

Network Infrastructure Specialist III-Voice Network Engineer

The Mississippi Department of Information Technology Services (ITS) is seeking a highly skilled **Voice Network Engineer** to oversee the design, implementation, security, and optimization of our enterprise IP telephony and Unified Communications (UC) infrastructure. In this role, you will be responsible for the full lifecycle of our telephony ecosystem, from traditional voice circuits to IP-PBX systems and cloud-integrated platforms. You will focus on application-layer signaling protocols and complex network routing. The ideal candidate has experience in managing Session Border Controllers (SBCs), engineering multi-tenant SIP trunking architectures, and conducting deep-packet analysis to ensure high-quality voice services across global operations.

Key Responsibilities:

- **SBC & Edge Infrastructure Management:** Deploy, configure, and maintain enterprise-grade Session Border Controllers (SBCs). Implement edge routing policies, topology hiding, and multi-carrier interoperability profiles.
- **SIP Architecture & Engineering:** Design, scale, and manage complex global SIP Trunks. Administer SIP Registrars, Proxies, and enterprise dial plans including dynamic routing, call transformation patterns, and least-cost routing.
- **Advanced Troubleshooting & Packet Diagnostics:** Isolate complex Tier 3 voice signaling and media distribution issues. Analyze packet captures using tools to dissect SIP response codes, SDP offers/answers, custom headers, and DTMF mismatches.
- **Voice Security & Compliance:** Harden the voice infrastructure against toll fraud, eavesdropping, and edge vulnerabilities. Configure voice encryption using TLS/mTLS for signaling and SRTP for media streams.
- **E911 Regulatory Compliance:** Ensure full platform compliance with emergency telecom laws, integrating system-wide automated notifications under **Kari's Law** and precise dispatchable location parameters (PIDF-LO) mandated by **RAY BAUM'S Act**.
- **UC Integration:** Partner with internal network teams to integrate core SIP architectures with platforms.

Required Skills:

- Typically requires a Bachelor's Degree and 5-8+ years of IT experience with emphasis in network infrastructure, operations and administration.

Preferred Skills:

- **Experience--** at least 3 years focused on SIP-signaling architectures and SBC deployment.
- **Protocols & Standards:** Understanding of the OSI model, with knowledge of SIP, RTP, SRTP, SDP, H.323, TCP/IP, UDP, DNS, and DHCP.
- **Hardware & Vendor Ecosystems:** Hands-on experience engineering SBC software/hardware platforms alongside enterprise IP-PBX frameworks.
- **Network Foundations:** Strong familiarity with core network infrastructures, including Voice VLAN scoping, Power over Ethernet (PoE), and LAN/WAN switching/routing dynamics.
- **Analytical Tools:** Advanced proficiency utilizing Wireshark, VoIP monitoring suites, and system syslog aggregators.

Benefits:

- Insurance: Health, Life, Dental, Vision, other supplementals.
- Paid Time Off/Holidays
- Retirement Plan
- Employee Assistance Program
- Hybrid Remote Work Policy for eligible employees

Job Type: Full-Time (8 AM to 5 PM, Monday-Friday)

Salary: \$60,906.98-\$78,000.00 per year

Interested applicants should email their resume to recruiting@its.ms.gov and include the position title in the email's Subject Line.