FIELD AREA NETWORK DESIGN & DEPLOYMENT

CONNECTING PEOPLE, PROCESSES, AND DEVICES TO THE SMART UTILITY NETWORK

BLACK & VEATCH
Building a world of difference
Field Area Networks (FANs) are gaining momentum as a prominent role in Smart Grid infrastructure. This last mile network supports a variety of utility applications used to optimize grid performance and operations including distribution automation (DA), remote asset management, smart metering and remote workforce automation. The FAN also serves as a foundation for future applications such as distributed power generation and energy storage, Electric Vehicle (EV) charging, and micro-grids.

With both communications infrastructure and IP network expertise, Black & Veatch delivers an end-to-end solution for FAN design and deployment. We cover everything from the RF planning, site acquisition, and construction mechanics necessary to mount and install field devices, to the IP network engineering and security architecture implementation.

THE DESIGN
Black & Veatch has developed a framework for a unified FAN architecture that makes the communications network for grid applications easier to deploy and manage. It’s an open-standards and IP-based communications architecture providing network connectivity between field devices in the distribution grid to the control center.

INSIGHT
Black & Veatch’s professional engineers are able to meet and address all the components necessary to implement a unified FAN and integrate it into a utility’s existing communications infrastructure. With proven experience and knowledge, we take the risk out of deployment to deliver a robust, secure, and reliable system that utilities have come to expect from their communication networks.

Field Area Networks encompass a wide range of possible applications, each with its own specific communications requirements. Black & Veatch can help utilities successfully implement a FAN that aligns with their current and future strategic goals. By outlining the specific application requirements, objectives and planned implementation details, we ensure the overall communications needs are met and the right technology is selected. Through our vast deployment knowledge and expertise in telecommunications, we have the necessary skills, practice, and know-how to get the job done right.
FAN UNIFIED ARCHITECTURE

BENEFITS OF AN IP-BASED UNIFIED FAN ARCHITECTURE

- Optimizes communication technology for a wide base of applications
- Deploys a single converged IP-based architecture.
- Simplifies migration roadmaps for grid modernization
- Eliminates millions of CAPEX dollars for forklift replacement of legacy systems
- Shortens schedule risks and cost over-runs by recommending mature & robust networking technologies
- Eliminates engineering cost, time and risks associated with design, deployment and operations of proprietary systems for security, high availability and quality of service (QoS)
- Follows IT best practices and eliminates the need for proprietary architectures
- Enables quick and cost effective turn up of future applications based on integrated multi-service capabilities
BUILDING A WORLD OF DIFFERENCE®

Black & Veatch is an employee-owned, global leader in building Critical Human Infrastructure™ in Energy, Water, Telecommunications and Government Services. Since 1915, we have helped our clients improve the lives of people in over 100 countries through consulting, engineering, construction, operations and program management. Our revenues in 2013 were US $3.6 billion. Follow us on www.bv.com and in social media.

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