Thank people below for their comments and suggestions

- Acee Lindem
- Bruno Decraene
- Jeff Tantsura,
- Chris Bowers
- Ketan Talaulika
- Jie Dong
- Peter Psenak
- Yimin Shen
- Zhenqiang Li
- Alexander Vainshtein
- Greg Mirsky
- Bob Halley

Latest Updates to Previous Version

- Number of authors to 5
- Mention retain route in normative section
- Editorial changes
RTGWG, asked for WGLC

requested for comments from SPRING, LSR

Acee reviewed it and gave valuable comments

Updated document and presented it to LSR

RTGWG, presented updates for comments from LSR

Requested for comments from SPRING

Updated document for comments from SPRING

SPRING, presented updates and document
Presentation Overview in IETF 116 SRIPNG

Updates to Previous Version (to address comments)
  • Updated description on backup path
  • Added text on slow convergence of non-PLR

SRv6 Path Egress Protection Mechanism
Next Steps

• Comments welcome

• WGLC
SRv6 Path Midpoint Protection

draft-chen-rtgwg-srv6-midpoint-protection

Huanan Chen, China Telecom
Zhibo Hu, Huawei
Huaimo Chen, Futurewei
Xuesong Geng, Huawei
Yisong Liu, China Mobile
Gyan S. Mishra, Verizon

IETF 117
Overview

➢ Progress since IETF 114

➢ Comments from IETF 116 SPRING
Progress Summary

- RTGWG, asked for adoption
  - requested for comments from SPRING, 6MAN
- RTGWG, presented updates addressing comments
- SPRING, presented document
- Requested for comments from SPRING and 6MAN, Summarized comments to lists

Timeline:
- IETF 114
- IETF 115
- IETF 116
- IETF 117
- Time
Presentation Overview in IETF 116 SRIPNG

- SRv6 Path Midpoint Protection Mechanism: Before IGP Converges
- SRv6 Path Midpoint Protection Mechanism: After IGP Converges

**Endpoint node** X: DA of the packet received by node X is a X's local END SID
E.g., P1, N, Q1, C are endpoint nodes for the SRv6 path

SRv6 Path: A->P1->N->Q1-> C, represented at A by <B:P1, B:N, B:Q1, B:C>,
where B:P1 is end SID of P1, B:N is end SID of N, B:Q1 is end SID of Q1, ...

P1 drops packet since no route to B:N after IGP converges on failed N

IF no FIB entry for DA of packet THEN
IF NH = SRH && SL != 0 THEN
SL--; DA = SRH[SL];
forward packet using FIB entry for DA;
Summary of Comments from IETF 116 SPRING

C1: Midpoint protection document (for SR-MPLS) exists in SPRING, Why SRv6 work is in RTGWG?
A1: At high level, the mechanism are the same, but the details are different.
   For example, in SR-MPLS we can change stack, but in SRv6 we need to do encapsulation.
RTGWG co-chair: The WG is aware of SR-MPLS work in the SPRING and that is why we suggested presenting here.
   The behavior should be consistent.

C2: (slide 4) P1 will drop the packet if no reachability for N, but if N is ABR and no visibility this is an issue.
A2: This is midpoint protection only!.
   If ABR is failed node, inter-domain routing should make it work.

C3: Stack was created with some intent, does P1 know the intent (latency) to be able to switch to bypass!
A3: No, it does not know and does not care! Maybe in future!

C4: How does P1 know to jump the pointer?
A4: Before IGP convergence on the failure, P1 does not know the failure. P1 has a FIB entry to N via P3 directly connected
to N. P1 sends packet to P3, after receiving packet, P3 as PLR does normal FRR (i.e., existing midpoint protection)

C5: There is a WG document for SR-MPLS, we have updated the solution to use rear-side tunneling to solve the problem.
   This solution does not work for micro-SID and common solution should be preferred.
A5: Node-SID is example, draft also supports other SIDs (ex. adj-SID). At high level things are same but the details are
different.

C6: SRv6 makes things simpler, authors should work on a merged solution.
A1: Open to 1 draft in 1 WG.
Merge SR-MPLS midpoint protection with SRv6 midpoint protection?

C5: There is a WG document for SR-MPLS, we have updated the solution to use rear-side tunneling to solve the problem. common solution should be preferred.

C6: SRv6 makes things simpler, authors should work on a merged solution.

A: Communicated with authors. No Merge.
Next Steps

- Comments
- Adoption