

Microwave Design and Integration



Multivendor microwave networks that provide medium- to high-capacity data communications in challenging situations.

Microwave Design and Integration

Delivering Quality Data Services Without Fiber

Deploying medium- to high-capacity data services over fiber can present near-insurmountable economic and practical obstacles. Locations characterized by rugged terrain, bodies of water, long distances through sparsely populated areas, and dense urban centers are all examples. In some cases, terrain issues can stop a network build-out in its tracks or even prevent it from happening altogether. The need to support a variety of network traffic and interface types while retaining scalability can also mean that fiber deployment is contraindicated.

If you are seeking to quickly establish reliable, resilient, and secure connectivity in such circumstances, microwave can overcome terrain-based connectivity problems. With the right expertise, a microwave link can be easily designed and installed in even the most difficult situations to provide an inexpensive, and quickly deployed network. Fujitsu is your expert resource for designing superior microwave solutions and managing multivendor network deployments. We can help you avoid the cost, lead times and practical obstacles when fiber deployment is not a viable option.

All-Terrain, No-Fiber Broadband

- Remote locations
- Hostile terrain
- Geographic constraints
- Utility, transportation and municipal deployments
- Private networks
- Campus environments

Get the Microwave Advantage

Microwave networks offer the same reliability as fiber-based networks with reduced ongoing maintenance. These networks also compete favorably with fiber-based networks on a per-gigabit-mile basis, especially under geographic constraints. A microwave hop can be designed to continue important links in networks or to cost-effectively implement network spurs to remote locations.

- Reduced time to market
- Accelerated time to revenue and ROI
- Reduced need for leased lines and dark fiber
- Reliable data service
- Flexible deployment options
- Low maintenance

Built to Your Unique Requirements

Fujitsu uses proven tools, partnerships, and practices to design a microwave network that best fits your needs. Our network design team can access the best equipment possible, whether from Fujitsu or from one of our many vendor partners. With our expertise and flexibility, you are assured of a complete solution built to your unique requirements, including traffic types, bandwidth, and availability objectives, physical topography, and available spectrum licenses. We build our customers' networks as we would our own, bringing together the best equipment and technical skill available on the market.

Superior Microwave Networking Expertise

Fujitsu personnel possess vast experience in microwave design and deployment. We have also invested in the latest design tools and databases for our microwave laboratory, enabling our experts to develop optimal network designs. Our consultative approach offers you the benefit of these design tools and our knowledge of the most up to date developments in microwave radio technology, ensuring a successful outcome.

We can furnish, integrate, and optimize microwave radio links with connected devices such as switches, routers, video surveillance, and low-speed aggregation devices supporting applications such as SCADA. We develop power systems and cabinet solutions to suit specific deployment scenarios. We also integrate multivendor management systems into your OSS, or we can manage your network for you.

Dedicated Program Management Team

The Fujitsu Program Management team provides a single point of contact to manage deployments, speed decision-making, and keep an eye on budgets, timelines and quality standards.

Total Solutions from End to End

Fujitsu offers the power and proficiency to bring together industry-superior technology, design and expertise to solve your real business issues with a complete, turnkey offering. Our unique approach enables us to deliver the best possible results for your business, as well as a single point of accountability, a trusted partner relationship, and proven best practices to solve your unique challenges.

Our Unique Approach Assures Results

Consulting Services

- Problem and opportunity assessment
- Feasibility study
- Technology evaluation
- Business case development
- Solution development
- Implementation and integration planning

Microwave Backhaul Design

- Capacity dimensioning
- Network topology and route design
- Frequency band selection
- Site and path surveys
- Equipment selection
- Path and link performance analysis
- Frequency coordination and FCC filing

Fiber Backhaul Design

- Network dimensioning
- Network topology and route selection
- Fiber characterization

Deployment

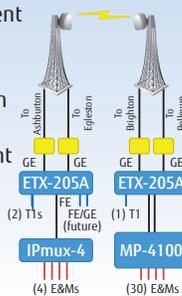
- Detailed site engineering
- Fiber characterization and qualification
- Structural analysis
- Site acquisition
- Zoning and permitting
- Equipment installation and integration
- System acceptance testing
- Documentation

Operations and Maintenance

- Managed network options
- Multivendor integration
- Technical support
- Performance monitoring
- On-site sparring
- Software delivery services
- Training

Design

- Needs assessment
- Equipment identification
- Procurement
- Rack and cabinet integration
- Frequency assignment



Construct

- Site development
- Tower or site construction



Commission

- Equipment installation
- Turn up and test
- Fine tuning

Maintain

- Software maintenance and upgrade subscription (SMUS)
- Multivendor maintenance NOC services:
 - Training courses, classrooms
 - Routine preventative maintenance (RPM)
 - Remote technical assistance
 - Advance hardware replacement
 - Repair and return
 - On-site maintenance



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