Manage High-Density Al Infrastructure with DCIM Software



"From an ROI perspective, it's massive for us. We're getting 40% more usage out of our facilities and power sources."

Michael Piers, Senior Manager DCIM/Tools

"We're getting better densification in our data centers which prevents us from having to build more facilities. In one room, we were able to do a 4-to-1 server consolidation exercise so we're saving 75% power. It's only by measuring things using Sunbird that we're able to do that."



"With DCIM software, we now have an up-to-minute picture of capacities in all our data centers in terms of power, space, networking, and cooling."



Joe Keena, Manager of Data Center Ops

Increase Rack Power Density Without Introducing Risk

According to Uptime Institute, 83% of enterprise data center operators have reported that rack densities have increased over the last three years. The average rack power density today is about double what it was a decade ago, and this trend shows no signs of stopping due to increased demand for high-performance computing, big data, and AI applications and the need for more processing power in smaller spaces.

Application Note

The surge in rack densities can strain existing infrastructure, create thermal management issues, cause capacity planning complexities, and drive higher energy costs.

However, there is a path forward with Sunbird's Data Center Infrastructure Management (DCIM) software.

Sunbird DCIM provides real-time power and environmental monitoring, accurate asset and circuit management, and intelligent capacity planning that enables you to accomodate higher rack densities while mitigating the risk of downtime.

Real-Time Monitoring of High-Density Power and Environment

- Complete Monitoring Monitor over 10 billion data points a day including power data from rack PDUs, floor PDUs, busways, branch circuits, RPPs, and UPSs and environmental data from temperature, humidity, airflow, and other sensors.
- Be the First to Know of Potential Issues Set warning and critical thresholds on power loads, three-phase balance, rack PDU circuit breaker state change, temperature, and humidity and receive automatic alerts upon threshold violations to proactively investigate and resolve issues.
- Avoid Hot Spots Identify the formation of hot spots and airflow patterns with thermal map time-lapse videos and see which cabinets are outside manufacturer and industry-accepted thermal guidelines with patented ASHRAE psychrometric cooling charts.

More Informed High-Density Capacity Planning

- Automatic, Dynamic, and Interactive Single-Line Diagram Built-in intelligence lets you easily understand the power capacity and load at every hop in your power chain so you can ensure new loads won't trip a breaker, know how to balance all three phases, and ensure redundancy.
- Automatic Server Power Budgeting Safely deploy more servers in existing racks without introducing risk by automatically calculating power budget profiles for each server instance based on its trended actual power utilization. Customers report unlocking 40% more capacity with this feature.
- Perform What-If Analysis Predict the impact your planned projects will have on your rack-level space and power utilization to help manage the density of equipment across your racks.
- Intelligent Capacity Search In seconds, find the optimal cabinet space with available power and connectivity for your next deployment. Then, reserve all the resources with a click.
- Project Future Power Capacity Needs Know when you are going to run out of power.

Highly Productive High-Density Infrastructure Management

- Zero-Configuration Analytics With out-of-the-box dashboard charts and reports, track high-density KPIs like capacity and utilization of power, space, cooling, and data/power port connections, delta T per cabinet, energy cost, and Power Usage Effectiveness (PUE).
- Better Than Being There Visualize your high-density racks and cabling on your 3D floor map with overlaid power and environmental data and see how they connect with network diagrams that include active and passive components.
- Automation via Integration Out-of-the-box connectors seamlessly integrate with your CMDB, ticketing, and Dev Ops tools to reduce manual effort and increase the accuracy of information.



SunbirdDCIM.com | (732) 993-4476 | 30 Knightsbridge Road, Suite 620, Piscataway, NJ 08854

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3D Visualization of Cabinets and Rows

Visualize your high-density racks as if you were standing in front of them. Overlay live measured readings from power and environmental sensors.



Capacity Management Dashboards

Get real-time resource capacity and utilization data for better space, power, cooling, and port capacity planning of your highdensity racks.



Thermal Map Time-Lapse Video

Easily spot hot spot trends across multiple planes. Floor map overlays display temperature changes over time so you can address issues before they become problems.



Automatic Single-Line Diagram

Visualize your power infrastructure to simplify planning, load balancing, and troubleshooting to ensure redundancy and uptime.



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 Piscataway, NJ, Sunbird serves over 1,900 DCIM customers worldwide. For more information, please visit SunbirdDCIM.com.

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