

Application Software Engineer

Location: Ellicott City, Maryland (Hybrid)

Department: Engineering / Networking & Embedded Systems

Employment Type: Full-Time

About Tolero Networks

Tolero Networks enables secure, resilient communications from the most remote locations on Earth to the far reaches of the solar system. We build technologies that facilitate cooperative resource sharing across terrestrial and extraterrestrial networks.

We are seeking an **Application Software Engineer** to help us build the software application ecosystem that manages, configures, and monitors our networking software. In this role, you will develop the management-side counterparts to the interfaces running on the Tolero Overlay Networking Router. By leveraging open-source frameworks and modern application stacks, you will build software tools for remote health monitoring, command and control, telemetry visualization, and router configuration. Your tools will directly empower customer mission operations teams in the field and serve as critical automation utilities for our internal teams.

Key Responsibilities

- **Application Development:** Design, build, and maintain management and control applications - including user applications, command-line tools, APIs, services, and dashboards - for the remote control, configuration, and health/status monitoring of Tolero routers.
- **Interface Implementation:** Implement software adapters and libraries conforming to Tolero router interfaces to ensure seamless communication between network management centers and Tolero router deployments.
- **Mission Ops & Testing Support:** Deliver robust software utilities used directly by customer mission operations teams while providing test-facing APIs and tools to our internal teams for automated verification and validation.
- **Open-Source Integration:** Evaluate, integrate, and extend open-source tools, libraries, and frameworks (e.g., telemetry collectors, visualization platforms, protocol parsers) to build flexible, scalable software solutions.

- **Tool Maintenance & Documentation:** Author clear user documentation, developer APIs, and implementation guides for both internal users and external customer teams.

Required Qualifications

- **Education:** Bachelor's degree in Computer Science, Computer Engineering, Software Engineering, or a related technical field (or equivalent practical experience).
- **Application Development:** 3+ years of professional experience building software applications, utilities, desktop/web tools, or backend services.
- **Networking & Protocols:** Understanding of IP networking, socket programming, data serialization formats (e.g., Protobuf, JSON, CBOR), and API protocols (REST, gRPC, or custom socket-based interfaces).
- **Communication & Collaboration:** Excellent technical communication skills, with a track record of building user-focused tools for cross-functional engineering or operations teams.

Preferred Qualifications

- Experience with ground control software frameworks or mission control software (e.g., COSMOS, Yamcs, OpenMCT).
- Familiarity with Delay/Disruption-Tolerant Networking (DTN) protocols (e.g., **Bundle Protocol / RFC 9171**) and DTN Network Management specifications.
- Experience integrating open-source telemetry and monitoring tools (e.g., Prometheus, Grafana, ELK stack).
- Knowledge of containerization and deployment toolchains (Docker, Linux system services, CI/CD pipelines).
- Ability and willingness to obtain a Top-Secret level security clearance. This includes being subject to a government security clearance investigation and meeting the requirements for access to classified information. Eligibility requirements include U.S. citizenship.

Why Build the Future with Tolero?

At Tolero Networks, solving the toughest communications challenges—from remote terrestrial environments to interplanetary space—requires brilliant minds working seamlessly together. We cultivate an open, purposeful environment where curiosity is

celebrated, ego is left at the door, and cross-disciplinary collaboration fuels our most complex achievements.

If you are a smart, proactive problem solver who thrives in a supportive team culture and gets energized by the idea of building the networking infrastructure that connects our world to the solar system, Tolero is where you belong. Join us, and help pioneer the future of resilient, solar-system-wide communications.

Benefits

Tolero offers a generous, comprehensive benefits package designed to support our team members and their families:

- **Compensation & Equity:** Competitive base salary, performance bonuses, and company equity opportunities.
- **Health & Wellness:** Comprehensive medical, dental, and vision plans, plus Flexible Spending Accounts (FSAs).
- **Financial Security:** Retirement plans with Tolero contributions, life insurance, and short- and long-term disability coverage.
- **Work-Life Balance:** Generous paid time off (PTO) to ensure rest and recharge.

Equal Opportunity Employer Statement

Tolero is an Equal Opportunity Employer. We celebrate diversity and are committed to creating an inclusive environment for all employees. We do not discriminate based on race, color, religion, sex (including pregnancy, gender identity, and sexual orientation), national origin, age, disability status, genetic information, protected veteran status, or any other characteristic protected by law. Qualified applicants from all backgrounds are encouraged to apply.