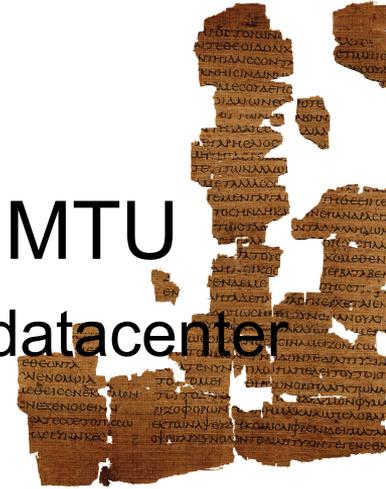


Encapsulation Considerations OAM update for NVO3

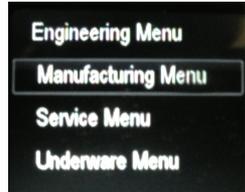
Design team report
draft-rtg-dt-encap-02.txt

Packet size and fragmentation

- Deployed overlays assume underlay MTU
 - Reasonable for controlled deployments in datacenter or SP networks
- But useful to detect misconfiguration
 - Set outer don't fragment (DF) flag
 - Syslog received ICMP “packet too big” on NVE
 - Also generate overlay ICMP PTB for IPv4/6
- Other encaps could do frag/reassembly
 - NVO3 deployed outside of its original environment?



OAM [Repeat]



- Discussed in NVO3 and SFC and LIME
 - Rich architectural discussion
 - We only looked at effect on encaps format
- Need for in-band OAM measurements
 - Add measurement info to data packets
- Out-of-band measurements
 - OAM packets follow same path as data packets
 - Assumes same ECMP, QoS, middlebox/firewall
 - Constrains entropy use in forwarding routers

OAM support [Repeat]



- Avoid sending OAM frames to end stations
 - Use some “discard” next header value, or OAM bit?
- Support in-band OAM measurements
 - Bit for counter sync between ingress and egress
 - Optional timestamps etc in encaps header
- Error Reporting Protocol as part of OAM?
 - How to avoid it being filtered as ICMP often is?
 - Recommend that IETF look into error reporting that is independent of the specific encaps

Update in -02

- Avoid sending OAM frames to end stations
 - The next header value might have other implications
 - E.g., classify IPv4 vs IPv6 vs Ethernet vs. SFC
 - Thus an OAM “drop after decaps” bit seems preferred over a “discard” next header value