

# DCIM Monitoring Software



## DCIM Monitoring Software

### Platform Options

- ▶ VMware® Virtual Appliance
  - Our application software, database and hardened Linux® operating system are fully tested and ready to load on your VMware platform
  - Tested with ESX, ESXi and Player
- ▶ Raritan 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 PIQ — 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

## Power IQ® — DCIM Monitoring Software 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) provides the information and controls you need to fully utilize your existing infrastructure while alerting you to trouble before it causes downtime. PIQ can be deployed as a standalone DCIM monitoring solution or with Raritan’s DCIM operations software — dcTrack® to provide full asset and change management.

It scales to meet enterprise needs, allowing you to keep tabs on: CRACs, UPS, PDUs, RPP, meters, branch circuits, racks, rack PDUs, environment sensors, facility, and other IT devices, all from a web browser. Dual communication capabilities let you monitor critical infrastructure via a secure out-of-band IP network, and device data and control can be provided to users over WAN with role-based security and permissions.

PIQ automatically supports devices from vendors like: APC®, Avocent®, BayTech®, Cyber Switching®, Cyclades®, Eaton, Emerson®, Geist, HP®, Knurr®, Liebert, MRV®, NetBotz, Raritan, Rittal®, Server Technology®, Sinetica, Starline Track Busway, Tripp Lite and UNITE™ devices. And you can easily add support for any other manufacturers with our dynamic plugin capability.

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

PIQ automatically collects power usage data from devices, and environmental data from sensors.

- ▶ Real-time power consumption monitoring by device, rack, row, data center or customer.
- ▶ Meet manufacturers’ and industry guidelines for data center temperature and humidity.
- ▶ Generate customer energy billback reports in local currency with a single click of the mouse.
- ▶ Vendor agnostic agentless graceful shutdown and power cycling down to the outlet-level.
- ▶ Interactive dashboards and reports provide real-time PUE information and trends over time.

### Make Informed Power and Capacity Planning Decisions

Tracks actual power load of IT devices under computing stress, providing better planning information.

- ▶ Collect short- and long-term data and compare to rated capacity to update design assumptions.
- ▶ Monitor trends, alerts and threshold violations to understand future power needs.
- ▶ View real-time power load, rate of change and trends for forecasting power capacity.
- ▶ Easily identify IT device power hogs and ghost servers that may be candidates for consolidation.
- ▶ Estimate potential savings from increasing temperature to upper limit of recommendations.

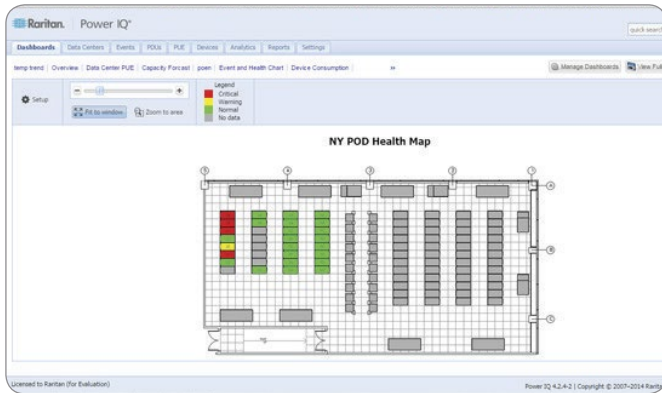
### Monitor Data Center Health to Prevent Costly Unplanned Downtime

Avoid unplanned downtime that can cost hundreds of thousands of dollars per outage.

- ▶ Data center health maps provide an at-a-glance view of rack load levels, line currents and all environmental conditions.
- ▶ Threshold based alerting and trends for identifying hotspots and potential trouble areas.

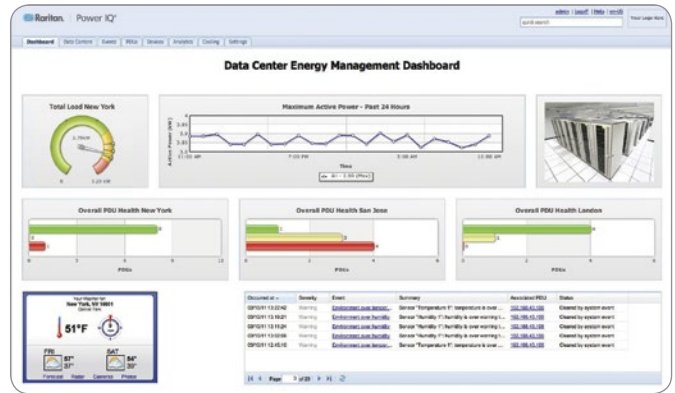
## Data Center Health Map

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



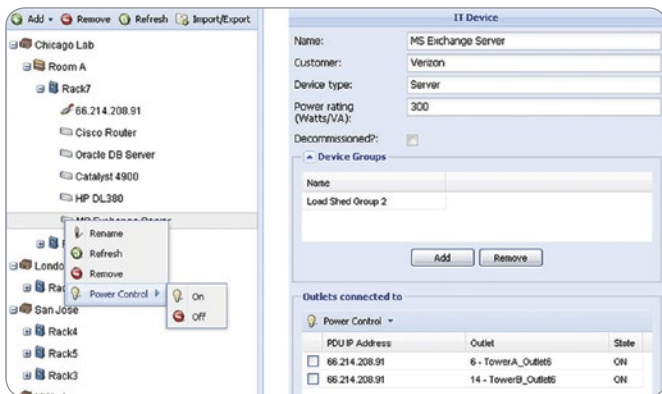
## User-Configurable Dashboard

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



## Power Control

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



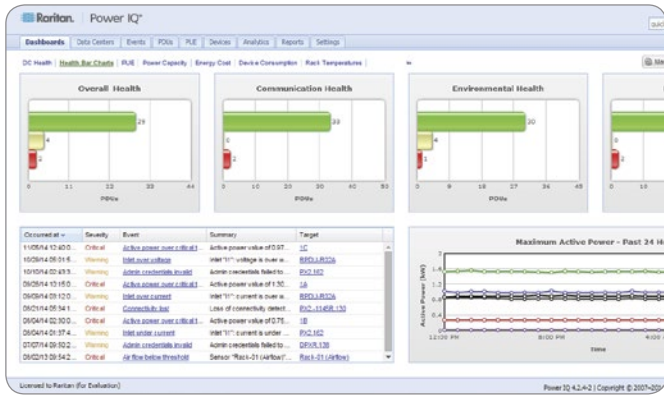
## Power Capacity and PUE Gauge

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.).



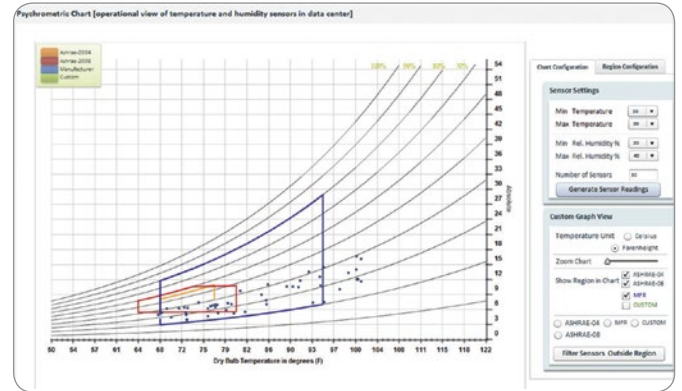
## Power and Energy Analytics

Intuitively create charts to visualize active power by rack, carbon footprint by building, customer billback, total energy consumption, and any other metric you can think of.



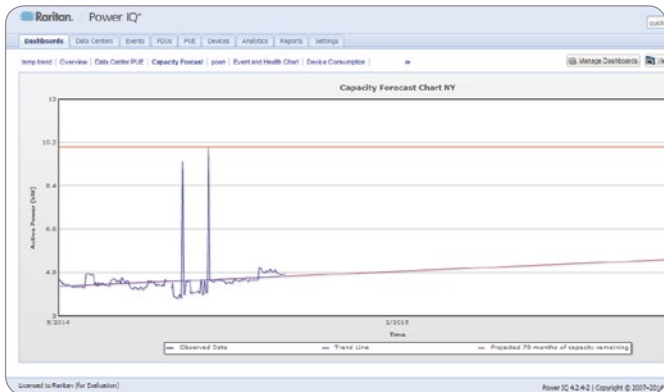
## Cooling Chart

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



## Power Capacity "Days of Supply" Forecast

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



## 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.



## Monitoring and Management

- ▶ Monitor facility objects including sensors, meters, PDU/RPP/ Branch Circuits, UPS, and CRAC
- ▶ 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 PX PDUs
- ▶ Power and environmental events and 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

## Reporting and Charts

- ▶ Support for all levels of PUE measurement and reporting
- ▶ Energy, cost and carbon consumption reports keep customers and/or internal departments informed
- ▶ Chargeback reports
- ▶ Exception reports help you find stranded power capacity
- ▶ Trending and status reports help you easily see future capacity needs
- ▶ Thermal analysis — 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

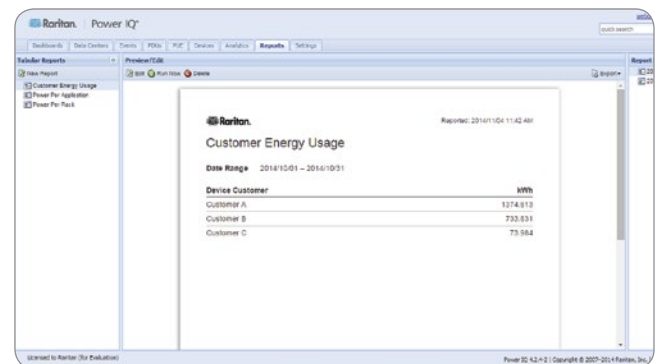
## Open Data Model

- ▶ Automatically shares information about racks, PDUs and outlets with dcTrack®. dcTrack displays rack PDU and sensor data collected by Power IQ
- ▶ Web Service API — for easy integration with your systems and custom programs
- ▶ 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

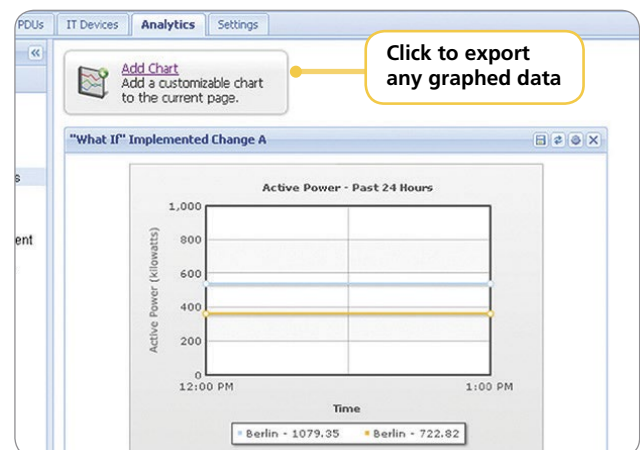
“By graphing energy usage and trends and tracking our carbon footprint, Raritan’s Energy Management solution is helping us identify areas where we can conserve. Allowing us to monitor in real-time and reduce cost.”

— Will Stevens  
Senior IT Director  
AOL

## Create Custom Reports



## Export Graphed Data to CSV



Ready to learn more about Raritan’s DCIM software?

Call 1.800.724.8090 or visit [www.raritan.com/DCIM](http://www.raritan.com/DCIM) today.

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