



DC and DC interconnects, open discuss

- Open discussion on datacenters and datacenters interconnections

- Why ?
 - ◆ Multiple documents and slot requests brought up during past meetings including this one
 - ◆ Need to discuss what kind of work l3vpn can usefully do in these related areas

- Short intro, then open mike, possibly followed by questions to the room



DC and DC interconnects, open discuss

- Drafts related to these areas for which slots were requested for this meeting
 - ◆ d..xu-l3vpn-virtual-subnet
 - ◆ d..fang-l3vpn-virtual-pe
 - ◆ d..fang-l3vpn-virtual-ce
 - ◆ d..fang-l3vpn-data-center-interconnect
 - ◆ d..drao-bgp-l3vpn-virtual-network-overlays
 - ◆ d..drao-bgp-l3vpn-virtual-network-overlay-multicast
 - ◆ d..rfernando-l3vpn-service-chaining

- Let's briefly present them through answers provided by draft authors to a few chairs questions
 - ◆ What is the scope of your draft?
datacenter, datacenter interconnections, or both ?
 - ◆ Addresses needs for L2 subnet connectivity or for L3 connectivity ?
 - ◆ Other application spaces ?
 - ◆ Introduces or requires new procedures and/or protocol extensions ?
- Feel free to discuss these answers and comment these drafts during the discussion



DC and DC interconnects, open discuss

- draft-xu-l3vpn-virtual-subnet
 - ◆ Scope: **DC and DC interconnects**
 - ◆ Goal / problem solved: **providing L2 subnet connectivity**
 - ◆ Solution summary: **RFC4364 + proxy ARP**
 - ◆ Introduces or requires new procedures and/or protocol extensions ? **No**

- draft-fang-l3vpn-virtual-pe
 - ◆ Scope: **DC**
 - ◆ Other application spaces ? “SP cloud, DC/WAN/Access networks, and Enterprise campus/DC, and remote offices”
 - ◆ Goal / problem solved: intra-DC L3 connectivity
 - ◆ Solution summary: **RFC4364 + MPLSoGRE**
 - ◆ Introduces or requires new procedures and/or protocol extensions ? **essentially reuses existing specs**



DC and DC interconnects, open discuss

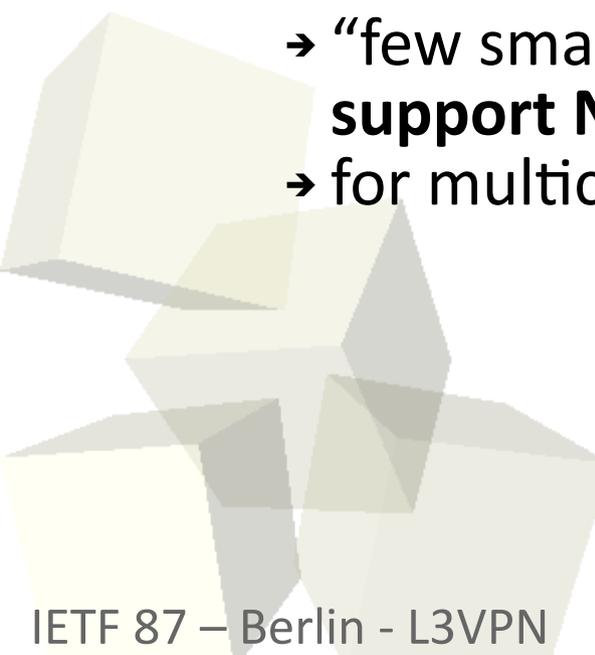
- draft-fang-l3vpn-data-center-interconnect
 - ◆ Scope: **DC interconnects**
 - ◆ Goal: DC-DC interconnects with L3VPN, and WAN L3VPN to DC L3VPN
 - ◆ Solution summary: **RFC4364 inter-AS options**
 - ◆ Introduces or requires new procedures and/or protocol extensions ? **essentially reuses existing specs**

- common to both d.-fang-l3vpn-virtual-pe and d.-fang-l3vpn-data-center-interconnect:
 - ◆ suggests need for extensions to support VXLAN and NVGRE encap
 - ◆ for “SDN controller case”, certain extensions to support VPN may be needed for signaling/messaging protocols between controller and the vPE (e.g. Netconf/Yang, XMPP, OpenFlow)



DC and DC interconnects, open discuss

- draft-drao-bgp-l3vpn-virtual-network-overlays(-multicast):
 - ◆ Scope: **both DC and DC interconnects**
 - ◆ Other application spaces ? **no**
 - ◆ Goal / problem solved:
 - **extend BGP IP-VPNs to support VXLAN and NVGRE encapsulations**
 - **optimize multicast**
 - ◆ Introduces or requires new procedures and/or protocol extensions ?
 - “few small but important” **extensions to RFC 4364 to support NVGRE and VXLAN**
 - for multicast, reuse a subset of existing mVPN procedures





DC and DC interconnects, open discuss

- Among the questions that we think would be useful to discuss
 - ◆ WG interest in these topics
 - intra datacenter
 - L3
 - L2 subnet connectivity
 - datacenter interconnects
 - DC to DC
 - WAN VPN sites to DC
 - encap extensions
 - ◆ do you think L3VPN WG should contribute to developing solutions for the scope of DC and DC interconnections ?
 - why/why not?
 - ◆ what type of work would that imply (applicability statement, protocol extensions, ...)?
- Open discussion...