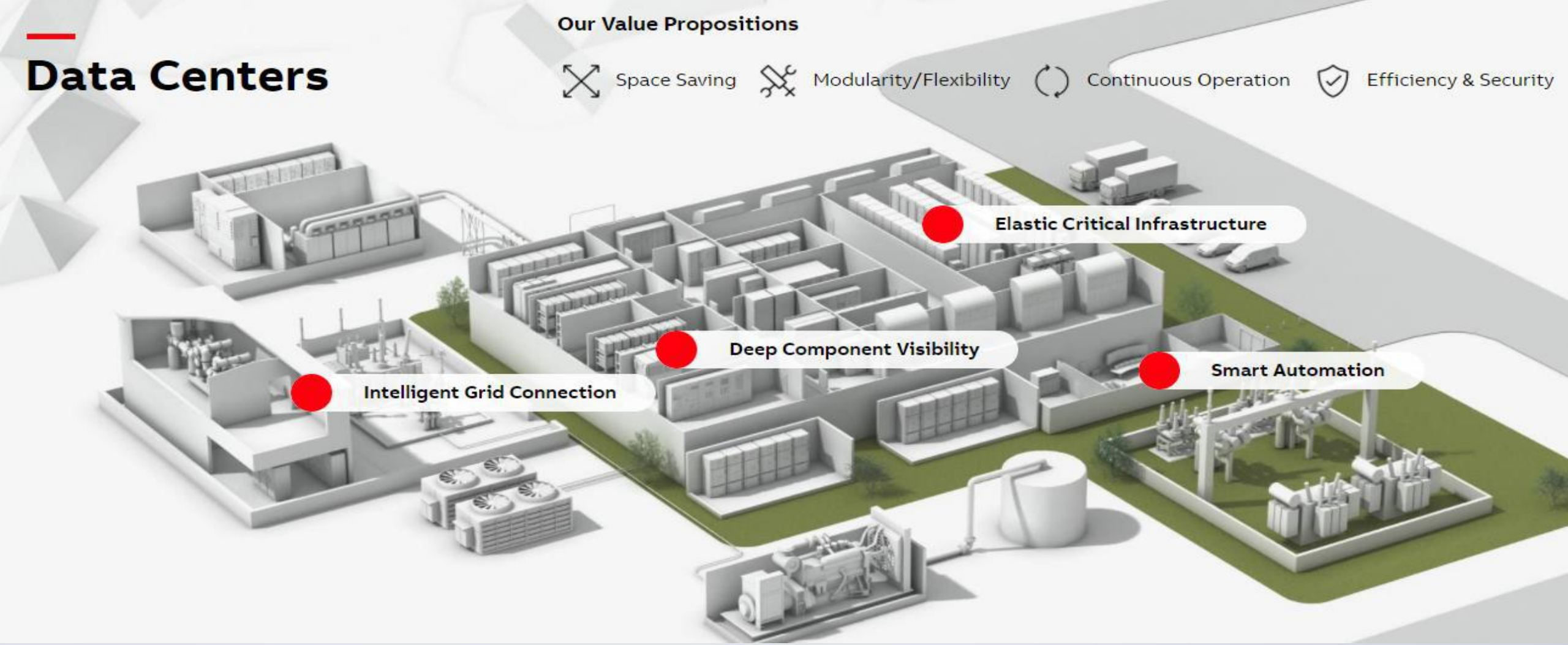
Data Centers

Our Value Propositions

Space Saving | Modularity/Flexibility | Continuous Operation | Efficiency & Security



ARTO LIND

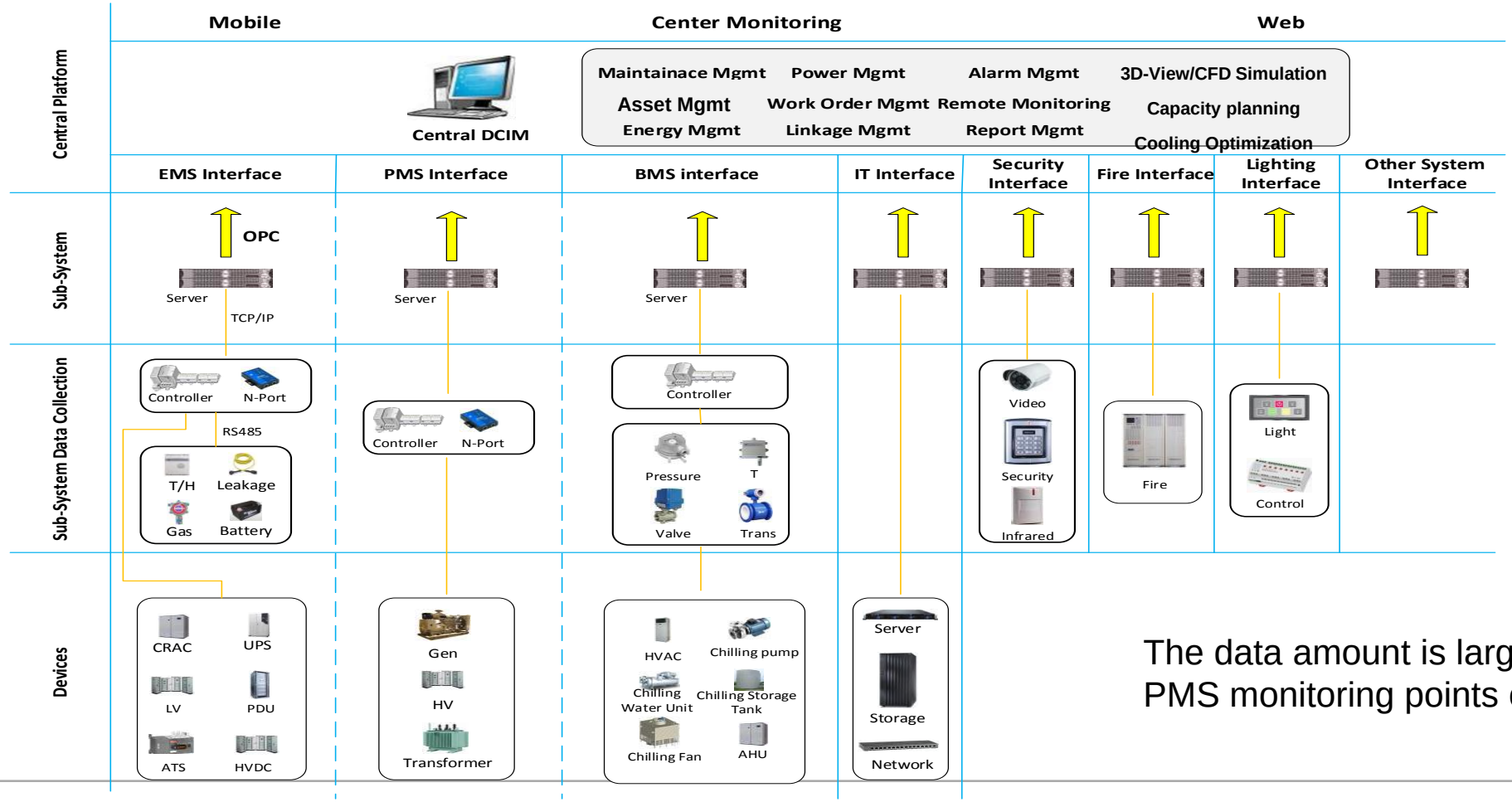
Datacenter Operations and Control Systems

ABB Ability Datacenter Automation

The way to monitor & control your DC infrastructure – (DCIM) Datacenter Infrastructure Management

Datacenter common functionality

DCIM needs to be open to handle functions from different vendors



The data amount is large, some times only PMS monitoring points can beyond 100,000.

ABB Ability Data Center Automation (DCA) – comprehensive DCIM

Platform & Integrated System Solution

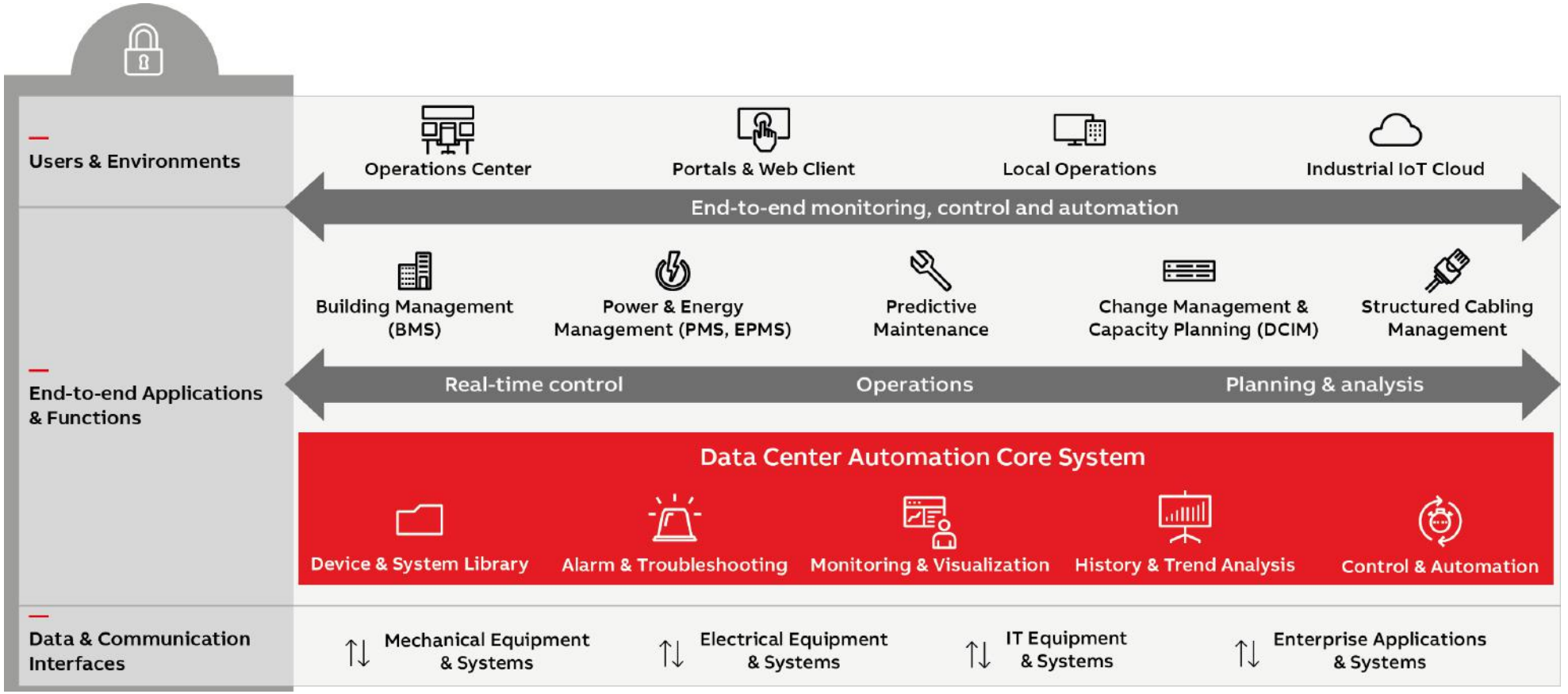
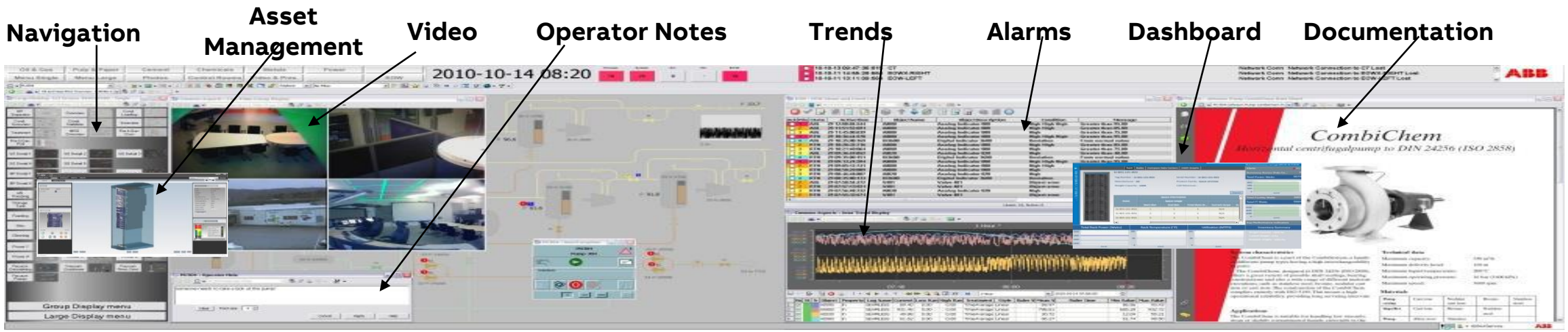
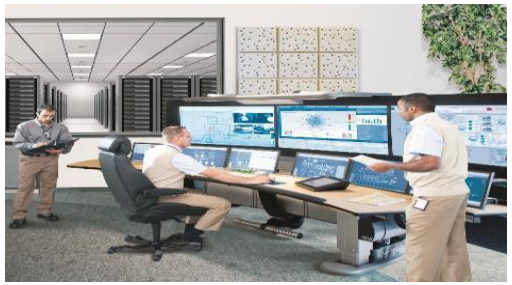


ABB Ability Integration

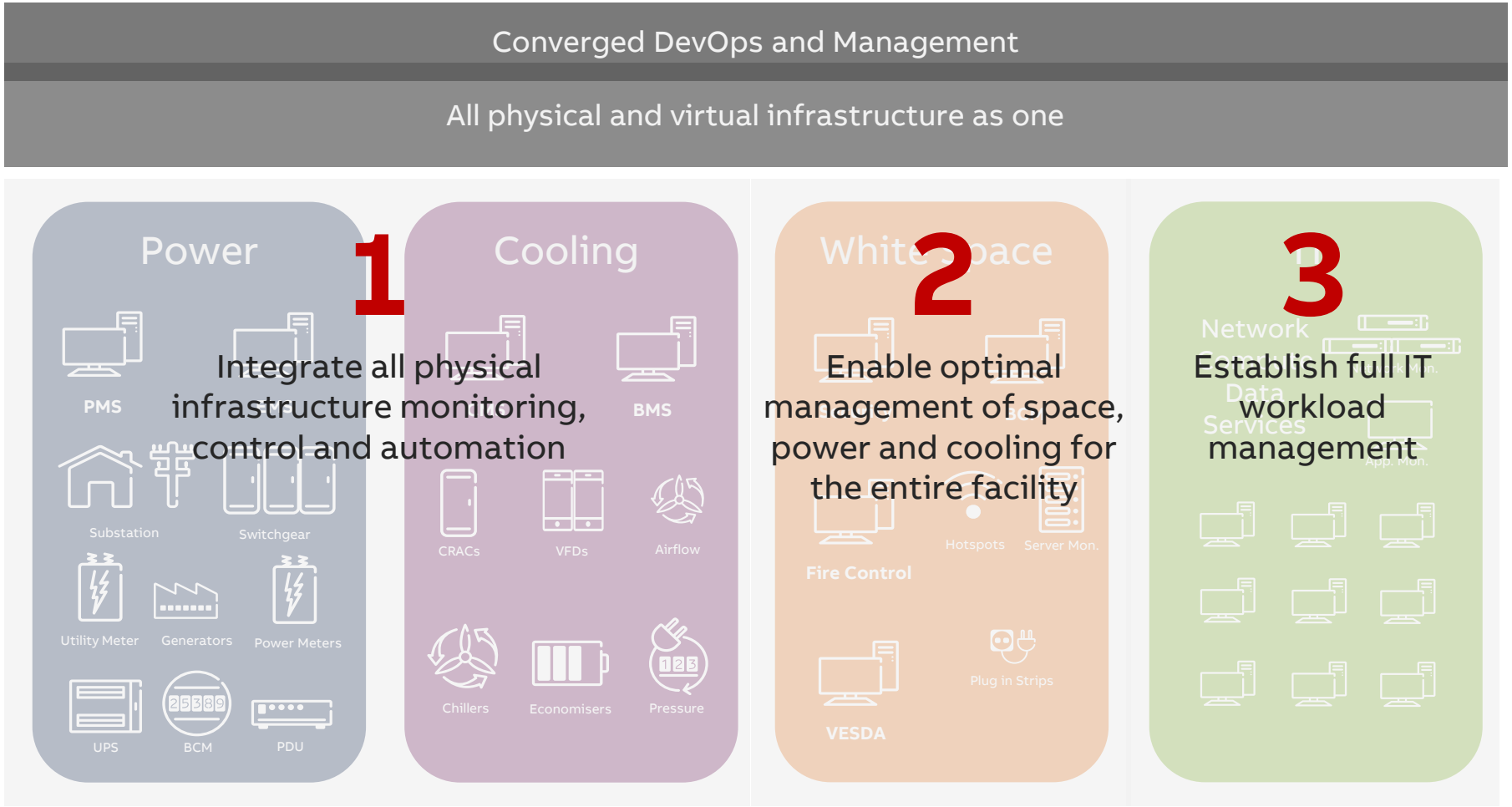
Command Center – Single Pane of Glass





- One display management system
  - Consistent methods for navigation and display access
  - Supports power, cooling, and IT
  - Provides local and remote display access
  - Improves operational efficiency with better visibility

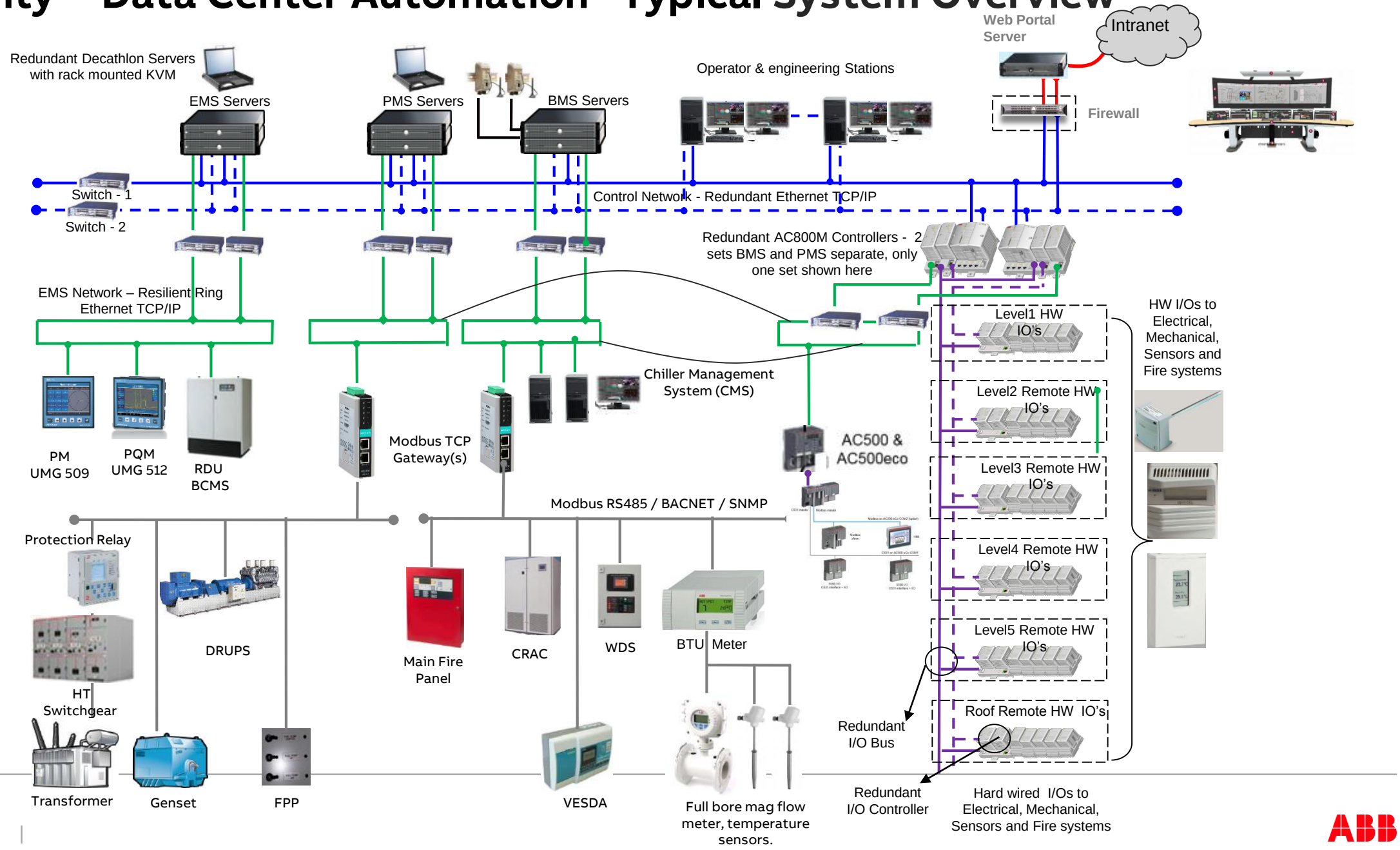
Eliminate the Silos



Comprehensive management of the 3 Cs in your data center:

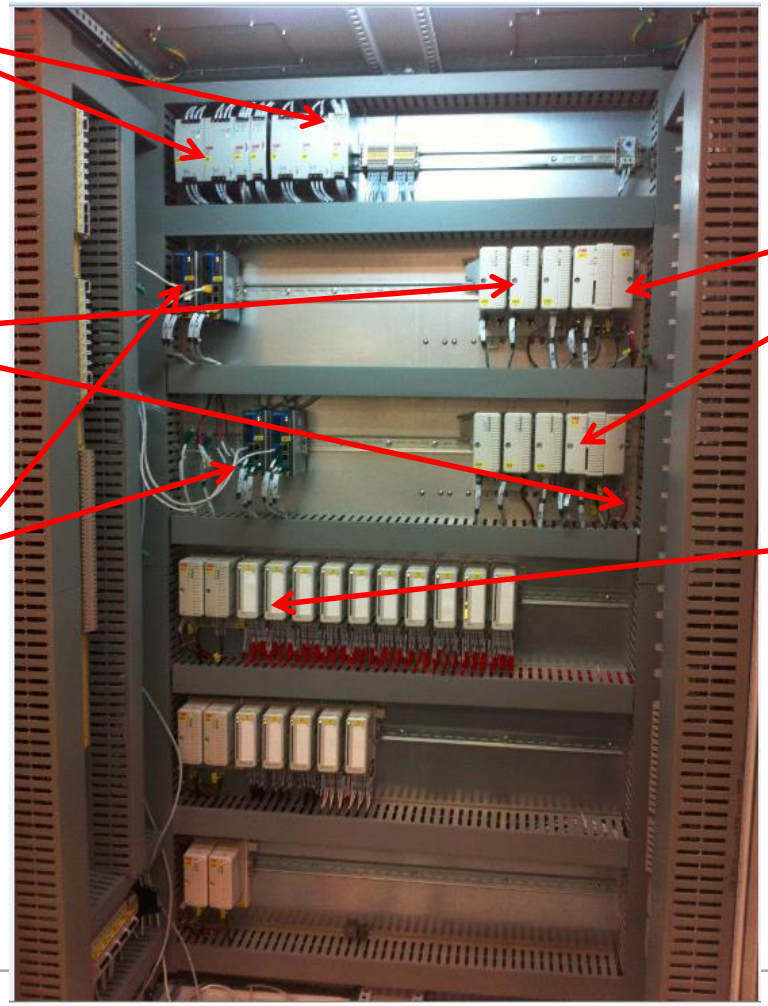
Cost Capacity Control

ABB Ability™ Data Center Automation –Typical System Overview



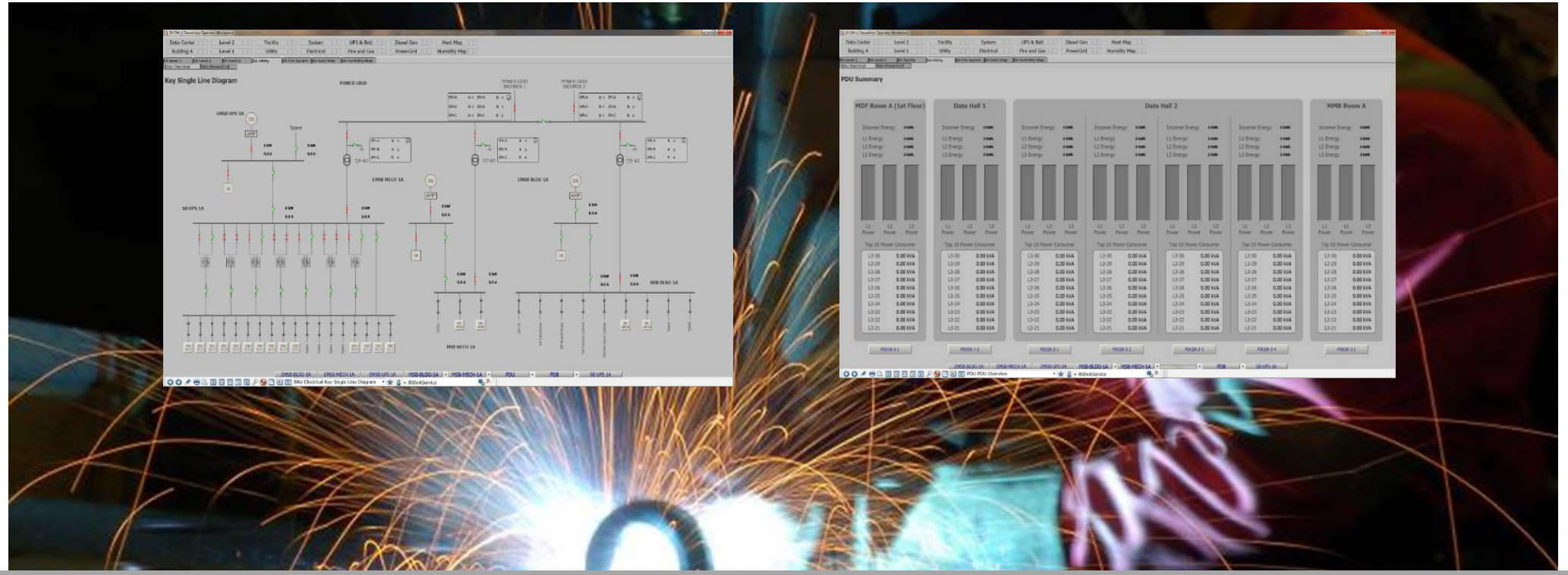
Reduce Risk

Fault tolerant and concurrently maintainable



Power Management

Highly reliable, real-time control over all power



Monitoring and control of devices, power systems and meters, including substation, microgrid and on-site power generation, to ensure safe and reliable power distribution, switching and consumption.

Comprehensive Power Management, Monitoring & Control

Integrated Power Management

- Common GUI application for complete and integrated power management from a single pane of glass
- PMS Library for Power control including voltage control, frequency control, active and reactive power control & sharing, peak shaving, load shedding , sharing power among generators and tie-line(s), **simulation**
- Configurable and Reusable Object library and corresponding communication protocol stack for,
  - Gensets, transformers, breakers, Protection relays/IED's
  - PQM meters
  - BCMS system (for PDU's as well as tap off boxes design)

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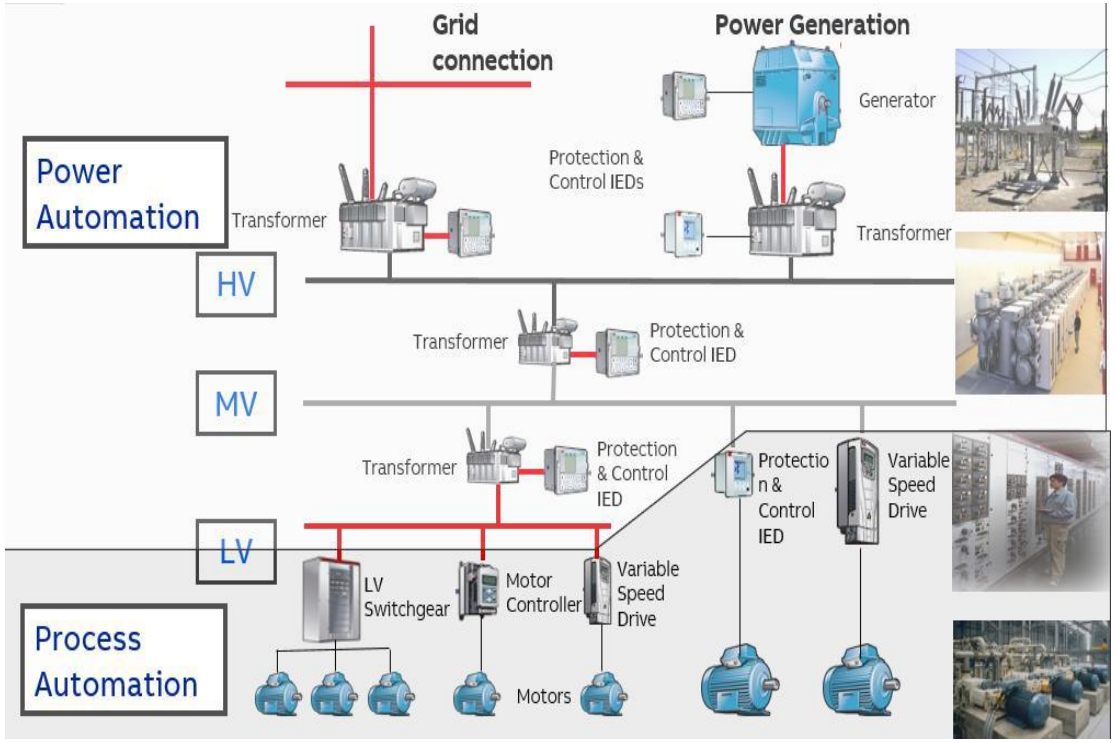


IACT Datacenters : Datacenter Automation (DCA)

Power Quality Analysis

Sequence of Events List and root cause analysis with

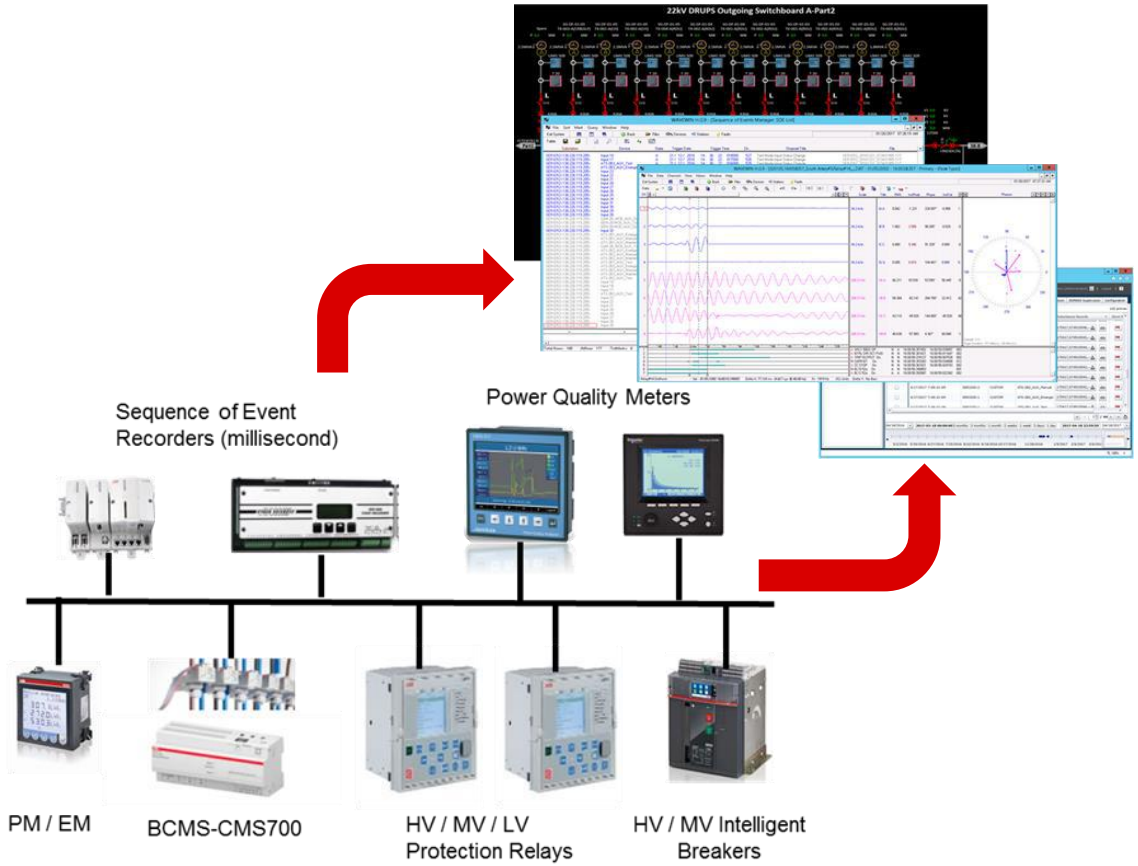
- Timeline view
- List of events
- Can be filtered by device group or device

Power Quality Reporting

- Quick report generation (PDF)

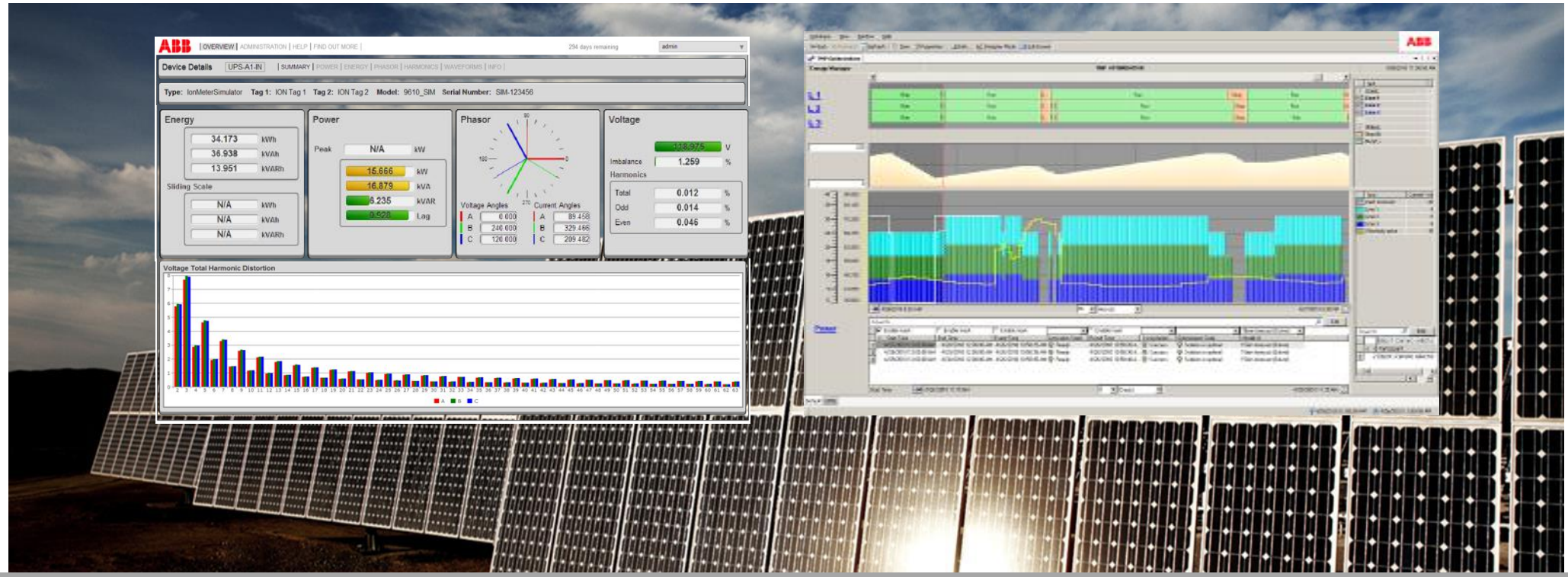
Power Quality Analysis

- COMTRADE analysis
- Detailed harmonics and waveform analysis, disturbance records
- Forward- / reverse- playback of samples for waveform analysis
- Advanced Analytics tools
- Compare multiple events within same tool



Energy Management

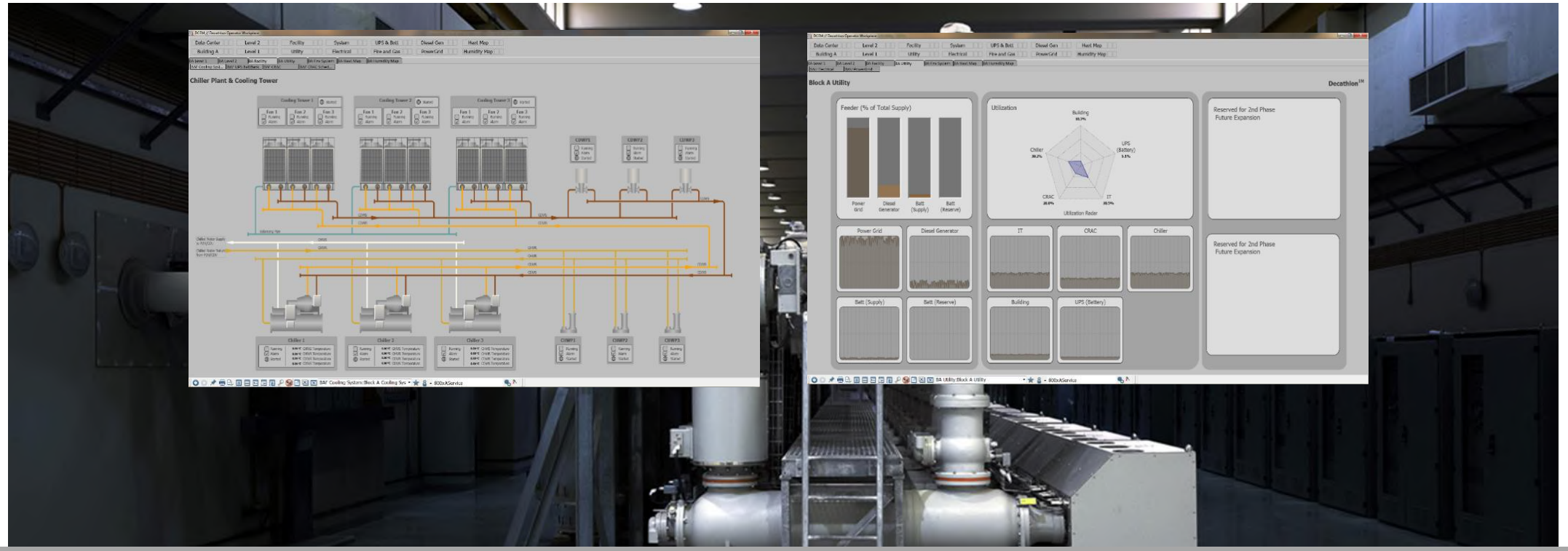
Actionable and automated enterprise energy efficiency



Monitoring, reporting and analytics of energy utilization including the optimization of the use of supply resources to meet the predicted consumption at minimum total cost.

Building Management

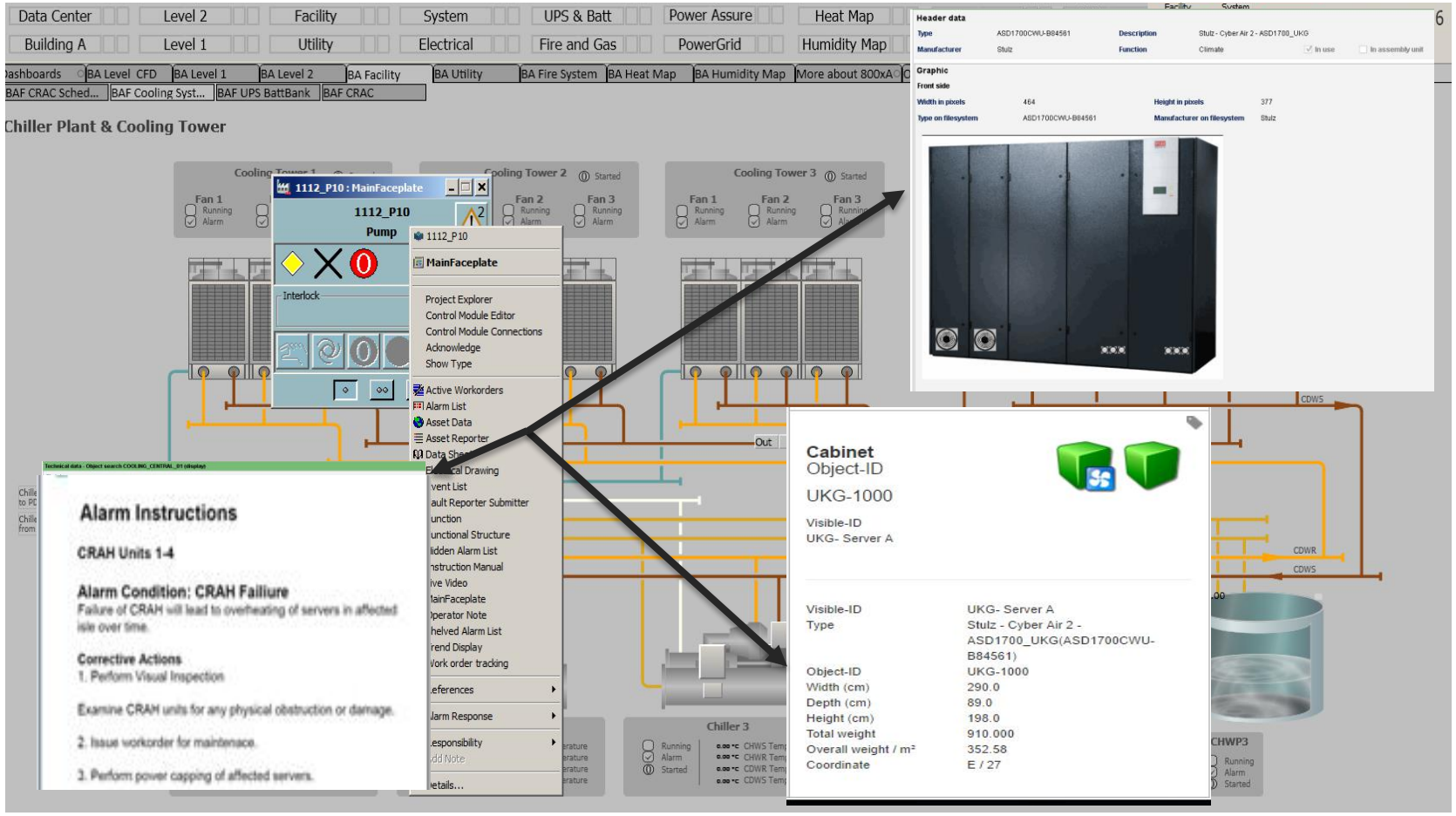
Highly reliable holistic mechanical automation



Monitoring and centralised control over facility systems, such as chillers, CRACs, AHUs and the electromechanical plant, including environmental and other physical factors.

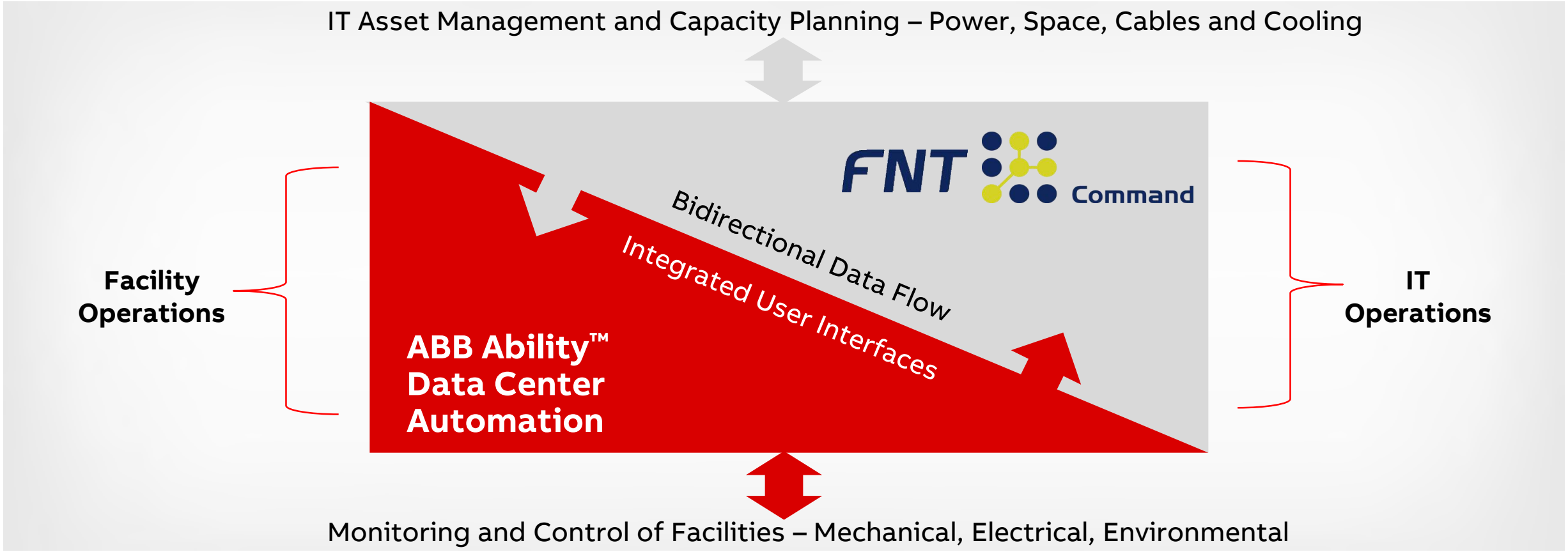
Deep Visibility of Asset Data

CRAC example



FNT Command and ABB Ability™ Data Center Automation

Best-of-breed data center management with integrated facility, IT and operations



Deep Visibility of IT asset data - FNT integration

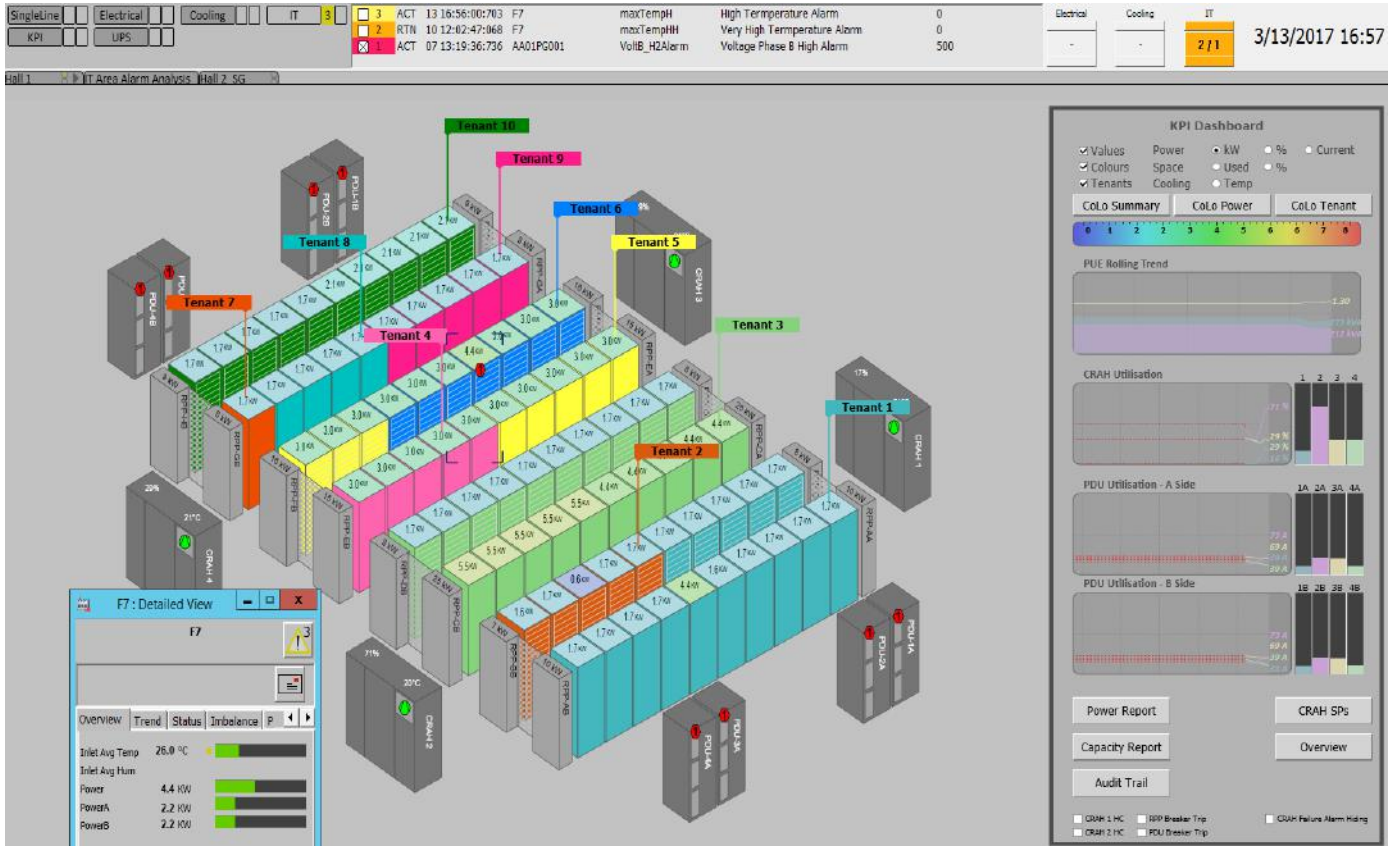
Rack example

IT asset Monitoring

Intel DCM

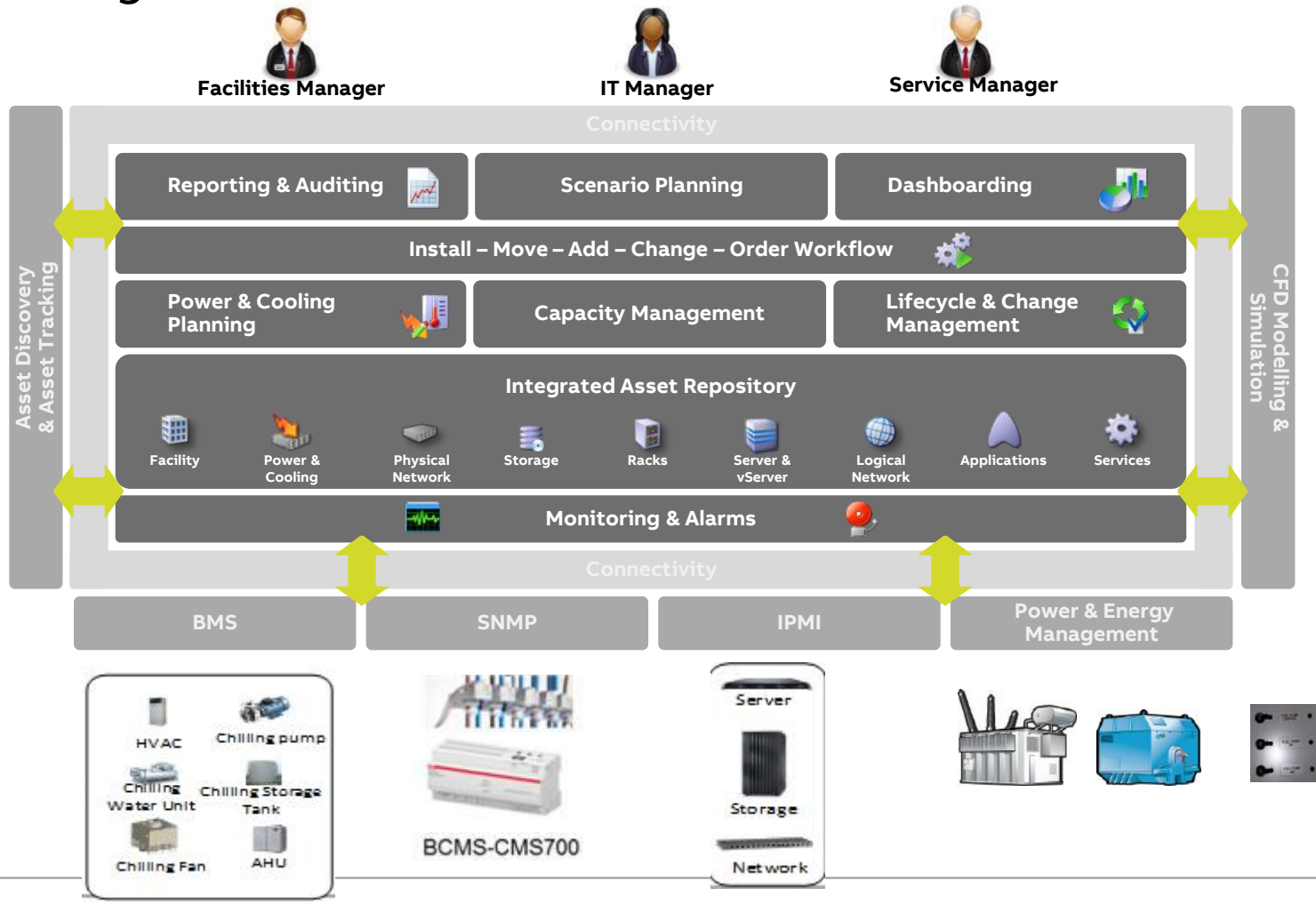
ABB Ability™ Data Center Automation delivers IT asset monitoring and management with Intel® DCM

– Monitor & Optimize from:
  - Power consumption
  - Temperature
  - Workload



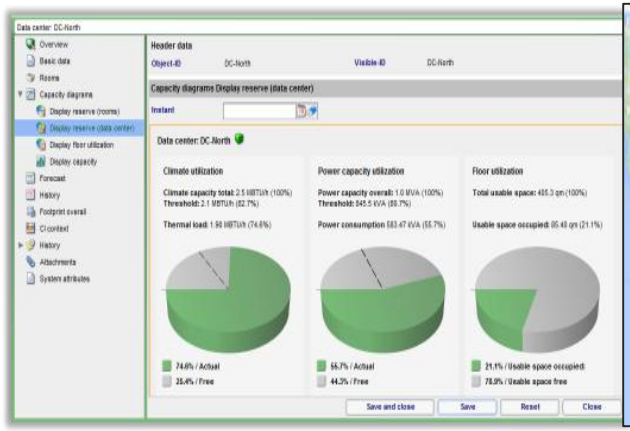
Integrated DCIM – Converged DevOps & Management system solution

IT, Power & Facility Management



Improve Operations

Planning and Dash boarding



Analysis of climate, power capacity, and floor utilization per room

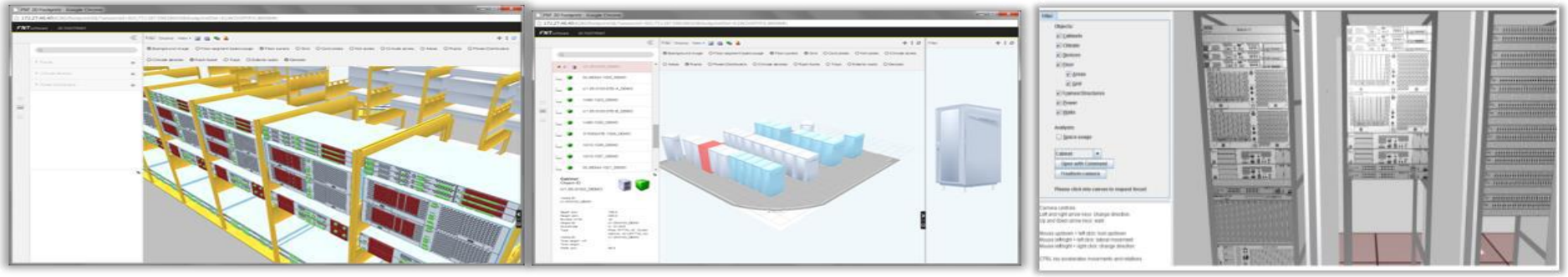
Current status vs. planned status

Climate control and planning (climate devices, re-coolers, climate generators, climate zones, etc.)

Forecast and historical data

Improve Operations

Floor Planning and 3D-Footprint



- Analysis of space usage
- Navigate through the as-is and to-be data center
- Capacity Analysis for power, climate / cooling, weight, space and ports

True-to-scale plan

Multilayer – underfloor, floor, ceiling

Calculation of threshold values

Detailed 3D component view

Cyber Security Best Practices

Defense in Depth

The coordinated use of multiple security measures, addressing:

– People

– Technology

– Operations

Automated, Hyperscale and Secure

The Industrialized Data Center

- **Industrial, real-time, remote monitoring** at component, device, and system levels, including environmental and IT conditions.
- A **unified alarm management** system of the entire data center (i.e. power, cooling, IT) with embedded analytics.
- **Secure, centralized control and automation** of the facility. Supports full BMS, EPMS and PMS capabilities.
- Plug-in modules for **Condition-based Monitoring, Operations Management, Energy Management and Cooling Optimization.**
- Integration to **IT Asset Management and Planning & Analyses tools**

ABB Ability™ Data Center Automation


ABB