

Issues of Mobility in DC Overlay network

Extracted from

<http://tools.ietf.org/pdf/draft-raggarwa-data-center-mobility-03.pdf>

<https://datatracker.ietf.org/doc/draft-dunbar-nvo3-overlay-mobility-issues/>

Major issues when VMs move in overlay environment

- Optimal IP routing when one subnet is spread over multiple sites:
 - Optimal IP routing for inbound
 - Optimal IP routing for outbound
- Layer 2 extension:
 - supporting L2-based CUG semantics when VMs belonging to one L2-based CUG spread across multiple sites
- Dynamic enabling/disabling of VNs on a NVE
 - the set of L2 sites that contain VMs that belong to a given L2-based CUG may change over time (new sites added, old sites deleted)
- For VMs which send/receive IEEE802.1Q VID tagged frames, the same VID used by the VMs will appear under different NVE as VMs move, making it difficult to achieve >4K virtual networks
- Multicast, by nature, is dynamic
 - for a given group its membership can change over time
 - In the context of DC, VMs can join/leave a given group over time.
 - VM mobility does not introduce any fundamental differences for multicast.