



Flock Networks Ltd

Established 2019

Our modular IP Routing Suite source code allows customers to quickly create the next generation of internet network devices.

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Flock Networks History



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- Founded in 2019 to create a next generation IP routing suite with unrivalled security, stability and performance.
- In 2020 the Flock Internet Routing Engine (FIRE) source code is licenced by Graphiant (a next generation SD-WAN startup).
- By 2021 a small team of Graphiant employees have used FIRE to create, sell and deploy thousands of devices throughout the world.
- Devices range from very low end CPE's to controllers with 128 CPU cores.
- In 2026 the FIRE source code is made available to be licenced.

Current Generation



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- Code was written to match historic hardware (single CPU cores and limited RAM)
- Codebases are decades old monoliths so very slow to add new features, new protocols or protocol extensions
- Written in memory unsafe languages which makes them unreliable and insecure
- Painful to configure and monitor as they only support legacy API's

Next Generation



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- The Flock Internet Routing Engine (FIRE) is modular. Just take the components / protocols you need.
- FIRE is platform agnostic. Its generic API can easily be integrated into any hosting platform (Linux, BSD, SONiC, Redox, VM or Container on x86, ARM or RISC-V).
- The FIRE protocol implementations are complete and production battle tested. 1000's of integration tests are run before any code is changed.
- 1000's of devices have been in production for over 4 years. FIRE has never crashed. FIRE has never even had a memory leak.

Only include the code you need



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FIRE Source Code License



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The FIRE source code is available to licence.

- The licence allows customers to use the source code in perpetuity
- Includes all source for all the components of the FIRE library
- Source for a fully functional routing daemon implementation for Linux
- Ability to create custom routing daemons that can include proprietary extensions (Customers keep the copyright to this additional code)
- All Unit Test Code
- All mocking infrastructure and Integration Test Code

FIRE Source Code Subscription



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Subscription includes:

- Access to the latest source code via github repository
- All bug fixes
- Support via github issues

FIRE internals



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- FIRE is solely written in the Rust language
- Rust code has been shown to reduce the most serious security issues. Google saw a 1000x reduction in Android when switching to Rust code.
- FIRE achieves linear scalability vs CPU cores by extensive use of multi-threading. FIRE code is lock free, FIRE cannot deadlock.
- FIRE can use all 3rd party Rust libraries to quickly support any configuration, operational or dataplane API e.g. gRPC, Netconf, YANG, REST, netlink, FPM (SONiC)
- FIRE has extensive Unit and Integration Testing

More information



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