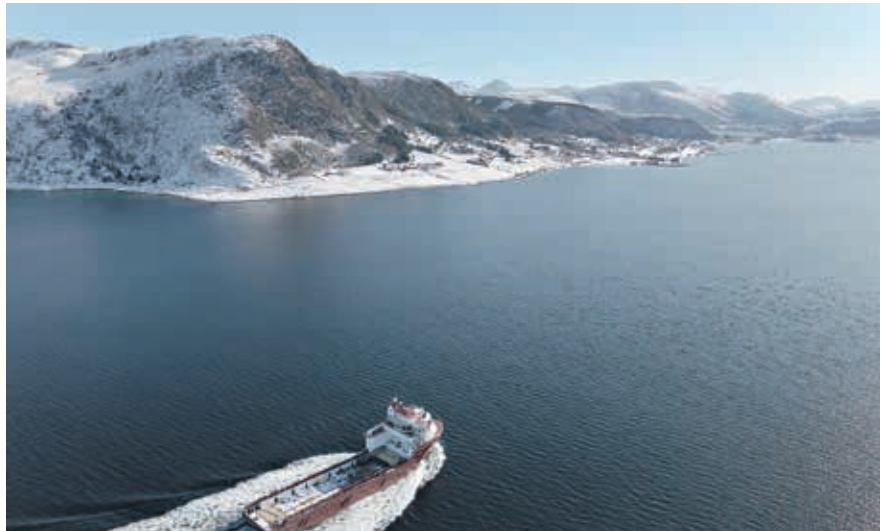


ABB in brief

Real-life performance of ABB's onboard DC grid technology

A few years ago ABB presented the concept of an onboard DC grid as a revolutionary solution that uses DC to transmit electric power between the prime movers, thrusters and propulsors, and other onboard consumers (see ABB Review 2/2012, "Onboard DC grid," pp. 28–33). Test results now substantiate the success of this solution.

The onboard DC grid is an extension of the multiple DC links that exist in all propulsion and thruster drives, meaning that all the proven electrical products used in today's ships remain like AC generators, inverter modules, AC motors, etc.



However, the main AC switchboard and thruster transformers are no longer needed and the result is a more flexible power and propulsion system.

The expected improved fuel efficiency has been substantiated by the real-life performance of ABB's first onboard DC grid installation on the MS Dina Star, a multipurpose offshore supply and construction vessel owned by Mykle-

busthaug Management in Norway. One year after installation the MS Dina Star showed fuel savings of up to 27 percent during low load conditions and a decrease in sound pressure level of 5 dB from 1,800 to 1,200 RPM, which equates to a reduction in engine noise loudness of around 30 percent.

The results will be presented in more detail in an upcoming issue of ABB Review.

Connecting the canals

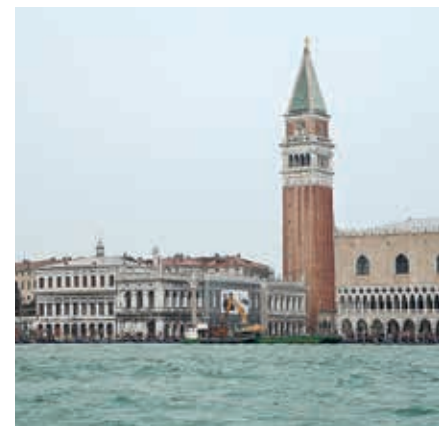
Venice is a UNESCO World Heritage Site, famous for its canals, majestic buildings and narrow winding streets. While proud to preserve its heritage, Venice is also a modern city. Residents and businesses now enjoy free Internet access. For a small fee this is also offered to the 22 million tourists visiting the city every year.

The network that handles more than 200 GB of data and 40,000 subscribers a day is equipped with

200 wireless mesh routers supplied by ABB Tropos Wireless Communications Systems.

The routers are deployed in discreet enclosures that blend aesthetically with the city's historical architecture and can switch automatically between two frequency bands (2.4 and 5 GHz), ensuring high connectivity, even in narrow and winding alleys. As Venice residents typically travel 30 minutes a day by boat, the water buses have also been equipped.

The Venice Wi-Fi project is part of the "Free Italia Wifi" initiative, whose



objective is to create a national network of free wireless broadband networks.

Wind down the windows

On April 8, 2014 Microsoft ceased support for their hugely successful Windows XP operating system. This means there will be no new security updates, no new patches and no active support. The effect of this is that XP will become insecure, unreliable and incompatible with most newly released IT hardware.

Security issues are the most urgent consideration: The target-rich landscape of industrial IT is already under an unprecedented and sustained assault from malicious agents, so the cessation of XP security updates is a very serious matter.

Further, most hardware manufacturers have already stopped supporting Windows XP, so there will be no XP



drivers for new hard disks, printers, graphics cards, network equipment, etc.

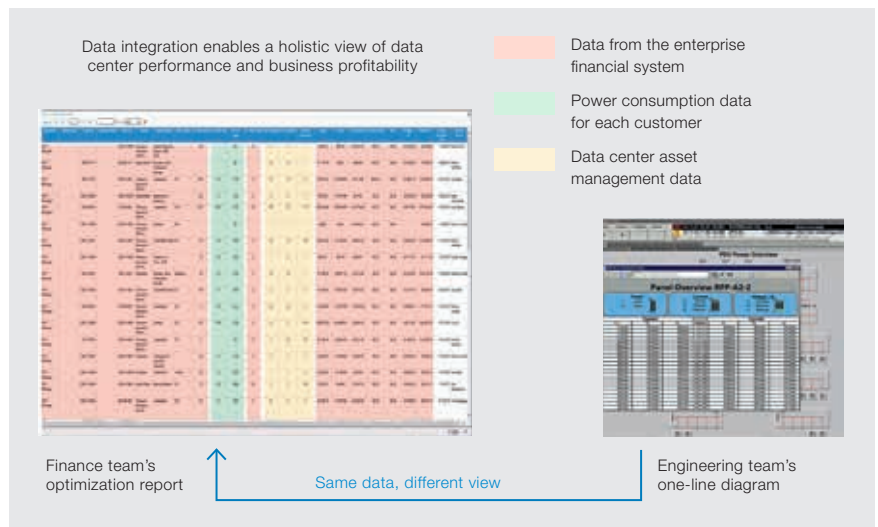
There are compliance issues too: Businesses that are governed by regulatory obligations may find that they are no longer able to satisfy compliance requirements. With so much personal

and private data now stored on servers, this is a very significant concern. The recommendation made by Microsoft and all cyber security companies is to upgrade to Windows 7 or 8. ABB offers solutions to the XP situation that help customers better protect their plants and personnel while ensuring safe operations and continuous production.

Decathlon® for Data Centers turns cost centers into profit centers

Insight into data center performance helps businesses better understand their profitability. Because a modern data center resembles a small town in terms of its energy budget, monitoring and control requirements, understanding when, where and at what rate energy is consumed from data center assets has become a key performance indicator of business health.

ABB Decathlon for Data Centers provides the visibility, decision support and controls for capabilities – like energy management and capacity planning – that these behemoths of the IT industry need in order to run efficiently. Telx, a major provider of data center colocation services across the United States, has delivered an exceptional example of how Decathlon can transform operations. Telx uses Decathlon for Data Centers to optimize energy consumption and cooling, and in a sophisticated



approach unique in the data center business, they also exploit data center performance metrics to help other business functions. For example, the finance department incorporates power consumption data to more accurately analyze profit; the sales department uses data center operational costs to adjust pricing when it's time for contract renewals; and the product marketing department uses data center performance information to better understand how products and services are sold to and used by customers. Moreover,

because they are using a single data source, there is less room for error in business and operational analyses. The ease with which Decathlon enables data to be integrated, normalized and fed into all the company's business tools means that business profitability can be analyzed from a power and energy standpoint. With this integrated approach and focus on both business and operational metrics, even enterprise data centers – which are often viewed as a cost centers – can become profit centers, too.