

IPv6 over Link-Local Discovery Protocol

draft-richardson-anima-l2-friendly-acp

M. Richardson (**presenting**)

Liang Xia

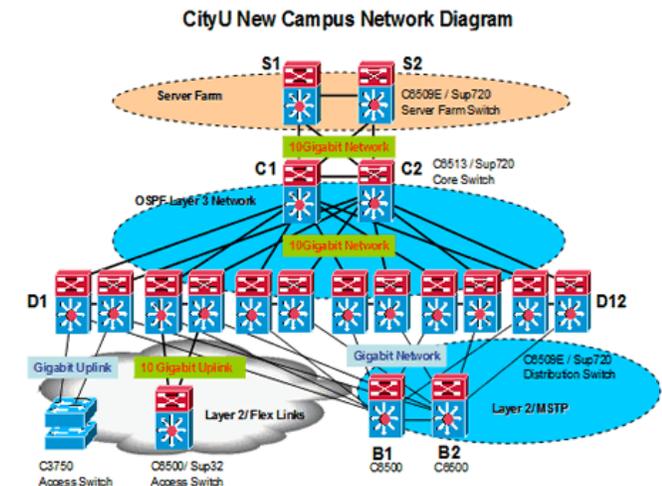
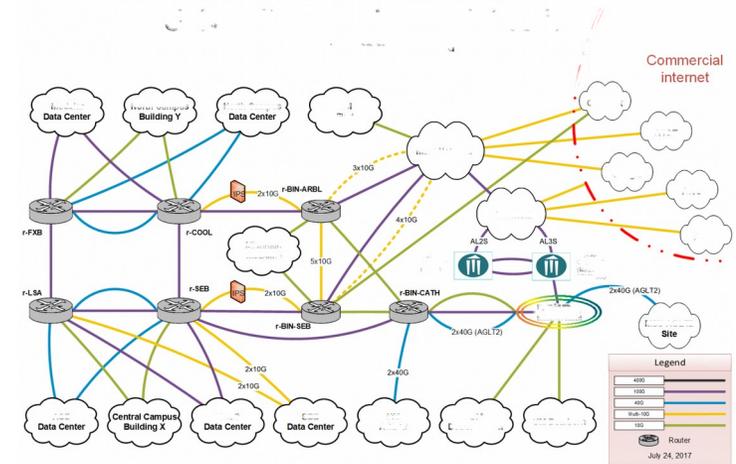
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(recap) Challenges in creating Autonomic Control Plane (ACP) in Layer-2 Software Defined Networks (SDN)

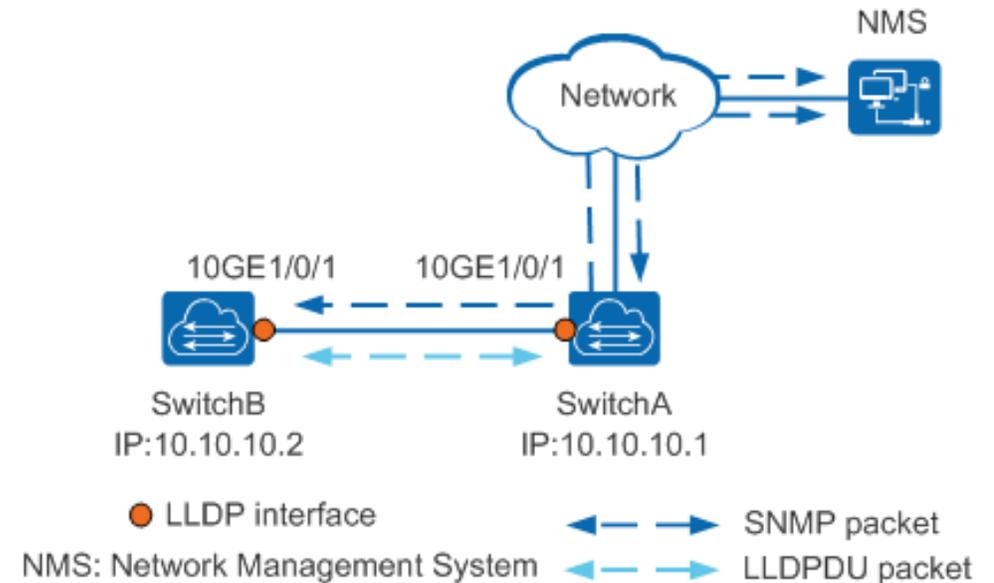
SDN managed Layer-2 networks have multiple, redundant links between routers.

- loops may be present, to be resolved by SDN controller



~~Background on LLDP~~

- many issues
- many found solution gross
- we found we could make it work, but it required additional fabric configuration which defeated point of using this



Step back: define problem

- 1)The encapsulation should be capable of transferring full-size (1280 byte) IPv6 packets.
- 2)The encapsulation should not be confused with standard unicast IPv6 Ethernet encapsulation using EtherType 0x86DD.
- 3)Even when in a very primitive "default" or power-on configuration, a switching fabric should never forward frames received on one port to any other port.
- 4)It should be possible to send these frames from the forwarding engine to some control plane system for specific processing.
 - 1)(When doing so, the physical port number needs to be associated with the frame.)
- 5)It should be possible for control plane daemons to send frames for transmission on any port, and to that port only, even if that port is part of a larger layer-2 domain.

What we would like from the WG

- do you think that this is a problem worth solving?
- if so, then this becomes an IPv6-over-FOO document
 - would like to ask the WG to refer this document to the IETF/IEEE coordination group for advice
 - document might have to go 6man or ???

Thank You!