Data Center Infrastructure Management
Managing the Physical Infrastructure for Greater Efficiency
Emerson Network Power is the market leader in Data Center Infrastructure Management (DCIM). We are the only provider with industry-leading products in all components required for comprehensive infrastructure management. Our breadth of capability and depth of industry expertise enable us to deliver a holistic solution that preserves availability and drives efficiency throughout the data center infrastructure.

AN IMPERATIVE TO IMPROVING PERFORMANCE AND CONTROLLING COSTS

It has never been more difficult to manage a data center. The demand for services, environmental complexity and criticality of availability is at an all-time high.

Add to those factors, a constant pressure to control costs, and it is easy to understand why businesses are rethinking how they run the data center.
Changing the Way Data Centers Are Managed, Today’s Top Priority

By simply implementing a tool that stores all the configuration information and is the “source of truth” for the organization, along with instrumentation and active monitoring, companies can transform their operation and realize significant return on investment.

By implementing the right combination of hardware and software solutions to manage the data center infrastructure, you can:

- Reduce day-to-day costs and time involved in operating and maintaining the data center
- Enable better management decisions by getting the right information, to the right people, at the right time
- Make better use of existing IT and infrastructure resources, optimize data center performance and improve system availability

Data center managers need visibility into the the IT and physical infrastructure.

Gain Insight into Your Infrastructure and Proactively Manage Your Data Center

With a holistic DCIM solution, you can:

- Proactively identify issues before they escalate into problems
- Gain insight into asset/system performance to improve processes, increase productivity and maximize operational and capital resources
- Model the data center’s configuration and status
- Incorporate real-world data to optimize performance and decisions
- Plan for and accommodate future IT needs
“A data center infrastructure management system collects and manages information about a data center’s assets, resource use and operational status. This information is then distributed, integrated, analyzed and applied in ways that help managers meet business and service-oriented goals and optimize the data center’s performance.” – 451

The Stages of Adoption
Each step in the process delivers positive return on investment for your business.

**Step 1: Know What You Have**
The first step in managing your infrastructure efficiently is documenting what equipment you have, along with its location and dependencies. The right software tools will allow you to track and visualize the infrastructure in a single system, giving you accurate and complete information to make decisions.

A complete planning and management tool should include:
- Device nameplate tracking
- Power chain mapping
- Power load modeling
- Device connectivity
- Visualization
- Reporting
- Change management
- Real-time power integration

**Step 2: Instrumentation and Access**
Enabling communication with your equipment is a critical step in managing performance. Increased visibility and control allow for quick equipment assessment and corrective action in real time.

An instrumented infrastructure should include:
- UPS web cards
- Battery monitors
- Server control
- KVM switches
- Power meters
- Leak detection
- Temperature sensors
- Managed rack PDUs
- Cooling control
- Auxiliary power controls

**Step 3: Proactive Management**
Operations data from the data center environment improves the accuracy of the model, enabling you to have critical data at your fingertips to proactively manage and control performance. Benefits include utilizing much more of the expensive resources you manage and improving the efficiency of cooling and power systems, thereby saving significant money for IT.

**Step 4: The Future**
Incorporating the aforementioned tools into your operation and creating the rules for decision making and analysis set you up for the future. The next step in the evolution of DCIM is a controlled loop control system that incorporates real-time tracking and control of equipment.
“In heterogeneous data centers, optimization is the key issue in the market. A holistic approach is required for sustainability.” – IDC

**Take control of your IT assets, locations and room layouts.**

With data capture and planning capabilities, you can determine where assets are located and see how devices are interconnected. Commission and decommission physical assets more efficiently and determine if you have the space, cooling and power to address future computing requirements.

**Avocent Data Center Planner™ Inventory Tracking and Planning Solution**

Visual infrastructure planning and management functionality give you the power to view physical and IT infrastructure, providing faster changes, reduced errors, better availability and improved management.

**Aperture Suite Advanced Infrastructure Planning and Management**

Provides a unified view of physical resources across multiple data centers so you can optimize energy and capital resources, extend the data center lifespan and enable the automation and standardization of processes.

**Manage Your Critical Infrastructure**

Emerson Network Power puts critical information at your fingertips with a solution set of hardware and software tools designed for monitoring and managing networked devices so you can obtain more control of your physical infrastructure and IT systems.

**Liebert SiteScan™ Centralized Monitoring and Management**

Enhance availability and efficiency by delivering high-performance monitoring, trending and control of virtually any piece of critical support equipment—whether it is in the next room or thousands of miles away. With the added ability to integrate with building management systems.

**Liebert Nform™ Centralized Monitoring**

Improve system availability by closely monitoring network connected physical infrastructure equipment using existing Ethernet wiring. This software provides trending analysis, critical event notifications and the ability to initiate trigger response actions such as shedding non-critical power loads to provide more battery runtime to key systems.
Gain deeper insight into performance and proactively manage capacity.

**Aperture Integrated Resource Manager**
Aperture Integrated Resource Manager transforms monitored values into business intelligence. Data from disparate systems is aggregated into a single presentation that allows IT managers to identify trends and precisely manage rack capacity, allowing for more equipment within existing spaces. The net benefit is significant cost savings today while deferring/eliminating the cost of building out additional space or new data centers.

**Trellis dynamic infrastructure optimization platform**
The Trellis™ dynamic infrastructure optimization platform is Emerson Network Power’s next-generation DCIM solution, a real-time critical infrastructure management and control system.
Physical Infrastructure: A Key Component to DCIM

Emerson Network Power has been the leader in total data center infrastructure support for decades. Our expertise extends from connectivity, racks, power, cooling and services. We can deliver a holistic, intelligent, integrated infrastructure to enhance DCIM.

**Network Connectivity**

DCIM must start with interconnectivity. Emerson Network Power provides a comprehensive line of web cards, monitors and sensors for communications and instrumentation.

**Rack PDU Solutions**

Our Rack PDU family of products helps you to distribute power to rack-based equipment. From modular and intelligent to basic power strips, there’s a Rack PDU to fit your need.

**Precision Cooling**

Cooling the data center has never been more dynamic. Emerson Network Power pioneered the computer cooling market. Today, Liebert solutions continue to offer best-of-breed, room-based, row-based and rack-based cooling systems for maximum flexibility and efficiency.

**Knurr™ Racks and Enclosures**

Our Knurr rack line simplifies equipment installation with unique tool-less design and optimizes environmental conditions with superior airflow. Options allow for partial or full containment for a practically future-proof solution.

**UPS and Power Systems**

UPS systems in the industry’s widest range of sizes, including desktop, rack-mount and enterprise room-based configurations to meet the demands of any degree of availability, modularity, scalability and efficiency.

**Services**

Local service and support is available to provide emergency service and installation assistance, as well as a host of data center electrical services.

**Data Center Assessments**

Emerson Network Power provides professional energy and electrical and thermal assessments that help you identify gaps in your power and cooling infrastructure, increased energy efficiency, reduce operating costs, improve IT system availability and plan for additional IT capacity.

“IT resources must be extremely agile, so they can be updated, reconfigured and expanded rapidly to meet changing business requirements.” – EMA
Emerson Network Power, a business of Emerson (NYSE:EMR), is the global leader in enabling Business-Critical Continuity™ from grid to chip for telecommunication networks, data centers, healthcare and industrial facilities. Emerson Network Power provides innovative solutions and expertise in areas including AC and DC power and precision cooling systems, embedded computing and power, integrated racks and enclosures, power switching and controls, infrastructure management, and connectivity. All solutions are supported globally by local Emerson Network Power service technicians. Aperture and Avocent solutions from Emerson Network Power simplify data center infrastructure management by maximizing computing capacity and lowering costs while enabling the data center to operate at peak performance. For more information, visit www.Aperture.com, www.Avocent.com or www.EmersonNetworkPower.com.