



Black & Veatch Telecommunications Overview

Black & Veatch designs, builds, and delivers a digital grid of integrated solutions while simplifying our clients' complex projects. Our program management expertise, networking-building experience, and key partnerships provide confidence, predictability, and outcome assurance, enabling our clients to evolve their core business.



BLACK & VEATCH

Core Features

Strategy & Planning

- Network Planning
- Feasibility Studies
- Solution Roadmap Planning
- Financial Planning
- Life Cycle Business Case Justification
- Network Convergence Strategy
- Technology Assessment

Engineering

- Conceptual Design
- Detailed Blueprint Design
- RFP/Vendor Selection
- Make Ready Design
- Network Optimization
- Vendor Requirements Document

Project Execution

- Network component installation
- Network cutover
- Turnkey EPC
- PMO
- Site-specific blueprint
- Construction buildout plan
- Cost projections/planning

Vendor Agnostic



Engineering Specialties

RF Engineering

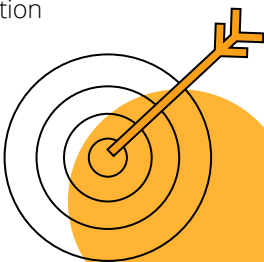
- Microwave Design, Path Surveys
- Microwave Deployment, Testing and Acceptance
- Narrowband/Broadband RAN Design
- Narrowband/Broadband Deployment, Testing and Acceptance
- LMR Network Design
- LMR Deployment, Testing and Acceptance
- RF Drive Testing
- Site Engineering and Design

Network/Fiber Engineering

- IP/MPLS Data Network
- Network Security
- Optical Transport
- Cyber Security Consulting
- NERC CIP Consulting
- Informational Workshops
- Smart Utilities Lab Testing
- Interoperability/Integration Testing

Structural Engineering

- Tower design
- Geotech services
- Load analysis
- Environmental
- Regulatory
- Land Services
 - Site acquisition
 - Land-use
 - Permitting



Key Benefits Black & Veatch Brings to our Clients

- **Portfolio of professionals:** Know what success looks like, will lead and work collaboratively to accomplishments of stated goals.
- **Proven experience in focused technologies:** Industry recognized for solving issues — not busy with activities.
- **Trusted experience in navigating effective and efficient budget management:** Help guide our clients on when and how to allocate capital.
- **Expansive expertise in complete UTILITY Telecom network technologies:** Ensures a more effective, total-power delivery system.