



## EASILY MANAGE DATA CENTER 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, IT Devices, and Electronic Door Locks — 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.

- Patented Electronic Psychrometric 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 better planning information.

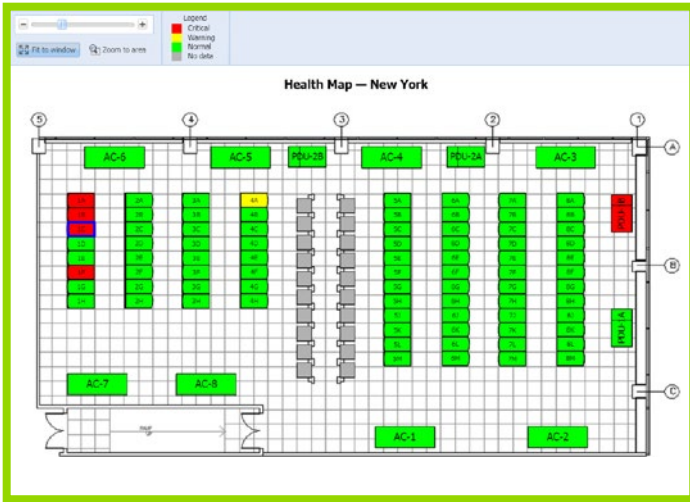
- Find Stranded Power Capacity — Newly found capacity delays expensive capital expenditure.
- Project Future Power Capacity Needs — Trending and days of supply projections enable accurate forecasting.
- Monitor UPS Capacity and Battery information — End-to-end monitoring easily prevents potential over-capacity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

### PLATFORM OPTIONS:

- **VMWARE® AND MICROSOFT HYPER-V® VIRTUAL APPLIANCE**  
Application software, database and hardened Linux® operating system are fully tested and ready to load on your VMware or Hyper-V platform
- **HARDWARE APPLIANCE**  
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

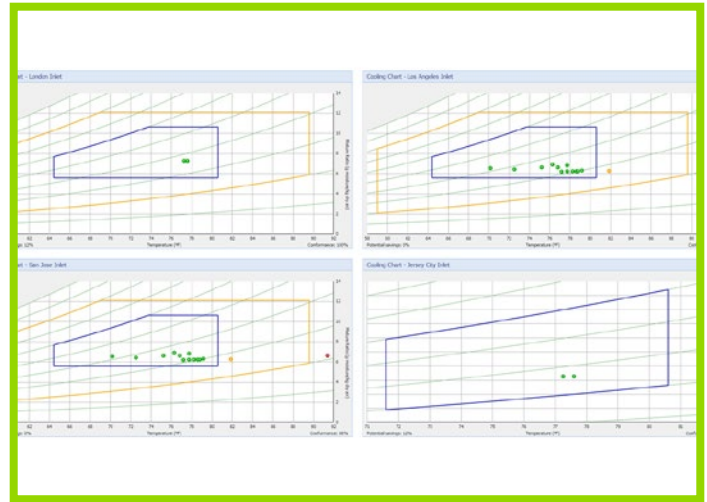
### MONITOR DATA CENTER HEALTH TO PREVENT COSTLY UNPLANNED DOWNTIME

- 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 Rack Failover — Reports identify available capacity to ensure coverage in case of failure
- Visualize Data Center and Facility Health Status — Health Map of your data center floor 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 — enable quick identification of hotspots and potential trouble areas



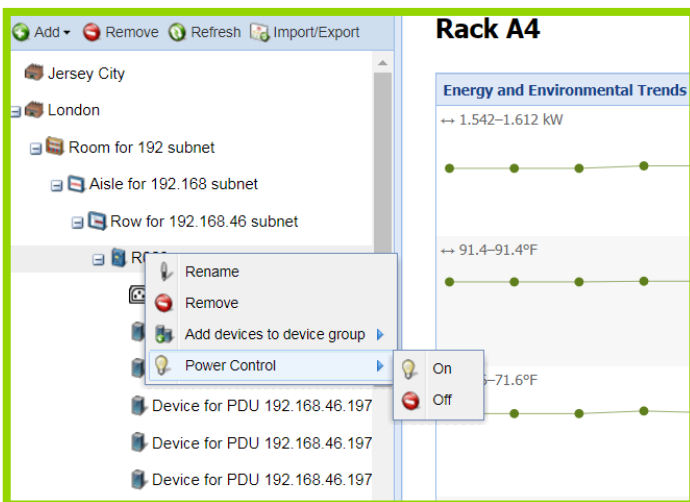
### HEALTH MONITORING

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 AND OVERCOOLING

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



### POWER CONTROL WITH OUTLET GROUPING

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



### POWER USAGE EFFICIENCY

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.) helping to increase data center efficiency.



## FIND STRANDED POWER 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.

Power IQ®

Reports

### 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
<b>Inlet</b>			
L1	24	1.30	5.4%
L2	24	0.90	3.7%
L3	24	1.60	6.7%
<b>Circuit Breakers</b>			
CB1	20	0.70	3.5%
CB2	20	0.50	2.5%
CB3	20	0.70	3.5%
CB4	20	0.20	1.0%

## SIMULATE RACK 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.

Sunbird PowerIQ®

Reports

### Customer Bill with Rack Details

Customer: Chevron  
Date Range: 2015/05/01 - 2015/05/31

Rack

Rack LON1
1B
1A
1D
1F

## 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.

Sunbird PowerIQ®

Reports

### Rear Door

Door Control

Lock Unlock

Sensors and Door Status

Sensor Mappings	Status	Available Sensors
Door: On/Off 5, Not wired	Closed	Dry Contact 1
Handle: On/Off 1, Not wired	Closed	Dry Contact 2
Lock: PDC-1, E-Lock in BMSA Door	Locked	On/Off 2
		On/Off 3
		On/Off 4, Not wired
		On/Off 6
		On/Off 7
		On/Off 8

## ELECTRONIC ACCESS SECURITY MANAGEMENT

Physically lock down individual cabinets and containment areas in your data center with electronic door management compatible with third-party door locks with RFID. Manage door access within the GUI and create and share status and audit reports to improve productivity and enforce compliance. Ensure no door is left unlocked with a user-configurable auto-relock timer.

## DYNAMIC DASHBOARD, REPORTING AND CHARTS

- Modern HTML User Interface
- User configurable dashboard with drag-and-drop widgets
- 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
- Exception reports

## 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
- Over 60 dynamic plugins can be downloaded free of charge at [addons.sunbirdcim.com](http://addons.sunbirdcim.com)

## 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

## 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

## MONITORING AND MANAGEMENT

- Monitor facility objects, including sensors, meters, PDU/RPP/Branch Circuits, UPS, CRACs, and Electronic Door Locks
- 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

## 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
- Tags and Tag Groups settings
- Customized tabular reports for active power, energy, and temperature

## SECURITY

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

Visit [www.raritan.com/power-iq](http://www.raritan.com/power-iq)  
or Call 1.800.724.8090 for more information.

©2017 Raritan Inc. All rights reserved. Raritan® is a registered trademarks of Raritan Inc. or its wholly-owned subsidiaries. All others are registered trademarks or trademarks of their respective owners. Raritan began developing KVM switches for IT professionals to manage servers remotely in 1985. Today, as a brand of Legrand, we are a leading provider of intelligent rack PDUs. Our solutions increase the reliability and intelligence of data centers in 9 of the top 10 Fortune 500 technology companies. Learn more at [Raritan.com](http://Raritan.com) V1109R13

**Raritan**®  
A brand of  **legrand**