

Broadband Solutions

Communication Lifelines for Underserved Areas

Broadband networks connect communities to opportunities, and they make real differences in the lives of real people. When we link with one another and the things around us, we greatly increase our ability to work together, share information, learn and grow. For those who aren't yet part of the hyperconnected world, broadband can add a lifeline that opens doors to a more robust economy, faster emergency response, telemedicine, online learning and mobile technology in the classroom. For municipal utilities and cooperatives, broadband also enables Smart Grid deployment by providing a backhaul network for AMI, substation and distribution automation, and field area networks.



Modernize, Monetize and Reduce Costs

The goal of providing affordable broadband for all Americans is realistic and achievable, but the job is challenging. From the beginning, choosing the right technology and network design can be daunting. Large-scale network deployments are costly and complex.

Specific expertise and careful management are required to operate a network over the long term and provide quality service 24/7. And before a project can get started, funding must be secured and a comprehensive business case developed. By carefully selecting a broadband solution implementation partner, you can mitigate these challenges and minimize project risk.

The Fujitsu Solution

Fujitsu is an experienced, proven, multivendor network integration partner. We've worked successfully with state and county governments, municipalities, utilities, and both competitive and incumbent local exchange carriers across the country to deploy fast, reliable broadband service in communities. We have worked effectively with our customers or alongside the consultants they've engaged to plan, design and implement their networks.

Now, we want to help you prepare for the future as you consider optimal solutions and available business models, including public-private partnerships and cooperative-owned networks. Fujitsu can quantify what it takes to build your broadband system and place you on the path to profitability.

We can provide a total solution, delivering a full suite of professional services and managing every aspect of your network's requirement analysis, design, deployment and operation.

Broadband Business Case Consulting



Developing a detailed business case is essential to justifying the investment in a broadband project, forecasting

return on investment and communicating this information to stakeholders. We can help you develop a pro forma business case that includes this required content:

- Competitive assessment
- · Projected take rate
- Incorporation of Federal Communications Commission (FCC) speed and price models
- Network design and capex estimates
- Ongoing operational and maintenance cost estimates
- Alternative funding sources and public-private partnerships

Funding Application Consulting



Creating funding applications is often a complex process with many steps. We can help you prepare applications

by gathering the key data required in the cost assessments. We can also provide program management services for grant writing and funding activities such as Connect America Fund (CAF) applications, Eligible Telecommunications Carrier (ETC) designation, Rural Utilities Service (RUS) funding and Broadband Technology Opportunities Program (BTOP) investment. Our funding application consulting services include:

- Comparing coverage areas with FCC census blocks
- Registering your organization with the Universal Service Administrative Company (USAC)
- Creating professional documents that stand out from the competitions'
- Recommending best practices to generate community and political support



Broadband Solution Design and Implementation



We can help you select the best technology for your system and produce a detailed design for broadband network

build-out. Fujitsu will evaluate best-ofbreed technology from multiple vendors to meet your business requirements. These are some of our design services:

- Technology evaluation and selection, such as Ethernet Passive Optical Network (EPON) versus Gigabit Passive Optical Network (GPON) versus Active Ethernet
- · Lab testing and modeling
- Complete network design for fiber, electronics and wireless
- Fiber characterization
- Interoperability testing
- Operations Support System (OSS) integration and testing
- Program management
- Detailed bill of materials and scope of work
- Engineering, furnishing materials, installation and testing

Business and Operations Management



Ongoing operation and management of your network and business are at least as important as network design

and deployment. Fujitsu can develop business methodology and operations models for new broadband service entities, helping ensure that your venture is a success. Our expertise in this area includes these capabilities:

- Managed network services
- · Multivendor technical support
- Day 2 break/fix support
- Nationwide on-site maintenance with Service-Level Agreements (SLAs)
- Spares management
- Operation process audits



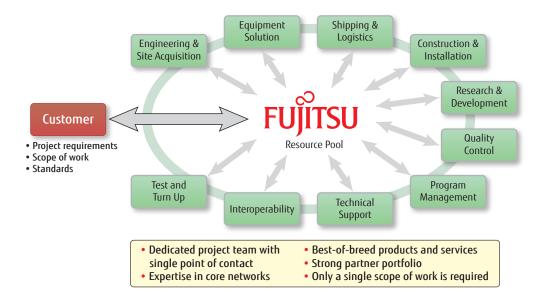
Network Operations Center

Fujitsu provides managed network solutions from a fully redundant, state-of-the-art network operations center (NOC) in Richardson, Texas. The access-controlled NOC maintains the highest level of security and protection for network data, with geographically dispersed backup operations and four-layer security.

The Fujitsu NOC supports many types of networks and multivendor equipment in addition to Fujitsu platforms. With more than 20 years in the business, Fujitsu has the expertise to prevent outages, protect service levels, safeguard revenues and enhance customer satisfaction.

Master Network Integration

At Fujitsu, our unique Master Network Integration approach enables us to deliver affordable broadband networks anywhere in the country in any environment. Our vendor-agnostic philosophy means we're able to provide every system with the best and most appropriate solution, no matter who supplies it.



"The Fujitsu vendor-agnostic approach, their ability to integrate networking technology solutions from multiple manufacturers, and their proven program management methodology are vital to our project's success."

Luis Reyes Jr.

CEO and General Manager Kit Carson Electric Cooperative, Inc. Taos, New Mexico

"Unlike reseller relationships we've had in the past, Fujitsu will bring in the right solution, regardless of the manufacturer. And we know that solution will have been prequalified and configured specifically for our network."

John Sawtell

Telecom Lead Engineer Network Infrastructure Services Colorado Springs Utilities Colorado Springs, Colorado

About Fujitsu

For more than 35 years, Fujitsu has provided communications network solutions to customers in electric utilities, state and local governments, healthcare, research and education, and telecommunications throughout North America. As a member of the global Fujitsu group of companies, we're financially stable and able to serve our customers with extensive expertise and experience.

Tap into our broad services portfolio. Fujitsu can help you bridge the digital divide.



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