

NVo3 2<sup>nd</sup> Interim meeting minutes - Oct 2nd 2014.

Minutes:

Benson:

- All attendees will be muted to keep the noise to minimum. Unmute to ask a q.
- This is interim mtg, which is like any other meeting.
- Note well and all other rules apply.
- We have two drafts on agenda today.

Bhumip> Does IETF maintains the liaison to SDOs or the NVo3 WG?

Benson> IETF will maintain the liaison to other SDOs. That is what is meant in the charter.

Lucy> Today's agenda is not heavy. So, I'd like to present, if Thomas N and David B do not have a problem.

- IESG had a chance to look at the updated charter text.

Alia> IESG approved it today for internal review. Will take another 2 weeks for external review. I have sent email to the mailing list to read the charter as it is approved.

Alia> Do not expect much surprises from external review

Benson> We changed the text around the control plane. Changed to one protocol. Second one is adding LISP at the end along with BGP. i.e. work of these will be taken in their respective WG.

Alia> NVo3 to focus on orchestration and not be like routing protocol like. This is to make quick progress.

Benson> If I understand, one protocol per each aspect and not have just one protocol for everything.

Fabio> What is the way the three WGs could talk?

Benson> Participants are overlapping in each of the WG. As you said, Individual contributions will help co-ordinate.

GUE draft: (Tom H)

- This is the protocol we actually deployed. Lucy provided contributions to the text
- There are several requirements related to control, security and performance

Bhumip> Is it for DC only or generic

Tom> It could used for other cases but have to consider some things if want to use it for other cases

- Need to integrate with switches, middle boxes.
- It should integrate with security protocols
- In use cases, encapsulation should support IPv4 and v6
- In virtualization use case, jobs could be 'migratable'. Performance is critical.
- Third party VMs could be integrated. Controlling packets is vital.

Bhumip> IS this similar to SDDC?

Tom H> This is lower layer primarily dealing with scheduling. For ex: preempting higher priority jobs for lower priority, which could be

similar to SDDC

- This encapsulation will be done in IP/UDP
- GUE meta-header is the preamble to all the udp encaps
- Provided details about various fields in the header.

Bhumip> Header virtual or not? Can you have multiple instances of header?

Tom> You can have multiple layers.

David Black> It is not sufficient to say 'may set checksum to'

Tom H> You do realize that VXLAN differs from that.

David B> VXLAN is not IETF protocol or standard.

Tom H> What do you suggest

David B> We will have some text for MPLSoUDP draft. Hope that will help.

Alia> By the time this draft progresses, we should have some specific related to mplsoudp draft right?

David B> By Honolulu, we should have text for MPLSoUDP. We could take it from there.

Erik> Can you do checksum offload?

TomH> Little different from tx and rx

- Packet originated on VN should stay on VN. Security is important for this.

- Congestion control is needed. Lighter weight DCCP for CC.

David B> There is circuit breaker draft. Please look at it to use the right terminology.

Tom H> I looked at it and in this context, I did mean CC.

Sharon> We have lot of experience using DCCP. We can take offline and share the experiences.

Anoop> Is the CC operating on outer header or individual flows?

Tom H> CC of the tunnel

- foo o UDP in upstream linux

- Remote checksum offload is in development

Erik> You want this to be implementable?

Tom H> We cannot wait for h/w to be supporting this. But have this protocol implemented.

Erik> Have you looked at supported by existing silicon?

TomH> That is interesting. One vendor said, yes.

Hpv2NVE D (Lucy) :

- No presentation at this interim

Open Discussion:

Benson> Take a look at this BIER BOF and its scope. Will send out the like <http://tools.ietf.org/bof/trac/%23Routing>

Alia> It is imp for WG to take a look at this BOF and its impact/influence on NVo3.

Fabio> NVE to NVA is part of the scope. Reading from the draft, not sure NVo3 is focusing on.

Benson> We need to clarify what it means by orchestration.  
Alia> We know this could be solved in many ways. Recharter will ack multiple mechanisms to exist.  
Fabio> If we leave multiple solutions, not sure if that is a progress.  
Benson> NVo3 does need to solve and need to learn from other WGs  
Fabio> Agree with Benson. For ex: How do you push the mapping from NVE to NVA  
Bhumip> May be last paragraph need to be removed as it is causing the problem  
Alia> It is needed. We had more than 2 years to discuss about this.  
Osama> Can we use BGP between NVE and NVA? Is that in scope or out of scope?  
Benson> Out of scope of NVo3.  
Lucy> Why we use MAY for requirements and Use case?  
Alia> Want to do parallel and not waterfall model  
Lucy> I agree but we already have the docs done, hence the question  
Erik> Happy that we focused and chartered to get work done.

Benson> there are many CP exist. Learn from them and start using them. We should start discussing them on the mailing list.

Benson> See you all in the next interim.