Data center management suite

Providing optimal control and efficiency to data center management
You work under pressure. In an industry where time is measured by milliseconds, you have the vital responsibility to secure and maintain data center infrastructure. It’s a difficult challenge. How can you safeguard operations and optimize energy costs? How do you meet regulatory requirements and targets for greenhouse gas reduction?

Siemens has the solution: data center management suite – a sophisticated set of tools and services that allows you to integrate all elements of your data center’s infrastructure. It gives you greater control while managing continuous and efficient operations.
Ensure uptime while meeting multiple requirements

Your responsibilities lie where business pressures meet operational challenges. You need to ensure uptime while minimizing costs. That means juggling the challenges of reliability, availability, efficiency, scalability, safety and security, maintenance, costs, and time to market. Add to that the needs of diverse IT systems, evolving software, and system compatibility, and the pressure is on you.

While the challenges you face are many, analyst research tells us the core problems in data center management stem from three sources: inconsistent information, divided operational responsibilities, and varying levels of maturity among data centers. Solving these core problems were outside of your control, until now.

Take a leap forward
To tackle data center infrastructure problems, Siemens provides a seamless, integrated suite of solutions. They combine years of best practices with sophisticated management tools. The result is our data center management suite.

Our data center management suite looks at all data center systems as a whole. From energy supply chain to cooling system, each element offers an opportunity for greater overall efficiency. It can expand to include an enterprise approach to meet organizational energy needs and a facility-wide approach to achieve operational efficiency.

The infrastructure management tools include a set of powerful applications for optimizing and ensuring continuous operations:
- Datacenter Clarity LC™*, our leading data center infrastructure management (DCIM) system
- Desigo CC – the integrated building management platform
- SICAM PQ (power quality) analyzer, a comprehensive evaluation system
- SENTRON PM (power manager), our monitoring software for power and energy

Together, they give you a seamless view of data center operations, from monitoring your power supply to coordinating IT and facility management systems, providing:
- Holistic management and control of entire data center infrastructure
- Full transparency into power consumption and condition of the entire infrastructure
- Seamless automation and integration of processes across different disciplines and systems
- Early indication and detection of events
- Transparent view of the scalability of your rack space

Highlights
- Integrates disparate processes into one, seamless ecosystem
- Includes powerful applications for optimizing data center operations
- Reduces complexity and inefficiency of data center management

63% of data centers do not have a standard set of management tools
58% of enterprises have IT and facilities in separate organizations
57% of managers consider their data centers to be inefficient
Integrate all your responsibilities

The data center management suite from Siemens offers you one, comprehensive set of applications and services. It allows you to integrate all of your areas of responsibility, from managing the IT network, to managing energy and power, to ensuring fire and safety requirements.

It allows you to maintain, measure, and control all critical areas:

**Power**
Safeguard reliable and efficient power supply with advanced monitoring and supervision capabilities. Identify areas of risk and efficiency with detailed data at rack level. Alarm-based reactions and process automation help ensure availability.

**Energy**
Track and manage energy consumption, procurement, and on-site generation. Baseline and forecast consumption more accurately for better cost planning and energy procurement negotiations.

**Cooling**
Benefit from full conditional transparency of your cooling equipment’s operating status and related values, such as temperature, humidity, and airflow. Alarming and automated control safeguard the continuous cooling of critical infrastructure.

**Assets**
With full visibility of your assets, you can better manage space and capacity, and plan more effectively. The user-friendly interface, with floor and rack elevation layouts, intelligent tagging and dashboards, makes finding equipment easier than ever.

**Cables**
Simplify your management of power and network cabling to predict shortages and ensure capacity. Track usage, identify upstream and downstream connectivity, and locate available ports with speed and ease.
Identification of hot spots based on CFD allows optimized cooling, reduces power consumption and therefore reduces energy costs.

Deployment of new IT equipment into a rack. Identify place with enough space, power load capacity and respective cooling power, and may with specific security levels.

Maintenance on CRAC units. Increase security levels for cooling equipments in operation, increased risk of single incident. Observe areas where maintenance happen.

Manage evacuation in case of a fire incident, release locked doors and observe affected areas.

Adjust cooling power based on IT load plans. ITSM tools might push IT equipment in stand by mode what impacts the power and cooling load.

**Workflow**
Manage your data center and resources more efficiently with customized workflows. Detailed, documented instructions and procedures reduce the risk and cost of execution errors, while supporting traceability and seamless hand-offs.

**Computational fluid dynamics (CFD)**
Avoid downtime by simulating situations and scenarios. Simulation allows you to identify and predict hotspots and cold air volumes.

**Fire safety**
Safeguard your employees, data, and equipment with our early fire detection system. It provides immediate alarms and automates the extinguishing process.

**Security**
Manage physical security tightly with our security system that controls access and observes any movement of people.

**3rd-party integration**
Simplify integration of various 3rd-party operational and monitoring applications (e.g., ITSM).

**Move from silo to integrated management**
You can create additional value and maximize system benefits by integrating management of tasks and responsibilities. The data center management suite allows you to manage processes end-to-end. It provides a logical sequence as processes move across applications, significantly reducing complexity.

The diagram below illustrates dependencies between areas and a few examples of potential benefits. They include:

- Identifying hot spots
- Improving deployment of new IT equipment into a rack
- Maintaining computer room air conditioning (CRAC) units
- Managing evacuation
- Adjusting cooling power based on IT load plans

**Highlights**
- Reduces complexity
- Provides one, comprehensive set of applications
- Maintains, measures, and controls all critical areas
- Increases system value and efficiency by integrating tasks and responsibilities
Gain total control with advanced technology

Rely on Siemens to combine leading technologies and services. The strength behind our data center infrastructure management suite lies in the power of each of its components.

**State-of-the-art DCIM**
Datacenter Clarity LC is the data center infrastructure management system from Siemens. It gives you and your team a single, comprehensive view into both IT and facility management, enabling your organization to make smarter decisions and optimize efficiency. Datacenter Clarity LC can stand alone or work seamlessly with other Siemens applications, including Desigo CC and SENTRON power manager.

**Integrated building management**
Desigo CC allows you to control and optimize all of your building’s systems and services from a single workstation including cooling, lighting, room automation, energy and power management, and fire safety, as well as security services like video surveillance and intrusion detection. Desigo CC is comprehensive and adapts to your needs.

**Data for better power quality**
SICAM PQ analyzer helps improve your power quality, providing detailed analysis and locating faults in your power network. With SICAM PQ analyzer, you have:

- A clear, simple system for routinely evaluating and analyzing archived power quality data and fault records
- Multiple options to customize your analysis, as needed
- Comprehensive reports on PQ limit value violations
- Scheduled reports providing an overview of data measured over time ranges you select
- Fault locator to quickly identify and eliminate faults in the power network
Power monitoring / EMS
SENTRON PM monitors your power, helping you reduce energy costs and increase energy availability. SENTRON PM combines our power manager power monitoring software with a range of SENTRON devices. Other specific EMS (energy management systems) applications can also be part of the data center management suite and the related integrated solution, based on customers’ requirements.

Delivering a new era in comprehensive data center management
The integrated, holistic philosophy behind our data center management suite creates new opportunities for your management team. You gain transparency and integrated control of your data center’s efficiency across all areas and functions.

- Monitor your entire facility infrastructure, including operational status, power consumption, and operational conditions
- Automate and integrate processes across different disciplines and solutions
- Manage and control the entire data center facility infrastructure operations
- Receive early indication and detection of events
- Gain space transparency and a baseline for scalability
- Capture full control over monitoring, alarms, management, and automation
- Establish baseline to identify efficiency improvement benchmarks
- Safeguard operations within established limits based on constant monitoring and alarms

Highlights
- Provides state-of-the-art DCIM
- Integrates all facility’s systems
- Analyzes data for better power quality
- Reduces energy costs and increases energy availability
- Delivers comprehensive data center management
- Reduces human errors by automation of processes
Our world is undergoing changes that force us to think in new ways: demographic change, urbanization, global warming and resource shortages. Maximum efficiency has top priority – and not only where energy is concerned. In addition, we need to increase comfort for the well-being of users. Also, our need for safety and security is constantly growing. For our customers, success is defined by how well they manage these challenges. Siemens has the answers.

“We are the trusted technology partner for energy-efficient, safe and secure buildings and infrastructure.”