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Delta: The Difference in Data Centers

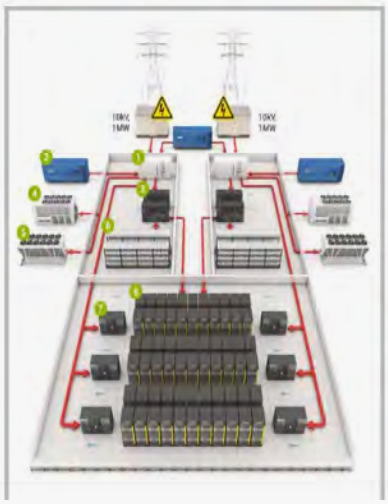
Reliable. Open. Integrated. Secure.

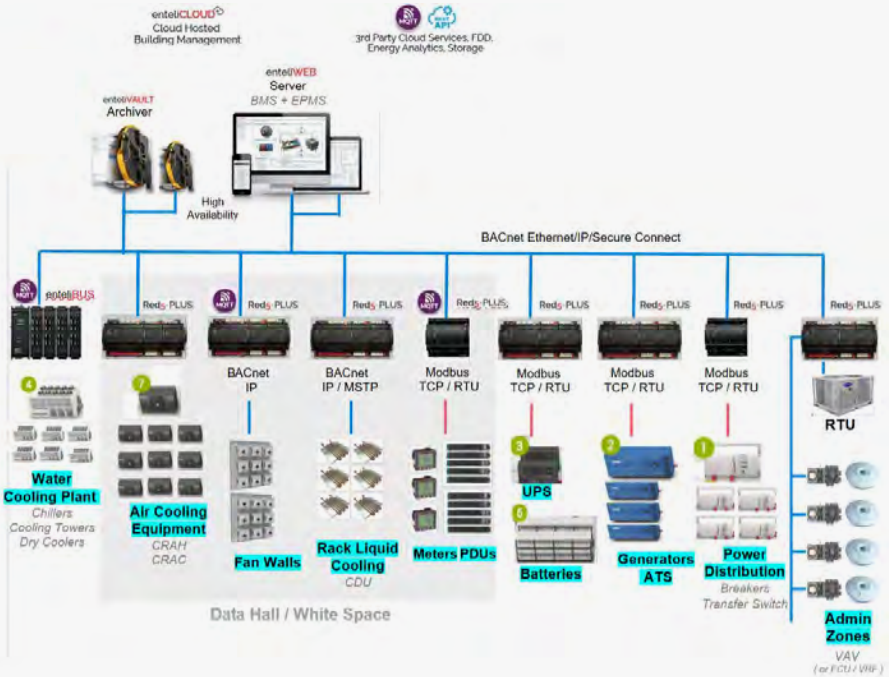
Confidence in **Mission-Critical Performance**

Data centers are the backbone of today's digital economy. With rising compute density, increased cooling demands, and the pressure of 24/7 uptime, every system must perform flawlessly. Delta delivers a complete building automation and energy management solution built on open BACnet architecture, integrating everything from central cooling and white space operations to electric power delivery, office environments, and physical access control all through a single pane of glass with enteliWEB.

Data Center Solutions

Integrated BMS/EPMS Architecture





01

Open, Interoperable Platform

Delta eliminates vendor lock-in and ensures every part of your data center and administrative facility from chillers and CDUs to power equipment and physical access control can seamlessly operate as one unified, future-ready system.

Native BACnet/IP, BACnet Secure Connect, Modbus, MQTT, and SNMP integration.

Works seamlessly with third-party OEM controls supplied with equipment such as chillers, CRAHs, CDUs, generators, switchgear, UPSs, and PDUs.

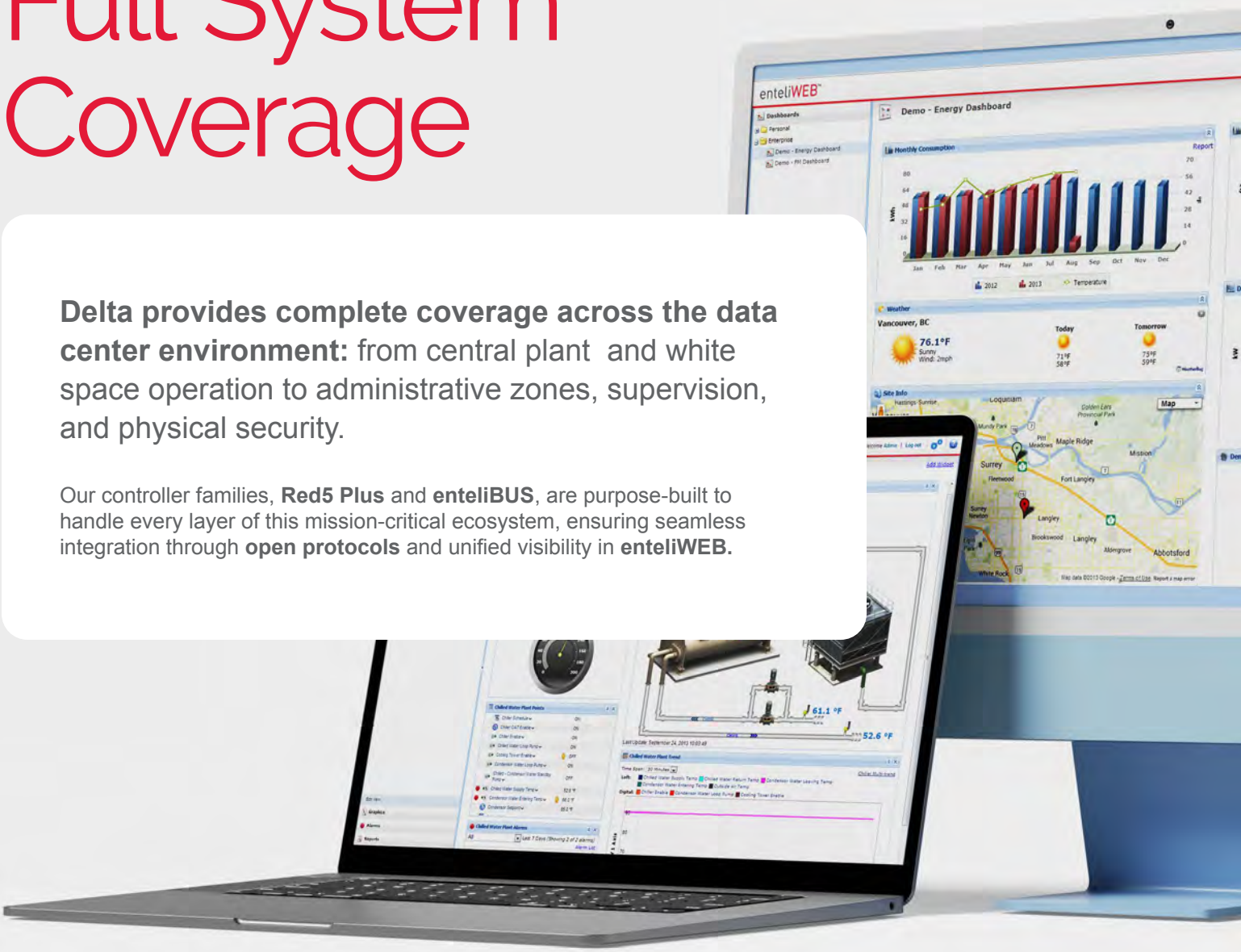
Supports flexible topologies: Ethernet, IP, 10Base-T1L (retrofit friendly), and MS/TP.

02

Full System Coverage

Delta provides complete coverage across the data center environment: from central plant and white space operation to administrative zones, supervision, and physical security.

Our controller families, **Red5 Plus** and **enteliBUS**, are purpose-built to handle every layer of this mission-critical ecosystem, ensuring seamless integration through **open protocols** and unified visibility in **enteliWEB.**



Central Plant & Cooling Infrastructure

Powered by enteliBUS Modular System

Delta's **enteliBUS controllers** deliver robust, scalable control for the most demanding I/O environments in the central chilled water plant and white space thermal control and coordination of air systems.

With enteliBUS, operators can visualize and enhance the unified plant operations of cooling systems, thereby optimizing performance and enabling predictive sequencing to significantly cut energy use by up to **30%**.



Applications

- Chilled water plants, cooling towers, condensers, heat exchangers, pumps.
- Data hall I/O including temperature, humidity and pressure sensors distributed within and across aisles to control and coordinate respective air and water systems

Integration

- Native BACnet/IP, Ethernet, and MS/TP.
- Modbus TCP/RTU and SNMP for equipment embedded OEM devices.

Key Advantages

- BACnet Secure Connect encryption for cyber protection.
- Fully programmable with GCL+ and PG Python.
- Scalable to 300+ I/O points in a single chassis or distributed across multiple panel locations.
- Hot-swappable modules for minimal downtime maintenance.
- Hardware-level hand overrides for when mission-critical assurance is needed.



Data Hall, HVAC Systems & EPMS Integration

Driven by Red5 Plus Controllers

The **Red5 Plus platform** is purpose-built for medium and lower I/O density applications, bridging HVAC and EPMS, across white and grey space systems into one ecosystem.

Red5 Plus extends Delta's open-platform advantage by converging HVAC and EPMS into one view, enabling operators to manage energy, equipment, and uptime through the single pane of glass in enteliWEBequipment, and uptime through the **single pane of glass in enteliWEB.**



Applications

- CRAHs, CRACs, fan arrays, large multi-zone RTUs, VAV AHUs and RTUs (admin zones).
- Liquid cooling (CDUs).
- EPMS systems including generators, UPS, batteries, MV/LV switchgear, ATS, PDUs, and RPPs.

Integration

- BACnet/IP, Ethernet, MS/TP, and Secure Connect.
- Modbus TCP/RTU, SNMP, and MQTT for IoT streaming and metering data aquisition.

Key Advantages

- Functions as a **datahall or plant Supervisor/ Master Router** with redundant operation.
- Advanced IoT support with **Node-RED** modules.
- Customized interoperability with Python modules.
- Supports both flat Ethernet/IP architecture and traditional MS/TP routing.
- BACnet Secure Connect and redundancy for cyber and operational resilience



Beyond the Data Hall

Administrative & Office Zones

- High-performance VAV and RTU solutions for support spaces.
- Integrated access, lighting, HVAC, and comfort control.
- Cost-effective topologies with BACnet/IP/Ethernet and supporting BACnet MS/TP over 10Base-T 10Base-T1L, or MS/TP.



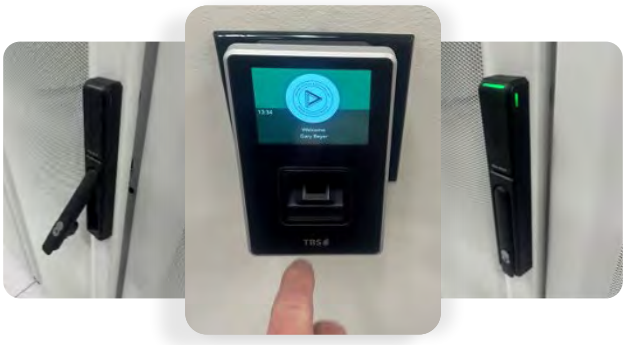
Energy & Power Monitoring (EPMS)

- Native integration of meters, breakers, generators, UPSs, PDUs, and RPPs.
- PUE and WUE reporting for real-time analytics.
- Dynamic electrical one-line diagrams to assist operator decision making with intuitive visualization.



Physical Security

- Integrated access control for perimeters, data halls, and server cabinets.
- Support for biometrics, cabinet locks, and enterprise systems.
- Protection of both **network infrastructure and physical assets**.



03

Single Pane of Glass – enteliWEB

enteliWEB delivers the true single pane of glass view that data centers demand - unifying BMS, EPMS, and access control into one secure platform, giving operators real-time visibility, control, and compliance reporting across every mission-critical system.



- Unified management of **BMS + EPMS** for complete operational visibility.
- Real-time dashboards with alarms, audit logs, and compliance reporting.
- Supports up to 600,000+ points with rich, customizable graphics.
- Optional enteliVAULT® for secure, redundant archiving of trend logs, events and operator activity.

04

Backed by Delta Electronics – **From Grid to Chip**

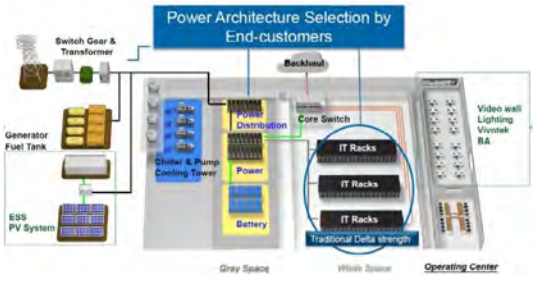
As part of Delta Electronics, Delta offers unmatched vertical integration:

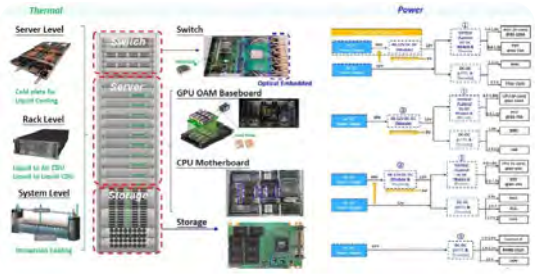
Power Electronics –
Switchgear, UPS, power distribution, redundant power supplies.

Cooling & HVAC –
Coolant distribution units (CDUs), in-row cooling, heat exchangers, fan arrays.

Automation & Analytics –
Controllers, enteliWEB, Python/Node-RED IoT integrations.

Semiconductors –
Delivering efficiency down to the chip level.





This breadth means we can deliver solutions from the grid feeding your data center all the way to the chips inside the servers — a unique advantage in the data center market.

The Delta Difference for Data Centers



Enhanced Operational Efficiency

Optimize energy and cooling performance dynamically.



Real-Time Monitoring & Analytics

Detect anomalies before they impact uptime.



Scalability & Flexibility

Modular, freely programmable, and future-ready.



Enhanced Security & Compliance

Physical + network security with BACnet/SC and integrated access control.



Sustainability Commitment

Predictive energy analytics reduce carbon footprint.



User-Friendly Interface

Simplify management with intuitive tools.

Conclusion: Do It Right in Mission-Critical Environments

Delta doesn't just automate systems we **empower data centers** with open, scalable, and secure solutions. By integrating **HVAC, EPMS, access control, and analytics into one ecosystem**, we help facilities run more efficiently, sustainably, and securely preparing them for the AI-driven future of hyperscale and modular data centers.