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: descriptive
  – 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
• 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