



Power IQ® DCIM Monitoring Software

DCIM Monitoring Software

Platform Options:

■ VMware® and Microsoft Hyper-V® Virtual Appliances

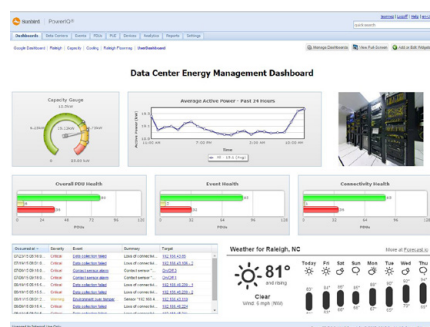
Our application software, database, and hardened Linux® operating system are fully tested and ready to load on your VMware or Hyper-V platform.

■ Hardware Appliance

Our application software, database, and hardened Linux operating system are loaded onto our enterprise-class, rack-mountable 2U server with dual power supply and redundant fans.

“The largest improvement that I see is being able to monitor power usage in our lab and making sure that our PDUs don’t get overloaded. We’ve gone through a few retirement phases and we can track that with the graphs in the PIQ software – we see the power usage going down. Being able to see the temperature throughout our lab is also pivotal.”

Kiel Anderson | Senior Lab Network Engineer, F5



Easily Manage Data Center and Facility Energy, Power and Environment

In today’s data center, being efficient with power and cooling resources is just as important as maintaining uptime. Power IQ® (PIQ) software provides the information and controls you need to fully utilize your existing infrastructure resources while alerting you to trouble before it causes downtime. PIQ software can be easily deployed as a standalone DCIM monitoring solution or with Sunbird’s dcTrack® DCIM Operations to provide full asset and change management.

PIQ functionality scales to meet enterprise needs, allowing you to securely monitor all your data centers and labs, including your CRACs, UPS, PDUs, RPPs, Meters, Branch Circuits, Racks, Rack PDUs, Environment Sensors, and IT Devices - all from a single web browser.

PIQ is vendor neutral and automatically supports a number of devices and manufacturers (see back page). You can easily add support for any other manufacturers with our dynamic plugin capability.

Utilize Power and Cooling Resources Efficiently and Improve PUE

PIQ software automatically collects power and environmental data from sensors.

- Leverage Free Cooling – Patented Cooling Charts help you keep cabinets in the ASHRAE® 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 more accurate 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 monitor prevents potential over-capacity situations.

Monitor Data Center Health to Prevent Costly Unplanned Downtime

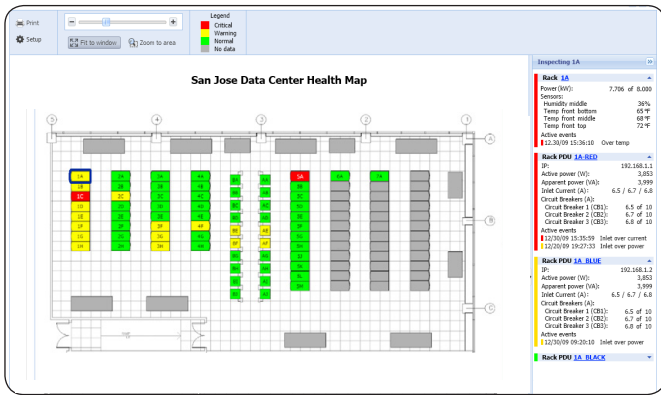
Avoid unplanned downtime that can cost hundreds of thousands of dollars per outage and the health of your complete data center, including critical facilities like UPS, CRACs, and Panels.

- Simulate Failover – Reports identify available capacity to ensure coverage in case of failure. Threshold based alerting and trends for identifying 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.

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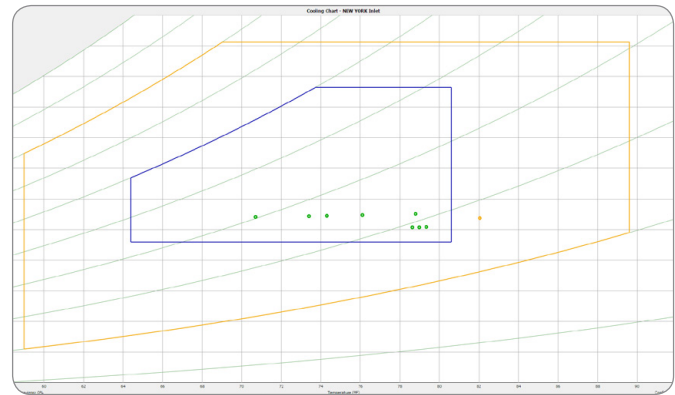
Health Monitoring

A real-time interactive data center health map increases your uptime by providing advanced warnings of issues such as hot spot formation, SLA violations, overcharges, and loss of redundancy.



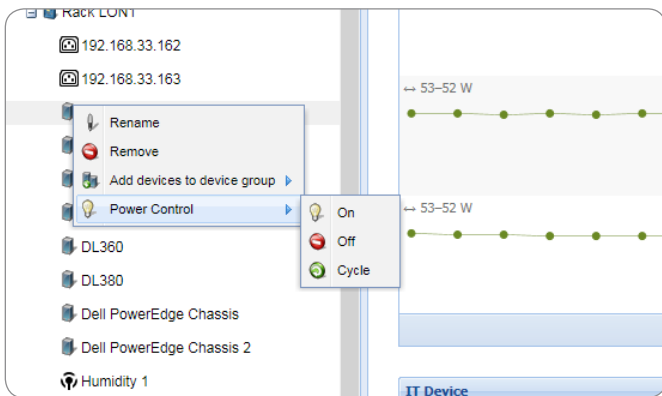
Avoid Hotspots

Ensure uptime, compliance with manufacturer and industry-accepted recommendations, and achieve project cost savings by increasing the temperature set point.



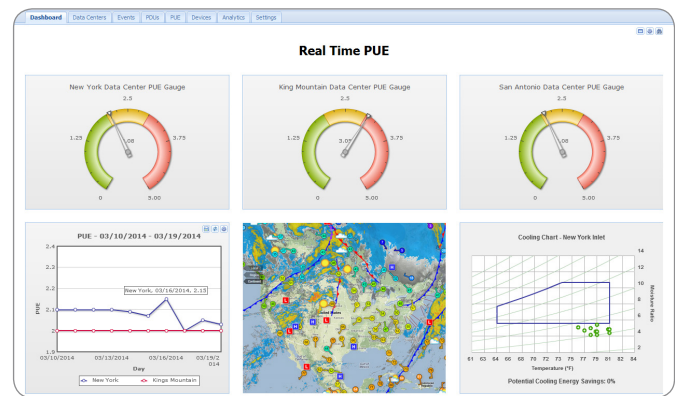
Power Control

Easily increase productivity by controlling power on of outlets, IT devices, and groups of IT devices with power sources spanning multiple rack PDUs.



Power Usage Efficiency

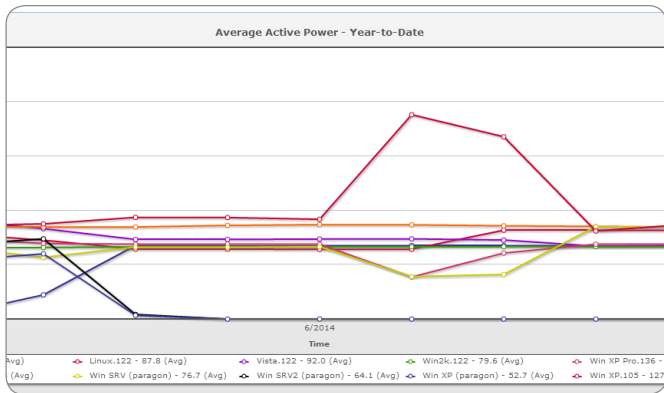
See real-time PUE, trends, and current power capacity utilization at any level in your data center or lab (PDU, rack, row, busway, room, etc.) helping to increase data center efficiency.



Power IQ® DCIM Monitoring Software

Find Stranded Capacity

Power consumption reports provide a quick and easy way to identify what cabinets have available capacity, thereby delaying expensive capital expenditure and improving resource efficiency.



Simulate Power Failure

Eliminate outage concerns with at-a-glance views and reports that identify available capacity and whether there is enough available in case of failure.

Rack 1A

Rack Summary		Capacity (kW)	Load (kW)	Utilization
		10.00	1.57	15.7%

Pair 1		192.168.43.106 Raritan PX-2901U		192.168.43.106 - 2 Raritan PX-2901U		Failover Simulation	
	Capacity (A)	Load (A)	Utilization	Load (A)	Utilization	Load (A)	Utilization
Inlet							
L1	24	1.30	5.4%	0.90	3.7%	2.20	9.2%
L2	24	0.90	3.7%	1.80	7.5%	2.70	11.2%
L3	24	1.60	6.7%	1.40	5.8%	3.00	12.5%
Circuit Breakers							
CB1	20	0.70	3.5%	0.00	—	0.70	3.5%
CB2	20	0.50	2.5%	0.80	4.0%	1.30	6.5%
CB3	20	0.70	3.5%	0.80	4.0%	1.50	7.5%
CB4	20	0.20	1.0%	0.80	4.0%	1.00	5.0%

Bill Back Energy Usage

Automatically generate bill back reports that charge individual organizations based on usage, including premium charges for overages, provide equitable distribution of power and energy charges, and drive energy efficiency and sustainability initiatives.

Rack	kWh
Rack LON1	679.641
1B	622.330
1A	234.499
1D	179.690
1F	8.851

Cabinet Access Management

Increase productivity with reports that clearly identify door status and allow for the remote control of door access.

Space	Door		Status			
Type	Name	Placement	Door	Handle	Electronic Lock	
Rack	Rack A1	A1-Cold Aisle	Front	Closed	Unlocked	
Rack	Rack A1	A1-Hot Aisle	Back	Closed	Locked	

** The statuses in this report are as of last successful PDU communication.



Power IQ® DCIM Monitoring Software

Monitoring and Management

- Monitor facility objects, including sensors, meters, PDU/RPP/ Branch Circuits, UPS, and CRACs
- A central management console consolidates names, polling status, location, model, and firmware onto one screen, saving valuable management time
- Bulk configuration and firmware distribution for Raritan PX PDUs
- Power and environmental events and notifications
- Auto discover rack PDUs
- Trap Filtering and Forwarding
- Multi-Tenancy support

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 enables easy scripting and integration with your systems with support for creating, reading, updating and deleting data center items and for 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

Security

- SNMP v1, 2, and 3 with Informs
- Full audit log
- LDAP and Active Directory
- IP Tables firewall
- IP-based access control
- Support for all browsers
- Granular permissions

Dynamic Dashboard, Reporting and Charts

- Modern HTML User Interface
- User configurable dashboard with drag-and-drop widgets
- Tags and Tag Groups settings
- Health and Capacity Floor Map
- Energy, cost, and carbon consumption reports
- Rack Inlet Cooling Chart
- Charge Back Reports
- Cabinet Capacity Report
- Door Status and Audit Report
- Stranded power capacity
- Capacity, trending and status reports
- Thermal analysis, including temperature and humidity
- Compliance Reports
- Power capacity meter with forecasted "days of energy supply"
- Failover simulation charts
- Critical and warning alerts report, display, and email notifications
- Tabular customized reports for active power, energy, and temperature
- Exception reports

Create Custom Reports

- Tailor reports to focus on only the relevant timeframe and information
- Sort and filter data on power/energy, temperature, and other metrics to gain more granular insights

Vendor Agnostic Support

- Out of the box support for: APC®, Avocent®, BayTech®, Chatsworth Products, Inc., Cyber Switching®, Cyclades® Eaton, Emerson®, Geist, HP®, Knurr®, Liebert, MRV®, NetBotz, Raritan, Rittal®, Server Technology®, Schneider Electric, Sinetica, Starline Track Busway, Tripp Lite, and UNITE™, Veris®, and many other devices
- Dynamic plugin capability

Call 732.993.4476 or visit SunbirdDCIM.com

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 efficient 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.

Based in Somerset, NJ, Sunbird serves nearly 1,000 DCIM customers worldwide. For more information, please visit SunbirdDCIM.com.

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