

Systems Test Lead

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 a **Systems Testing Lead** to establish, direct, and oversee the end-to-end verification and validation (V&V) strategy for the Tolero Overlay Networking Router. In this role, you will lead a dedicated team of 2–3 embedded software test engineers. You will be responsible for defining the overarching test architecture, software-in-the-loop (SIL) and hardware-in-the-loop (HITL) strategies, synthetic dataset generation, and automated test software design. By bridging system requirements and software delivery, you will ensure our space and terrestrial networking products execute deterministically, securely, and flawlessly in mission-critical environments.

Key Responsibilities

Team Leadership & Peer Collaboration

- **Team Management & Mentorship:** Lead, direct, and mentor a team of 2–3 test engineers, guiding their task allocation, career growth, and technical execution.
- **Engineering Triad Leadership:** Partner with systems and engineering team leads to align development milestones, defect triage, and release readiness.
- **Defect Governance & Metrics:** Define and manage defect tracking workflows, root-cause analysis, and regression verification across engineering teams, reporting quality and readiness metrics to executive leadership and external stakeholders.
- **Culture & Ownership:** Cultivate a technical environment that encourages creative problem-solving, high-quality standards, collaboration, and team ownership of complex engineering products.

Test Strategy & Architecture

- **V&V Strategy & Test Framework Architecture:** Design the master verification and validation strategy, establishing standards for automated test software, test case design, and synthetic dataset development.
- **HITL/SIL Testbed Development:** Oversee the architecture and maintenance of Hardware-in-The-Loop (HIL) and Software-in-the-Loop (SIL) test environments.
- **Requirements Traceability:** Ensure full test coverage against system requirements, interface specifications, and protocol standards (e.g., IETF/CCSDS specifications).
- **CI/CD Automation Integration:** Direct the integration of automated test software and continuous verification suites.

Required Qualifications

- **Education:** Bachelor's degree in Computer Science, Computer Engineering, Software Engineering, Systems Engineering, or a related technical field (or equivalent practical experience).
- **V&V Experience:** 7+ years of experience in system testing, embedded software QA, or verification engineering for complex networking or aerospace systems.
- **Leadership Experience:** 2+ years of experience in a technical lead or management role directing test engineers or software QA teams.
- **Requirement-Based Testing:** Strong background in tracing test coverage directly to system-level requirements, functional specifications, and interface specifications.
- **Communication & Collaboration:** Excellent analytical and communication skills, with the ability to clearly document bugs and convey test outcomes across both software and systems engineering teams.

Preferred Qualifications

- Master's degree in Computer Engineering, Systems Engineering, or a related field.
- Experience testing Delay/Disruption-Tolerant Networking (DTN) protocols (e.g., **Bundle Protocol / RFC 9171**, BPSec / RFC 9172, LTP).
- Practical experience building or operating custom **Hardware-In-The-Loop (HIL)** simulation testbeds for space systems or embedded Linux targets.
- Familiarity with continuous integration toolchains (GitLab CI, Jenkins, Docker) and test management tools (Jira, Xray, TestRail).

- Knowledge of spaceflight data systems, spacecraft communications subsystems, or software-defined radios (SDRs).
- 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.