# Eaton Intelligent Power Solutions

**Monitoring & Management Software**

Damian Przygodzki
Software Channel Presales Manager

# Brightlayer Data Centre Suite

Eaton's software applications that effectively manage complex IT asset ecosystems for maximum uptime

| | | | | | |
|---|---|---|---|---|---|
| **Software** | Electrical Power Monitoring System (EPMS) | Data Centre Infrastructure Management (DCIM) | Distributed Infrastructure | Disaster Avoidance | Remote Monitoring Cloud-based |
| **Eaton's solution** | Brightlayer Data Centers suite | Brightlayer Data Centers suite | Brightlayer Data Centers suite | Intelligent Power Manager | Connected Warranty +1 / Connected |

IT Channel-dedicated SW products

EAT•N
Powering Business Worldwide

# Evolving to meet customer's needs

**Brightlayer Data Centers suite**

Monitoring, managing & protecting all power devices in data centers and distributed environments.
Its comprehensive reporting, integration with other systems, advanced notifications creates **all-in-one** management environment.

**Intelligent Power Manager**

Our disaster avoidance software streamlines power management and monitoring, through advanced alerts and automated actions (shutdowns / boot-ups). It also helps saving electricity.

Mini-DCIM, for **shutdown**
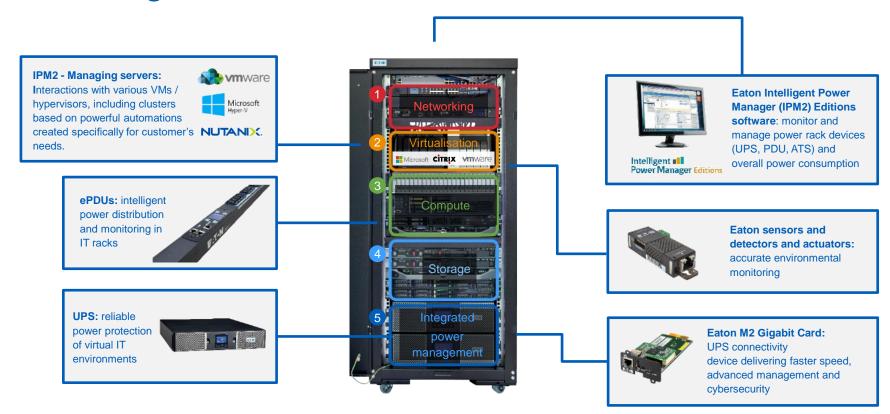
Convergent, but Customizable

Scalable

What is IPM2 for?

See all details on webpage:   Intelligent Power Manager Software | Remote Monitor | Eaton

# Avoiding disasters of what matters…



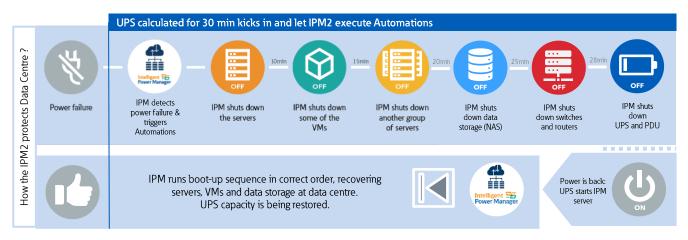**IPM2 - Managing servers:** **I**nteractions with various VMs / hypervisors, including clusters based on powerful automations created specifically for customer's needs.

**ePDUs:** intelligent power distribution and monitoring in IT racks

**UPS:** reliable power protection of virtual IT environments

1. Networking
2. Virtualisation
3. Compute
4. Storage
5. Integrated power management

**Eaton Intelligent Power Manager (IPM2) Editions software**: monitor and manage power rack devices (UPS, PDU, ATS) and overall power consumption

**Eaton sensors and detectors and actuators:** accurate environmental monitoring

**Eaton M2 Gigabit Card:** UPS connectivity device delivering faster speed, advanced management and cybersecurity

# Crucial question:   What happens when UPS runs out of battery..?

**Answer:**   You'll be still affected by data loss, network failure, in need of on-site visit and manual recovery – only **later** than without UPS. Unless…

### … you let UPS & IPM2 work together to ensure full protection!



IPM2 uses UPS to performs *intelligent* actions to protect data centers against data corruption, network failures and other costly results of **uncontrolled power loss.**

# Of course, IPM2 does more…

- When power failure happens:
  Automatically & Gracefully shutting down **ALL devices** in the rack
- Works together with UPS & PDUs to ensure that ALL protective actions are executed on time
- Saves electricity by triggering *scheduled* shutdowns of servers when idle
- Allows to manage power supply of Racks remotely, with no on-site interventions
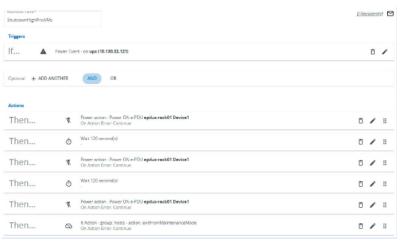- IPM2 can fade or migrate VMs across data centers and apply power caps

**Management & Monitoring for Power side:**
- Monitors power supply & environment of data center (reacts to Sensors readings like temp, humidity)
- Shows each rack's organization (positions, outlets used)
- Mass Configuration
- Mass Upgrade (UPS FW – only 5PX Gen2 and 9PXL)
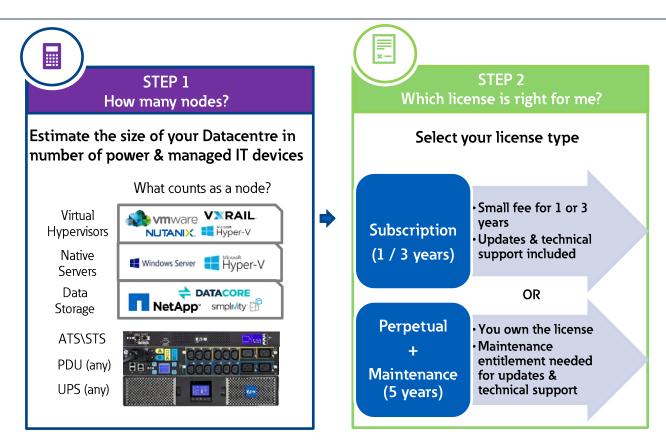- Notifications by email & SMS

Rack Visualization: with detailed power usage and exact positions of devices

IPM show Statistics on Dashboard and sends Notifications

Automations are *intelligent*, logical and easy to build – everyone can prepare them using Wizard

IPM2 – Live Demo

See all details on webpage:  Intelligent Power Manager Software | Remote Monitor | Eaton

# IPM2: Make the right choice for your business!



**STEP 1 — How many nodes?**

Estimate the size of your Datacentre in number of power & managed IT devices

What counts as a node?

- Virtual Hypervisors — vmware, VXRAIL, NUTANIX, Microsoft Hyper-V
- Native Servers — Windows Server, Microsoft Hyper-V
- Data Storage — NetApp, DATACORE, simpliVity
- ATS\STS
- PDU (any)
- UPS (any)

**STEP 2 — Which license is right for me?**

Select your license type

**Subscription (1 / 3 years)**
- Small fee for 1 or 3 years
- Updates & technical support included

OR

**Perpetual + Maintenance (5 years)**
- You own the license
- Maintenance entitlement needed for updates & technical support

**What counts as a node?**

Microsoft Hyper-V

VXRAIL

NUTANIX

simplivity

HPE OneView

NetApp

EATON
Powering Business Worldwide

+ Netapp
+ Datacore

UPS

PDU

ATS\STS

Servers

NUTANIX   VXRAIL
vmware   Microsoft Hyper-V

Hypervisors

# Node counts - example

10 Microsoft Windows Server 2019

1 Hypervisor

1 PDU

(**2** x UPS) + (**1** x PDU) + (**1** x Hypervisor VMware) + (**10** x Physical Servers MS WINSRV 2016) = **14** licenses IPM Optimize

2 UPS's
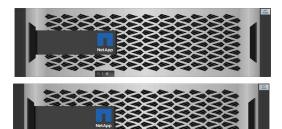
10 Microsoft Windows Server 2019

2 Hypervisor

1 PDU

2 NetApp storage's

1 UPS

(**1** x UPS) + (**1** x PDU) + (**2** x Hypervisor VMware) + (**10** x Physical Servers MS WINSRV 2016) + (**2** NetApp) = **16** licenses IPM Optimize

Intelligent **Power Manager** Editions

10 Servers with Linux

2 UPS's

1 Storage third party

1 PDU

1 UPS
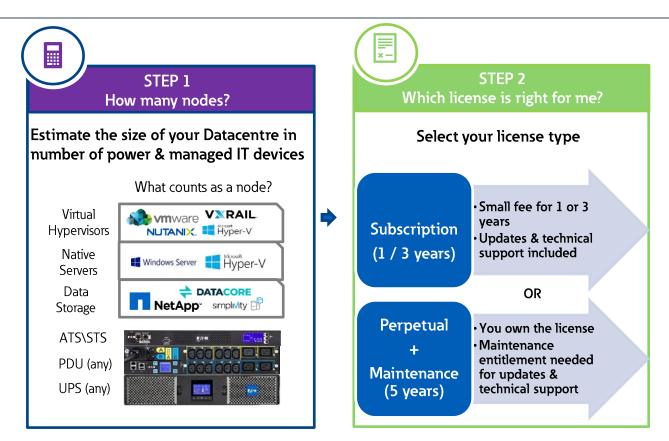
(**3** x UPS) + (**1** x PDU) = **4** licenses IPM Optimize
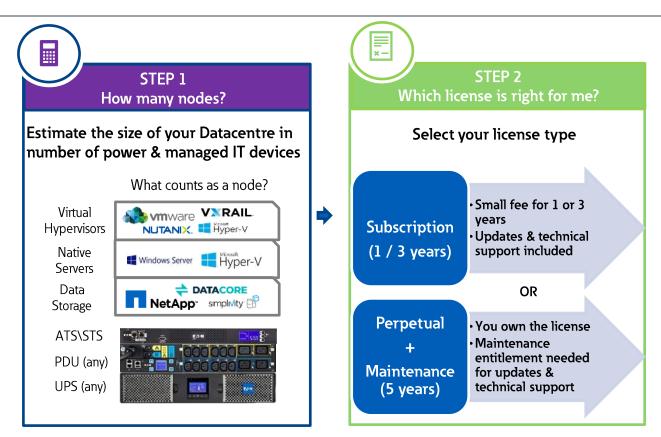
# IPM2: Make the right choice for your business!



**STEP 1**
How many nodes?

**Estimate the size of your Datacentre in number of power & managed IT devices**

What counts as a node?

- Virtual Hypervisors — vmware, VX RAIL, NUTANIX, Microsoft Hyper-V
- Native Servers — Windows Server, Microsoft Hyper-V
- Data Storage — NetApp, DATACORE, simplivity
- ATS\STS
- PDU (any)
- UPS (any)

**STEP 2**
Which license is right for me?

Select your license type

**Subscription (1 / 3 years)**
- Small fee for 1 or 3 years
- Updates & technical support included

OR

**Perpetual + Maintenance (5 years)**
- You own the license
- Maintenance entitlement needed for updates & technical support

EAT•N
Powering Business Worldwide

**Brightlayer**
Disaster avoidance

| | IPM2 OPTIMIZE |
|---|:---:|
| Devices supervision | ✔ |
| Mass Config/Upgrade | ✔ |
| Shutdown servers | ✔ |
| Host level actions | ✔ |
| SSH command | ✔ |
| Script | ✔ |
| NetApp connector | ✔ |
| Stop/Start VMs | ✔ |
| VMs migration | ✔ |
| Cluster shutdown | ✔ |
| Fault Domain shutdown | ✔ |
| VxRail connector | ✔ |
| Nutanix connector | ✔ |
| HPE OneView connector | ✔ |
| VMware SRM | ✔ |

**E·T·N**
Powering Business Worldwide

# IPM2: Make the right choice for your business!



**STEP 1**
**How many nodes?**

**Estimate the size of your Datacentre in number of power & managed IT devices**

What counts as a node?

Virtual Hypervisors

Native Servers

Data Storage

ATS\STS

PDU (any)

UPS (any)

**STEP 2**
**Which license is right for me?**

Select your license type

**Subscription (1 / 3 years)**
- Small fee for 1 or 3 years
- Updates & technical support included

OR

**Perpetual + Maintenance (5 years)**
- You own the license
- Maintenance entitlement needed for updates & technical support

# The **Licence structure 2024** in detail

| Number of nodes | New SKU SUB 1Y | | New SKU SUB 3Y | | New SKU Perpetual 5Y | |
|---|---|---|---|---|---|---|
| 3 | IPM-3N-SUB1 | | IPM-3N-SUB3 | | IPM-3N-P5 | |
| 5 | IPM-5N-SUB1 | | IPM-5N-SUB3 | | IPM-5N-P5 | |
| 10 | IPM-10N-SUB1 | | IPM-10N-SUB3 | | IPM-10N-P5 | |
| 20 | IPM-20N-SUB1 | | IPM-20N-SUB3 | | IPM-20N-P5 | |
| 50 | IPM-50N-SUB1 | | IPM-50N-SUB3 | | IPM-50N-P5 | |

| Number of nodes | New SKU SUB 1Y | | New SKU SUB 3Y | | New SKU Perpetual 5Y | |
|---|---|---|---|---|---|---|
| 5 | IPM-UP3TO5N-SUB1 | | IPM-UP3TO5N-SUB3 | | IPM-UP3TO5N-P5 | |
| 10 | IPM-UP5TO10N-SUB1 | | IPM-UP5TO10N-SUB3 | | IPM-UP5TO10N-P5 | |
| 20 | IPM-UP10TO20N-SUB1 | | IPM-UP10TO20N-SUB3 | | IPM-UP10TO20N-P5 | |
| 50 | IPM-UP20TO50N-SUB1 | | IPM-UP20TO50N-SUB3 | | IPM-UP20TO50N-P5 | |

**EAT•N**
Powering Business Worldwide

Why use BLSS then?
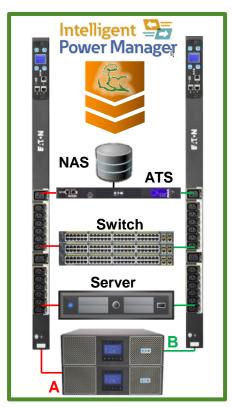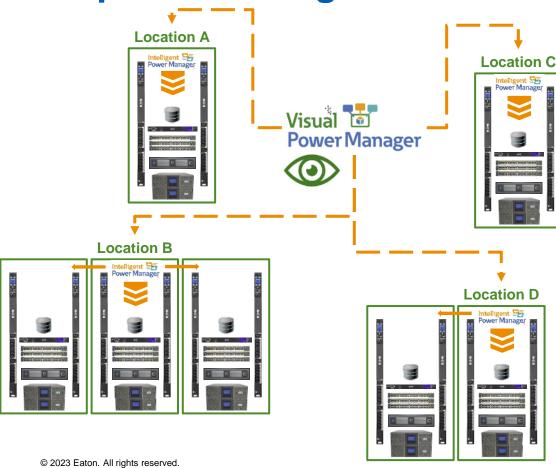
See all details on webpage: [Intelligent Power Manager Software | Remote Monitor | Eaton](#)

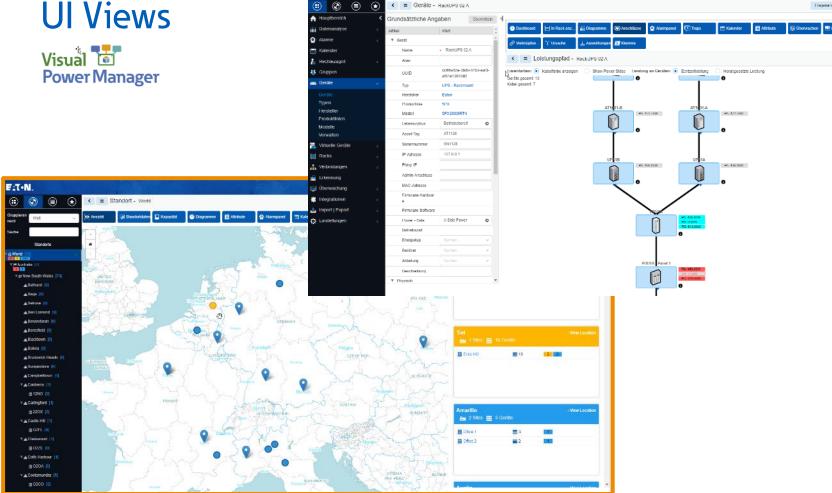# Combined approach to power management

# UI Views

# Asset Management

Auto Discovery

30K Models library – complete device details
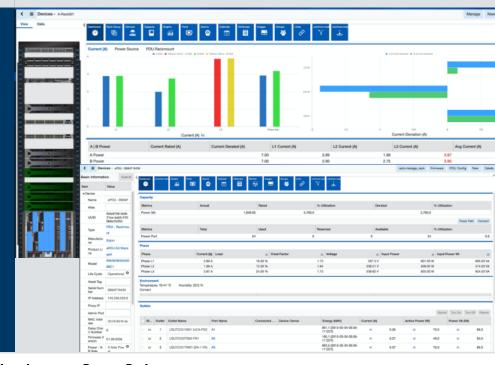
Rack elevation builder with 3D View

Power ports mapping with Cable's identification

Extensible Attribute Management

Monitoring VMWare Virtual Assets

Eaton/TrippLite Rack PDU, UPS & ATS

Firmware Upgrades and Configuration



(*) Not visual on Rack view, only logical to be shown as Power Paths

# Monitoring & Alarming

Monitoring based on Reusable templates

Generic protocol support

    SNMP      OPC      API
    Modbus TCP IPMI WMI    HTML     CSV
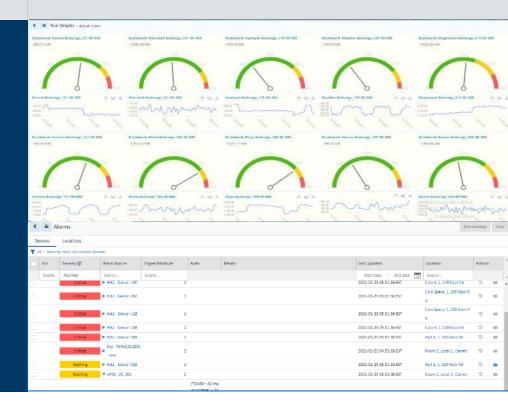    BACnet IP   RedFish    MQTT

Threshold Definitions

Alarm Triggers & Actions

Notifications (Traps, SMTP, SMS, Scripts)

Local monitoring via RDG / Probe

Visual, map based alarm status

# Capacity Planning & Dependencies

Thermal Images
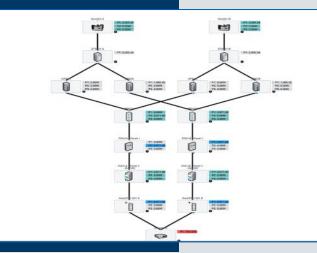
Impact Analysis

Power Load Failover

Compound Filters
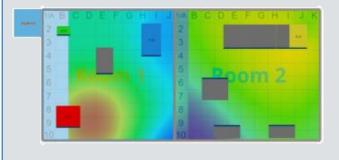
Calculated Data & Metrics

PUE calculation

Power Rollup

Power path tracing

Insert image here

# Security & Rights Access

**Multi-Tenant Management**

LDAP/Active Directory Integration

HTTPS Access

Encrypted SSL Database Access

Multi language Support

| | |
|---|---|
| English | Italiano |
| Français | Русский |
| Deutsch | 繁体中文 |
| Español | 大和 |
| Português | |

EAT•N
Powering Business Worldwide

# Integrations

Service Now out-of-the-box

Bi-Direction

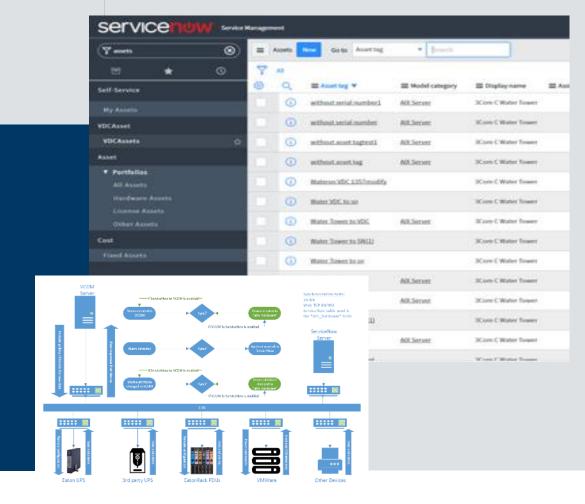   VDC to ITSM & ITSM to VDC

Device Creations

Device Edits

Incident Based on Alarm

Excel integration

Monitoring & Controls for TanLock

25

# Reporting
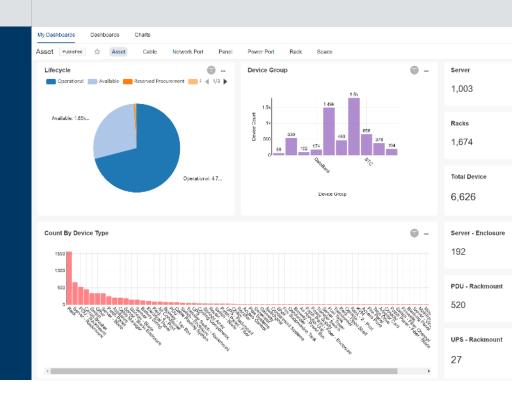
Built in & Custom reports

Distribution reports

Client / Billing reports

Data visualization for Power BI

Data extraction via API

BLSS – Live Demo

See all details on webpage:  Intelligent Power Manager Software | Remote Monitor | Eaton

# Part number philosophy: Brightlayer Data Centers suite

- Sales model options:
    - Perpetual with required annual technical support fee
    - Subscription options with technical support included:
        - 1 year, 3 years and 5 years
- Professional services part numbers that are simpler and more clear

# Brightlayer DataCenter Suite - variants

## Feature Mapping

| Feature | DITPM Ess | DITPM Adv | DCPM Ess | DCPM Adv | EPMS Ess |
|---|:---:|:---:|:---:|:---:|:---:|
| **Installation & Architecture** | | | | | |
| Full Installer and OVF Formats | X | X | X | X | X |
| Multi server Architecture to Accommodate Scale | X | X | X | X | X |
| **Asset Management** | | | | | |
| 30,000+ Model Definitions | | X | X | X | X |
| Bulk Device Management | X | X | X | X | X |
| Auto Discovery Engine for Asset Creation | X | X | X | X | X |
| Visual Rack Building | | X | X | X | |
| Rack Audit Tools | | | | X | |
| Service & Warranty Event Calendars | | | X | X | |
| Location & Floorplan Studio | | X | X | X | X |
| Extensible Attribute Manager for User Defined Attributes | X | X | X | X | X |
| Calculated or Derived Attribute Functions | X | X | X | X | X |
| Device Firmware & Configuration Jobs (Eaton & Tripp Lite devices only) | X | X | X | X | X |
| **Monitoring** | | | | | |
| SNMP (v1, v2c, v3), Modbus TCP, Bacnet IP, OPC UA/DA, IPMI, MQTT Data Collection | X | X | X | X | X |
| Support Any Device Manufacturer and Device Type | X | X | X | X | X |
| Up to 5 Minute Data Collection | X | X | X | X | X |
| Up to 1 Minute Data Collection | | X | X | X | X |
| Up to 30 Second Data Collection | | | X | X | X |
| Up to 1 Second Data Collection | | | | | X |
| **Alarms & Notifications** | | | | | |
| Centralized Alarm Panel with Status Change History | X | X | X | X | X |
| Smart Alarm Configurations to Manage Connected Device Alarm Storms | | X | | X | |
| User Defined Alarms for 5 Alarm Levels | X | X | X | X | X |
| Simple & Compound Alarm Trigger Rules | X | X | X | X | X |
| SMTP & SMS Notification Delivery Formats | X | X | X | X | X |
| Unlimited Escalation Rules | X | X | X | X | X |
| User & Group Notification Recipients | X | X | X | X | X |
| SNMP Trap Forward & SNMP Trap Delivery | X | X | X | X | X |
| Custom Script Execution on Alarm Events | X | X | X | X | X |

Powering Business Worldwide

# Brightlayer DataCenter Suite - variants

## Feature Mapping

| Feature | DITPM Ess | DITPM Adv | DCPM Ess | DCPM Adv | EPMS Ess |
|---|---|---|---|---|---|
| **IT Automations** | | | | | |
| VMWare Cluster, Host, Guest Integration** | X | X | X | X | |
| Hyper-V Cluster, Host, Guest Integration** | X | X | X | X | |
| Windows \| Linux Server Shutdowns** | X | X | X | X | |
| IT Device Console Access with Embedded SSH Client | | X | X | X | |
| **Advanced Electrical** | | | | | |
| Dynamic One Line Diagrams | | | | | X |
| Power Meter Waveform Captures | | | | | X |
| Industry Standard Electrical Reports | | | | | X |

# Extensions add capabilities and provide flexibility to support your digital transformation journey

**Business intelligence (BI) dashboard**

Delivers a flexible, interactive visualization of live data and metrics to augment standard report and dashboard tools.

**IT automations**

Manage and control virtual cluster, host and guest solutions based on user-defined alarm triggers.

**Non-core device monitoring**

Adds monitoring for cameras, sensors, breakers, relays and more.

**Remote data gateway (RDG) server support**

Securely unifies separate networks with a lightweight edge device.

**White label branding**

Replaces the Eaton logo with the logo of your choice.

**Enterprise software integrations**

Seamlessly share data between critical enterprise applications with REST API calls or Microsoft Excel CSV data exports.

31

# IPM or VPM…or a mix ?

| Intelligent Power Manager | Visual Power Manager | Intelligent Power Manager + Visual Power Manager |
|---|---|---|
| • Small – Medium Infra<br>  • <10 racks<br>  • or <2/3 sites<br>• Adnavced control of "Converged"or "Hyper-converged" infrastructure | • Monitoring of distributed infrastructures of any size<br>• Monitoring of **any** devices with **any** protocol<br>• Integration with 3rd party ITSM solutions (ServiceNow)<br>• Alarming and reporting created on any metric and with any logic | • Local "disaster avoidance" with IPM<br>  • Protect your Infra in case of energy & connectivity issue at the same moment<br>• Advanced central monitoring with VPM<br>  • Get a clear view and complex analysis on the distributed enviroment |

**IPM2 Pre- and Post-sales tech support for software:**

Level 1: Competence Centre Budapest: swconnect@eaton.com

Level 2: Local technical presales

Level 3: Engineering team in France

**VPM Pre- and Post-sales tech support is provided "project based"**
by dedicated EMEA Professional Services teams.

Eaton supports you

# How Eaton enables Channel to Digital ?

A **certification program (IPC)** to make partners competent at selling and delivering services on Brightlayer platform.

Discounts on the whole solution from Eaton, including Software

Recognition towards your customers with certification

Competitive differentiation with visibility on Eaton.com

Efficiency in your projects with deployment preparation sessions

All this with **no upfront financial investment on partner side !**

POWER *ADVANTAGE*
Partner Program

# Contact for software presales / sales support at Eaton:

Damian Przygodzki

Software Channel Presales Manager

+48 695 430 018, [DamianPrzygodzki@eaton.com](mailto:DamianPrzygodzki@eaton.com)

Or ask for help / consultation via your local Eaton Sales Representative / Presales.

Powering Business Worldwide

for customers who purchased IPM2
between 2021-2023

# 1 platform, multiple solutions

| | Intelligent Power Manager Monitor Edition | Intelligent Power Manager Manage Edition | Intelligent Power Manager Optimize Edition |
|---|---|---|---|
| | **Contextual visibility of metrics & capacity** | **Monitoring plus Eaton device management** | **Advanced virtualization capabilities** |
| Contextual visibility of power metrics & constraints | ✓ | ✓ | ✓ |
| Monitoring of Eaton & many 3rd party power devices | ✓ | ✓ | ✓ |
| Manage & update Eaton power devices | | ✓ | ✓ |
| Define basic business continuity automations with host level actions | | ✓ | ✓ |
| Simple Wizard based automation configuration | | ✓ | ✓ |
| Define advanced business continuity automations with VM & cluster level actions | | | ✓ |

Powering Business Worldwide

# Intelligent Power Manager Editions

| | IPM2 MANAGE | IPM2 OPTIMIZE |
|---|:---:|:---:|
| Devices supervision | ✔ | ✔ |
| Mass Config/Upgrade | ✔ | ✔ |
| Shutdown servers | ✔ | ✔ |
| Host level actions | ✔ | ✔ |
| SSH command | ✔ | ✔ |
| Script | ✔ | ✔ |
| NetApp connector | ✔ | ✔ |
| Stop/Start VMs | ✘ | ✔ |
| VMs migration | ✘ | ✔ |
| Cluster shutdown | ✘ | ✔ |
| Fault Domain shutdown | ✘ | ✔ |
| VxRail connector | ✘ | ✔ |
| Nutanix connector | ✘ | ✔ |
| HPE OneView connector | ✘ | ✔ |
| VMware SRM | ✘ | ✔ |

vmware

Microsoft Hyper-V

VXRAIL

NUTANIX

simplivity

HPE OneView

NetApp

DATACORE

EATON
Powering Business Worldwide

**Intelligent Power Manager Editions**

**Intelligent Power Manager**
Optimize Edition

**Intelligent Power Manager**
Manage Edition

**Intelligent Power Manager**
Monitor Edition

License type / node

**Subscription**
**1 year**

**Or**

**Perpetual licence**
**&**
**maintenance entitlement**
**1 or 5 years**