



# PEPP Connectivity & Software Training

TD SYNEX – EATON / Tripp Lite Team  
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November 8, 2023



Powering Business Worldwide

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# Connectivity and Peripherals

New Revenue and Where To Find It

David Cradeur  
Manager, Connectivity & Peripherals Enablement  
November, 2023



# Connectivity and Peripherals

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## An Abundance of Opportunities

Did you know Connectivity and Peripherals are ...

- over 30% of DIT sales
- over 4500 products
- high margin and very profitable
- multiple categories that offer high growth potential
- lots of low hanging fruit

# Connectivity and Peripherals

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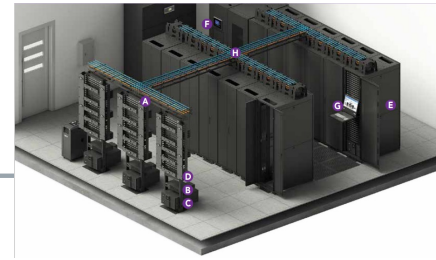
Our core business has been the distribution of power.

Connectivity and Peripherals distribute data.

**Data and Power together make IT work!**



# Data Center / Network Closet



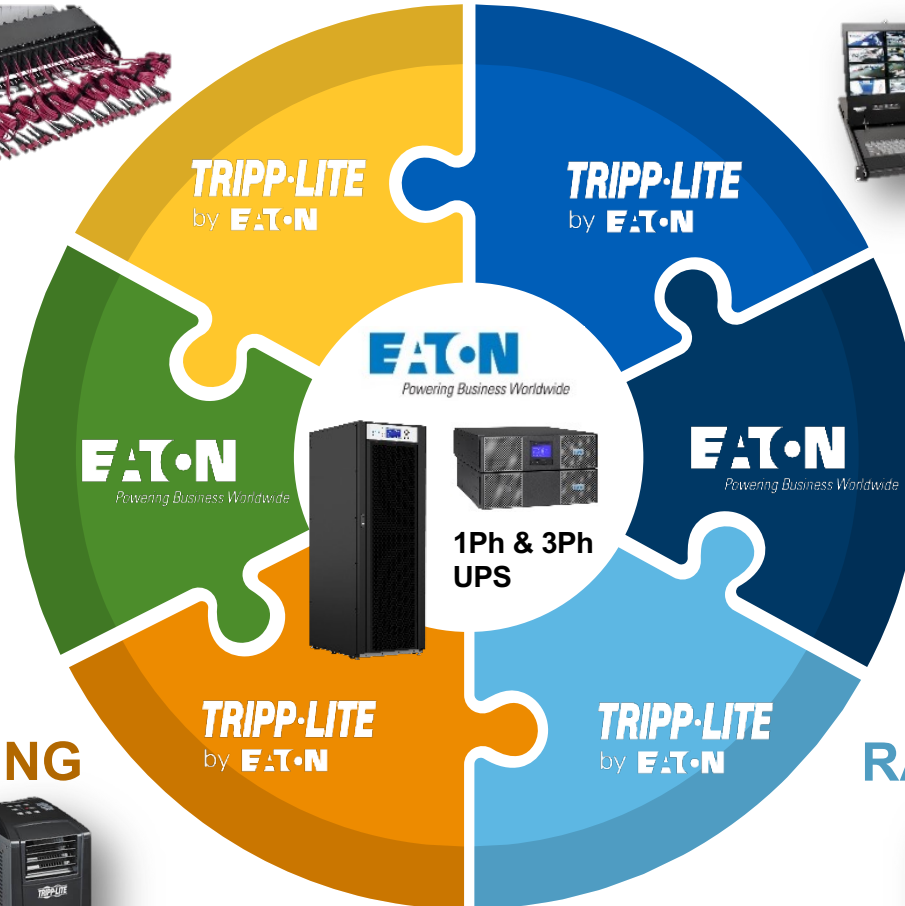
## COPPER & FIBER CONNECTIVITY



## KVM & CONSOLE SERVERS



## SOFTWARE FOR DC



## PDU (POWER DISTRIBUTION UNIT)



## COOLING



## RACK & ACCESSORIES



# Increase Revenue - Data center / Network closet

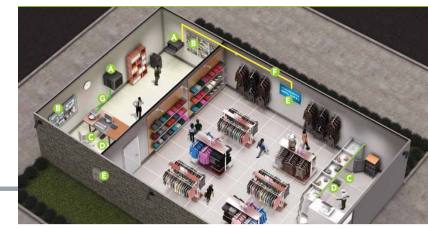


- Data Cables – Copper, Fiber
- Patch Panels – Copper, Fiber
- Power Cords
- Transceivers, AOC, DAC Cables
- KVMs, Consoles, Console Servers
- Robotic Fiber Panel
- Rackmount Surge and Strips/PDUs

An average rack with 10 servers and 1 switch has **\$6,400** of additional sales opportunity



# Retail, WFA & Education Verticals



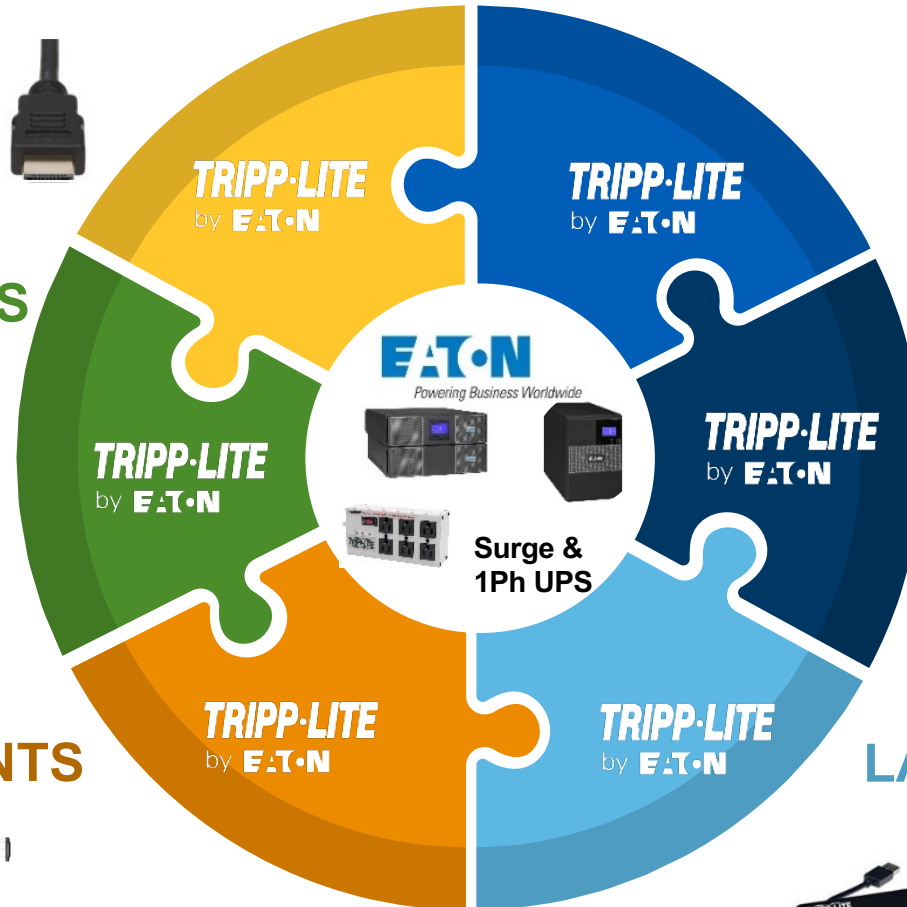
## VIDEO / DATA CABLES AND EXTENDERS



## WALL MOUNT CABINETS AND DVR LOCKBOX



## ETHERNET / USB ADAPTERS



## CHARGING STATIONS & CARTS



## DISPLAY MOUNTS



## LAPTOP DOCKS & HUBS

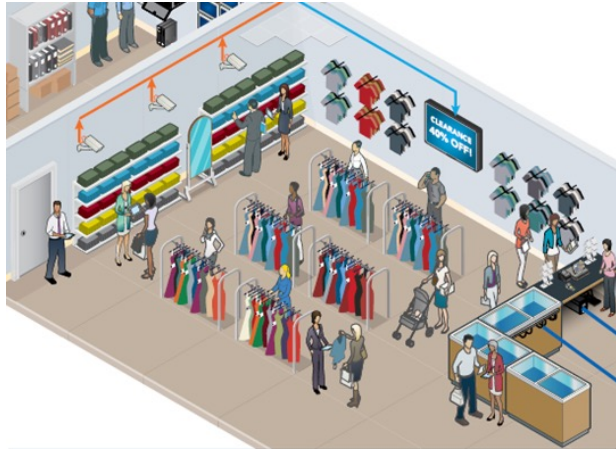


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# Increase Revenue – Retail



- Docking Stations and Adapters
- Surge Protectors and Power Strips
- Cables – USB, Lightning, Video
- Desktop Charging Stations
- Anti-Bacterial Solutions
- Display Mounts
- Rolling Carts

An average  
small retail  
store has over  
**\$2500** of  
additional  
sales  
opportunity



# Increase Revenue – Work From Anywhere



- Docking Stations and Adapters
- Surge Protectors and Power Strips
- Cables – USB, Lightning, Video
- Chargers and Battery Banks
- Anti-Bacterial Solutions
- Display Mounts
- KVM Switches

An average  
desk has **\$750**  
of additional  
sales  
opportunity

# Increase Revenue – Education



- Docking Stations and Adapters
- Surge Protectors and Power Strips
- Cables – USB, Lightning, Data
- Chargers and Battery Banks
- Anti-Bacterial Solutions
- KVM Switches
- Display Mounts
- Network Switches
- ProAV – cables and extenders

An average class has **\$1200 to \$5000** of additional sales opportunity



# ProAV & Digital Signage



## HDMI, DP, VGA, DVI & USB CABLES



Safe-IT<sup>™</sup>  
PRODUCTS

## KVM / CONSOLE SOLUTIONS



## WALL MOUNT RACK CABINETS



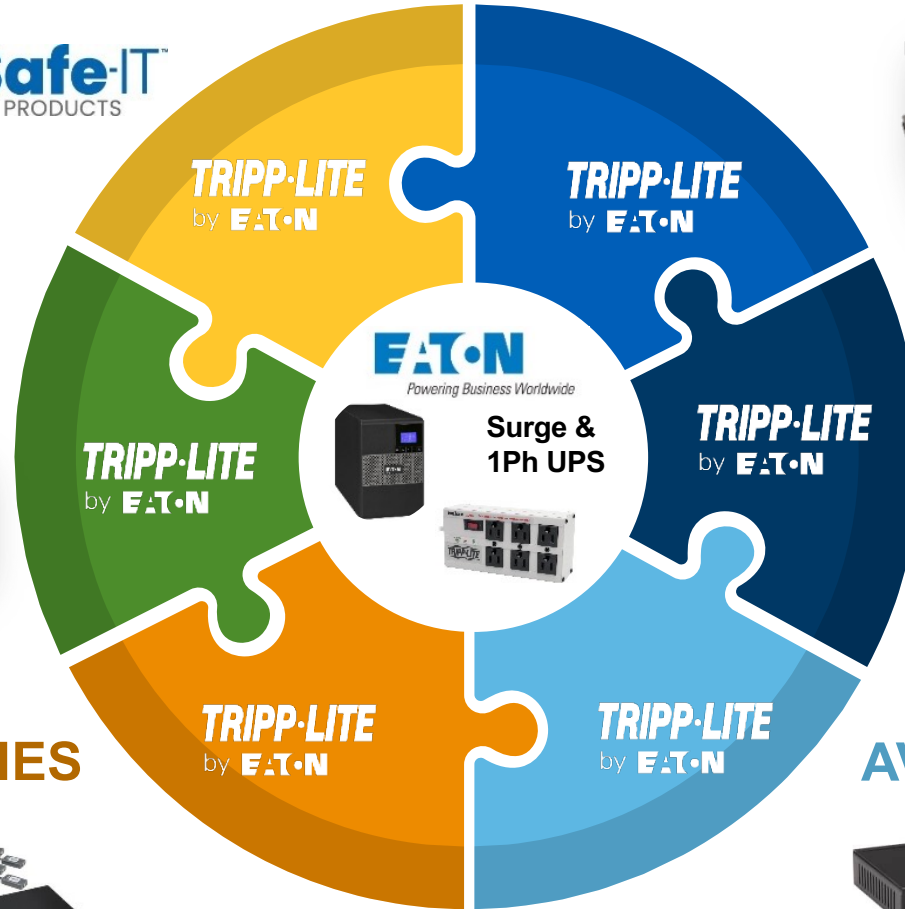
## AV SPLITTERS & SWITCHES



## DISPLAY MOUNTS



## AV EXTENDER & ADAPTERS



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# Increase Revenue - ProAV & Digital Signage



- Switches, Splitters and Extenders
- Display Mounts
- Cables and Adapters
- Anti-bacterial Solutions
- Surge and Power Strips
- Rolling Carts & Signage
- AV Panels and Jacks

The average small meeting room or huddle space has **\$1,300** of additional sales opportunity





# Product Solutions and Competition

6 Subgroups

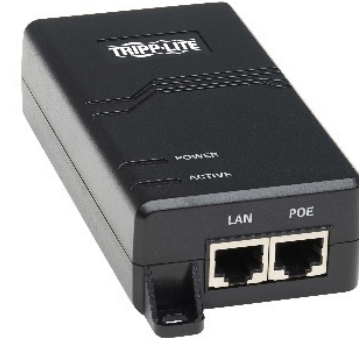
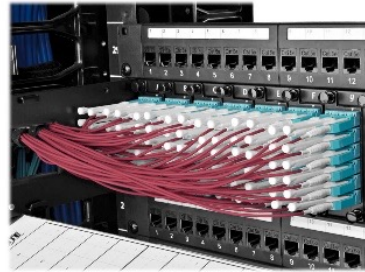


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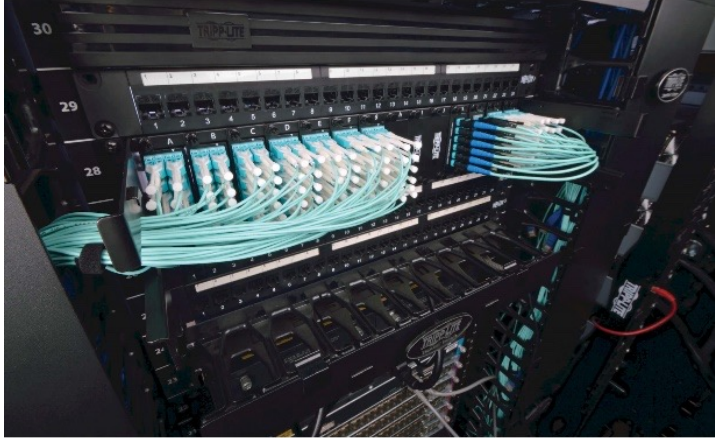
# Connectivity – Network Cabling



Copper	Fiber	Fiber Transceivers	PoE products
Cables & Jacks	Cables	SFP+, SFP28	Switches
Patch Panels	Patch Panels	QSFP+, QSFP28	Injectors
Couplers	Couplers	LC Duplex	Jacks
Adapters	Cassettes	RJ45	Panels
Bulk Cables			Extenders



# Network Cabling Competition



Why us:

Very comprehensive solution, from patch cable to breakout solutions to Robotic system. All very competitively priced

Competition

- Primary competitors in IT Channel:  
Startech, Belkin, C2G.
- Other competitors:  
Black Box, Cisco, HP, Juniper, Panduit, Addon
- Not all compete in all categories

# Connectivity – ProAV and Digital Signage



Solutions	Technologies	Cabling	Applications
Digital Signage	Cables	Digital & Analog	Video Walls
Extenders	Over cat5 (UTP)	Cables	Multi-viewers
Splitters	HDBaseT	Jacks & Panels	Long Distance
Switches	AOC (over fiber)	Couplers	Industrial
Matrix switches	Wireless	Adapters	

# ProAV Competition



Why Us:

Wide assortment in many categories, all with great features and competitive pricing

Competition:

- Competition in IT Channel: Startech, C2G, BlackBox, SIIG, Kramer, Gefen, Peerless, APC, Belkin and Legrand
- Competition in Datacomm channel: Crestron, Extron, Barco, Atlona





# New Pro AV Reference Guide

**TRIPP-LITE**  
by **EATON**

For more information, contact: [ProAV2@Eaton.com](mailto:ProAV2@Eaton.com)

## CONNECT AV EQUIPMENT IN ANY INSTALLATION

<b>Cables</b> P580-xxx-8K6 8K 60 Hz DisplayPort (M/M) P568-xxx HDMI (M/M) P568-xxx-FBR HDMI Fiber AOC (M/M) P569-xxx HDMI + Ethernet Gripping Connectors (M/M) P580F3-xxM-8K6 DisplayPort Fiber AOC (M/M) P580-xxx USB4 40 Gbps (M/M) P580-xxx DisplayPort (M/M) P566-xxx HDMI to DVI-D (M/M) MTB3-xxx Thunderbolt 3 20-40 Gbps (M/M)	<b>Adapters</b> P130-000 HDMI to DVI-D (F/M) P136-000 DisplayPort to HDMI (M/F) P131-06N HDMI to VGA (M/F) P136-06N-HV-V2 DisplayPort to VGA/HDMI (M/F/F) P134-06N-VGA DisplayPort to VGA (M/F) P581-006 DisplayPort to DVI (M/M) P134-000 DisplayPort to DVI (M/F) P581-006-VGA-V2 DisplayPort to VGA (M/M)	<b>Extenders</b> B127A-111-BDTD DisplayPort over Cat6 Kit B127A-1A1-BHBH HDMI over Cat6 Kit, KVM Support B127A-1A1-BCBH USB-C to HDMI over Cat6 Kit, KVM Support B127A-111-BHTH HDMI over Cat6 Kit B127A-1A1-BHPH HDMI over Cat6 Kit, Transmitter + Pigtail Receiver B127A-1A1-8DBD DisplayPort over Cat6 Kit, KVM Support B127A-1A1-FHFH HDMI over Cat6 Kit, Wallplate	<b>Switches</b> B119-003-UHD 3-Port HDMI B119-005-UHD 5-Port HDMI B119-4X4-4K 4x4 Matrix, HDMI B119-004-UHD 4-Port HDMI B119-4X2-4K 4x2 Matrix, HDMI B320-4X1-MHE-K 4-Port Kit - HDMI, DP, USB-C and VGA to HDMI	<b>AV over IP</b> B162-001-POE HDMI over IP Encoder B162-100-POE HDMI over IP Decoder
See Reverse for More Solutions				

**TRIPP-LITE**  
by **EATON**

For more information, contact: [ProAV2@Eaton.com](mailto:ProAV2@Eaton.com)

## MOUNT AV EQUIPMENT IN ANY INSTALLATION

<b>Monitor risers</b> MR1411M 14 x 9" MR1612D1 15.5 x 11.25", Storage Drawer MR2208G 8 x 22", Glass Top MR159D 14.6 x 9.25", Storage Drawer MR4010 39.4 x 10.2", Wood MR229USB 21.8 x 8.5", x3 USB MR248USBG 24.1 x 8.3", Glass Top, x5 USB DDR811TRAYTAA 10 x 12", Tray WWSSC2414TAA 24 x 14", Clamp	<b>Fixed wall mounts</b> DWF1327M Fits 13-27" Screens DWF3780X Fits 37-80" Screens DWFSC3780MUL Fits 37-80" Screens UL Certified DWFSC4570M Fits 45-70" Screens DWF60100XX Fits 60-100" Screens	<b>Desktop mounts</b> DDR1327SE Fits 13-27" Screens DDR1327SD Fits (x2) 13-27" Screens DDR1730TAL Fits (x3) 17-30" Screens DMPD1732AM Fits (x3) 17-32" Screens
<b>Tablet mounts</b> DMTB413 Fits 4.7-12.9" Tablets DMTB413 Fits 4.7-12.9" Tablets, Flex Arm DMTB5911 Fits 9.7-10.5" Tablets, Floor Stand DMTB11 Fits 9.7-11" Tablets, Wall Mount DMTB911 Fits 9.7-11" Tablets, Wall or Desk Mount DMTB513 Fits 13" Tablets, Floor Stand	<b>Tilt wall mounts</b> DWT1327S Fits 13-27" Screens DWT2655XP Fits 26-55" Screens DWT3770X Fits 37-70" Screens DWTSC3780MUL Fits 37-80" Screens DWT60100XX Fits 60-100" Screens	<b>Swivel/tilt wall mounts</b> DWM1327SE Fits 13-27" Screens DWM1327SP Fits 13-27" Screens, Screen Adjustment DWM1742MA Fits 17-42" Screens, UL Certified DWM1742MN Fits 17-42" Screens DWM2655M Fits 26-55" Screens DWM3780ROT Fits 37-80" Screens DWM5070HD Fits 50-70" Screens DWM60100XX Fits 60-100" Screens DWM LARM1732AM Fits 17-32" Screens
<b>Carts and Stands</b> WWS51DWSTAA Mobile Workstation DMCS3255G62W Fits 32-55" Screens, Frosted Glass Base/Shelves DMCS3270XP Fits 32-70" Screens DMCS3770L Fits 37-70" Screens DMPD53770R Fits 37-70" Screens, Portable Stand DMCS60100XX Fits 60-100" Screens WWSRC Rolling Desk/ TV Cart WWSRDSTC Rolling Desk, CPU Shelf		

# Connectivity – Desktop Mobility



USB-C	Docks	Chargers	KVM switches
ThunderBolt 4	Multiport Adapter	HD enclosures	Card Readers
USB 4	Adapter Cables	Video Cabling	Webcam
Lightning Cables	Hubs	Battery Banks	Anti-Bacterial

# Desktop Mobility - Competition



Why us:

Strong brand, high quality, dependable products and in all categories

Competition:

- Primary Competitors: Startech, Belkin and C2G, Peerless, Legrand, APC
- Other Competitors: SIIG, Pluggable, Black Box, HP, Targus, IoGear, Dell, Kensington



# Peripherals – Display Mounts



Wall Mounts	Digital Signage	Rolling Workstations
Desktop Mounts	Monitor Risers	Desktop Workstations
Video Wall Mounts	CPU Holders	Multiple Screen Mounts
Rolling Carts	Ceiling Mounts	Anti-Microbial Solutions

# Display Mounts - Competition



- Peerless AV, StarTech
- LeGrand – Chief, Sanus
- Mount It, Vivo
- Stand Steady, North Bayou
- Prometheus, Ergotron
- PerleGear, Wali



# Peripherals – Surge and Power Strips



Plastic and Metal Lines	Conference Series	Clamp On Desk or Table
Best In Class	Safety Series	In Desk with Connectivity
Opening Price Points	Pro AV Series	Pop-Up and Towers
USBA/C, RJ45/11, Coax	PD Series	Anti-Microbial Solutions



# Surge and Strips - Competition



- Belkin, APC
- Fellowes, Kensington
- Cyber, Jasco

# KVMs and Console Servers – Competition



Why us:

Excellent brand with a deep assortment of products .. all complementing our power solutions,

Competition:

- Raritan (Legrand), Vertiv / Avocent, Startech, BlackBox, Aten, Adder

# Additional Solutions

## Power Cords and Adapters



**Power Cords (74)**



**PDU and Extension Cords  
(118)**



**Adapter Cords (44)**



**Hospital-Grade (30)**



**Splitters (14)**



# Tripp Lite Product Tools

The easy to explore Tripp Lite website should be your first stop for product information. In addition, below are some of the sales tools available to help you find the right product for your opportunity.

## Online Sales Tools



### Cross-References

- Quickly see how Tripp Lite beats the competition with more features for less money



### Live Chat

- Chat one-on-one with an application specialist by clicking the “Live Chat” button on any of our online product pages



### Product Selectors

- Help you quickly find the right solution for a customer’s application
- Easy to add to your site with only a few lines of code

- [Tripp Lite Website](#)
- Cable Finder
- Copper Cable Matrix
- Fiber Cable Matrix
- Power Cord Matrix
- Cross Reference
- New Products Data Cables – Copper, Fiber
- Surge Selector
- Mount Finder



# Brightlayer: Illuminating power management possibilities

Will Schechter  
National Software Solutions Engineer – Data Center  
WillDSchechter@Eaton.com



# Agenda

- Brightlayer Overview
- Problems IT Professionals Face
- How Brightlayer Closes Gaps
- Benefits of Selling Brightlayer
- SNMP
- Sample Brightlayer Use Cases

# Brightlayer Data Center Suite

Point products

## Data center infrastructure management (DCIM)

Monitors and manages data centers inclusive of power, space, cooling and asset management (Data Center Performance Manager [DCPM])

## Distributed infrastructure management

Manages and controls equipment located at remote locations, and proactively identifies and fixes issues before equipment goes down (Distributed IT Performance Manager [DITPM])

## Electrical power monitoring system (EPMS)

Manages the gray space in the data center (power, water, air, gas and steam) in real time (Foreseer)

## Disaster avoidance

Ensures system uptime and data integrity by allowing you to remotely monitor, manage and control UPSs and other devices on your network (Intelligent Power Manager [IPM])

## Remote monitoring service

Provides cloud-based, 24/7 remote monitoring of UPSs by Eaton technicians to mitigate downtime (PredictPulse)



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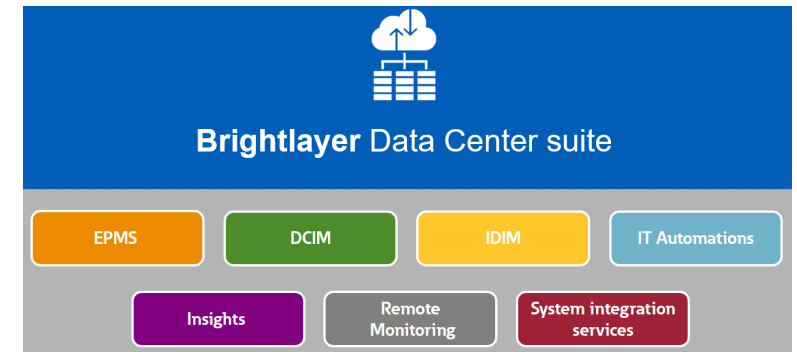
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# Data Center Suite Evolution



*Deep domain  
expertise and value*



*Optimized, integrated and  
enhanced Data Center suite  
**based on VCOM platform***

Convergence is a process...not an event.

# Challenges of Monitoring/Managing Power Devices w/o Software

- Updating Firmware
  - Administrative burden to log in one at a time
- Configuring
  - Administrative burden to configure each
  - Potential for errors
  - Tedious password changes
  - More cards = more time = more money
- UPS Segment/PDU outlet control
  - Log in to each to control outlets/segments
  - Need to know IP of device and user/pass
- Tedious Reports/Reporting
  - Log in to each to determine UPS health (next battery replace date, utilization load %, etc.)
- Multiple Vendors – Good luck!!!!!!!!!!!!!!



# The Customer Need for Power Management Software

- Dashboards for a macro view of environment
- Setting alerts instantaneously on alarming conditions
- Scheduled reports of UPS key health metrics
- Current “alarm” state of fleet
- How many UPS batteries need replacing?
- What if I need to change device passwords?
- Pushing out firmware to Eaton/TL devices in bulk
- Pushing out card configurations in bulk
- Graceful shutdown of servers and virtualized servers
- Automation of actions based on device triggers

Battery and Load			
	Battery Capacity (%)	Output Load (%)	Battery Time Remaining (sec)
Rack UPS Office 01	92.00	54.00	1,538.00
Rack UPS Office 02	66.00	62.00	1,671.00
Rack UPS Office 03	54.00	39.00	1,542.00
Rack UPS Office 04	77.00	59.00	1,665.00
Rack UPS Office 05	71.00	49.00	1,616.00
Rack UPS Office 06	73.00	66.00	1,672.00
Rack UPS Office 07	62.00	50.00	1,681.00
Rack UPS Office 08	58.00	17.00	1,669.00
Rack UPS Office 09	60.00	43.00	1,659.00
Rack UPS Office 10	89.00	51.00	1,686.00

## Chicago Lab, Public

Device Name	Type	Manufacturer	Model	Output Load (%)	Last Replace Date	Battery Time Remaining (sec)
Rack UPS Office 13	UPS - Rackmount	Eaton	5P1000R	36	2019-03-28 22:00:00 EDT	1574
Rack UPS Office 11	UPS - Rackmount	Eaton	5P1000R	18	2021-06-29 22:00:00 EDT	1537



Trigger +

Power Issue	Environment	Other Alarm
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^ Action

Send Message	Custom Scripts	IT Action
Recovery	Timer	Hardware



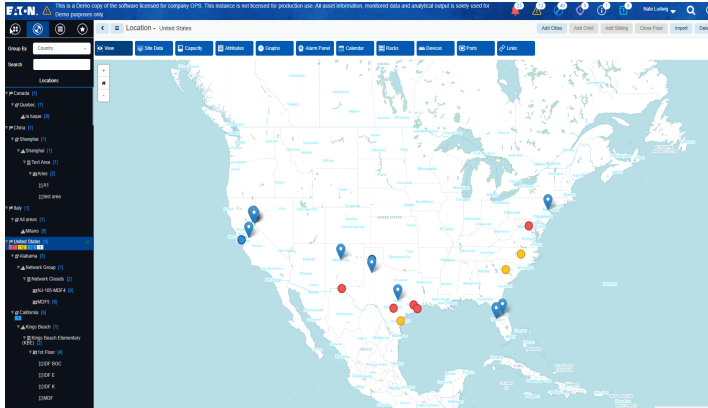
# Brightlayer Benefits

- Long term customer satisfaction
  - Perceived UPS failures vs. failed batteries that should have been replaced
  - Brand satisfaction
  - Leads to repeat/refresh hardware = more sales
- Increasing the sales opportunity
  - More revenue for reseller
- Sustained income stream
  - Annual maintenance renewals
  - Annual subscription renewals



# Brightlayer Data Center Suite

## Distributed IT Performance Management (DITPM)



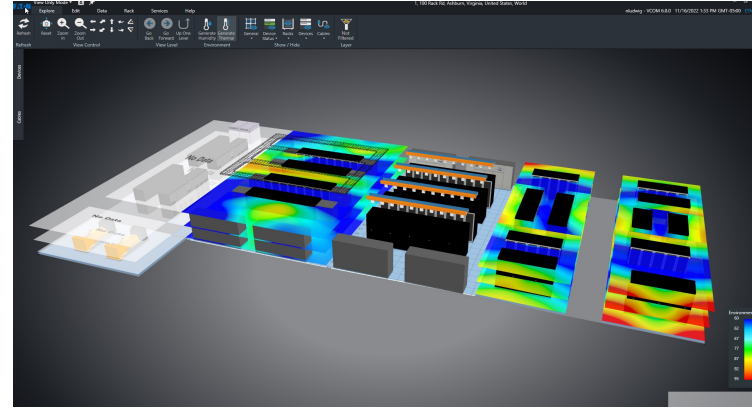
- Centralized Real-Time Monitoring
- Mass Firmware Updates
- Mass Configuration
- Vendor-Neutral Visibility
- Alert and Alarm Management
- Custom Reports and Dashboards
- Automate Graceful Shutdown VMs
- Rack Elevation Builder

[Learn More at Eaton.com/DITPM](https://www.eaton.com/DITPM)



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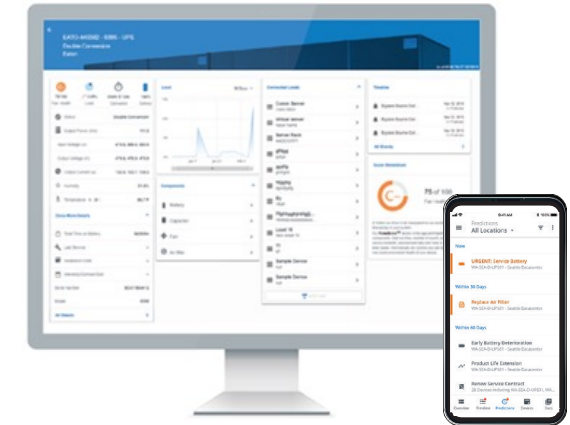
## Data Center Performance Management (DCPM)



- Asset Management
- Capacity Planning
- Workflow Management (Project, Task, Work Order)
- 3D Visualization
- Warranty and Service Tracking
- Rack Elevation Builder

[Learn More at Eaton.com/DCPM](https://www.eaton.com/DCPM)

## Remote Monitoring Service - Critical IT



- 24/7 Monitoring
- Predictive Analytics
- Cloud-Based Implementation
- Intuitive Monthly Reports
- Expedited Repairs
- Wireless Security & Convenience - LTE

**PredictPulse™**

# Distributed IT Performance Management Software Benefits

## Know what's happening across your distributed infrastructure\*

- Meaningful real-time alerts prioritized by severity.
- No nuisance alarms – so you're only alerted when there's a critical issue.
- Escalation when alarms aren't acknowledged to ensure critical issues are addressed.

## Quickly troubleshoot and resolve equipment issues

- Remotely controls rackmount PDU outlets and rackmount UPS load segments regardless of vendor.
- Automates device response and/or shutdown during critical power events or environmental stress conditions.
- Reduces truck rolls and the need for on-site, non-IT staff to help troubleshoot equipment issues.
- Provides 24/7 insight into equipment performance, enabling you to remotely power cycle devices and remotely diagnose and take proactive corrective action when needed.

## Remotely push mass firmware updates or configuration changes in minutes to your Eaton rackmount PDU and UPS network cards

- Eliminates the need for updates to be made in-person.

## Optimize your operation

- Produces detailed reports, trend charts and dashboards with deep insights into power utilization, alarm frequency, power connections, 3D imaging to visualize your rack elevations, load balancing and more.
- Provides visibility into rack capacity and utilization with 3D rack elevations to speed future expansion planning.

\* Typically, 25 UPSs and/or PDUs

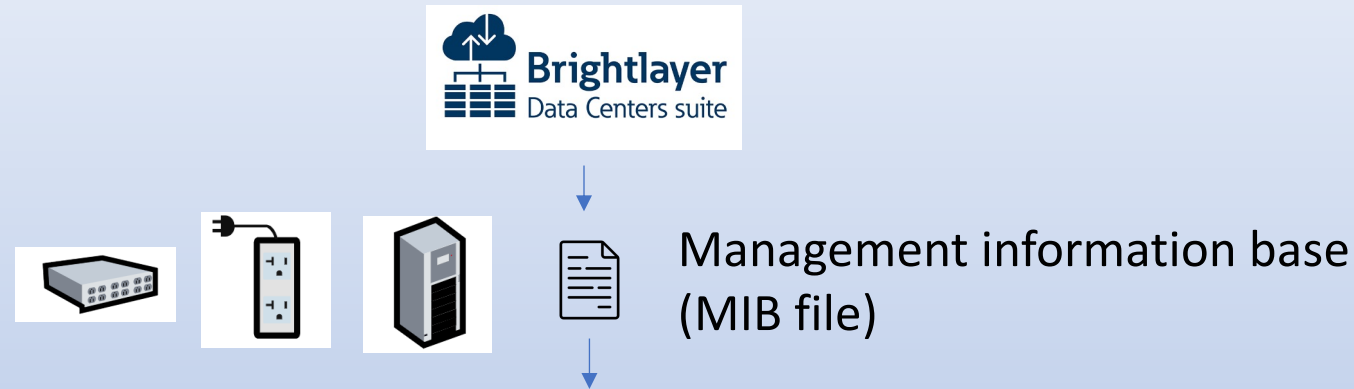


# Distributed IT Performance Management Software

- ✓ Dashboard
- ✓ Graphs
- ✓ Reports
- ✓ Alarms
- ✓ Job Discovery
- ✓ Device
- ✓ Firmware Push/Configuration Management
- ✓ Device Library
- ✓ IT Devices
- ✓ Automations
- ✓ Rack Manager/Floor Plan (Advanced)
- ✓ Locations/Maps (Advanced)

# How Do We Communicate With Devices?

## Simple Network Management Protocol (SNMP)



*If it is on the network card, we can display that data, for all manufacturers*

<input type="checkbox"/>	Attribute	Alias	Data Type	Monitor Type	Parameters/Formula	Value Type	Unit	Status
	Search...	Search...	Search...	Search...	Search...	Search...	Search...	Search...
<input type="checkbox"/>	Audible Alarm		Scalar	SNMP	OID:{1.3.6.1.4.1.534.1.10.9.0}	Enum		<input checked="" type="checkbox"/>
<input type="checkbox"/>	Battery Capacity		Scalar	SNMP	OID:{1.3.6.1.2.1.33.1.2.4.0}	Decimal	%	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Battery Current		Scalar	SNMP	OID:{1.3.6.1.2.1.33.1.2.6.0}	Decimal	A	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Battery Status		Scalar	SNMP	OID:{1.3.6.1.4.1.534.1.2.5.0}	Enum		<input checked="" type="checkbox"/>
<input type="checkbox"/>	Battery Temperature		Scalar	SNMP	OID:{1.3.6.1.2.1.33.1.2.7.0}	Decimal	°F	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Battery Time Remaining		Scalar	SNMP	OID:{1.3.6.1.2.1.33.1.2.3.0}*60	Decimal	sec	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Battery Voltage		Scalar	SNMP	OID:{1.3.6.1.2.1.33.1.2.5.0}/10	Decimal	V	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Bypass Frequency		Scalar	SNMP	OID:{1.3.6.1.2.1.33.1.5.1.0}/10	Decimal	Hz	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Bypass Number of Phases		Scalar	SNMP	OID:{1.3.6.1.2.1.33.1.5.2.0}	Integer		<input checked="" type="checkbox"/>
<input type="checkbox"/>	Config Date		Scalar	SNMP	OID:{1.3.6.1.4.1.534.1.10.5.0}	String		<input checked="" type="checkbox"/>

# SNMP Trap

- A set of conditions that exist to instantly trigger a reaction from the network card. Examples include:
  - UPS on battery
  - UPS on bypass
  - UPS input failure

Attributes Triggers Graphs Applied Rules

<input type="checkbox"/>	Attribute	Alias	Data Type	Monitor Type	Parameters/Formula	Value Type	Unit	Polling Group	Alarm Only	Status
<input type="checkbox"/>	Search...	Search...	Search...	Search...	Search...	Search...	Search...	Search...	Search...	Search...
<input type="checkbox"/>	UPS Alt Power Not Available		Scalar	SNMP Trap	Trap OID: 1.3.6.1.4.1.534.1.11.4.1+40	String			false	<input checked="" type="checkbox"/>
<input type="checkbox"/>	UPS Ambient Temp Bad		Scalar	SNMP Trap	Trap OID: 1.3.6.1.4.1.534.1.11.4.1+29	String			false	<input checked="" type="checkbox"/>
<input type="checkbox"/>	UPS Awaiting Power		Scalar	SNMP Trap	Trap OID: 1.3.6.1.4.1.534.1.11.4.1+47	String			false	<input checked="" type="checkbox"/>
<input type="checkbox"/>	UPS Battery Discharged		Scalar	SNMP Trap	Trap OID: 1.3.6.1.4.1.534.1.11.4.1+9	String			false	<input checked="" type="checkbox"/>
<input type="checkbox"/>	UPS Breaker Open		Scalar	SNMP Trap	Trap OID: 1.3.6.1.4.1.534.1.11.4.1+20	String			false	<input checked="" type="checkbox"/>
<input type="checkbox"/>	UPS Building Alarm		Scalar	SNMP Trap	Trap OID: 1.3.6.1.4.1.534.1.11.4.1+15	String			false	<input checked="" type="checkbox"/>
<input type="checkbox"/>	UPS Bypass Not Available		Scalar	SNMP Trap	Trap OID: 1.3.6.1.4.1.534.1.11.4.1+12	String			false	<input checked="" type="checkbox"/>
<input type="checkbox"/>	UPS Comm Established		Scalar	SNMP Trap	Trap OID: 1.3.6.1.4.1.534.1.11.4.1+49	String			false	<input checked="" type="checkbox"/>
<input type="checkbox"/>	UPS Communications Lost		Scalar	SNMP Trap	Trap OID: 1.3.6.1.4.1.534.1.11.4.1+26	String			false	<input checked="" type="checkbox"/>
<input type="checkbox"/>	UPS Contact Active Notice		Scalar	SNMP Trap	Trap OID: 1.3.6.1.4.1.534.1.11.4.1+30	String			false	<input checked="" type="checkbox"/>

« < 1 to 49 of 49 > »

# Sample Use Case – Power Outage Notification

Define a pre-set response to a power outage or other event

The screenshot displays the configuration interface for an automation rule. At the top, the breadcrumb is "IT Automations - UPS - On Battery Email (individual UPS)" with "Submit" and "Delete" buttons. Below this, the "Name" field contains "UPS - On Battery Email (individual UPS)" and the "Description" field contains "with 30 sec delay".

The interface is divided into two main sections: "Trigger" and "Action".

**Trigger Section:**

- Under "Trigger", there are six buttons: "Power Issue", "Environment", "Other Alarm", "Custom Triggers", "Schedule Timer", and "Manual Override".
- Step 1 "Create Triggers" shows a single trigger: "When... Power Issue - AC power outage on UPS on 9PXGK M2".

**Action Section:**

- Under "Action", there are six buttons: "Send Message", "Custom Scripts", "IT Action", "Recovery", "Timer", and "Hardware".
- Step 2 "Create Actions" shows three actions:
  - "Then... Wait 30 Second(s)"
  - "Then... Check Initial Trigger Validity. On Initial Trigger Recovery: Continue the current automation"
  - "Then... Send Notification to **jstieman**. On Action Error: Continue the current automation"



# Sample Use Case - VM Shutdown on Low Battery

Build out a robust response to any type of event

The screenshot displays a workflow configuration interface. On the left, there are two panels: 'Trigger' and 'Action'. The 'Trigger' panel includes buttons for Power Issue, Environment, Other Alarm, Custom Triggers, Schedule Timer, and Manual Override. The 'Action' panel includes buttons for Send Message, Custom Scripts, IT Action, Recovery, Timer, Hardware, and If/Else. The main workspace is divided into two sections: '1 Create Triggers' and '2 Create Actions'. The '1 Create Triggers' section shows two triggers connected by an 'And' operator. The first trigger is 'Power Issue - AC power outage on UPS on Raleigh 9PX2000RT'. The second trigger is 'Power Issue - UPS estimated remaining battery runtime is less than 400 sec on Raleigh 9PX2000RT'. The '2 Create Actions' section shows three actions: 'Wait 60 Second(s)', 'Check Initial Trigger Validity' (with a checkbox checked and the note 'On Initial Trigger Recovery: Continue the current automation'), and 'IT Device: Host - Shutdown VMs Then Host - Alfalfa.dellstslab.com' (with the note 'On Action Error: Continue the current automation').

**1 Create Triggers** And Or

When... ⚡ Power Issue - AC power outage on UPS on Raleigh 9PX2000RT

And... ⚡ Power Issue - UPS estimated remaining battery runtime is less than 400 sec on Raleigh 9PX2000RT

**2 Create Actions**

Then... ⌚ Wait 60 Second(s)

Then...  Check Initial Trigger Validity  
On Initial Trigger Recovery: Continue the current automation

Then... 🖨 IT Device: Host - Shutdown VMs Then Host - Alfalfa.dellstslab.com  
On Action Error: Continue the current automation

# Sample Use Case – Generate Reports on UPSs

Looking for batteries that need to be replaced



UPS Metrics By Site (Demo)

Row Limit	10000	Date Range	2023-11-07 ~ 2023-11-07
Sort By	Last Replace Date		

## Chicago Lab,Public

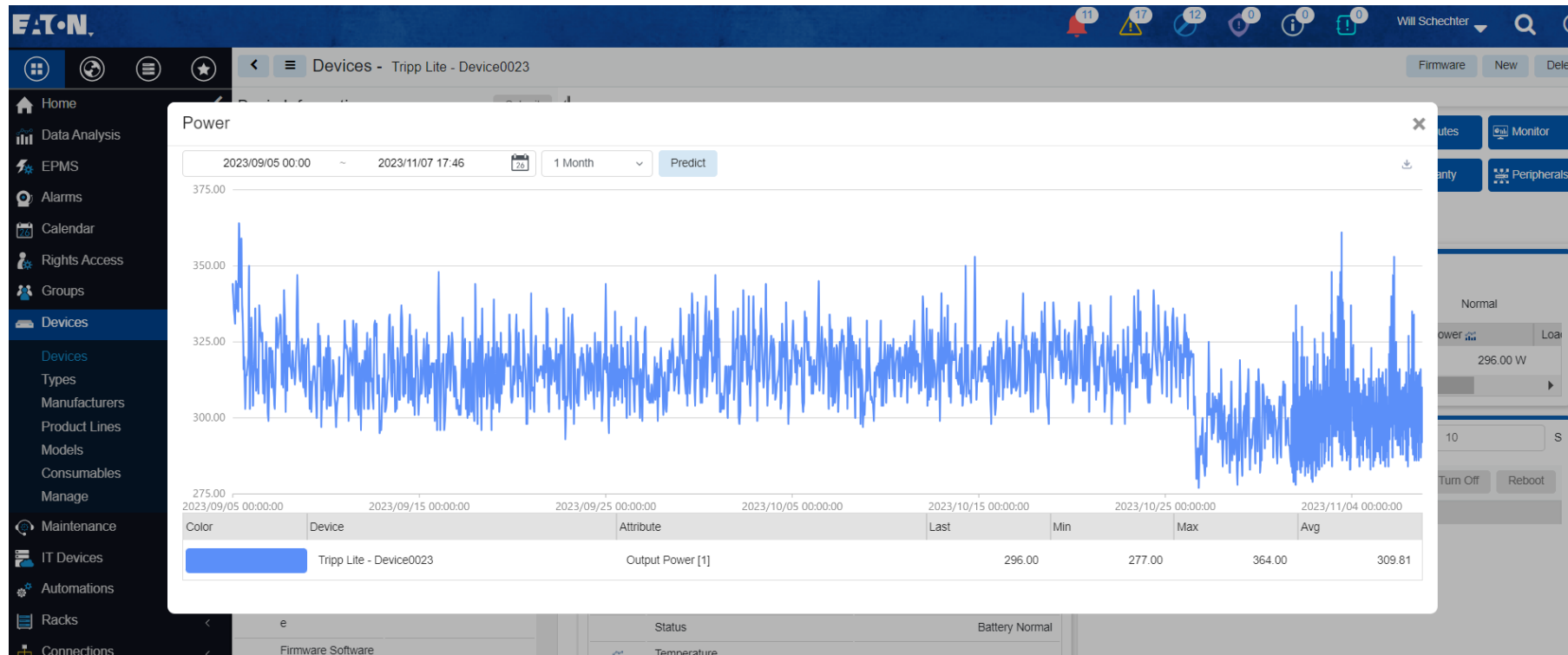
Device Name	Type	Manufacturer	Model	Output Load (%)	Last Replace Date	Battery Next Replace Date	Battery Time Remaining (minutes)
Rack UPS Office 13	UPS - Rackmount	Eaton	5P1000R	53	2019-03-28 22:00:00 EDT	12/13/25	27
Rack UPS Office 11	UPS - Rackmount	Eaton	5P1000R	72	2021-06-29 22:00:00 EDT	7/13/27	28

## Public,Chicago Lab

Device Name	Type	Manufacturer	Model	Output Load (%)	Last Replace Date	Battery Next Replace Date	Battery Time Remaining (minutes)
Rack UPS Office 14	UPS - Rackmount	Eaton	5P1000R	75	2019-03-28 22:00:00 EDT	7/13/27	28
Rack UPS Office 12	UPS - Rackmount	Eaton	5P1000R	29	2021-06-29 22:00:00 EDT	7/13/27	28

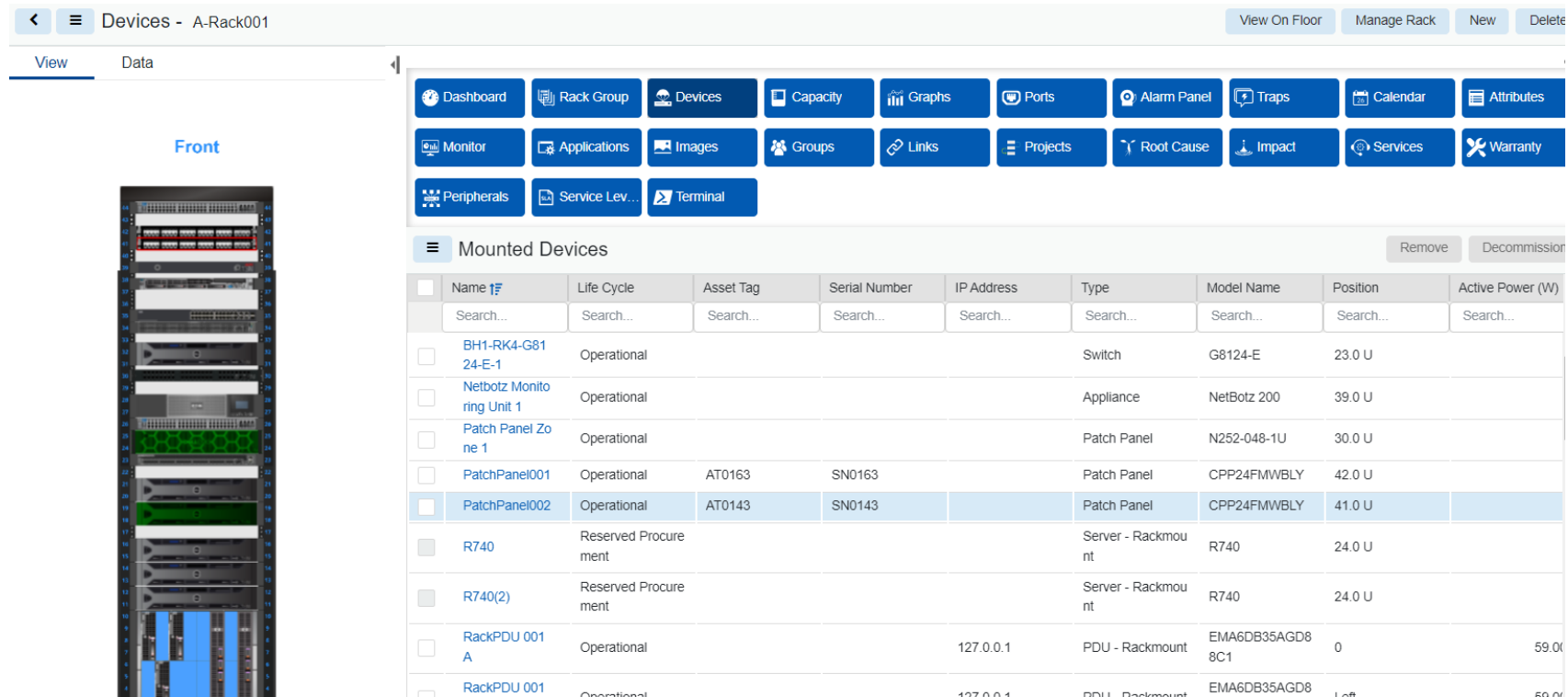
# Sample Use Case- Replacing a UPS

Evaluating load over time on a unit to decide if it is sized correctly.



# Sample Use Case – Rack Issues

If a device has a problem in the field, it is easy to identify



The screenshot displays a network management interface for a rack labeled 'A-Rack001'. On the left, a vertical view of the rack is shown with the label 'Front'. The main interface features a navigation bar with 'View' and 'Data' tabs, and a toolbar with various icons for Dashboard, Rack Group, Devices, Capacity, Graphs, Ports, Alarm Panel, Traps, Calendar, Attributes, Monitor, Applications, Images, Groups, Links, Projects, Root Cause, Impact, Services, Warranty, Peripherals, Service Lev..., and Terminal. Below the toolbar is a section titled 'Mounted Devices' with a table listing the devices. The table has columns for Name, Life Cycle, Asset Tag, Serial Number, IP Address, Type, Model Name, Position, and Active Power (W). The device 'PatchPanel002' is highlighted in blue.

Name	Life Cycle	Asset Tag	Serial Number	IP Address	Type	Model Name	Position	Active Power (W)
BH1-RK4-G81 24-E-1	Operational				Switch	G8124-E	23.0 U	
Netbotz Monito ring Unit 1	Operational				Appliance	NetBotz 200	39.0 U	
Patch Panel Zo ne 1	Operational				Patch Panel	N252-048-1U	30.0 U	
PatchPanel001	Operational	AT0163	SN0163		Patch Panel	CPP24FMWBLY	42.0 U	
PatchPanel002	Operational	AT0143	SN0143		Patch Panel	CPP24FMWBLY	41.0 U	
R740	Reserved Procure ment				Server - Rackmou nt	R740	24.0 U	
R740(2)	Reserved Procure ment				Server - Rackmou nt	R740	24.0 U	
RackPDU 001 A	Operational			127.0.0.1	PDU - Rackmount	EMA6DB35AGD8 8C1	0	59.00
RackPDU 001	Operational			127.0.0.1	PDU - Rackmount	EMA6DB35AGD8	0	59.00



# Sample Use Case – Update Device Firmware or Configuration

Updating configurations in bulk, can save a lot of time

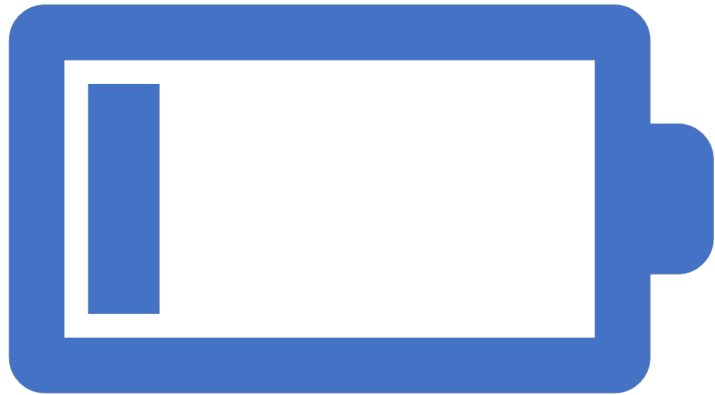
The screenshot displays the Eaton device management interface. The top navigation bar includes the Eaton logo, user name 'Will Schechter', and notification icons. The main content area is titled 'Manage' and features tabs for 'Upload Jobs', 'Configuration', 'Firmwares', and 'Certificates'. The 'Configuration' tab is active, showing a filter for 'Manufacturer: Eaton' and 'Type: UPS - Rackmount'. Below the filters is a table of device configurations.

<input type="checkbox"/>	A   B Power	Device	Model	Serial Number	IP Address	Daisy Chain #	Owner	Device Group	Firmware Version	Rack	Rack Group
<input checked="" type="checkbox"/>		9PX6K M2	9PX6K	P205N33RY6	10.127.126.114			Public,Raleigh Lab	To be Set after Reboot	Raleigh Lab Rack 02	
<input checked="" type="checkbox"/>		EMPDT1H1C2 @1	5P1500RC	GB13J33E74	10.127.126.222	1		Raleigh Lab	01.02.0009		
<input checked="" type="checkbox"/>		eUPS - nm3-5px-eat on-dev	5PX1000RT	GF20N21080	10.130.33.199			Public	1.0.4		
<input checked="" type="checkbox"/>		eUPS - ups-00-20-8 5-DE-3D-57	9PX2000RT	GA19G41030	10.130.96.167			Tampa Lab	3.0.5		
<input checked="" type="checkbox"/>		eUPS - ups-00-20-8 5-E9-76-5C	5P1500RC	G130J47043	10.127.126.222			Public	2.1.5		
<input type="checkbox"/>		eUPS - ups-00-20-8 5-E9-85-AA	5PX1000RT	G089G49046	10.130.96.165			Tampa Lab	To be Set after Reboot		
<input type="checkbox"/>		eUPS - ups-00-20-8 5-E9-86-44	5P1000RC	G143H15138	10.130.96.161			Tampa Lab,Raleigh Lab	3.1.8		

# Licensing

- **Perpetual License** – Customer owns the software
  - Pay one-time node fee to purchase the license
  - Pay annual support fee
- **Subscription** – Customer does not own the license, it is leased
  - Pay annual subscription fee.
- Typical break-even point is ~3.2 years
  - *Subscription is cheaper until 3.2 years, then perpetual is cheaper*





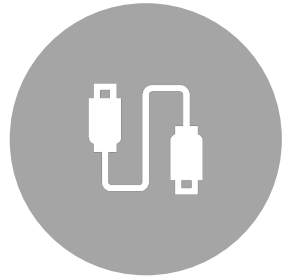
## *Starting the DCIM Conversation*

- How do you manage your fleet of UPSs?
- How do you keep track of battery replacement dates?
- How do you respond to a power outage?
- How do you find out about a power event?
- How do you upgrade UPS firmware?
- Are you satisfied with the lifespan of your UPS?
- What tool do you utilize for RU management?

# 5 Key Takeaways for Brightlayer



PUSH OUT FIRMWARE  
FOR EATON/TRIPP LITE



PUSH OUT MASS  
CONFIGURATIONS FOR  
EATON/TRIPP LITE  
(INCLUDING PASSWORD)



VENDOR AGNOSTIC



AUTOMATIONS  
INCLUDING PHYSICAL  
AND VIRTUALIZED  
SERVERS

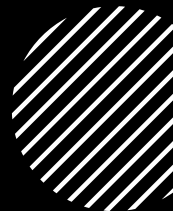


RUN/SCHEDULE REPORTS





# Eaton Software Resources



Solutions Architects  
Software Sales Managers



Implementation Consultants  
Development Team



*Never hesitate to reach out!*

# Questions??

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