

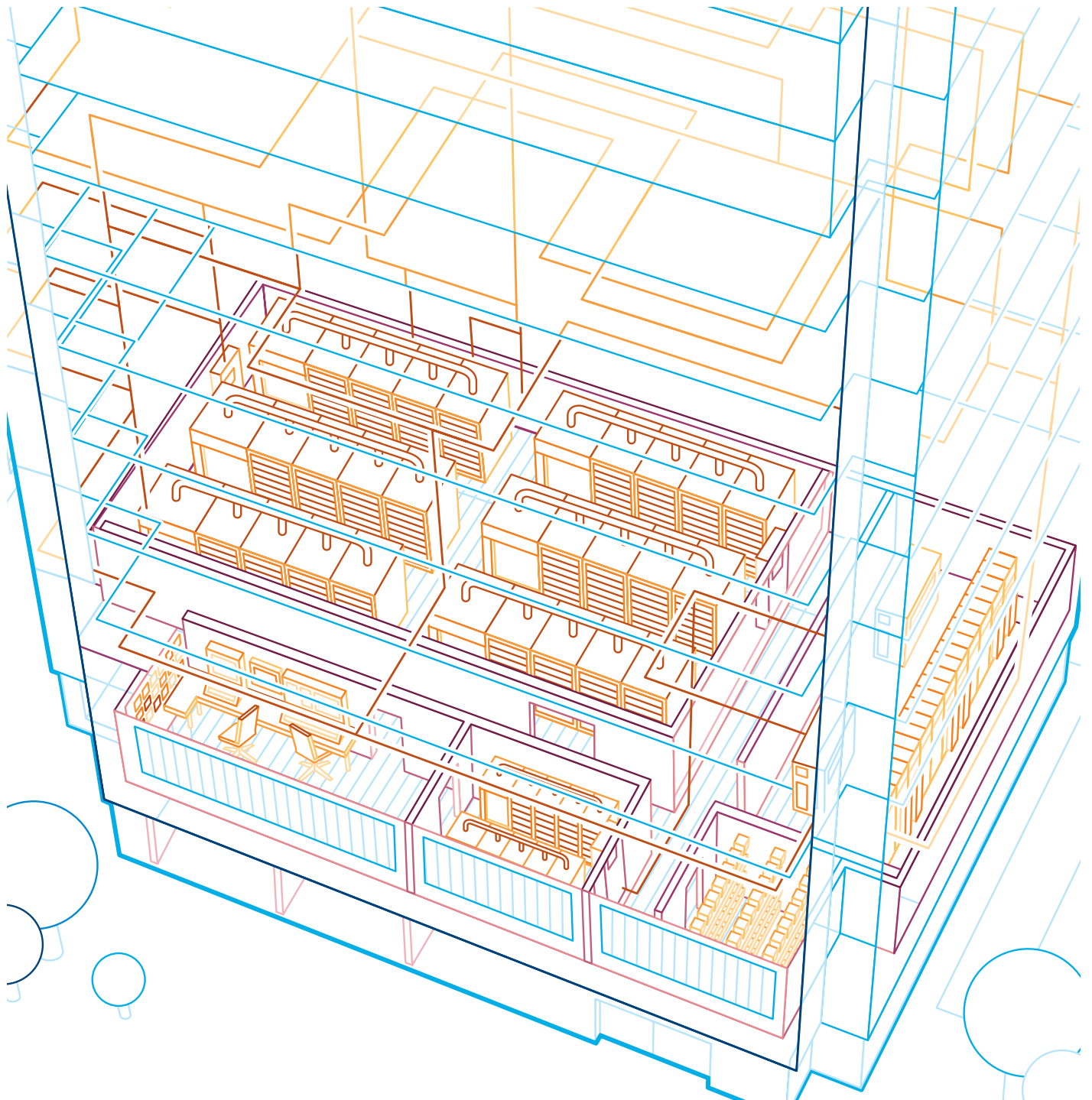


Decathlon: Data Center Enterprise Management

Enabling predictive reliability and energy efficiency for today's data centers

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Data Center Enterprise Management



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Transforming data into information.

In the data center world, too much raw data can sometimes engulf the information you need to optimize power while maintaining reliability. Overwhelmed, you find yourself digging through endless streams of data from multiple systems, attempting to verify that it covers all your concerns, only to discover that pieces are missing. Here, energy efficiency and predictive reliability are non-existent. You need an automated solution; a tool that will give you an integrated view and unified, easy-to-comprehend information across all your mission critical processes; a tool that will optimize power while maintaining reliability. You need ABB's Decathlon™ Data Center Enterprise Management (DCEM).

As the world's leading supplier of Enterprise Asset Management software and Distributed Control Systems (DCS)*, ABB understands your data center needs. We know that software and hardware expertise in mission critical applications is crucial to successful implementation of a single system that operates and manages your data center.

*Source ARC 2011

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Data Center Enterprise Management (DCEM). Although the 451 Group of the Uptime Institute has provided a solid definition of what Data Center Infrastructure Management (DCIM) entails, the vast majority of products in the marketplace cover just a small portion of the overall functionality. Many disparate products claim to be DCIM – this leads to market confusion. Decathlon not only spans the entire functionality of the 451 Group DCIM definitions, but also expands on this to provide DCEM – management of energy usage across multiple sites to maximize efficiencies, with true enterprise visibility and reporting.

Decathlon – true visibility. By harmonizing various disciplines from IT, facilities and energy management into a unified control environment, Decathlon shows precisely where and how energy and resulting costs can be saved. Decathlon provides a single entry point within its database structure to address the needs of the following essential data center disciplines:

- Scalable from 1 to 100 or more data centers

- Single display framework for all disciplines
- Reliable operation with redundancy at every level
- Powerful alarm management for faster response
- Continuous diagnostic monitoring for improved predictive maintenance
- Supports remote monitoring and control
- Uses standard operations and performance dashboards
- Integrates with all leading third-party equipment and systems
- Closes the loop from server to facilities
- Employs real-time server temperatures and loading to direct power and cooling

Improved Reliability. Most data centers employ one of two basic maintenance schemes – a reactive response to faults or a preventive maintenance response where a scheduled task is performed periodically based on historical running time failure data.

Decathlon enables more advanced Condition-based Maintenance, recommending service when equipment is not operating to its full potential. Decathlon does this through the use of industrial strength alarm handling and



Let ABB take you on a tour of a typical Data Center layout using Augmented Reality and 3D functionality. ABB's walkthrough app will show what products and systems we provide to make sure Data Centers are reliable and energy efficient – allowing customers to improve their performance while lowering their environmental impact.

Visit the Apple App Store and search for ABB DCEM. Once loaded, point your iPhone camera at the image above to launch the 3D experience.

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continuous diagnostic monitoring that help define and stratify alarm levels and response. A simple example of this might be a chiller where COP has started to degrade relative to its peers – Decathlon identifies the issue before it raises any alarm and automatically issues a maintenance ticket.

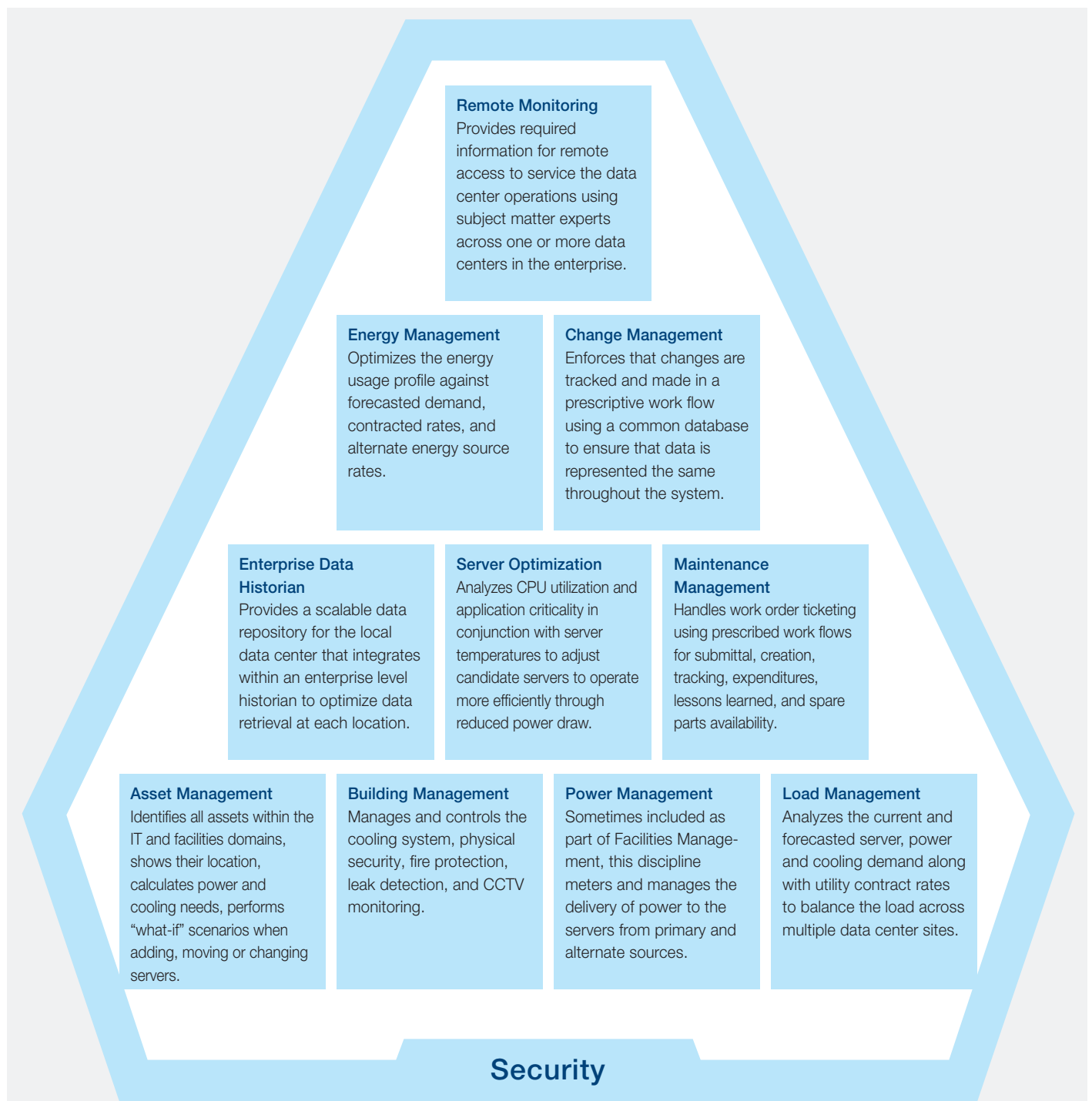
With scarce resources, it's not always possible to have expertise for all the various disciplines at every data center location all the time. Decathlon enables secure remote access by ABB's remote Operations Center which is manned by Subject Matter Experts (SME) who can quickly diagnose and resolve faults. Critical alarms are forwarded by Decathlon to the remote operations center directly to the appropriate SME based on the equipment type and site specifics. The SME supports site personnel and assists them throughout the service action. The responding site technician gets the relevant engineering documentation and emergency response procedures sent directly to his handheld device. Use of the remote monitoring center improves the reliability and availability of the data center by quickly and accurately resolving problems.

Improved Efficiency. Utility contract rates vary based on factors such as time of day or contracted peak usage. Decathlon analyzes a variety of data from IT load patterns, weather forecasts, contract and utility data to predict and adjust energy consumption in order to optimize usage against bill rates.

Decathlon also uses on-board server parameters (e.g. temperature, CPU utilization) to determine the status of production servers, thus enabling decisions to be taken about how to optimize the use of power and cooling.

Enabling Visionary Decision Making. Because Decathlon brings the entire data center operation into a unified view, it allows data center operators and managers to see information across multiple disciplines that enable them to make informed decisions. Decathlon provides tools and services that enable data center operators to achieve predictive reliability and energy efficiency. We call this **“Enabling Visionary Decision Making”**. Only from ABB.

Ten disciplines of Decathlon



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