

Overview

Datacenter Clarity LC™* is part of the Siemens Integrated Datacenter Management Suite (IDCMS). Clarity LC provides tools for operating and optimizing data centers, including:

- Asset management combined with real-time values
- · Connections management
- · Change management
- Computational fluid dynamics

Using state-of-the-art engineering software and product lifecycle management tools, Datacenter Clarity provides data center operators with the information they need to make informed, timely decisions. This helps optimize equipment placement and improve the longevity and availability of data center infrastructure. Datacenter Clarity LC can help organizations:

- Get clear insights into all mission-critical systems.
- Avoid problems by properly forecasting capacity issues.

- Use real-time data and forecasting to find, analyze, and resolve problems.
- Optimize operational KPIs for greater efficiency and reduced cooling costs.
- Integrate with existing data center management frameworks, including COBIT and ITIL®.

System architecture

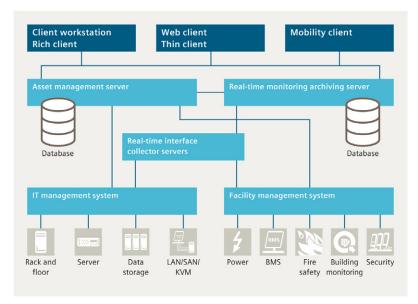
Datacenter Clarity LC provides flexible clientserver architectures configured to meet the needs of each organization, including:

- 1. High-performance distributed architectures for environments where performance is key.
- 2. Highly available architectures for environments that are especially sensitive to downtime.
- 3. Scaled-back architectures for sandbox and testing environments.

Datacenter Clarity LC is fully scalable and vendor agnostic. It supports all standard protocols on the market and comes with more than 450 proprietary protocols.

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*Datacenter Clarity



Datacenter Clarity LC high-level architecture

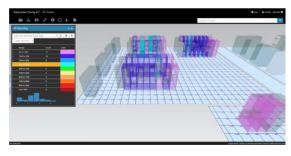
Key features

Web client

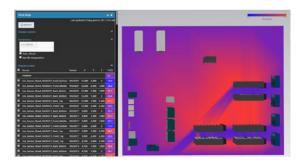
The DC Clarity LC Web client is an HTML5-based collaborative platform accessible from any device of the user's choosing. It provides tools to manage inventory, connections, and processes, view real-time alarm information, and generate reports. Tools are made available according to access rights, and can be restricted based on individual users as well as different roles, giving organizations the flexibility to efficiently segregate data.

High-resolution asset visualization

- High-definition, fully integrated, browser-based 3D modeling environment.
- Clarity Index reports optimize asset placement based on the availability of U space, real-time power, ports, and more.
- Create, modify, move, and delete assets from within the 3D environment.
- Visual, intuitive, and customizable reporting capabilities.
- Temperature-mapping capability for the early identification of hot spots.



Datacenter Clarity LC 4D reports



Datacenter Clarity LC temperature map

Key features

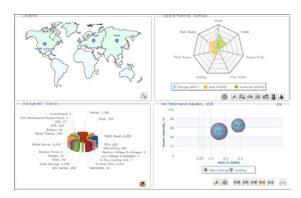
Real-time monitoring

Dashboards

- Creation of customized dashboards to display real-time device data.
- Pivot tables help users organize and analyze data on-the-fly.
- High-level dashboards report on key performance metrics (PUE, WUE, and more), which facilitates well-informed planning decisions.

Alarms and event feed

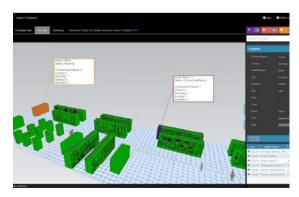
- Web-based alarm feed, map, and 3D visualization.
- Custom SMS and e-mail alarm notifications.
- Automatic triggering of workflows and task assignments.



High-level dashboard



Alarm viewer: map



Alarm viewer: 3D view

Key features

Infrastructure lifecycle management

- Inventory management and reporting in CSV and HTML formats.
- Robust and comprehensive access control configurable down to the port level.
- Regularly updated equipment library with thousands of IT and facilities assets from all major vendors to which users can add as required.
- Ability to map to existing customer data and leverage and/or integrate with existing tools.
- 3D model creation using standard modelling and recording tools, including AutoCAD drawings, Excel spreadsheets, STEP, IGES, and Parasolid.

Process management

Datacenter Clarity LC's comprehensive change and process management modules provide visibility into all aspects of data center operations.

- Facilitate collaboration between all project stakeholders.
- Create customized workflows to match standard procedures.
- Manage project schedules, planning, and resources.
- Submit change requests and monitor their status from the Web client interface.
- Assign users or groups to specific tasks in the workflow.
- Automatically generate and attach custom, task-specific work orders.
- Forward and re-assign tasks as necessary.



Sample workflow

Key features

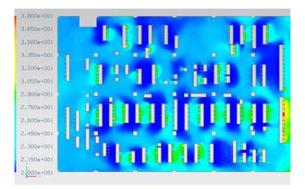
Power and network management

- Use DC Clarity LC's Web-based connections management modules to create, modify, and manage network and power connections.
- 2D visualizations show the end-to-end power and network layouts, allowing for quick identification of upstream and downstream assets and diagnosis of configuration issues such as lack of redundancy or missing connections.

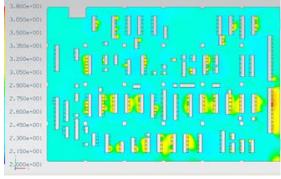
Computational fluid dynamics (CFD)

MayaHTT's industry-leading CFD software assesses airflow and cooling strategies and is fully embedded in Datacenter Clarity LC. This enables organizations to:

- Optimize energy usage.
- Predict temperatures and airflows throughout the data center.
- Identify inefficient devices and hot-spots.
- Evaluate tile flow distribution and underfloor obstructions.
- Forward and reassign tasks as necessary.



CFD analysis before optimization



CFD of a data center post airflow optimization

Open interface and protocol support

Real-time monitoring

More than 450 standard and proprietary interfaces provide connectivity to any facility devices, BMS, EPMS, IDS, fire and alarm systems, SCADA/DCS, PLC/instrument systems, LIMS systems, IT devices, and other business information systems through the following communication protocols/interfaces:

- OPC
- Modbus
- Bacnet
- HTML
- UFL
- DNP3
- Advanced IT monitoring interfaces: SNMP Trap, Windows EventLog, SyslogStandard Manufacturing Control Network (MCN) Health Monitor interface
- Other IT/facilities monitoring interfaces/ protocols

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