MPLS Network Actions (MNA) Activities – Status Update

Report # 3
Product of the MPLS MNA Open Design Team

Tarek Saad

IETF®

MNA Open Design Team (ODT) Overview

- Joint activity between three working groups MPLS, PALS and DETNET
  - The chairs from the three WGs coordinate agendas and decisions
- ODT meeting:
  - weekly every Thursday (11:00 AM ET)
- ODT chairs coordination meeting:
  - weekly every Tuesday (1:00PM ET)
- Participation
  - Around 15-20 participants per week
- Taxonomy of MNA documents:

https://trac.ietf.org/trac/mpls/wiki/MNADocumnets

I E T F

Update (since IETF113)
WG Adopted Documents (1)

- Use Cases for MPLS Network Action Indicators and MPLS Ancillary Data
  - ID: https://datatracker.ietf.org/doc/html/draft-ietf-mpls-mna-usecases
  - Status of document:
    o Adopted as a WG document in May 2022
    o WG and DT continues to refine existing and add new identified usecases
- Requirements for MPLS Network Action Indicators and MPLS Ancillary Data
  - ID: https://datatracker.ietf.org/doc/draft-ietf-mpls-mna-requirements
  - Status of document:
    o Adopted as a WG document in May 2022
    o WG and DT continues to discuss (periodic meeting) and update the requirements

I E T F

Update 1 (since IETF113)
WG Adopted Documents

1. Use Cases for MPLS Network Action Indicators and MPLS Ancillary Data
   - ID: https://datatracker.ietf.org/doc/html/draft-ietf-mpls-mna-usecases
   - Status of document:
     o Adopted as a WG document in May 2022
     o WG and DT continues to refine existing and add new identified usecases
2. Requirements for MPLS Network Action Indicators and MPLS Ancillary Data
   - ID: https://datatracker.ietf.org/doc/draft-ietf-mpls-mna-requirements
   - Status of document:
     o Adopted as a WG document in May 2022
     o WG and DT continues to discuss (periodic meeting) and update the requirements

Update 1 (since IETF113)
WG Adopted Documents

3. MPLS Network Actions Framework
   - ID: https://datatracker.ietf.org/doc/html/draft-andersson-mpls-mna-fwk-04 (to be replaced with ietf-mpls-mna-fwk)
   - Status of document:
     - Points raised during adoption poll (see slides on Consensus Call on MNA Polls for conclusion)
     - Successfully concluded adoption of document on July 13
     - Authors requested to publish a new revision with name change (adopted document)

I E T F

Update 2 (since IETF113) Consensus Call on MNA Polls

- Some comments raised during adoption poll of the MNA framework draft
  - Comments were discussed during Open DT weekly meeting (**no convergence**)
- ODT Chairs crafted two polls (to be sent to the MPLS WG email list) in order to converge and move forward
- The polls were left open for ~3 weeks to gather as many feedback as possible
- ODT Chairs used the results of the polls to conclude
- Results were shared on mail list and discussed during the weekly ODT Thursday meeting

I E T F

Consensus Call on MNA Poll-1

- Call to converge on having the MNA framework document:
  - be solution independent (covers AD conveyed inside the packet and signaled in control plane)
  - an MNA packet MAY carry AD in one or both places a) In-stack, b) Post-stack

- Conclusion:
  - Support for this position
  - Solutions to provide motivation for selecting ISD for a specific MNA action

Consensus Call on MNA Poll-2

- Call to converge on whether to re-purpose an existing SPL for MNA ADI (for example the Entropy Label Indicator), or to allocate a new SPL for this purpose

- Conclusion:
  - The poll showed that there is a strong consensus that the correct path forward is to allocate a new SPL for the MNA, and that no SPLs should be re-purposed for this
  - Any other application that proposes to re-purpose an existing SPL will need to go through the normal WG consensus process

I E T F

MNA Next Steps (work-in-progress)

- ODT Chairs agreed to resume MNA solution discussions (after being put on hold while the base drafts progress)
- A taxonomy of [MNA documents](#) was compiled. Solution groups Identified:
  - Solutions that encode NA and AD in-stack
  - Solutions that encode NA and AD post-stack
  - Solutions that rely on control plane (signaling) to propagate AD
- ODT Chairs have encouraged authors of solution groups to meeting during IETF114 and work together to converge
- A report from the MNA solution document authors is expected post IETF114

I E T F

Reuse of Entropy Label (Non MNA)

- Not part of the MPLS ODT MNA work, but related to the overall solution space
  - ID: draft-decraene-mpls-slid-encoded-entropy-label-id: Using Entropy Label for Network Slice Identification in MPLS networks.
  - ID: draft-li-mpls-redefining-eli: Redefining ELI considered harmful; NPL considered harmful
- The conclusion is to allow the IETF WG process to drive the progress of this proposal