



FREERANGERROUTING

FRR - A new Quagga fork with a more open development

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What is FRR ?

(for the not so technical People)



- ▶ **Open Source (GPLv2+) Routing Stack**
- ▶ **Implements RIP, RIPng, OSPF (v2&v3), ISIS, BGP, PIM, LDP**
- ▶ **Fork of Quagga**
- ▶ **Works on Linux and most BSD based systems**
- ▶ **For use in many Clouds as virtual routers, white box vendors and network providers (full routing stack)**

FRR - Why a new fork?



Community Driven

Faster Development

Open Development Model

FRR - Who is behind the Fork?



 CUMULUS

LabN
Consulting LLC

VOLTA
Networks



Open Source Routing



FRR - What's different?



- ▶ **Methodical vetting of submissions**
- ▶ **More automated testing of contributions**
- ▶ **Github centered development**
- ▶ **Elected Maintainers & Steering Committee**
- ▶ **Common Assets held in trust by Linux Foundation**

FRR – Current Status

First stable version (2.0) – out very soon



BGP

- Performance & Scale fixes
- AddPath Support
- Remote-AS internal/external Support
- BGP Hostname support
- Update Groups
- RFC 5549 (unnumbered) Support
- Nexthop tracking
- 32-bit route-tags

Testing

- Dejagnum unittests changed to pytest
- Topology Tests

Zebra

- MPLS Support IPv4/v6 for static LSPs
- 32-bit route-tags
- Nexthop Tracking
- RFC 5549 (unnumbered) Support

OSPF V2/V3

- OpenBSD Support restored
- 32-bit route-tags
- RFC 5549 (unnumbered) Support

LDP (new)

- RFC 5036 (LDP Specification)
- RFC 4447 (Pseudowire Setup and Maintenance using LDP)
- RFC 4762 – (Virtual Private LAN Service (VPLS) using LDP)
- RFC 6720 - The Generalized TTL Security Mechanism (GTSM) for LDP
- RFC 7552 - Updates to LDP for IPv6

Others

- JSON Support
- VRF Lite (Linux VRF device support) for BGP and Zebra
- Snapcraft Packaging

FRR - Links



► Website (very soon!)

- <http://www.frrouting.org>

► Github

- <http://github.com/freerangerouting/frr.git>

► Issue Tracker

- <https://github.com/freerangerouting/frr/issues>

► New feature list, test results etc (until web is up)

- <https://github.com/freerangerouting/frr/wiki>