FISSURE

Empowering operators, developers and mission planners—without vendor lock-in.



FISSURE

FISSURE is an open-source RF framework for research, prototyping and field use. It integrates modular tools and techniques for signal analysis, protocol discovery, disruption and automation—supporting a wide range of RF use cases across mission types and environments.

Ready for Use, Built for Expansion

Modular, Plugin-Based Architecture

Supports a growing set of RF capabilities—like sniffing, spoofing, fuzzing, replay and classification—organized as modular plugins. It also enables trigger-based automation for tasks such as proto-col-specific exploits and post-access operations.

Integrated RF & Cyber Toolset

Includes GNU Radio, Python scripting, SDR workflows and reference material, with support for third-party and open-source tools widely used in RF and cyber research.

Alerting and Visualization

Collects alerts, reports and exploit recommendations from nodes and scripts. Outputs can be displayed and shared with TAK systems, including GPS-tagged alerts and live node tracking.

Remote Sensor Node Support

Nodes run autonomously or interactively, with support for scheduled or triggered actions and playlists. They work over highand low-throughput links, including LoRa-based mesh networks.

Scalable Deployment Configurations

Supports setups ranging from a single laptop or single-board computer to distributed sensor networks with a central hub. Processing and data can be shared across nodes, interfaces and external systems.

Replacement for High-Cost Systems

Can replace or augment expensive proprietary tools using open-source software and off-the-shelf hardware, reducing both cost and risk if compromised.

Shaping What Comes Next

FISSURE is an open, extensible foundation built to evolve with RF and cyber missions. Whether used for experimentation, integration or deployment, it empowers contributors and mission teams to drive the next generation of RF operations.

DESIGNED FOR FLEXIBILITY AND MISSION FIT

FISSURE as the Software Layer

Acts as a hardware-agnostic layer that interfaces with existing radios, sensors and platforms. It enables control and integration without replacing existing systems and field kits.

Open and Actively Maintained

Freely available on GitHub with regular updates. It's easy to adapt and share—whether collaborating with developers or delivering custom capabilities to mission partners.

Supports Diverse Operational Contexts

Covers ground, mobile, airborne, maritime and subterranean missions, and adapts easily to lab, field and simulation environments.

Expandable Across Use Cases

Enables perimeter monitoring, multi-node direction finding, spectrum analysis, protocol exploitation and ISR workflows. Can be tailored to tactical or strategic RF needs.

Tactical Integration Ready

Supports use cases like signal tracking, electronic attack, RF deception, localized spoofing, cyber-physical convergence and integration with UAS, mobile systems and command centers.

- FIND FIX FINISH
- EXPLOIT ANALYZE DISSEMINATE

github.com/ainfosec/fissure

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About Assured Information Security

AlS provides critical cyber and information security services, products and operations to commercial and government customers. Founded in 2001 and headquartered in Rome, New York, AlS has multiple operating locations and employees throughout the United States.