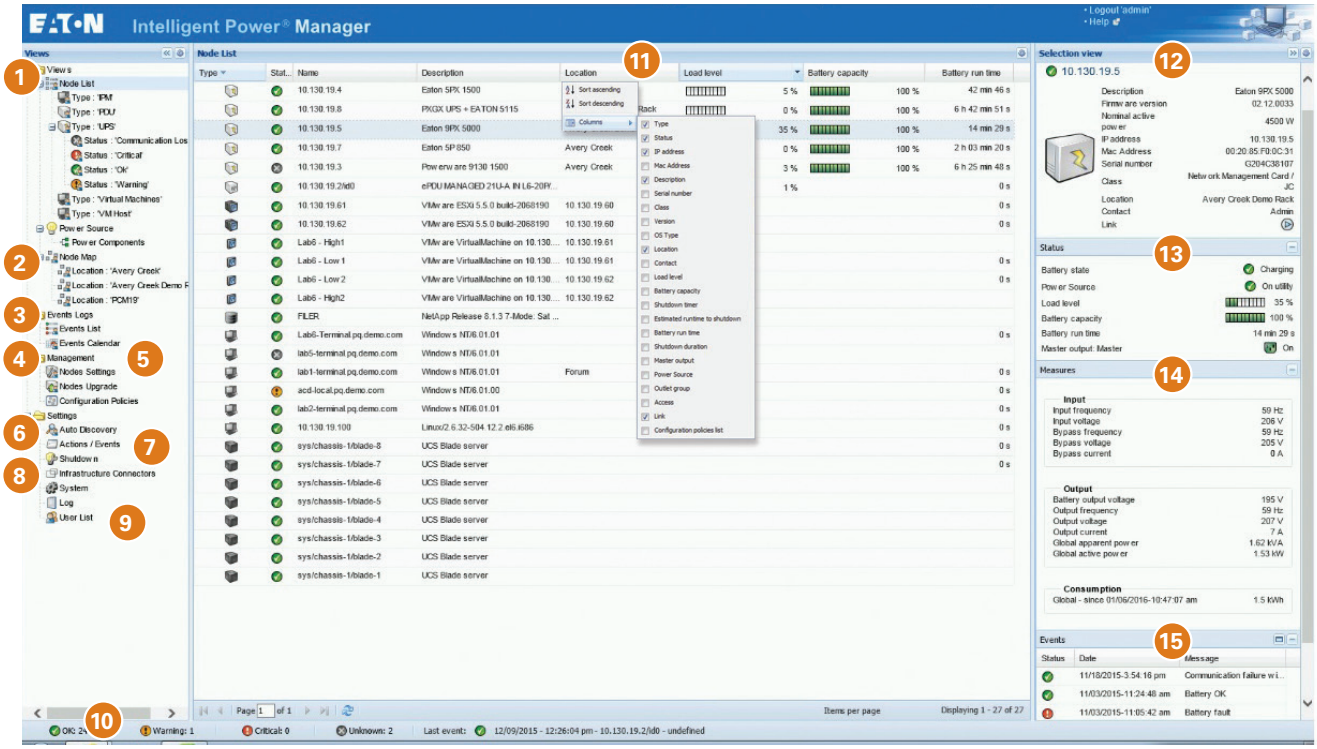
	Basic	Silver	Gold
Number of nodes supported*	**Up to 10**	**Up to 100**	**Over 100**
Shut down server and host without crashing	X	X	X
Shut down storage module to keep data safe	X	X	X
Discover third-party devices from one dashboard	X	X	X
Customize the data monitored from your device using generic drivers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

Virtualized features

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

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

Intelligent Power Manager 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

Intelligent Power Manager – Silver license	Part #
Support up to 100 licensed nodes	66925

Intelligent Power Manager – Gold license	Part #
Support unlimited 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 UCS environments and integrates with VMware's vRealize Operations Manager and vCenter dashboard letting you manage power to your virtualized environment. Additionally, IPM works seamlessly with several virtualization platforms, such as Citrix® XenServer, Microsoft SCOM, Red Hat® and other Xen® open source platforms.

Validated alliance solution provider

Eaton's IPM integrates directly with UCS server management to provide power-capping capability, enabling users to set server consumption limits during extended power outages.

Cisco EnergyWise compliant intelligent managed rack PDUs provide outlet level metering and control.

Eaton is a featured "FlexPod Powered" solution – one of the five inaugural ecosystem partners in the program and has a published FlexPod reference architecture and solution overview – Eaton.com/Netapp.

Eaton's IPM is VSPEX Labs Validated and is the only power quality vendor in VSPEX ecosystem. Find published VSPEX reference architecture, solution overview, IPM VSPEX implementation guide, and joint solution brief – Eaton.com/EMC

Eaton's power management solution suite is VCE vBlock Ready and VMware Ready.

Eaton's IPM is SimpliVity lab validated to ensure interoperability with the OmniCube platform. Eaton is the only power quality vendor to integrate into SimpliVity platforms. Find published OmniCube reference architecture, solution overview, and the IPM SimpliVity implementation guide at Eaton.com/SimpliVity.

Eaton's IPM is Nutanix Ready for VMware hosted appliances for both applications and operating systems, as well as backup and disaster recovery. Eaton is the only power quality vendor to integrate into the Nutanix platform. Find published reference architecture, a joint solution overview, and the Nutanix application guide at Eaton.com/Nutanix.

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: **6 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

EATON
Powering Business Worldwide

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