

# Update on MRT-FRR related drafts

## Fast reroute for IP/LDP traffic using maximally redundant trees

`draft-ietf-rtgwg-mrt-frr-architecture` (arch)

`draft-ietf-rtgwg-mrt-frr-algorithm` (algo)

`draft-atlas-mpls-ldp-mrt` (ldp)

`draft-atlas-ospf-mrt` (ospf)

`draft-li-isis-mrt` (isis)

Alia Atlas [akatlas@juniper.net](mailto:akatlas@juniper.net) (arch, algo, ldp, ospf, isis)

Chris Bowers [cbowers@juniper.net](mailto:cbowers@juniper.net) (arch, algo, ldp, ospf, isis)

Andras Csaszar [Andras.Csaszar@ericsson.com](mailto:Andras.Csaszar@ericsson.com) (arch, algo)

Gabor Sandor Enyedi [Gabor.Sandor.Enyedi@ericsson.com](mailto:Gabor.Sandor.Enyedi@ericsson.com) (arch, algo)

Abishek Gopalan [abishek@ece.arizona.edu](mailto:abishek@ece.arizona.edu) (algo)

Shraddha Hegde [shradda@juniper.net](mailto:shradda@juniper.net) (ospf)

Robert Kebler [rkebler@juniper.net](mailto:rkebler@juniper.net) (arch)

Maciek Konstantynowicz [maciek@bgp.nu](mailto:maciek@bgp.nu) (arch)

Zhenbin Li [lizhenbin@huawei.com](mailto:lizhenbin@huawei.com) (ospf, isis)

Jeff Tantsura [jeff.tantsura@ericsson.com](mailto:jeff.tantsura@ericsson.com) (arch, ldp, ospf, isis)

Kishore Tiruveedhula [kishoret@juniper.net](mailto:kishoret@juniper.net) (ldp)

Russ White [russw@riw.us](mailto:russw@riw.us) (arch)

IJsbrand Wijnands [ice@cisco.com](mailto:ice@cisco.com) (ldp)

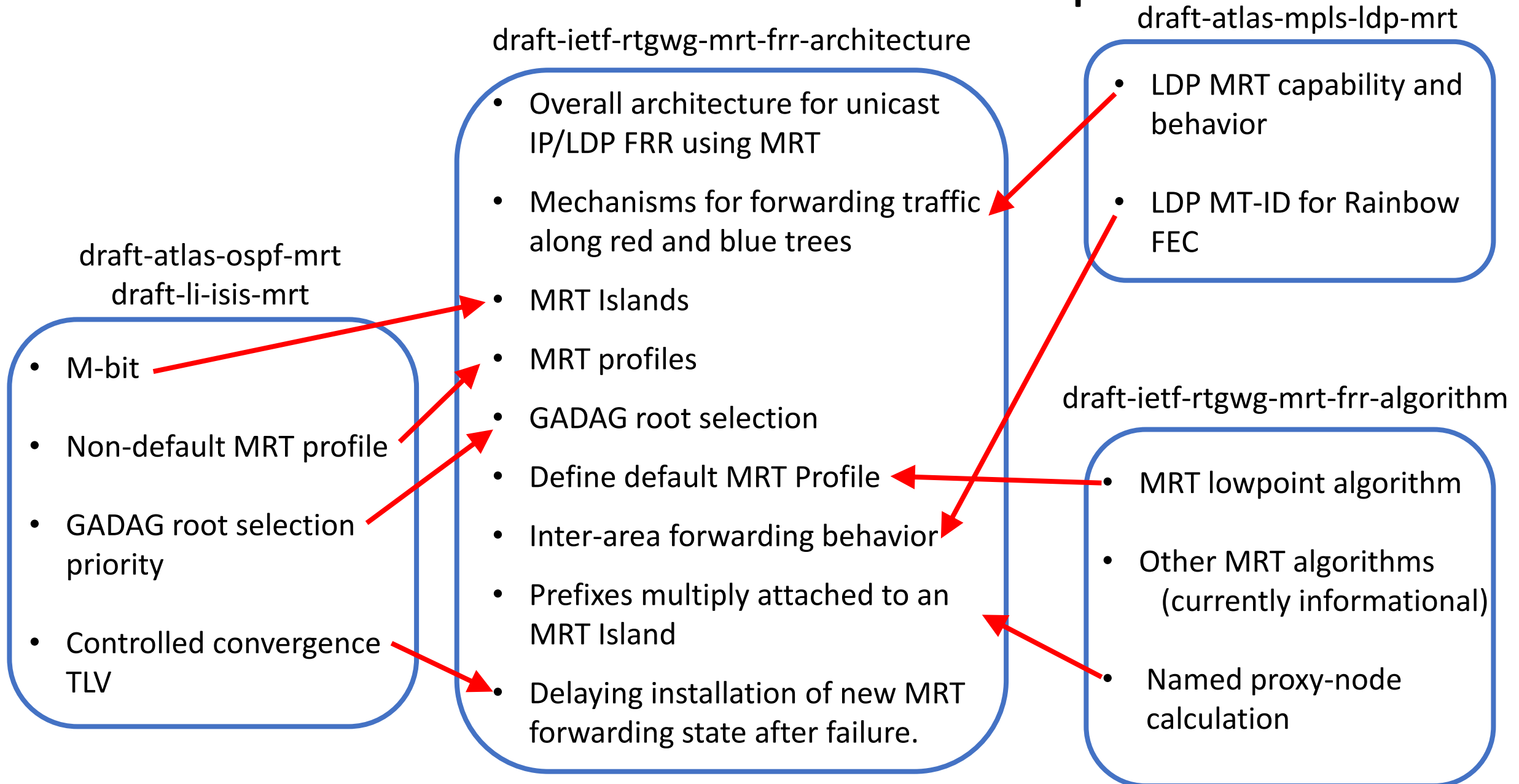
Nan Wu [eric.wu@huawei.com](mailto:eric.wu@huawei.com) (isis)

Quintin Zhao [quintin.zhao@huawei.com](mailto:quintin.zhao@huawei.com) (isis)

# MRT-related draft status

- **draft-ietf-rtgwg-mrt-frr-architecture-04 (RTGWWG document)**
  - Architecture for MRT-FRR of unicast IP/LDP traffic
- **draft-ietf-rtgwg-mrt-frr-algorithm-01 (RTGWWG document)**
  - Algorithm for computing MRT-Red and Blue Trees and alternates
- **draft-atlas-mpls-ldp-mrt-01 (MPLS WG adoption requested)**
  - Extension to advertise LDP MRT capability and required behavior
- **draft-atlas-ospf-mrt-02 (OSPF WG adoption requested)**
  - M-bit in RI LSA, non-default profiles, GADAG root priority, MRT-ineligible links
- **draft-li-isis-mrt-01 (ISIS WG adoption requested)**
  - M-bit in TLV229, non-default profiles, GADAG root priority, MRT-ineligible links
- **draft-atlas-rtgwg-mrt-mc-arch-02 (Expired, update planned)**
  - Architecture for protecting multicast traffic with MRT

# MRT document relationships



# MRT architecture draft

- Non-editorial changes
  - Added more precise criteria for excluding links from MRT Island based on existing IGP mechanisms
  - Moved IANA request for LDP MT-IDs associated with default MRT profile to this draft, where the default MRT profile is defined.
  - Added implementation status section

# MRT LDP draft

- Non-editorial changes
  - Moved LDP MT-ID values for MRT-Red and MRT-Blue for default MRT profile to architecture draft.

# MRT algorithm draft

- Non-editorial changes
  - Example MRT Island formation algorithm taking into account more precise criteria for excluding links from MRT Island
  - Added more general explanation of lowpoint algorithm

# MRT IGP extensions

- Current difference between ISIS and OSPF MRT extensions
  - MRT ISIS extensions are scoped for multi-topology IGP routing
  - Build a different set of MRTs for each IGP topology
  - Scoped by MT-ID, with defaults assuming IGP MT-ID=0
  - MRT-Red and Blue LDP MT-IDs need to be specified for IGP MT-ID != 0
- Default value for GADAG root selection priority aligned for ISIS and OSPF
  - Common default value = 128
- Changed ordering of MRT-Red and Blue MT-IDs in ISIS MRT Profile sub-TLV
  - Align order with other documents
- Added Controlled Convergence TLV to ISIS draft

# MRT implementation status

- Huawei

- MRT-FRR using MRT lowpoint algorithm
- ISIS as IGP with extensions for MRT
- Forwarding on MRT paths with LDP MT-ID FECs

- Juniper

- MRT-FRR using MRT lowpoint algorithm
- OSPF as IGP for MRT
- Forwarding on MRT paths with LDP MT-ID FECs