Power IQ® DCIM Monitoring Software

Data Sheet

DCIM Monitoring Software

Platform Options:

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

- **Bring Your Own Appliance (BYOA)**
  Our application software, database, and hardened Linux operating system are loaded onto your enterprise-class-appliance that meets our hardware specifications.

"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 | Manager, Product Development Lab, **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, 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.

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 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.

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 – Automated emails enable quick identification of hotspots and potential trouble areas.
- Multi-Tile Health Chart Widget – See color-coded health data for all your data centers and racks in a single screen

Utilize Power and Cooling Resources Efficiently and Improve PUE

PIQ software automatically collects power and environmental data from sensors.

- Leverage Free Cooling – 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 Energy Costs Based on Usage – Automatically generated bill back reports drive better behavior.

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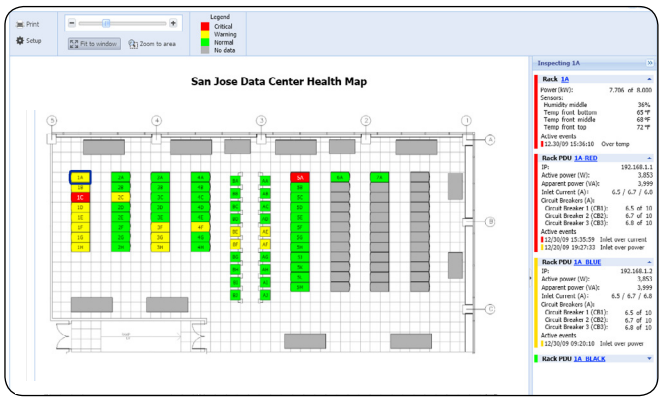
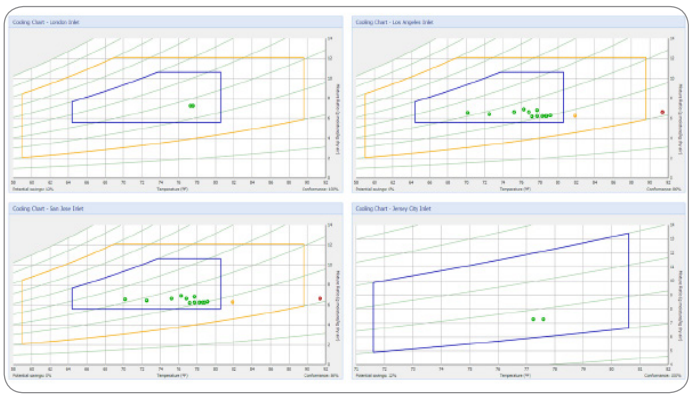
Health Monitoring

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.



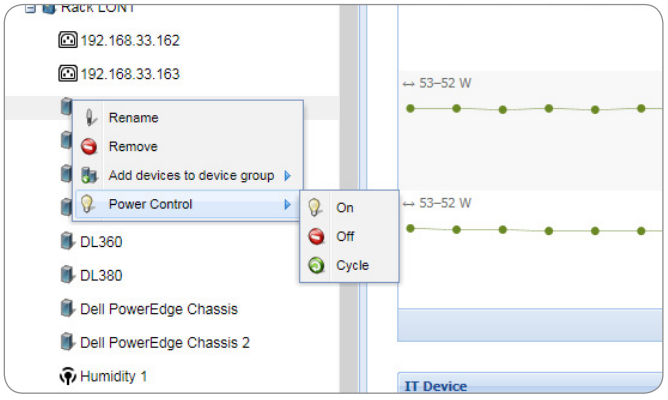
Avoid Hotspots and Overcooling

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 powering on/off of outlets, IT devices, and groups of IT devices with power sources spanning multiple rack PDUs, without the need to log into your rack PDUs individually.



Power Usage Effectiveness (PUE)

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.

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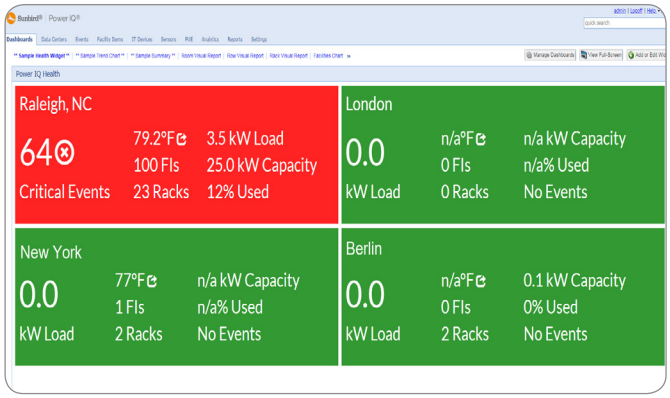
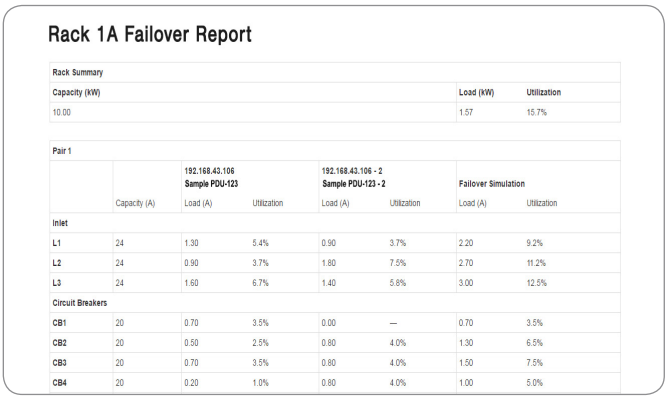
Health Tiles Dashboard for Multiple Sites

Get a holistic, color-coded view of your data centers and racks on a single screen, including power load, temperature, and warning and critical event data—no configuration required.



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.



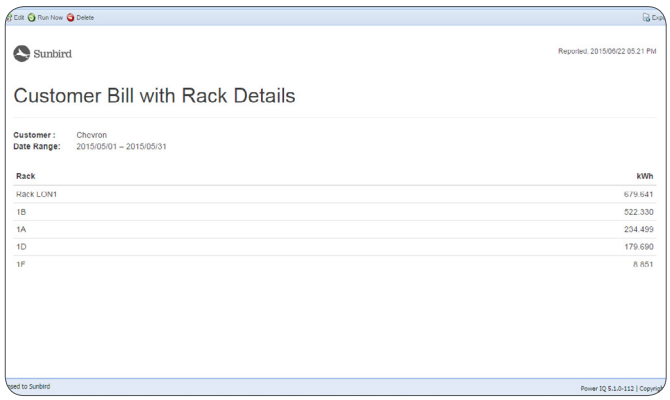
Rack 1A Failover Report

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

Pair 1		192.168.43.106 Sample PDU-123		192.168.43.106 - 2 Sample PDU-123 - 2		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.



Sunbird

Reported: 2015/06/22 05:21 PM

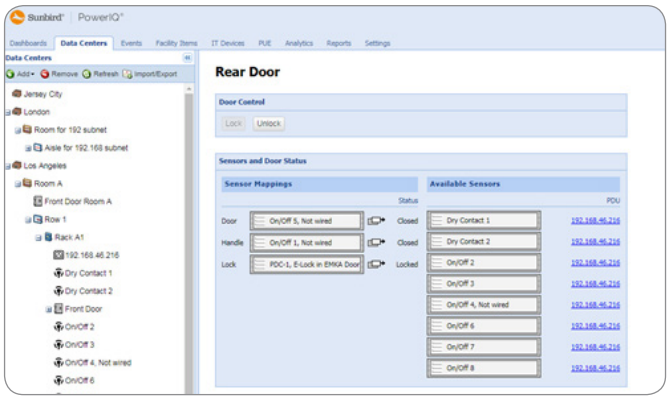
Customer Bill with Rack Details

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

Rack	kWh
Rack LON1	679.641
1B	522.330
1A	234.499
1D	179.690
1F	8.851

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. Schedule time- and date-based 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.



Sunbird®
DCIM that's easy, fast, and complete

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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 Chatsworth, Raritan, and Server Technology PDUs
- Power and environmental events and notifications
- Autodiscover rack PDUs
- Trap filtering and forwarding
- Multi-tenancy support

Automated Power Control

- Remote power control of outlets, IT devices, device groups, and racks
- Patented 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
- LDAP and Active Directory
- IP-based access control
- Granular permissions
- Full audit log
- IP Tables firewall
- Support for all browsers
- Specify unique administrator username and password

Dynamic Dashboard, Reporting, and Charts

- Modern HTML user interface
- User-configurable dashboards with drag-and-drop widgets
- Monitor cabinet health and capacity with floor map visualizations
- Energy, cost, and carbon consumption reports
- Rack inlet psychrometric chart for temperature and humidity
- Power chargeback reports by customer
- Cabinet-level power capacity reports
- Cabinet door status and audit reports
- Cabinet-level stranded power capacity chart
- Capacity, trending, and status reports
- Thermal analysis, including temperature and humidity
- Compliance reports
- Power capacity meter with forecasted “days of energy supply”
- Rack PDU failover simulation charts
- Critical and warning alerts report, display, and email notifications
- Exception reports that highlight conditions outside of normal operations
- Data archive to retain and chart more raw data

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
- Add custom fields with Tags and Tag Groups settings
- Customized tabular reports for active power, energy, and temperature

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®, Schleifenbauer®, Schneider Electric, Server Technology®, Sinetica, Starline Track Busway, Tripp Lite, UNITE™, Veris®, and many other devices
- Dynamic plugin capability
- Over 100 dynamic plugins are available at **addons.sunbirddcim.com**

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 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.

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

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