SPRING

IETF-101
Friday, March 16
Note Well

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• Definitive information is in the documents listed below and other IETF BCPs. For advice, please talk to WG chairs or ADs:

  • BCP 9 (Internet Standards Process)
  • BCP 25 (Working Group processes)
  • BCP 25 (Anti-Harassment Procedures)
  • BCP 54 (Code of Conduct)
  • BCP 78 (Copyright)
  • BCP 79 (Patents, Participation)
  • https://www.ietf.org/privacy-policy/ (Privacy Policy)
Minutes

• May be collaborative:


• Need 1 minute taker & jabber scribbe
Agenda

1. **WG Status**
   Chairs 6’

2. **SPRING re-chartering discussion**
   Chairs 14’

3. **Segment Routing with MPLS data plane**
   draft-ietf-spring-segment-routing-mpls-12
   Ahmed Bashandy 15’

4. **Segment Routing Policy for Traffic Engineering**
   draft-filsfils-spring-segment-routing-policy-05
   Ketan 10’

5. **Segment Routing for Service Chaining**
   draft-xuclad-spring-sr-service-chaining
   Francois

6. **SRv6 YANG: Base/Static**
   draft-raza-spring-srv6-yang-01
   Kamran 5’

7. **OAM in SRv6**
   Networksdraft-ali-spring-srv6-oam-00Zafar Ali 5’

8. **BFD in SR Networks using MPLS**
   draft-mirsky-spring-bfd
   Greg Mirsky 5’

9. **BFD for SR Policies**
   draft-ali-spring-bfd-sr-policy-00
   Zafar Ali 5’

10. **Segment Routing for Enhanced VPN Service**
    draft-dong-spring-sr-for-enhanced-vpn-00
    Jie 10’
Agenda (2)

• Extremely heavy agenda: 235 minutes requested for a 90 minutes WG slot.
• Please initiate discussion of your draft(s) on the list
  – Helps chairs evaluating the required WG duration
  – May be used as input to build the agenda
  – Doesn’t work when -00 draft are submitted “late”
SPRING Chairs & AD

• Martin step down as co-chair
  – Thanks Martin

• Rob Shakir is the new co-chair

• Martin is the new SPRING AD
  – Thanks Alvaro
All SR uses cases and EPE in RFC editor queue

- draft-ietf-spring-ipv6-use-cases
- draft-ietf-spring-oam-usecase
- draft-ietf-spring-resiliency-use-cases
- draft-ietf-spring-segment-routing-central-epe

- Thanks to authors, shepherds, AD
draft-ietf-spring-conflict-resolution

• WG Last Called
• 1 outstanding issue related to consistent conflict resolution from multiple IGPs/routing protocols.
• SR-MPLS specific. Now addressed in SR-MPLS
  – draft-ietf-spring-segment-routing-mpls
  – More on this on the agenda
• SR-conflict draft is now dead.
draft-ietf-spring-mpls-anycast-segments

- Ready for WG Last Call
- WG Last Call to be initiated SOON
IESG/AD review

- draft-ietf-spring-segment-routing
  - In IESG Evaluation::AD Followup
  - 1 remaining DISCUSS. Lacks of active resolution

- draft-ietf-spring-segment-routing-msdc
  - In IESG Evaluation::Revised I-D Needed
  - 1 remaining DISCUSS. Pending reply from transport area reviewer.

- draft-ietf-spring-segment-routing-ldp-interop
  - In AD Evaluation::Revised I-D Needed
  - AD review since 2017-12-20. Waiting for authors answers.
SPRING WG re-chartering

• First set of core documents are in the hands of IESG or beyond
• Good time to gauge interest on willingness to work on next work items
  – Technical items. Charter review, if any, will come later.
• WG discussions:
  – IETF 98 meeting (Chicago)
  – Mailing list pre-IETF 101
  – IETF 101 (London)
Recap mailing list discussion

• SPRING is the home of segment routing/source routing work both for SR-MPLS and SRv6. Aka Source Packet Routing in Networking
• SPRING-WG serves as a forum to discuss how SPRING can be applied
• SPRING explicit routing along topological paths (SR policy routing)
• SPRING explicit routing along both topological and service paths (chaining of services)
• Specification of SRv6 behaviors /SID types (SRv6 network programming)
• Management models (YANG)
• OAM, traffic accounting, performance measurement
• SPRING extensions, in particular to support ongoing deployment feedbacks.
• Interworking: SR-MPLS & LDP, SR-MPLS & SRv6
• Virtualization and partitioning of network resources.
• Interactions between overlay/applications and optimized underlay
  • E.g. SR-assisted SD-WAN, path awareness
• Ingress replication SID (Tree SID /spray)
Working across routing area

• SPRING related documents split across multiple WGs:
  • many inter-WG coordination required, may sometime translate in sub-optimal coordination
  • possibly incomplete global view
  • some spring extension documents turns into use cases for other WG. (then uses-case documents frown upon)

• Should SPRING do protocol work or architecture/functional spec only?
  • Option 1 (current): SPRING defines functional specifications/architecture. Encoding done in each protocols WGs.
  • Option 2 (à la BIER WG): protocol extensions in the SPRING WG, in coordination with the related WGs
Backup slides
Reminder of SPRING WG description from the charter

The ability for a node to specify a forwarding path, other than the normal shortest path, that a particular packet will traverse, benefits a number of network functions, for example:

• Some types of network virtualization, including multi-topology networks and the partitioning of network resources for VPNs
• Network path and node protection such as fast re-route
• Network programmability
• New OAM techniques
• Simplification and reduction of network signalling components
• Load balancing and traffic engineering