REFERENCE CASE STORY

ABB provides high efficiency power solutions to Telia for its next generation data center in Finland

ABB's critical power infrastructure ensured that it could maximize redundancy, improve safety and deliver a scalable energy efficient data center from day one.

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01 Telia data center

Timo Kontturi, head of ABB's data center segment in Finland, said: "Continuous power delivery keeps data centers beating and that system has to deliver power without interruption while simultaneously transferring power efficiently from the high-voltage network to the IT infrastructure at enterprise level."

While extremely rare, it was critical that in the event of a power failure or a fault, downtime was reduced, and operations could continue to run. As such ABB specified its modular DPA 500 UPS, which offered a scalable solution to modulate UPS capacity according to facility load. The modularity of the solution meant Telia could easily scale as their business grows, and that faults could be easily isolated for maintenance without impacting the operations of their mission critical IT load.

Kontturi continues: "For Telia we wanted to create a scalable electrical distribution infrastructure that could always be backed up to assure reliability through a parallel system that would deliver continuity in the power supply, even if a single component fails. Telia's new data center will support Finland's digital growth and we are proud to be part of their ambitious plans."

UniGear Digital is part of the ABB Ability™ portfolio of connected solutions. Digital switchgear combines protection, control, measurement and digital communication to enable a safe, flexible and smart electrical network that can deliver power reliably and efficiently. It is based on the optimized integration of current and voltage sensors into medium-voltage switchgear, combined with the latest Relion® protection and control relays, and the capability of the IEC 61850 standard for communication.

Built on open communication protocols for configuring, communicating and measuring the status of the power system, the digital critical power infrastructure provides peer to peer communication and nonhierarchal controls within the network to speed-up troubleshooting and reduce latency, as well as deliver improved energy efficiency with up to 90 percent reduction in cabling compared to analogue systems. Being built on an open standard such as IEC 61850 also provided greater flexibility for future projects and operators such as Telia who are not locked into legacy systems.

Juha Ekman, project leader for the Helsinki Data Center (HDC) at Telia Finland said: “The strategic importance of the HDC for Telia and our international customers meant that we had stringent requirements to manage and assure the quality of the facility with increased redundancy and improved safety and energy efficiency. We implemented multidimensional quality scoring in the entire project to select the best products that could be delivered within the tight delivery timescale.

“The quality requirements were so high that only the best product suppliers succeeded in the tendering process. ABB was able to fulfill our technical requirements to the very last detail.”

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