

# Extending PRAGMA-ENT for End Users using IPOP Overlay Networks

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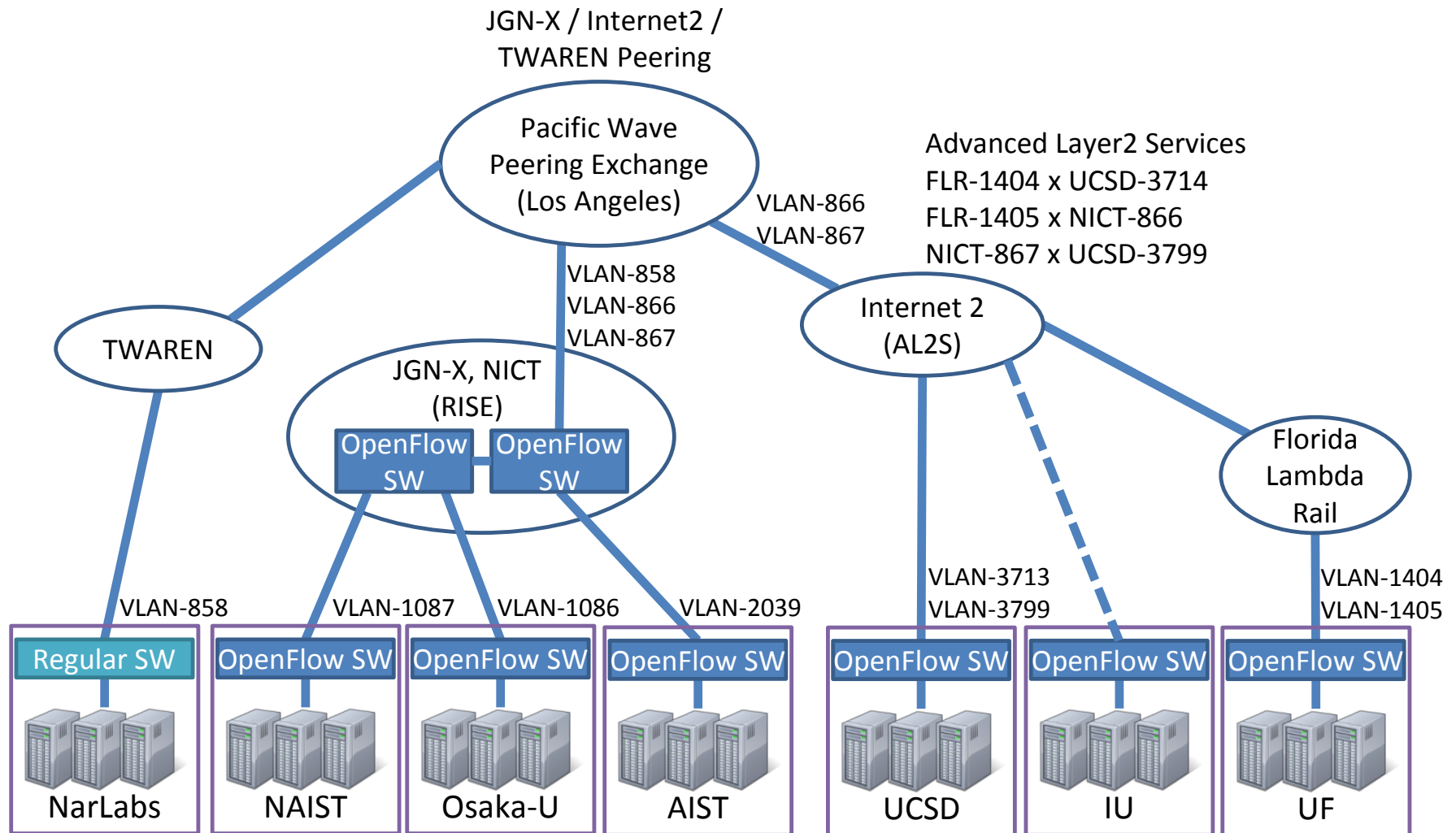
# PRAGMA-ENT (Experimental Network Testbed)

- An international SDN/OpenFlow testbed for use by PRAGMA researchers and collaborators
  - provides complete freedom to access and configure network resources

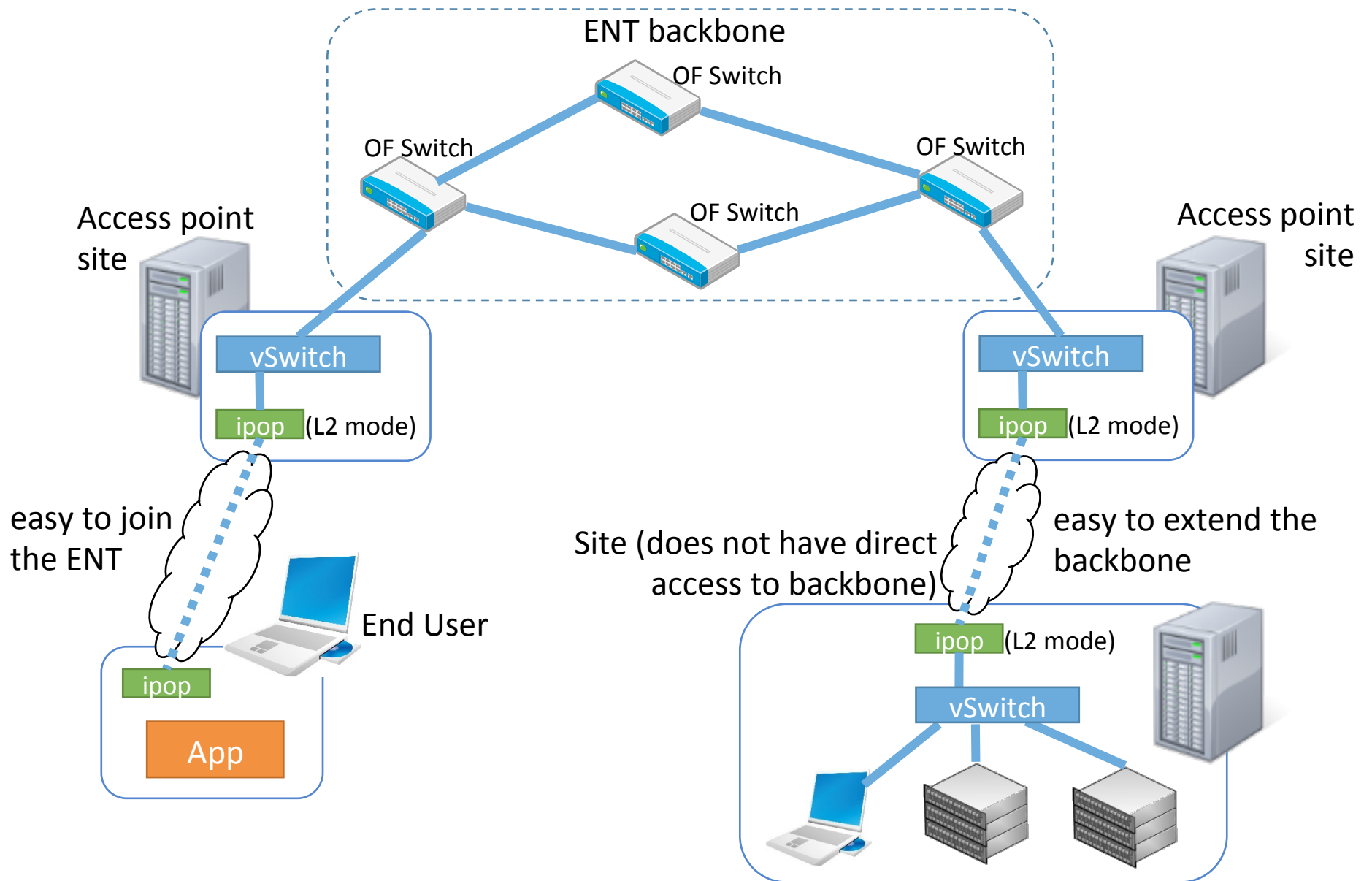


# Backbone of PRAGMA-ENT

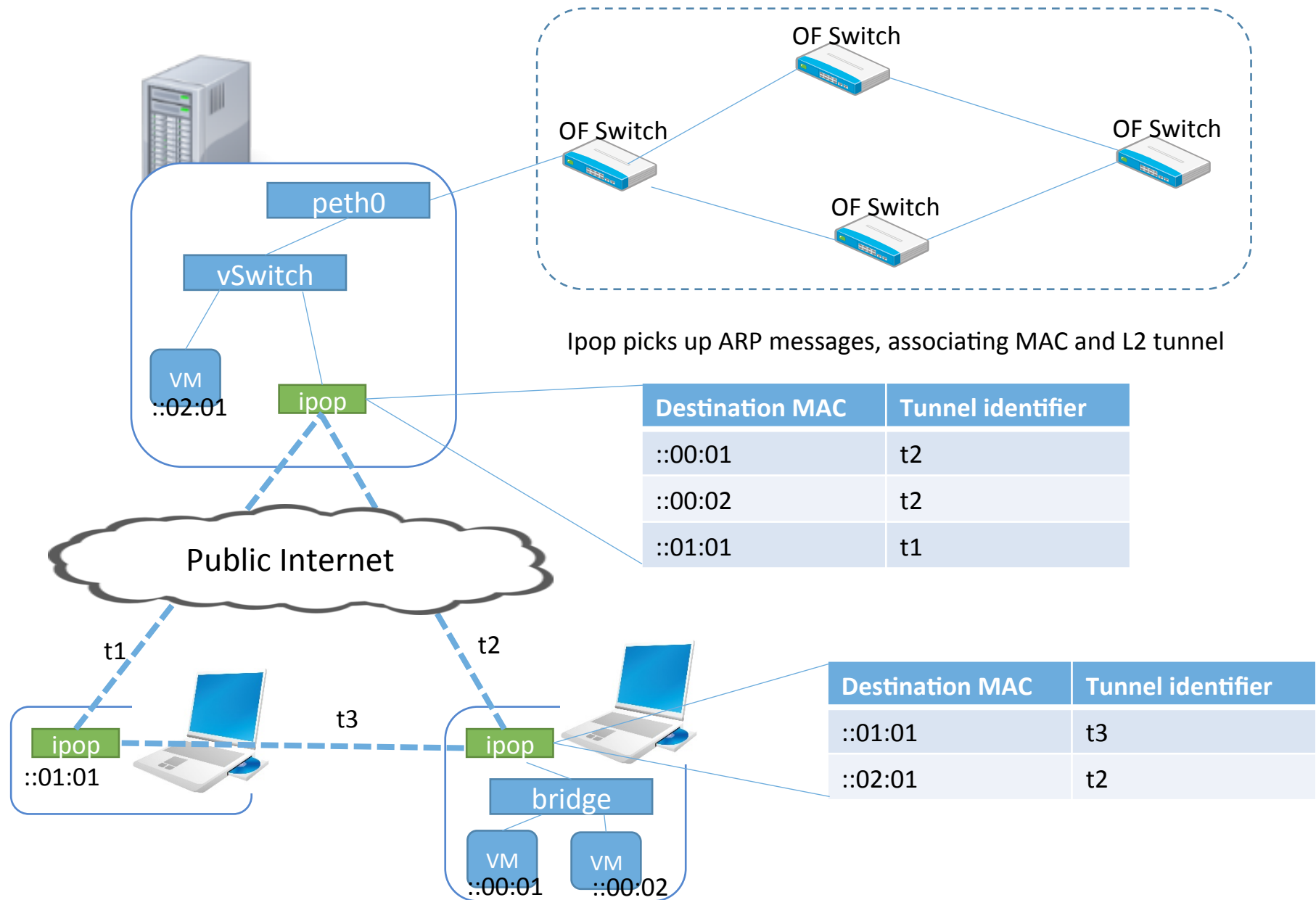
ENT resources are connected each other through academic network backbones, but joining ENT is not easy for end users who just want to use the resources temporarily.



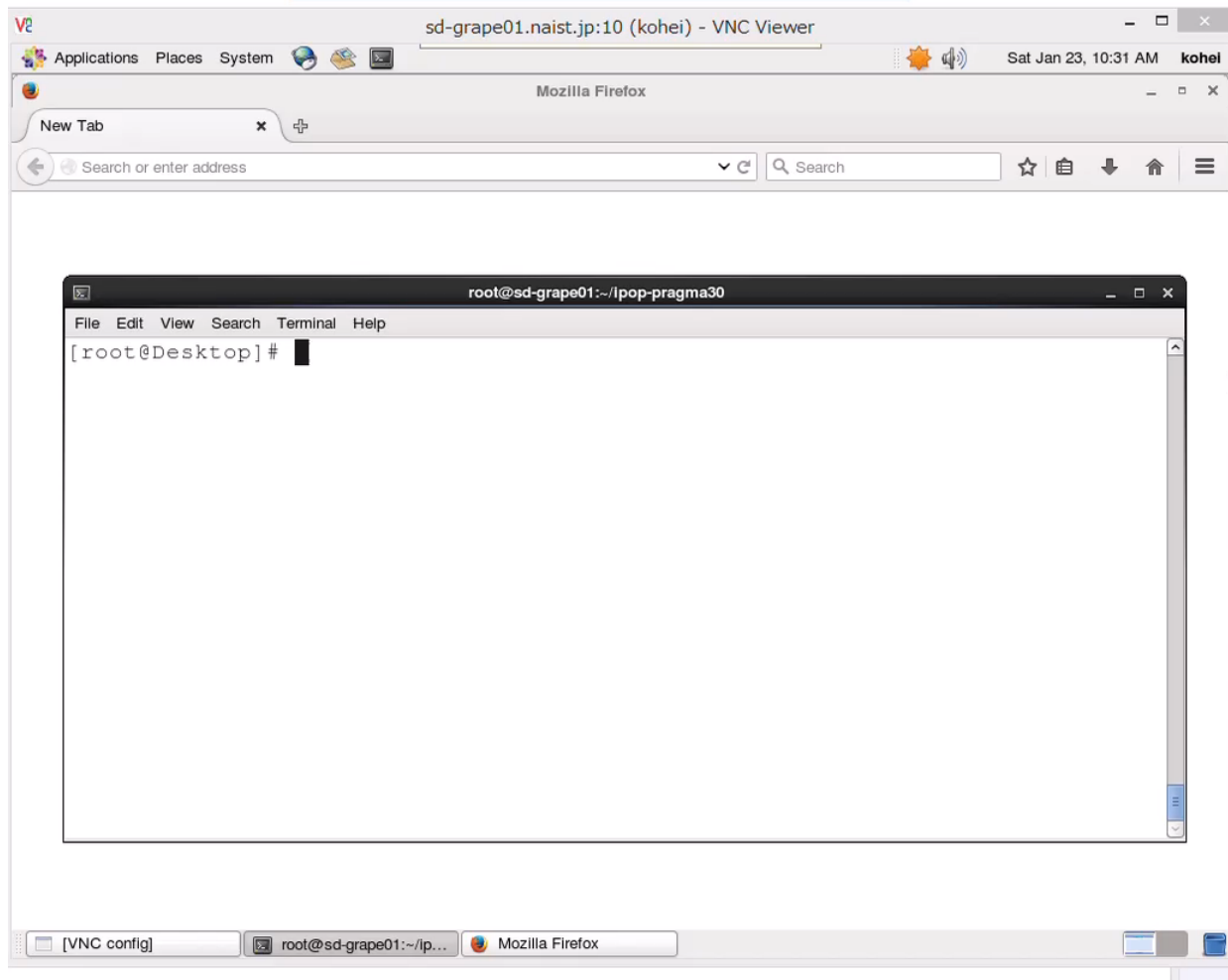
# Extending backbone through IPOP



# ENT L2 extension through IPOP



## End User's Desktop



## Open vSwitch Server@ENT

