

Raymond W. Drause, P.E.

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PROFESSIONAL SUMMARY

Results-driven Engineering Manager with multi-faceted Telecommunications Engineering and Operations experience. Strong general management qualifications in planning, project management, budgeting and human resources. Extensive experience in Network Planning, Engineering, and Operations in both start-up and large-scale companies.

CAREER EXPERIENCE

McCall-Thomas Engineering Company, Inc. Senior Wireless Engineer

May 2007 - present

Provide engineering support to various Independent Telephone Companies and Electric Co-ops.

- Develop Point-to-Point and Point-to-Multipoint wireless system designs using UHF and Microwave Radio Systems.
- Coordinate installation and testing of wireless systems.
- Coordinate with the Department of Defense Joint Spectrum Center to facilitate installations of Cellular Mobile Radio System equipment on military facilities.
- Develop fiber optic network designs using Passive Optical Networks (PONs).
- Provide training on National Electrical Safety Code, Providing IPTV over ADSL2+, Central Office Grounding (single point grounding), Network Interface/Optical Network Terminal bonding and grounding, Basic Electronics.
- Develop and present instructional technical programs to SC Telephone Assn., Georgia Telephone Assn., NC Tri-State Telephone Assn. and others.

Telecommunications Consulting Service Owner

May 2006 – April 2007

Establish a telecommunications consulting service to provide engineering and operations support for a client group founding a new telecommunications company.

- Work jointly with client's IT manager to develop, deploy and operate the core network infrastructure needed to support VoIP and data services.
- Evaluate WiMAX systems. Design, deploy and operate point-to-multipoint wireless systems that link subscribers to client's network. Conduct RF spectrum analyses. Design and deploy custom antenna arrays required to serve targeted coverage areas and null designated areas. Develop "best practices" for equipment installations at customer sites. Conduct field trials to confirm system performance levels.
- Design and install point-to-point microwave systems. Conduct path surveys, negotiate tower leases. Acquire Metro-Ethernet circuits for back haul of traffic from main hub.
- Design backup AC and DC power systems for network and operational support systems.

Nuvox Communications, Greenville, SC**May 2004 (merger) – May 2006*****Vice President – Network Planning, Engineering & Optimization******November 2005 – May 2006***

Senior executive responsible for leading 7 Director organizations in planning, engineering, budgeting and deploying the equipment, facilities and systems making up the Nuvox Network.

- Deploy Voice and Signaling Gateways, Feature Server, Session Border Controller, and Voice Mail platform required for VoIP implementation. Integrate VitalNet and Empirix Network Performance Management systems into VoIP engineering processes.
- Establish Traffic Engineering and Capacity Management processes providing enhanced visibility to VoIP and Core Data Networks performance.
- Support interoperability testing of VoIP elements.
- Develop Transmission Engineering Standards for SONET/ DWDM designs. Deploy DWDM rings utilizing Lucent DMX and Cisco ONS multiplexers.
- Develop interim growth architecture for legacy TDM network, reducing CAPEX requirements by over 27%. Introduce E911 data warehouse plan yielding ongoing annual OPEX savings of over \$1.5 million.
- Create and implement Capacity Management initiative to achieve “zero capacity-related held customer orders”.

Vice President – Network Optimization***February 2005 – October 2005***

Senior executive responsible for development and implementation of initiatives designed to optimize the financial and operational performance of the Nuvox Network.

- Create new multi-state organization. Direct hiring and training of 100+ contractors and integrate them into a base of 52 employees to execute Network Optimization initiatives.
- Manage a diverse array of Operational Excellence initiatives in 15 state area.
- Implement extensive network changes arising from the FCC TRO rulings. Negotiate changes to ILEC Interconnect Agreements. Responsible for MSS circuit designs, switch and router translations, ILEC circuit ordering and physical grounds at collocation sites and customer locations. Produced recurring annual savings of over \$1.45 million.
- Integrate network and customer-specific data residing in two legacy MetaSolv TBS Systems and one internally developed OS into one common data repository (MSS).
- Implement conversion of customer facilities to HDSL2, producing ongoing annual savings of over \$1.2 million.

Vice President – Network Engineering***May 2004 – February 2005***

Senior executive responsible for engineering, deployment, capacity management and budgeting of the equipment and systems making up the Nuvox Network.

- Integrate the Network Engineering organizations of Nuvox Communications and NewSouth Communications following their merger.
- Manage Network Integration projects designed to capture operational synergies and cost benefits resulting from the merger (Migration of circuits from 5ESS/DMS switches to Sonus switch, deployment of Adtran GR303 equipment to collocation sites).
- Manage initial deployment of Sonus and Cisco VoIP equipment to new markets.

NewSouth Communications, Greenville, SC November 1999 – April 2004 (merger)

Vice President – Network Engineering & Technical Services

July 2000 – April 2004

Senior executive responsible for engineering, deployment, capacity management and budgeting of the equipment and systems making up the NewSouth network.

- Lead 4 Director organizations in the construction and ongoing growth of 13 switch sites and 230 collocation sites located across the Company's 10 state area.
- Manage the engineering and installation of Cisco ATM switches, Lucent 5ESS and Siemens EWSD switches, Alcatel and Tadiran DCSs and all ancillary equipment.
- Establish CAPEX and OPEX budgeting processes for Engineering.
- Establish Capacity Management and Network Data Integrity processes.
- Manage engineering-related activities associated with UCI Communications and Nuvox Communications mergers.

Director – Network Engineering

November 1999 - June 2000

Responsible for the design and build-out of Lucent 5ESS switch sites and collocation sites, including all AC/DC power, data networking, transport equipment, and mechanical systems in the NewSouth Network.

Southwestern Bell Telephone Company, Little Rock, AR 1980 – 1999 (retired)

Area Mgr. - Maintenance & Transmission Engineering

1992 – June 1999 (retired)

- Lead a team of 15 Engineers and support personnel located in Arkansas, Kansas and Oklahoma. Provide advanced technical support for ATM, TDM and Electronic switches and associated transport, power and radio systems in over 360 central offices.
- Develop and implement Operational Test & Analysis Review processes for switch, transport and power equipment. Conduct COE Installation Supplier Quality assessment audits and Network Reliability audits. Conduct grounding and bonding audits.
- Create transmission designs for fiber optic cable routes, and SONET, microwave and VHF/UHF mobile radio systems. Responsible for Network Synchronization.
- Conduct Beta testing during SONET and ATM equipment trials.
- Served on SW Bell/Pacific Bell Merger Team - Developed "Seven State Process" which assessed "Best Practices" used by each company, leading to the adoption of uniform Maintenance & Transmission Engineering processes across the combined company.
- Pioneered use of Infrared Scanners for central office power inspections and use of unlicensed spread-spectrum 2.4 GHz radio for emergency restorations and facility relief.

***Area Mgr. - Real Estate & Architecture
1980 – 1991***

- Manage and coordinate five teams of architectural project managers, engineers and consultants in planning, designing and implementing central office, radio and administrative building projects. Manage annual CAPEX budget of \$7,900,000.
- Select and hire contractors and consultants. Establish performance standards. Develop and direct engineering records mechanization process.
- Manage and supervise the planning, negotiating, purchasing and leasing of land, buildings and floor space. Administer \$2,400,000 annual leasing budget. Personally negotiate/administer \$1,200,000 in annual leasing and brokerage transactions.
- Conduct economic studies. Develop lease documents and investor solicitation packages for build/lease projects. Represent company in zoning/land-use hearings. Acquire microwave and cellular tower sites.

Wisconsin Bell Telephone Company, 1969 – 1979

***Engineer – Central Office Equipment Planning
1978 - 1979***

Milwaukee, Wisconsin

- Conduct Network Planning economic studies involving central office projects.
- As member of Speakers Panel, present company programs to civic clubs and schools.

***Assistant Engineer – Central Office Equipment Engineering
1969 - 1977***

Madison, Wisconsin

- COE Engineering for switching, transport and power equipment.
- Developed first plan in company for reuse of MDF for dial-to-dial conversions.

Education:

Associate in Science - Electronics Engineering Technology
Herzing College - Madison, Wisconsin

Specialized Training:

Numerous technical, management, building and real estate courses from Greenville Technical College, Nortel, Lucent, Fujitsu, Alcatel, Cisco, Telcordia, Southwestern Bell Center for Learning and others. VoIP Analyst Certification – Spirit Telecom. MS Office proficient.

Professional Licenses:

Registered Professional Engineer (Electrical) - Arkansas
FCC Radio License
Real Estate Broker's License (lapsed)

Affiliations:

National Society of Professional Engineers (lapsed)
Institute of Electrical and Electronics Engineers (lapsed)
American Radio Relay League