server2nve

Kompella, Rekhter, Morin, Black

IETF 85, NVO3 WG

Goals For the Draft

- Primary goal: define signaling between server and NVE (network virtualization edge) to allow simplified provisioning

  – Provision the server with all attributes (including networking) needed to instantiate a new VM …

  – … and server signals the NVE with the network attributes

Goals

- In order to give context to this signaling, we described in abstract but fairly detailed form the steps to create a new VM instance, to "hot" migrate, and to terminate a VM

- Some took this as *prescriptive* (i.e., must happen as described), and weren't sure that this belonged in the draft (or WG!)

- Others were happy to see this written down

Topics Discussed in -00

- VM provisioning
- Network provisioning/signaling
  - Current Mode of Operation
  - Future Mode of Operation
  - Network parameters
  - Signaling choices for FMO
  - Technologies choices for network virtualization
- Integration with network-wide control plane

Updates 00→01

- In the -01 version, we've tried to make it clear that the descriptive text around VM provisioning is just that: <u>descriptive</u>
  - expanded the sections dealing with this
  - added more detail around VM hot migration
- Also tried to make it clearer that the NVE *may* reside on the server

00→01

- We also expanded the sections describing what happens in the network in response to VM creation/migration/termination
- The section describing how server2nve signaling interacts with the network-wide control plane has been removed in favor of a stub stating this needs to be done
  - We'll produce a companion doc with that

Planned future revisions

- More focus on *co-resident* nve
- Algorithm for tracking VN<->VID mapping
- More details on network signaling for hot migration
  - Corner cases, timing issues, race conditions
  - Potential sources of traffic loss
- At some point, syntactic details for various signaling protocols (XMPP, VDP, REST, …)

Relationship with other drafts

- May need some reqts added to draft-kreeger-nvo3-hypervisor-nve-cp
  - Perhaps a paragraph or two in framework draft
- Lot of material recently added to draft-gu-nvo3-tes-nve-mechanism
  - Now there's a fairly large overlap
- draft-fw-nvo3-server2vcenter probably not directly related, as it is server to VM orch