

# NVO3: VPN Interactions

(Some initial thoughts)

David L. Black, EMC

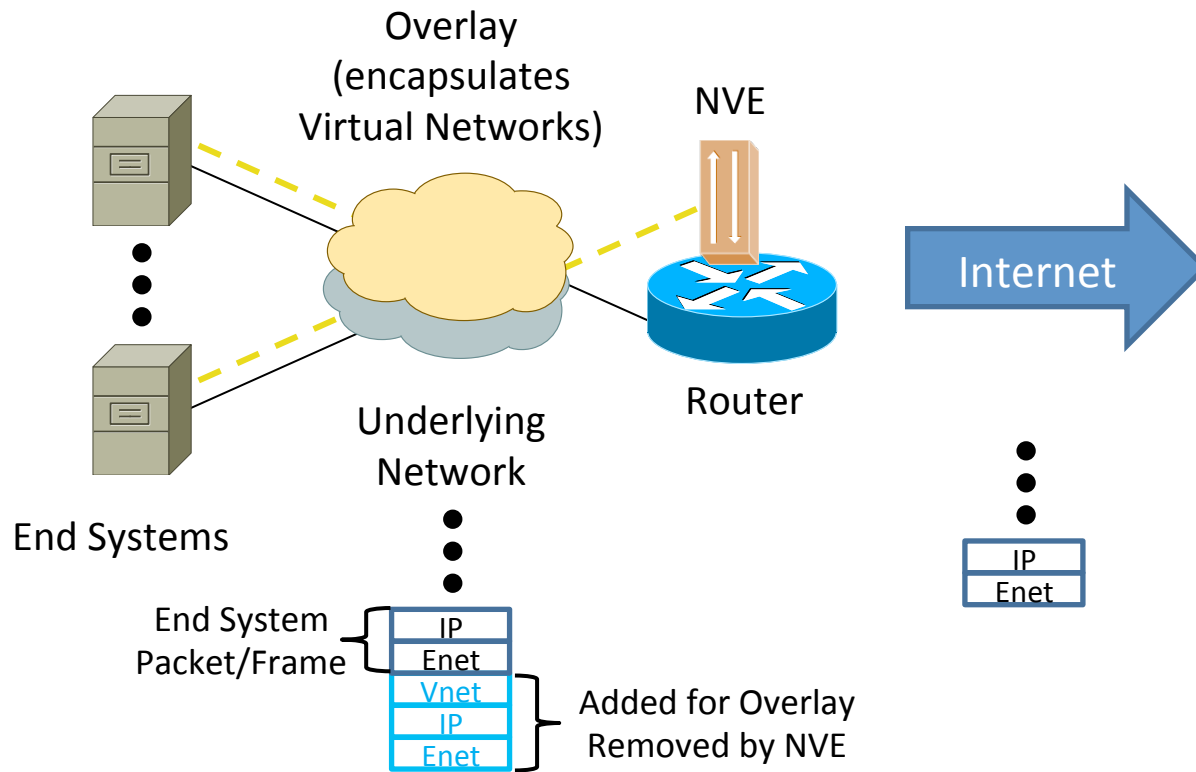
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# What's this about?

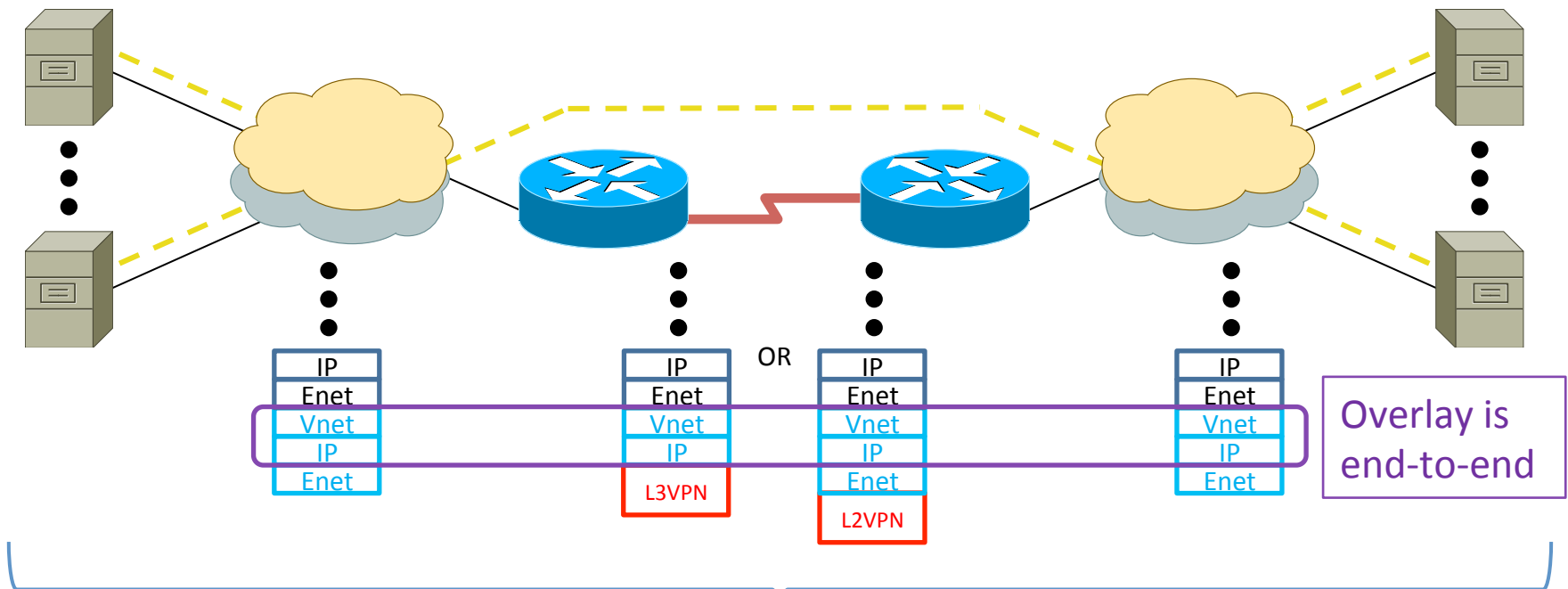
- Draft NVO3 charter:
  - “Finally, some work may be needed in connecting an overlay network with traditional L2 or L3 VPNs (e.g., VPLS).”
- These slides: Some initial thoughts
  - 3 examples of overlay-VPN interactions

# Basic Diagram



Network Virtualization Edge [NVE] integrated into end systems and gateway router

# Two Data Centers, One Admin Domain (1)



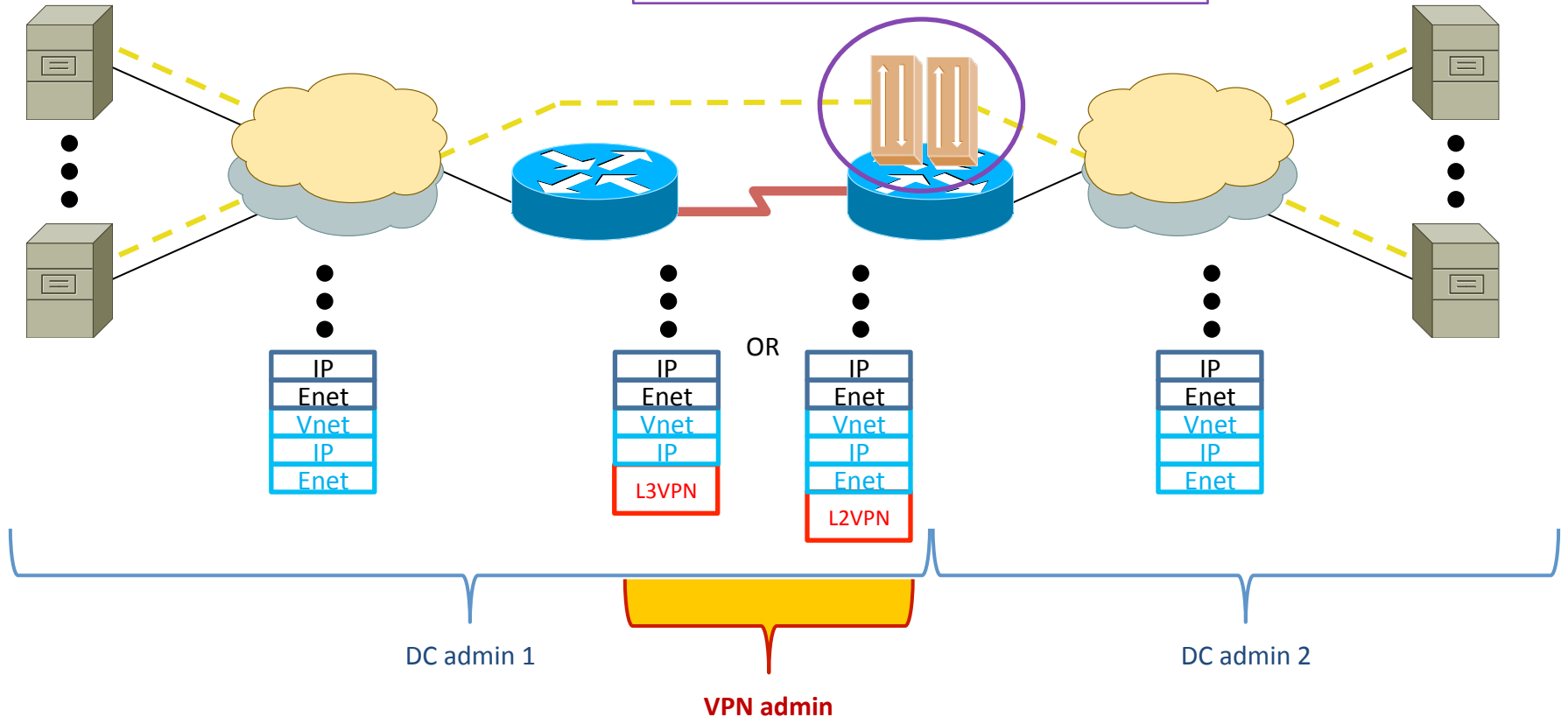
DC admin 1

That was easy ...  
What if the overlay  
is not end-to-end?

**Connectivity unspecified** Single overlay  
transported over inter-data-center connectivity (e.g., VPN)

# Two Data Centers, Two Admin Domains (2)

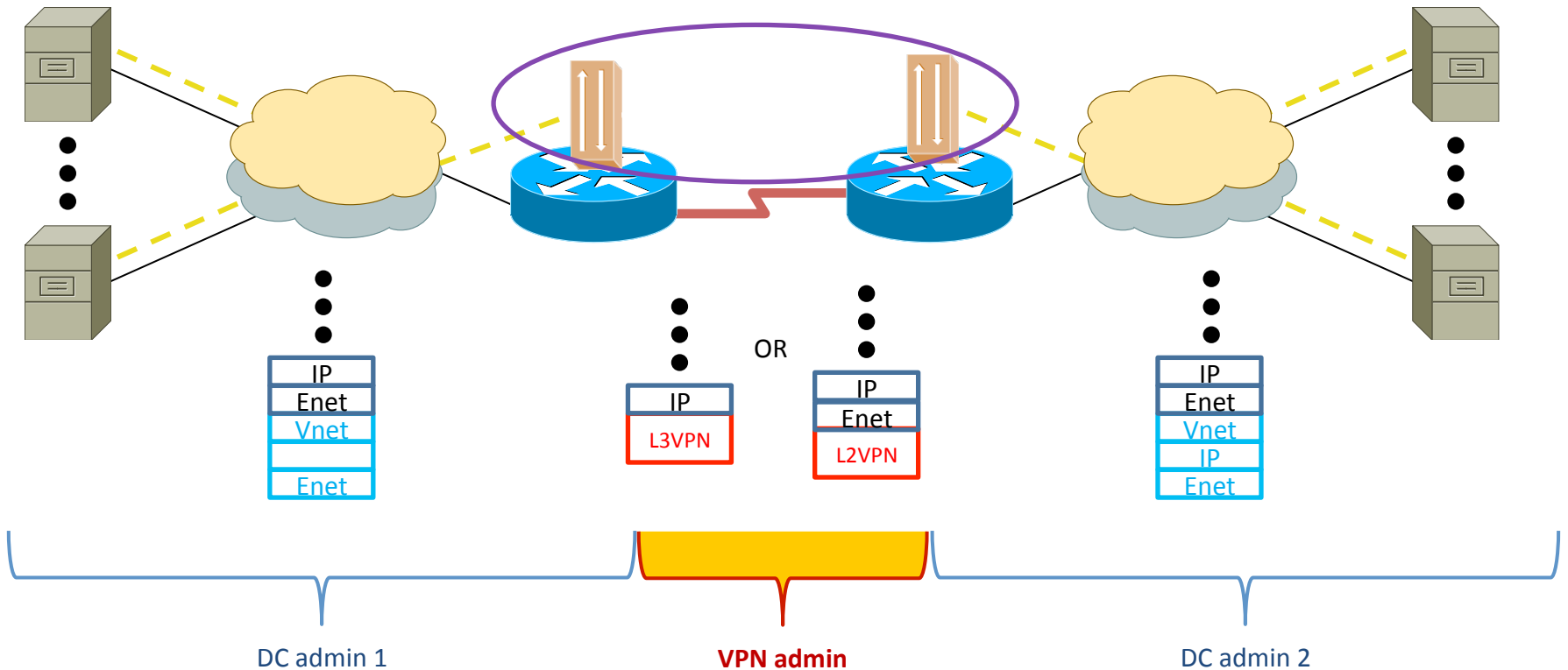
Map VNIDs between the two overlays here (two NVEs)



**Connectivity unspecified**

Left overlay transported over inter-data-center connectivity (e.g., VPN).

Opportunity: Map VNIDs to/from VPN IDs  
Result: Single logical network (2 VNs + VPN)



**Connectivity unspecified,**

Baseline: Separate overlay domains, separate virtual networks.

Comments? Questions?