



# State & Local Solutions

## About Commdex:

CommDEX is an ISO-9001 and TL 9000 certified mission-critical communications system integrator with 20+ years of experience working on government systems in all 50 states. CommDEX is a company that is intimately familiar with the complexities of modern, leading-edge communication systems and how these systems can meet the needs of mission critical users. We possess in-house capabilities from needs analysis to system and design, system integration, implementation, and maintenance support paired with our certified quality processes. From our experienced staff with expertise to our disciplined processes, we bring a total solution to meet your needs.

### Command/Control Centers

- Mobile and fixed network operations centers, including radio consoles, remote video surveillance systems and IP based radio gateways to provide connectivity to state and local communications networks.
- Solutions such as CAD, AVL, Video Analytics, NG-911, etc to provide dispatch personnel the analytical power to recognize trends, maximize effective deployment, manage operations and anticipate problems before they strike.



### Microwave & Fiber Backhaul

- Network design of backhaul systems (fiber, microwave, point to point, point to multi-point, etc)
- Microwave engineering including path design, network reliability calculations, path surveys, capacity and throughput analysis, frequency coordination, and network optimization.
- IP/MPLS network engineering including IP planning, architecture design, bandwidth analysis, and ring protection.



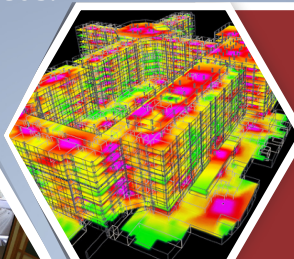
### Wireless Communications Networks

- Planning, design, deployment and optimization of wireless communications networks (P25 Land Mobile Radio, 4G/5G, WLAN) including propagation modeling, interference studies
- Design/installation of in-building coverage and Distributed Antenna Systems (DAS) to provide enhanced coverage inside large buildings.
- New equipment evaluation, testing and selection - Equipment installation and optimization - Coverage and acceptance testing



### In-building Wireless Solutions (DAS/ERRCS)

- Network coverage and capacity requirements gathering
- In-building propagation analysis with iBwave
- End-to-end DAS installation & system optimization and acceptance testing
- Remote system monitoring, collection, and reporting



### Infrastructure Build out

- Site acquisition/Leasing/Zoning approvals
- Tower site surveys, structural analysis and design drawings.
- FAA/FCC/Environmental permits (NEPA)/Utility permits
- Tower/shelter/cabinet/antenna system install/testing
- Install/testing of electrical (UPS, DC power, generator) systems.
- Specialty solutions (solar, wind, and transportable sites)



### Interoperability Planning & Fleetmapping

- Assess pertinent emergency response scenarios, and develop solutions that support interoperability and incident management, linking disparate communications systems at the local and state levels.
- Manage fleetmapping process for consoles and subscribers to ensure that fleetmap is thorough and well thought out to allow expedient response to emergency situations.



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## Past Performances



### City of Irving, Texas Fiber Network

- Site engineering and construction of five new sites to include towers, shelters and generators
- Design and installation of new antenna systems at each site
- Designed and installed over 40,000 feet of fiber network connectivity
- Installation of new microwave network system at 10 tower locations

### State of Pennsylvania - In-building Coverage Systems

- Testing of Public Safety radio system coverage in 20 metro areas across the state
- Tested In-building coverage for critical buildings statewide
- Design and installation of In-building systems for over 30 critical locations across the state



### PSERN, Washington - Coverage Area Testing

- Tested five simulcast cells for public safety and public works for BER and inbound/outbound DAQ
- Tested over 17,000 total grids between both public safety layer and public works layer
- Tested over 4,100 random buildings
- Tested 518 critical buildings across 128 campuses
- Managed a total of 61 test staff including field testers, dispatchers, engineers and project managers

### Lower Buckeye Jail, Arizona - Distributed Antenna System

- Design, installation and commissioning of Public Safety distributed antenna system for a 600,000+ sf jail complex
- Performed Public Safety radio coverage testing county wide, including 32,000+ test tiles
- Design accommodations for P25 Phase 2 TDMA system operation of two separate networks for police and fire.
- Testing including Bit Error Rate (BER) and Delivered Audio Quality (DAQ) tests



To engage with us for all your communications needs, contact us at [sales@commdex.com](mailto:sales@commdex.com)