DCIM Software for Data Center Energy, Power and Environmental Monitoring



In today's data center, being efficient with power and cooling resources is just as important as maintaining uptime. Power IQ<sup>®</sup> (PIQ) for eConnect<sup>®</sup> software provides the information and controls you need to fully utilize your existing infrastructure resources, while alerting you to trouble before it causes downtime. With out-of-the-box compatibility with CPI eConnect Power Distribution Units (PDUs), eConnect PIQ software can be easily deployed as a standalone monitoring solution or with Sunbird's dcTrack<sup>®</sup> DCIM Operations to provide full asset and change management.

PIQ functionality scales to meet enterprise needs, allowing you to securely keep tabs on all your data centers and labs by monitoring rack PDUs, CRACs, UPS, PDUs, RPPs, meters, branch circuits, racks, environment sensors and IT devices, all from a single web browser. PIQ is vendor neutral and automatically accepts CPI's eConnect PDUs and devices from other top manufacturers, allowing you to add support for many other products with our dynamic plugin capability.

#### Centrally Manage and Control CPI eConnect Rack PDUs and Other Data Center Intelligent Assets

In modern enterprise data centers with hundreds to thousands of intelligent assets, centralized management of all equipment can be a cumbersome task. PIQ software simplifies overall management by:

- Constantly synchronizing data between eConnect Rack PDUs and PIQ software.
- Maintaining centralized authentication, access and auditing of all equipment.
- Providing centralized power control of all IT assets connected to Switched and Switched Pro PDUs.
- Providing centralized grouping capabilities of outlets, PDUs and other equipment.

#### Utilize Power and Cooling Resources Efficiently and Improve PUE:

PIQ software automatically collects power and environmental data from CPI eConnect Rack PDUs, sensors and other intelligent equipment within the data center.

- Leverage Free Cooling Patented Cooling Charts help you keep cabinets in the ASHRAE<sup>®</sup> allowable environmental ranges for potential cost savings.
- Identify and Eliminate Ghost Servers Scheduled email reports pinpoint ghost servers for consolidation.
- Bill Back Based on Energy Usage Automatically generated bill back reports drive better behavior.



#### Make Informed Power and Capacity Planning Decisions

PIQ software tracks actual power load of IT devices under computing stress, providing better planning information.

- Find Stranded Capacity Newly found capacity delays expensive capital expenditure.
- Project Future Capacity Needs Trending and days of supply projections enable accurate forecasting.
- Monitor UPS Capacity and Battery information End-to-end monitoring easily prevents potential over-capacity situations.

## Monitor Data Center Health to Prevent Costly Unplanned Downtime

Avoid unplanned downtime that can cost hundreds of thousands of dollars per outage and the health of your complete data center including critical facilities, e.g. UPS, CRACS, and panels.

- Simulate Failover Reports identify available capacity to ensure coverage in case of failure, send threshold based alerting and identify hotspots and potential trouble areas.
- Visualize Data Center and Facility Health Status Health Map with red, yellow and green color coding provides an at-a-glance view of rack load levels, line currents and all environmental conditions.
- Alerting and Alarming of Threshold Violations Automated emails enable quick identification of hotspots and potential trouble areas.

### VMware® Virtual Appliance

#### Platform Options:

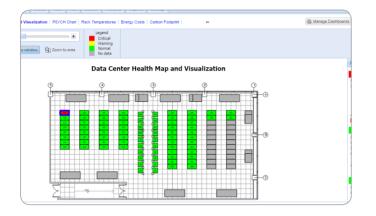
- Our application software, database and hardened Linux<sup>®</sup> operating system are fully tested and ready to load on your VMware platform.
- Our application software, database and hardened Linux<sup>®</sup> operating system are loaded onto our enterprise-class, rack-mountable, 1U server with configured, dual power supply and included rail kit for installation purposes.

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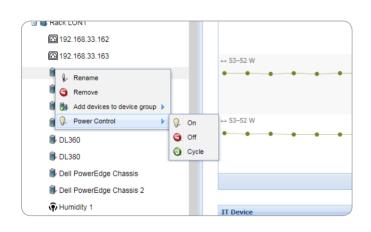
#### Data Center Health Map

A real-time, interactive data center health map warns of issues such as hot spot formation, SLA violations, over charges and loss of redundancy.



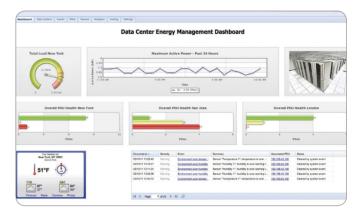
### Power Control

Easily control power on outlets, IT devices, and groups of IT devices with power sources spanning multiple rack PDUs.



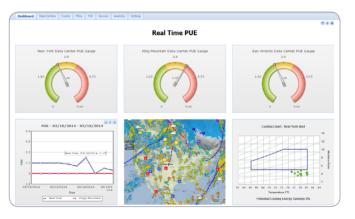
#### User-Configurable Dashboard

The user-configurable dashboard provides a centralized view of power and environment health, PUE, energy capacity and consumption, weather services, and maps.



#### Power Capacity and PUE Gauge

See real-time PUE and trends and your current power capacity utilization at any level in your data center or lab (PDU, rack, row, busway, room, etc.).



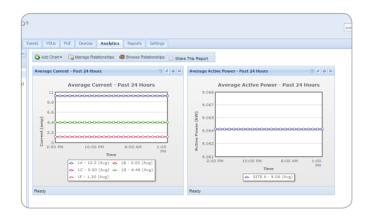


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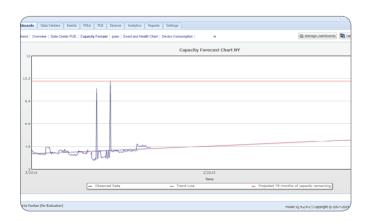
### Power and Energy Analytics

Intuitively create charts to visualize active power by rack, carbon footprint by building, customer bill back, total energy consumption, and any other available metric.



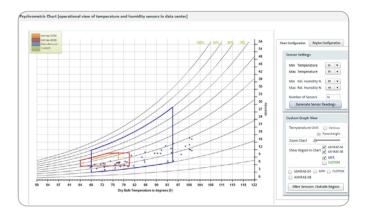
### Power Capacity "Days of Supply" Forecast

Determine your real-time power load, rate of change and forecast at all levels of your infrastructure with capacity forecast charts.



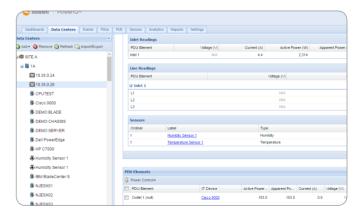
### Cooling Chart

Ensure compliance with manufacturers' and industry-accepted ecommendations, and project cost savings achieved by increasing temperature set point.



#### Smart Rack View Page

The smart rack view page provides one-click access to rack power, cooling, airflow, and events, and makes three-phase load balancing easy.





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#### Monitoring and Management

- Monitor facility objects including sensors, meters, PDU/RPP/ Branch Circuits, UPS and CRAC devices.
- A central management console consolidates names, polling status, location, model and firmware onto one screen, saving valuable management time.
- Power and environmental events and notifications.
- Auto discover rack PDUs.

### Dynamic Dashboard, Reporting and Charts

- Energy, cost and carbon consumption reports keep customers and/or internal departments informed.
- User configurable dashboard with drag and drop widgets.
- Health and Capacity Floormap.
- Rack Inlet Cooling Chart.
- Chargeback reports.
- Exception reports help you find stranded power capacity.
- Trending and status reports help you easily see future capacity needs.
- Thermal analysis including temperature and humidity compliance reports.
- Power capacity meter will provide you with forecasted "days of energy supply."
- Failover simulation charts identify capacity availability in case of server failure.
- Tabular reports enable customized reports for active power, energy and temperature.
- Display critical and warning alerts with email notifications.

#### Automated Power Control

- Remote power control of outlets, IT devices, device groups and racks.
- Agentless graceful operating system shutdown.

## Power and Environmental Data Aggregation

- User-configurable collection intervals ensure desired accuracy while minimizing network traffic.
- Aggregate active power, current, temperature and humidity data.

### Open Data Model

- Web Services API for easy scripting and integration with your systems with support for Create, Read, Update and Delete Data Center Items. Power control and reading events.
- Open database connectivity capabilities let you use your existing data warehouse and reporting system to generate custom reports.
- Import and export data via CSV file.

### Create Custom Reports

(			
Events POUs PL	E Devices Analytics Reports Settings		
Preview/Edit			
🕃 Edit 🗿 Run Nov	G Delete		Export+
	Sunbird	Reported: 2016/03/28 03:40 PM	Â
	Energy Cost Report		
	Date Range: 2016/03/27 - 2016/03/27		
	PDU	Total kWh	
	Chatsworth 30 AMP	0.00	
	E08-09A	35.28	- 1
	E08-16B	82.08	
	E11-14 East	55.54	
Rankan (for Evaluation)		Power 30 4-2-4-2   Copyright @ 2007	7-2014 Raritan, Inc

#### Security

- SNMP v1, 2, 3 with Informs.
- LDAP, Active Directory.
- IP Based Access Control.
- Granular permissions.
- Full audit log.
- IP Tables firewall.
- Support for all browsers.



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Power IQ for eConnect Software and License, With 1 Year Maintenance Plan		Power IQ for eConnect – Additional 1 Year Maintenance License		
Part Number	Description	Part Number	Description	
36603-001	Software and License for Up to 10 Devices	36606-001	1 Year Maintenance License for up to 10 Devices	
36603-002	Software and License for Up to 20 Devices	36606-002	1 Year Maintenance License for up to 20 Devices	
36603-005	Software and License for Up to 50 Devices	36606-005	1 Year Maintenance License for up to 50 Devices	
36603-010	Software and License for Up to 100 Devices	36606-010	1 Year Maintenance License for up to 100 Devices	
36603-020	Software and License for Up to 200 Devices	36606-020	1 Year Maintenance License for up to 200 Devices	
36603-030	Software and License for Up to 300 Devices	36606-030	1 Year Maintenance License for up to 300 Devices	
36603-040	Software and License for Up to 400 Devices	36606-040	1 Year Maintenance License for up to 400 Devices	
36603-050	Software and License for Up to 500 Devices	36606-050	1 Year Maintenance License for up to 500 Devices	
36603-100	Software and License for Up to 1000 Devices	36606-100	1 Year Maintenance License for up to 1000 Devices	
36603-150	Software and License for Up to 1500 Devices	36606-150	1 Year Maintenance License for up to 1500 Devices	
36603-200	Software and License for Up to 2000 Devices	36606-200	1 Year Maintenance License for up to 2000 Devices	
36603-250	Software and License for Up to 2500 Devices	36606-250	1 Year Maintenance License for up to 2500 Devices	
36603-300	Software and License for Up to 3000 Devices	36606-300	1 Year Maintenance License for up to 3000 Devices	
36603-400	Software and License for Up to 4000 Devices	36606-400	1 Year Maintenance License for up to 4000 Devices	
36603-500	Software and License for Up to 5000 Devices	36606-500	1 Year Maintenance License for up to 5000 Devices	

CHATSWORTH PRODUCTS

DCIM Software for Data Center Energy, Power and Environmental Monitoring

Power IQ for eConnect - Additional Device Licenses		Power IQ for eConnect - Support Services		
Part Number	Description	Part Number	Description	
36604-001	Additional License for Up to 10 Devices	36605-001	1-Hour of Professional Service (Travel & Lodging not included)	
36604-002	Additional License for Up to 20 Devices		,	
36604-005	Additional License for Up to 50 Devices	36605-002	1-Day Quick-Start Service (Travel &	Lodging included)
36604-010	Additional License for Up to 100 Devices	36605-003 Dynamic Plug-In, Developed, Certified and Tested b Professional Services		ed and Tested by
36604-020	Additional License for Up to 200 Devices	Power IQ for eConnect Server Hardware		
36604-030	Additional License for Up to 300 Devices	Part Number	Description	Shipping Weight
36604-040	Additional License for Up to 400 Devices	36516-002	Power IQ <sup>®</sup> for eConnect <sup>®</sup> , 1U	39 lb (18 kg)
36604-050	Additional License for Up to 500 Devices		Server, Pre-Configured with PIQ, Dual Power Supply, Includes 1 Year Support and Maintenance, Includes Rail Kit	

#### For Support, call 800.834.4969 or visit www.chatsworth.com/power-iq-econnect

#### About CPI

At Chatsworth Products (CPI), it is our mission to address today's critical IT infrastructure needs with products and services that protect your ever-growing investment in information and communication technology. We act as your business partner and are uniquely prepared to respond to your specific requirements with global availability and rapid product customization that will give you a competitive advantage. At CPI, our passion works for you. With over two decades of engineering innovative IT physical layer solutions for Fortune 500 and multinational corporations, CPI can respond to your business requirements with unequalled application expertise, customer service and technical support, as well as a global network of industry-leading distributors. Headquartered in the United States, CPI operates from multiple sites worldwide, including offices in Mexico, Canada, China, the United Arab Emirates and the United Kingdom. CPI's manufacturing facilities are located in the United States, Asia and Europe.

#### About Sunbird

Sunbird Software is changing the way data centers are being managed. With a focus on real user scenarios for real customer problems, we help data center operators manage tasks and processes faster and more efficiently than ever before, while saving costs and improving availability. We strive to eliminate the complexity they have been forced to accept from point tools and home grown applications, removing the dependency on emails and spreadsheets to transform the delivery of data center services. Sunbird delivers on this commitment with unexpected simplicity through products that are easy to find, buy, deploy, use, and maintain. Our solutions are rooted in our deep connections with our customers who share best practices and participate in our user groups and product development process.

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Data Sheet