



Technical Role: Senior RF Engineering Architect

Location: Denver, CO or Philadelphia, PA

Employment Type: Full-Time Contract Role (1099)

We're looking for a Senior RF Engineering Architect to join one of our Tier 1 Cable Operator Clients.

Bring a combination of HFC infrastructure RF and Optical expertise along with DOCSIS 3.0, 3.1, 4.0 MAC and physical (PHY) layer experience with troubleshooting protocols and performance on CMTS and CPE to create the next generation of 10G infrastructure and a critical adaptive network control system impacting millions of customers.

Do you like big challenges and working within a highly-motivated team environment? As a Senior Engineering Architect, you will design, develop, support and apply your craft to test, trial, deploy, and troubleshoot the next generation of DOCSIS 4.0 access networks and participate in the development of industry leading technologies to maximize broadband capacity. You will work in a highly technically challenging domain that will shape the future of our Client and be part of a team that thrives on big challenges, results, quality, and agility and will be responsible for key components leading to the success of their future 10G network evolution.

Who does the Senior Engineering Architect work with?

Collaborate with a variety of organization roles including network architects and engineers, software engineers, analytics, data scientists and program managers to provide design, system integration and validation to the network. The teams you will work with include the leading broadband experts who have pioneered the current and future broadband access technology.

Where can you make an impact?

Develop HFC RF and optical infrastructure with software defined management of upstream, downstream and Full Duplex DOCSIS (FDX) spectrum while contributing to operations and deployment strategies enabling the vision of multi-Gbps Symmetrical broadband.

Contribute expertise and HFC experience to hands-on lab testing and validation, field configuration and characterization supporting HFC spectrum expansion and optimization. Success in this role is best enabled by a broad mix of skills and interests ranging from traditional HFC infrastructure, RF signal and noise characterization, ethernet and optical networks, construction, and lab test to engaging software development and project management teams with systems architecture and DOCSIS subject matter expertise.

Responsibilities:

- Understanding of the problem domain (next generation FDX access networks). Evaluate and discover network RF design challenges and design innovative solutions to some key HFC challenges.
- Build lab test systems and design field test plans to evaluate new RF and optical infrastructure designs including distributed access architecture (DAA), modifications to N+x traditional HFC infrastructure.

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oamtechnology.com

info@oamtechnologies.com



- Specify design and operations guidelines with focus on DOCSIS 4.0 remote PHY nodes (RPDs), next generation smart DOCSIS 4.0 amplifiers, and DOCSIS 4.0-enabled homes
- Work with data scientists and algorithm developers to develop operational platforms and analyze broadband performance characteristics.
- Work with program and operations resources to execute field trials and network measurement campaigns
- Frequent meeting/communication with stakeholders to interpret their needs, plan/organize, and discuss progress and results
- Develop and communicate goals, strategies, tactics, project plans, timelines, and key performance metrics to reach goals. Excellent communication skills including written, verbal and presentation are required.
- Collaborate across local and distributed teams with an open-minded perspective on new ideas with creative contributions on new technology, architectures, and operational approaches. Inclusive sharing of ideas and data with all stakeholders. Inclined to act and do whatever is needed to get the job done.

Skills and Requirements:

- Bachelor’s degree in the Electrical Engineering or engineering discipline or equivalent experience
- 5+ years working in broadband or wireless telecommunications including HFC and DOCSIS technology
- Expertise in physical layer communication theory such as OFDM/A modulation profile and Forward Error Correction design.
- Hands on experience with HFC networks and infrastructure, CPE design, configuration, and deployment
- Well versed in Broadband, RF and optical lab and field test and measurement equipment and techniques
- Familiarity with DOCSIS 3.0, 3.1, 4.0 (FDX), HFC passive performance and other cable technologies.

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