



I E T F[®]

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6man Working Group

Segment Routing Header

draft-ietf-6man-segment-routing-header-16

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Agenda

- Last Call Update
- Changes 14-16
- Last Call Issues
- Next Steps

Last Call Update

- 47 Issues Opened During Last Call
- 130++ Emails on 6man mailing list
- 6 Versions of the draft
- 39 Issues Closed
- 8 Issues Remaining

Changes 14-16

Next Steps (from IETF 102)

- Tag
 - Document usage

- TLVs
 - More TLV processing text
 - More TLV usage text

- HMAC
 - Rewrite Security Section
 - Separate HMAC processing to HMAC definition
 - Show why and how a segment list is secured

- Management
 - Data Model
 - SID
 - SRH Encap
 - HMAC

HMAC

- Consolidated Text
- Protected Destination and Segments Left
 - Segment List[Segments Left] == Destination Address

Deployment Models

- How to treat nodes within an SR Domain vs nodes outside an SR Domain.
- Within
 - Trust them to generate packets to SIDs within the domain
 - IACL denies external access to SIDs (example use a prefix)
 - IACL limits internal access to SIDs (example use a prefix)
- Outside
 - IACL Permit access to a SIDs requiring HMAC (example using a prefix)

Security Considerations

- As related to the deployment models
- Source Routing Attacks
 - RFC5095 attacks and mitigations
- Service Theft
 - Some use cases
- Topology Disclosure
 - Some use cases
- ICMP Generation
 - The usual rate-limiting of generation

Closed Issues

<https://trac.ietf.org/trac/6man/report/9>

5 Issues Closed

Edge Filtering

- Edge Filtering (3)
 - 25, 26, 68
 - ACL
 - HMAC
- Various (2)
 - 62, 63
- Follow up QnA/Closures on the list
 - Resulting in revision 16

Open Issues

<https://trac.ietf.org/trac/6man/report/9>

8 Open Issues

Various

- Various Issues (1)
 - 64
 - Darren to finish updates from Adrian

8 Open Issues

Tag

- Tag (2)
 - 37, 61
 - Fully define processing

8 Open Issues

TLV

- TLV (5)
 - 38, 54, 55, 62, 67
 - Padding
 - Insertion/deletion
 - Optional processing per local policy

Next Steps

Next Steps

- TLVs
 - More TLV processing text
 - More TLV usage text

- Tag
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 - Data Model
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Thank You!

QnA

Running Code

- Linux (Feb 2017 – kernel 4.10)
- Cisco (April 2017)
 - 2 OSes (IOS XR, IOS XE)
 - 3 ASICs
- FD.io VPP (April 2017 – 17.04)
- Bell Canada, Barefoot, P4 (May 2017)
- Huawei
 - VRP Platform
- Juniper (Prototypes)
- See [draft-filsfils-spring-srv6-interop](#) for interop details