FRR User Manual

Release latest

FRR

Sep 23, 2023

CONTENTS

1 Introduction **1**
- 1.1 Overview . . . 1
- 1.2 Installation . . . 9
- 1.3 Basic Setup . . . 17

2 Basics **23**
- 2.1 Basic Commands . . . 23
- 2.2 Extended Logging Target . . . 36
- 2.3 VTY shell . . . 39
- 2.4 Northbound gRPC . . . 42
- 2.5 Filtering . . . 43
- 2.6 Route Maps . . . 45
- 2.7 Affinity Maps . . . 50
- 2.8 IPv6 Support . . . 50
- 2.9 Kernel Interface . . . 53
- 2.10 SNMP Support . . . 54
- 2.11 Scripting . . . 61
- 2.12 Nexthop Groups . . . 62

3 Protocols **63**
- 3.1 Zebra . . . 63
- 3.2 Bidirectional Forwarding Detection . . . 88
- 3.3 BGP . . . 99
- 3.4 Babel . . . 194
- 3.5 OpenFabric . . . 197
- 3.6 LDP . . . 201
- 3.7 EIGRP . . . 206
- 3.8 EVPN . . . 209
- 3.9 ISIS . . . 218
- 3.10 NHRP . . . 228
- 3.11 OSPFv2 . . . 235
- 3.12 OSPFv3 . . . 259
- 3.13 PATH . . . 271
- 3.14 PIM . . . 283
- 3.15 PIMv6 . . . 292
- 3.16 PBR . . . 298
- 3.17 RIP . . . 302
- 3.18 RIPng . . . 309
- 3.19 SHARP . . . 311
- 3.20 STATIC . . . 315

3.21 VNC and VNC-GW . . . 317
3.22 VRRP . . . 339
3.23 BMP . . . 346
3.24 WATCHFRR . . . 349
3.25 MGMTd (Management Daemon) . . . 349

4 Appendix **357**
4.1 Reporting Bugs . . . 357
4.2 Packet Binary Dump Format . . . 358
4.3 Glossary . . . 362
4.4 The frr-reload.py script . . . 362

5 Copyright notice **365**

Bibliography **367**

Index **369**