Network Virtualization Overlays (NVO3) Working Group

IETF 100, November 2017, Singapore

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Administrivia

- Blue Sheets!
- Note takers + Jabber Scribe?
- Jabber / XMPP

  xmpp:nvo3@jabber.ietf.org?join

- Mailing List:

  General Discussion: nvo3@ietf.org

  To Subscribe: https://www.ietf.org/mailman/listinfo/nvo3

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Meeting Logistics

- This will be a "normal" meeting
- No round tables this time
- We have a very packed agenda. Please keep to your time slots.

Agenda – Wednesday 19th July

1. Administrativia. 5 min.   WG Chairs.

2. WG status update. 20 min.   WG Chairs.

3. Draft-geneve   Ilango Ganga   10 mins. (via Meetecho)

4. draft-mglt-nvo3-geneve-security-requirements-01   Daniel Migault   5 Mins

5. draft-rabadan-nvo3-evpn-applicability-00   Jorge rabadan   10 mins.

6. draft-fmm-nvo3-pm-alt-mark   Giuseppe Fioccola   10 mins.

7. draft-brockners-nvo3-ioam-geneve-00   Frank Brockners   5 mins.

8. draft-boutros-nvo3-mac-move-over-geneve-00   Jerome Catrouillet   5 mins.

9. draft-boutros-nvo3-geneve-applicability-for-sfc-00   Sami Boutros   5 mins.

10. draft-spallagatti-bfd-vxlan   Greg Mirsky   5 mins.

11. draft-lemon-vxlan-gpe-gbp-00   John Lemon   5 mins.

WG Progress: Milestones (proposed update)

Done   - Problem Statement submitted for IESG review
Done   - Framework document submitted for IESG review
Done   - Architecture submitted for IESG review
Done   - Use Cases submitted for IESG review
Dec ~~Aug~~ 2017 - Data Plane Solution submitted for IESG review
Dec ~~Sep~~ 2017 - Data Plane Requirements submitted for IESG review
Dec 2017 - Control Plane Requirements submitted for IESG review
~~Dec 2017 - Operational Requirements submitted for IESG review~~
July 2018 ~~Dec 2017~~ - NVE - NVA Control Plane Solution submitted for IESG review
Dec 2017 - End Device - NVE Control Plane Solution submitted for IESG review
July 2018 ~~Dec 2017~~ - OAM Solution(s) submitted for IESG Review
July 2018 – Security solution(s) submitted for IESG Review
Aug 2018 ~~2017~~ - Recharter or close working group

Document Status - 1

RFCs

- RFC7364: Problem Statement: Overlays for Network Virtualization
- RFC7365: Framework for Data Center (DC) Network Virtualization
- RFC8014: An Architecture for Data-Center Network Virtualization over Layer 3 (NVO3)
- RFC8151: Use Cases for Data Center Network Virtualization Overlay Networks

RFC Editors Queue

- Multicast Framework: draft-ietf-nvo3-mcast-fwk-05

Document Status - 2

Data Plane Encapsulation:

– draft-ietf-nvo3-geneve-05

- On agenda

- WG Last Call after this IETF?

– draft-ietf-nvo3-encap-01

- WG Last Call after this IETF?

Split NVE Control Plane requirements

– draft-ietf-nvo3-hpvr2nve-cp-req-10

- WG Last Call after this IETF

Document Status - 3

Virtual Machine Mobility Protocol:

- draft-ietf-nvo3-vmm-01
  - Is this draft ready for WG Last Call?

Control Plane Drafts

- NVE-NVA "control plane"
  - Netconf with appropriate YANG models
  - Current draft only support VXLAN
  - YANG models needed that support GENEVE
- Hypervisor to NVE Control Plane
  - draft-ietf-nvo3-hpvr2nve-cp-req-10
- Distributed Control Plane applicability
  - Draft on the agenda
- Do we need anything else?

Geneve Security Drafts
(Please hold any discussion to the sec draft slot)

- Need a firm security foundation for encapsulation
- Draft-geneve related security drafts:
  - draft-mglt-nvo3-geneve-security-requirements-01
  - Revised since last IETF
  - Who has read this draft? Is it ready for call for adoption?
- draft-mglt-nvo3-geneve-security-architecture-00
- draft-mglt-nvo3-geneve-authentication-option-00
- draft-mglt-nvo3-geneve-encryption-option-00
- AD guidance is that we do need to make informative reference from draft-geneve to security solutions
  - Need to adopt the solutions drafts

Moving forward with OAM (1)

Over the years, NVO3 has seen a variety of OAM solutions:

Point solutions for non-standards track data plane, e.g:

- VXLAN-GPE OAM bit
- VXLAN BFD
- Path MTU Discovery
- Transcending traceroute

We also had a call for adoption for generic encapsulation of OAM:

- draft-ooamdt-rtgwg-ooam-header-03
- draft-ooamdt-rtgwg-demand-cc-cv-03

No consensus to adopt these drafts in NVO3 yet

Moving forward with OAM (2)

How should NVO3 move forward?

It seems there is no consensus for a new generic tunnel OAM solution to be developed in NVO3

New OAM solutions should address specific problems in NVO3, and be applied to standards track data plane

Look to revisit specific issues raised in the past:

- Traceroute from the NVE
- Path MTU discovery

Consider new solutions for Geneve:

- IOAM
- Alt-Mark
- Others?

Comments?

Session Presentations