

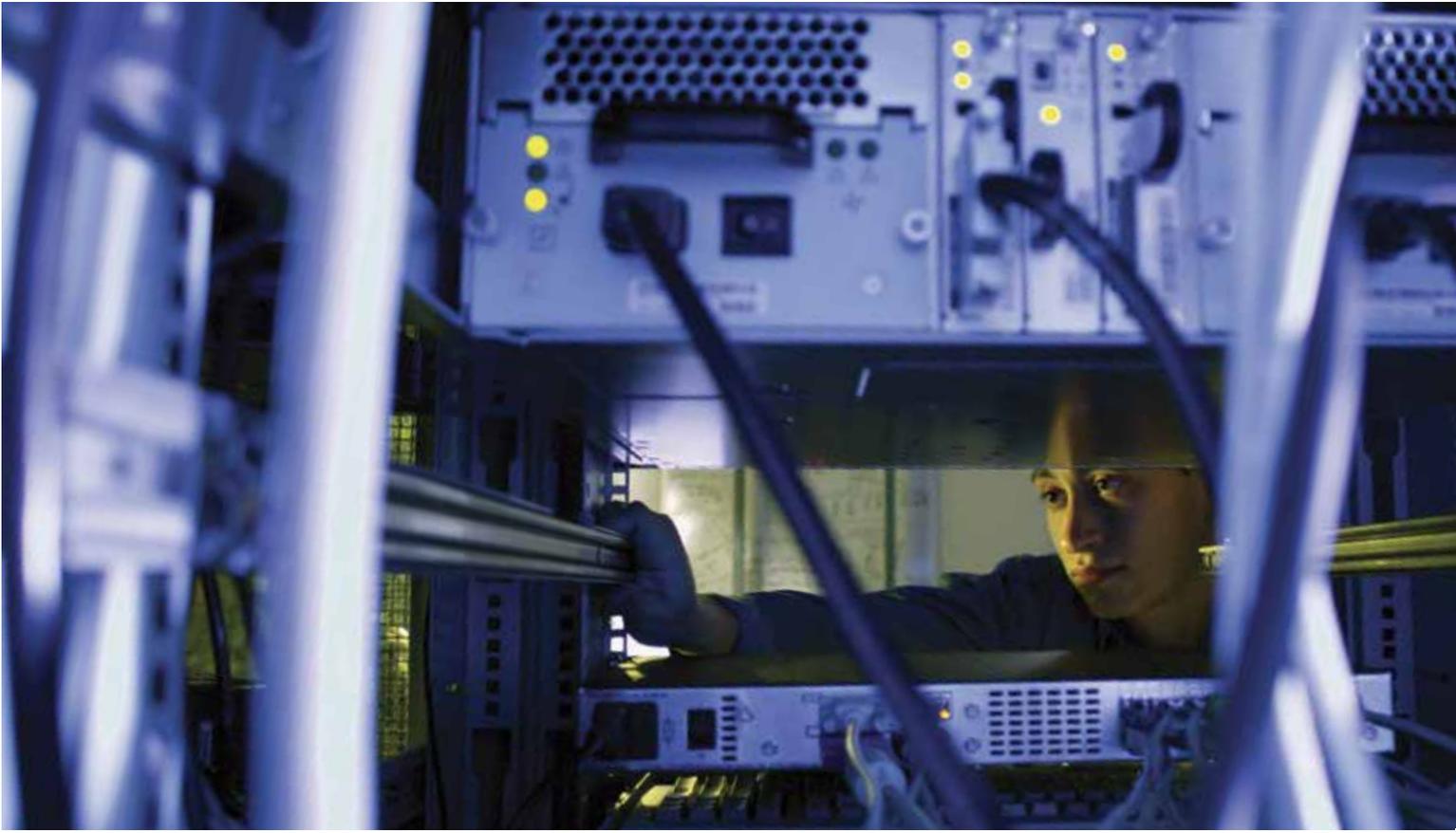
A photograph of a server room. In the foreground, a technician in a light-colored shirt and dark trousers is leaning over a server rack, working on a component. The rack is filled with various server units and cables. In the background, more server racks extend into the distance. The room is well-lit, and a security camera is visible on the ceiling. The Siemens logo is overlaid in the top left corner.

SIEMENS

Downtime is never an option.

Rely on Siemens for maximum uptime, reliability and security.

Answers for infrastructure.



Siemens can meet the demands of your mission critical facility.

Managing a data center carries a lot of weight. When even a momentary disruption can have major repercussions, you need a partner you can trust. That's where Siemens comes in. We can help you plan, implement and service your facility to ensure optimal performance.

We can assist you during the early phases of construction with consulting, planning, engineering and site selection. We can also support you with continuous commissioning, documentation, training and planning for future expansions. Our data center experts work with you every step of the way.

We offer a comprehensive portfolio of data center solutions that can be tailored to meet your needs today, while positioning you to grow and address tomorrow's challenges. Backed by Siemens global depth and expertise, our solutions are implemented and supported by a Siemens office near you that is dedicated to keeping you up and running 24/7.

Optimal design improves data center performance.

Planning for precise performance

Siemens has the expertise and tools you need to optimize your data center design and performance such as our Data Center Infrastructure Management (DCIM) solution, Siemens Datacenter Clarity LC™. Our portfolio of data center planning tools includes computational fluid dynamics (CFD) modeling, asset management, power monitoring and more. We can work with you to design your server room and data center infrastructure to keep IT equipment at the right temperature, improve efficiency and minimize energy costs.

It's imperative that new data centers become operational as quickly as possible. More importantly, once a facility is up and running, it must efficiently maintain high performance over the long run. Siemens has proven technologies and strategies in place to reduce installation time while ensuring a high quality implementation. Our tools and expertise can help accelerate this process and deliver benefits over the life cycle of your facility.

Merging IT and facility management

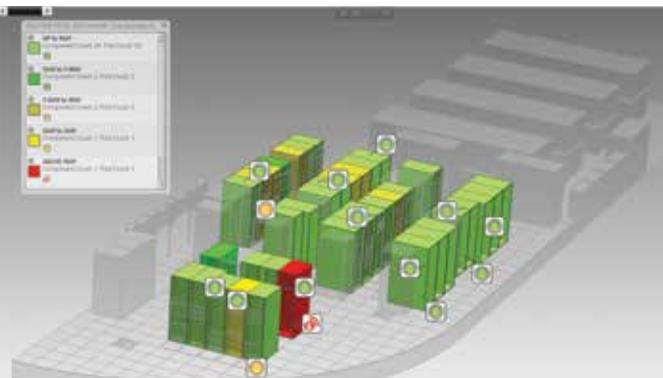
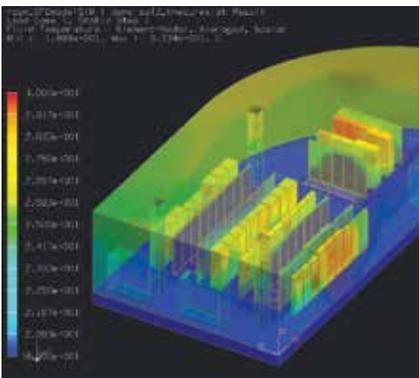
Bridging the gap between IT and facility management is an essential component of business success in your data center. Siemens Datacenter Clarity LC™ provides visibility into the physical infrastructure of your data center.

Your administrators would know from a single view, how the data center environment is configured, what resources are assigned to which physical or virtual servers and how the consumption of resources is changing. With DCIM, dynamic data can be provided in streaming, four-dimensional formats that support open, standard communication protocols such as SNMP, OPC, Modbus, BACnet and others. Siemens Datacenter Clarity LC™ also provides enhanced alarm management. DCIM helps you make better decisions about resource allocations and how you should manage your data center infrastructure going forward. It can help lower overall data center costs, increase application availability and improve operating efficiency.

Whether you are a corporate data center, a co-location facility or a dedicated hosting facility, we can help you design and implement the right solutions based on your requirements and budget.

Highlights

- Optimize data center design and performance
- Reduce installation and implementation time
- Recommission existing data centers
- Effectively safeguard critical assets with tailored solutions
- Scalable solutions for all types of data centers



Our data center planning tools help you identify hot spots, problem servers, and recirculation issues.

This helps manage equipment upgrades and ensure maximum facility efficiency.



Ensure facility uptime.

Siemens offers a comprehensive portfolio of services and solutions that can address your data center needs in the areas of power, cooling, physical security and fire safety. Our tailor-made solutions meet the immediate needs of your facility and allow for future expansion.

Your primary goal is to eliminate downtime. We've developed a comprehensive portfolio of solutions and services to help you do just that.

Dependable power

Your power distribution systems must be designed for high reliability, flexibility and maximum efficiency. Siemens medium and low voltage data center products have been specifically designed to meet these demanding requirements. We offer tailored, "right-sized" and consistent end-to-end power distribution solutions.

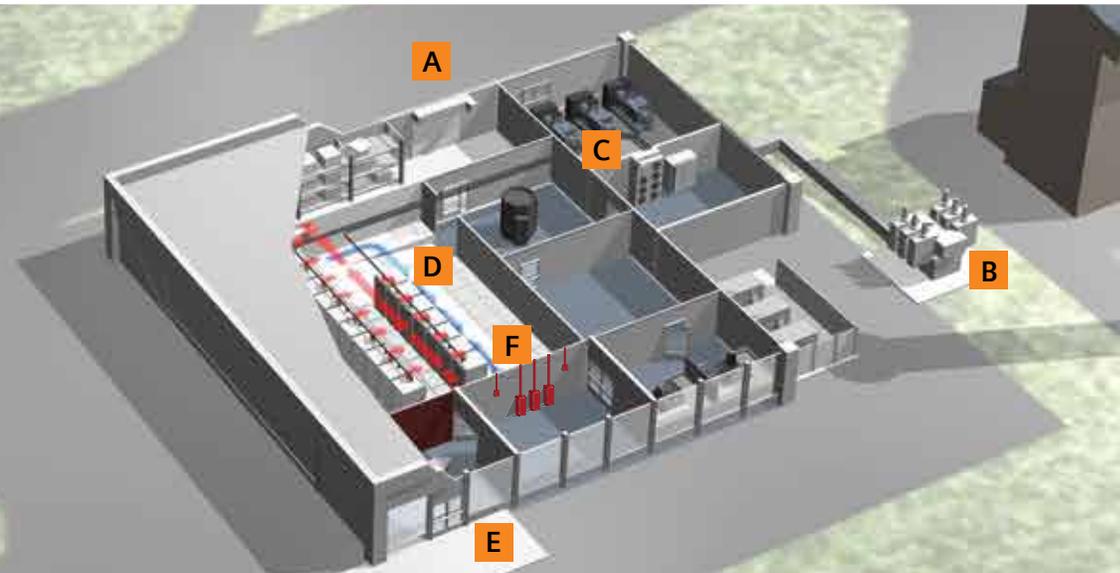
Our products provide maximum survivability and are designed to comply with the most stringent safety and efficiency standards. Siemens solutions can help you measure and monitor power usage at strategic points throughout your data center. We offer advanced solutions that help ensure the proper levels of power consumption and provide transparency for mission critical facilities. With our solutions and services, you can predict and prevent problems, improve energy efficiency and ensure you have reliable access to the power you need. In addition, you can rely on our electrical field service personnel and operational support staff to respond 24/7.

Comprehensive services

You can extend the life cycle of your facility and protect your investment with Siemens comprehensive services. Our highly-trained professionals can provide the protection and support you need to help avoid the leading causes of downtime including power quality problems, equipment damage and temperature issues.

With Advantage Services, you can tailor a service package that best meets your needs. Choose from a portfolio of more than 100 equipment-related services in six building categories:

- **Life Cycle Management** - ensures the best building system technology for your facility
- **Alarm Management** - professional handling of alarm events including rapid response to critical conditions
- **Energy Optimization** - monitors, analyzes and optimizes energy consumption
- **Operational Services** - provides system operation support to supplement the skills of on-site staff
- **System Maintenance** - preventive and corrective maintenance measures
- **Knowledge Services** - consulting, professional services and training



Siemens integrated data center solutions focus on:

- A IT and Facility Management
- B Dependable Power
- C Comprehensive Services
- D Efficient Cooling
- E Physical Security
- F Fire Safety

Efficiently monitor and manage energy consumption.

Optimize your building management and control

With Siemens APOGEE® Building Automation System, you have the power to flexibly monitor, manage and control your facility. As one of the most open, scalable and IT-friendly building automation systems available, APOGEE can efficiently manage your facility today and grow with you tomorrow. APOGEE can integrate with and control all of your facility's core building systems including:

- Building Automation and Control
- Heating, Ventilation and Air Conditioning (HVAC)
- Power and Energy
- Fire and Life Safety
- Security and Access

Siemens innovative building automation solutions offer smart, user-friendly interfaces that deliver the real-time, actionable information you need to optimize safety, efficiency and performance for your data center facility.

Efficient cooling

Siemens energy-efficient building automation, cooling and HVAC products and solutions help avoid equipment malfunctions and interruptions. Designed to ensure system uptime, they maintain optimal cooling and conditions for your IT infrastructure. From sophisticated airflow management, hot aisle/cold aisle containment and efficient free cooling to proven and patented heat recovery schemes – our solutions can help you reduce both your operating and capital costs by ensuring you have the right equipment for precision control of indoor space conditions according to actual cooling demand.

You can realize significant energy savings with Siemens Demand Flow® chiller plant optimization solution. Demand Flow has been proven to increase deliverable tonnage, extend equipment life and reduce energy consumption by up to 50% in chiller plants at data centers around the country.

Highlights

- Reliable end-to-end power distribution solutions
- Advanced power monitoring and management solutions help keep critical power equipment online and improve efficiency
- Comprehensive services prevent the leading causes of downtime, extend equipment life cycles and provide 24/7 support
- Optimized building management integrates core systems
- Efficient cooling solutions maintain optimal conditions for IT infrastructure



Protect your assets.

Highlights

- Integrated security solutions protect your assets and operations
- Complete suite of fire detection, monitoring, suppression and command and control solutions
- Integration of fire detection, evacuation and suppression systems to provide maximum protection
- Trusted, long-term partner for data center solutions and services

Physical security

You can protect your assets and operations at all levels from the perimeter to the rack with Siemens integrated security solutions. Due to the sensitive, 24/7 nature of data centers, access control for secure zones is of paramount importance. We offer flexible yet secure access control from smart cards to biometric access featuring iris, vein or facial recognition for high security areas. We can ensure that only the right people gain access to key areas at all times. Siemens integrated security solutions include:

- Intelligent video surveillance systems
- Video surveillance with visual and recorded remote monitoring
- Integrated command and control
- Access control systems
- Perimeter protection systems
- Intrusion detection and alarms
- Surveillance and monitoring systems
- Server access point security

Fire safety

Siemens understands the specific requirements data centers have in terms of fire prevention, detection, response and recovery. Data centers often present

serious challenges in terms of high air velocity, complex air patterns and high incidences of combustible materials and potential ignition sources. Heavy power loads or a defective piece of equipment can quickly lead to a short circuit or overheating with major repercussions.

With Siemens, you have a complete suite of fire-focused monitoring and command and control solutions that meet the highest safety standards. We integrate early warning fire detection, evacuation and suppression systems into a single, safety solution with centralized supervision and alarm handling. Our use of clean agent suppression protects your data from fire and smoke damage without harming your sensitive electronic equipment. Siemens fire solutions include:

- Prevention planning and consulting
- Early detection systems
- Rack-level detection
- Alarm and evacuation systems
- Suppression systems that are safe for electronic equipment
- Management stations
- Command and control



Your data center partner.

You can rely on Siemens as a trusted partner to provide long-term solutions for your data center.

IT and Facility Management

- Asset Life Cycle Management in HD4D
- Real-time Monitoring, Alarm and Event Notification
- Capacity Planning and IT Optimization
- Workflow and Work Order Management
- Linking of IT, Mechanical and Electrical Assets

Dependable Power

- Switchgear
- Power Monitoring
- Busway
- Metering
- Panelboards
- Switchboards

Efficient Cooling

- HVAC
- Power and Energy
- Building Automation and Control

Physical Security

- Access control
- Perimeter protection
- Integrated Command and Control

Fire Safety

- Early detection
- Alarm and evacuation
- Suppression

Comprehensive Services

- Life Cycle Management
- Alarm Management
- Energy Optimization
- Operational Services
- System Maintenance
- Knowledge Services

With a comprehensive portfolio of products, systems and services backed by the local support of more than 100 offices, Siemens can help ensure maximum uptime and reliability for your data center. With our global solutions and local expertise, we are ready to provide you with answers and support every step of the way.

Siemens is a trusted partner that can provide the services, support and solutions you need to keep your data center up and running, 24/7.

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This document contains a general description of available technical options. Any specific solution(s) will be based on a client's particular requirements and will be addressed in the contract for the project.

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Answers for infrastructure.

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 preferred partner for energy-efficient, safe, and secure buildings and infrastructure.”