



OPEN  
DAYLIGHT

S U M M I T

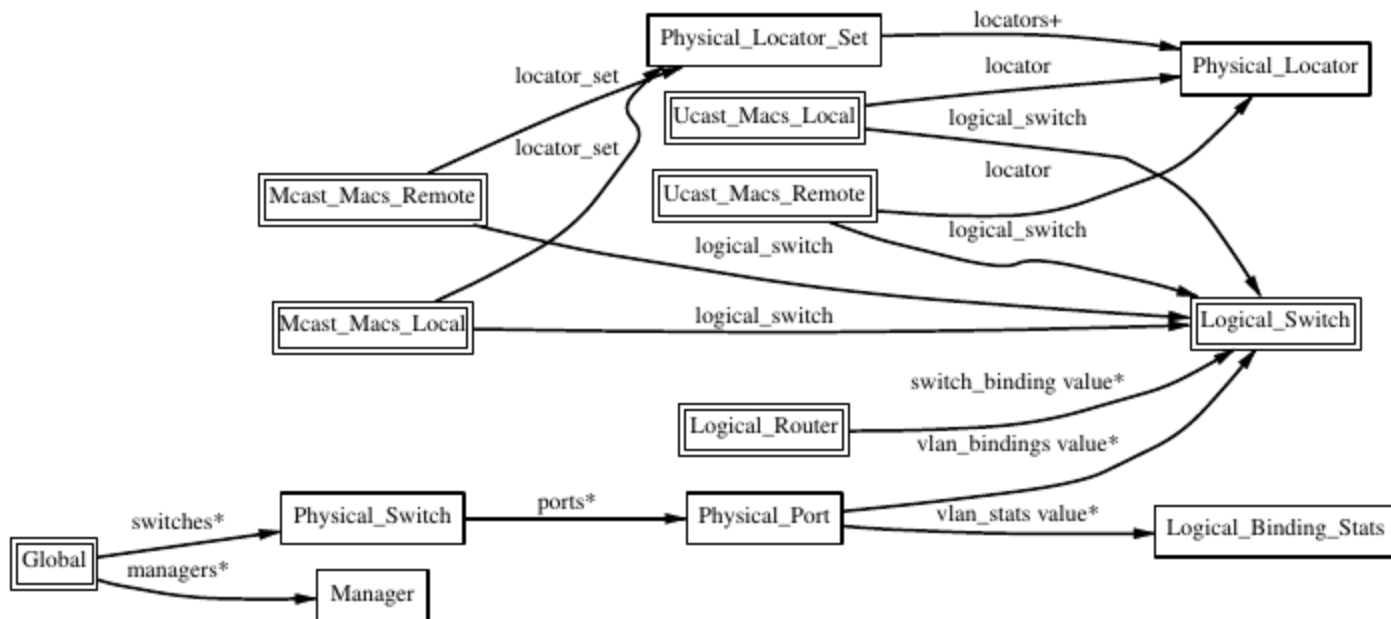
## OVSDB Unconference

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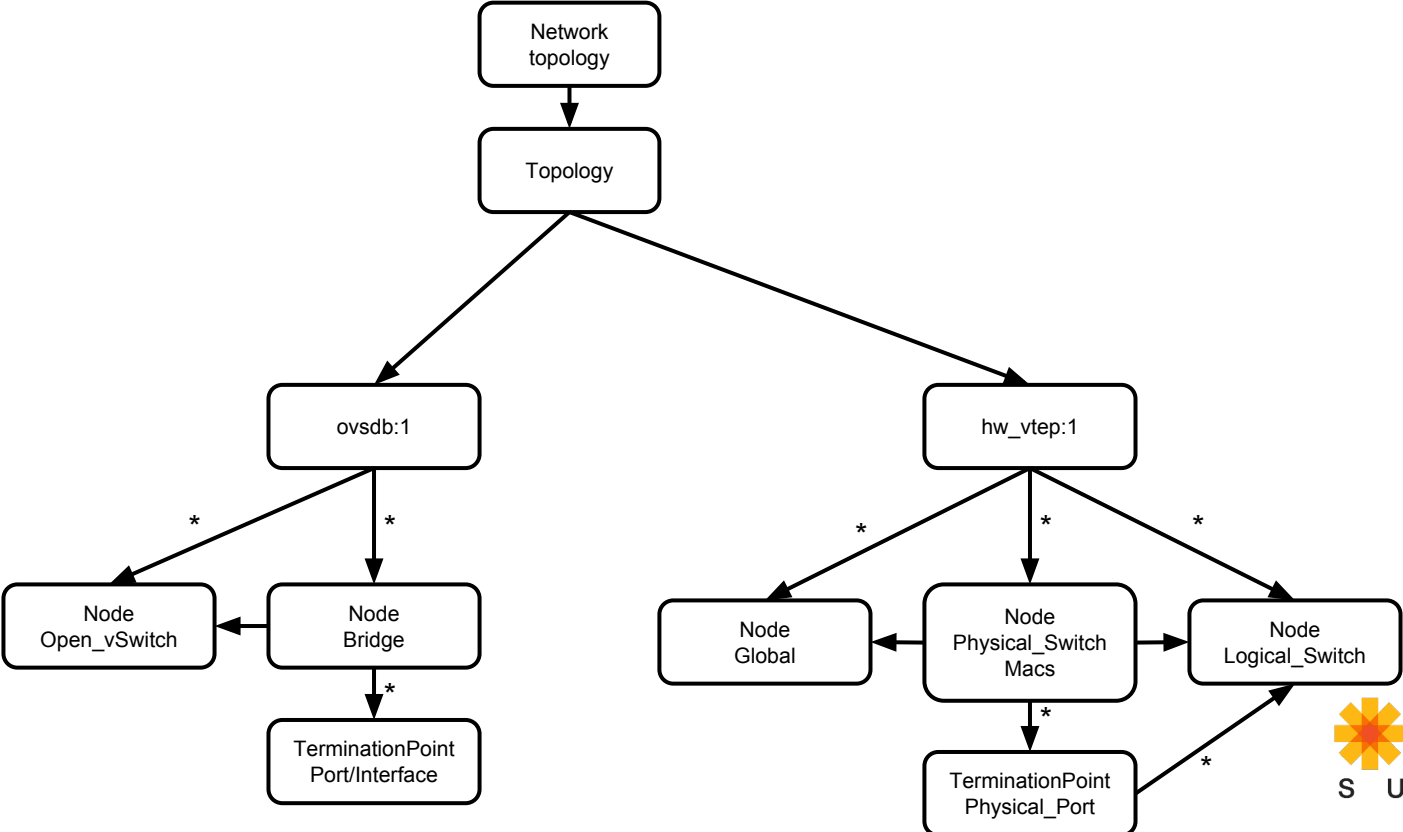
## What are we planning for Beryllium?

- Clustering support to provide HA, Scalability and Performance
- Continue to improve code quality and stability
- Increase testing coverage
- Improve documentation
- Add support for new OpenStack services
  - Complete Security Groups and LBaaS
  - Implement SNAT, DHCP, IPv6 and FWaaS
  - SFC/NFV Integration
- Implement hardware vtep southbound plugin
- Implement support for hardware vtep L2 Gateway
- Migrate NetVirt to consume Neutron Yang Models
- Continue growing an open ecosystem
- Help people to come onboard and solve interesting network virtualization problems with us.

# hw\_vtep Schema



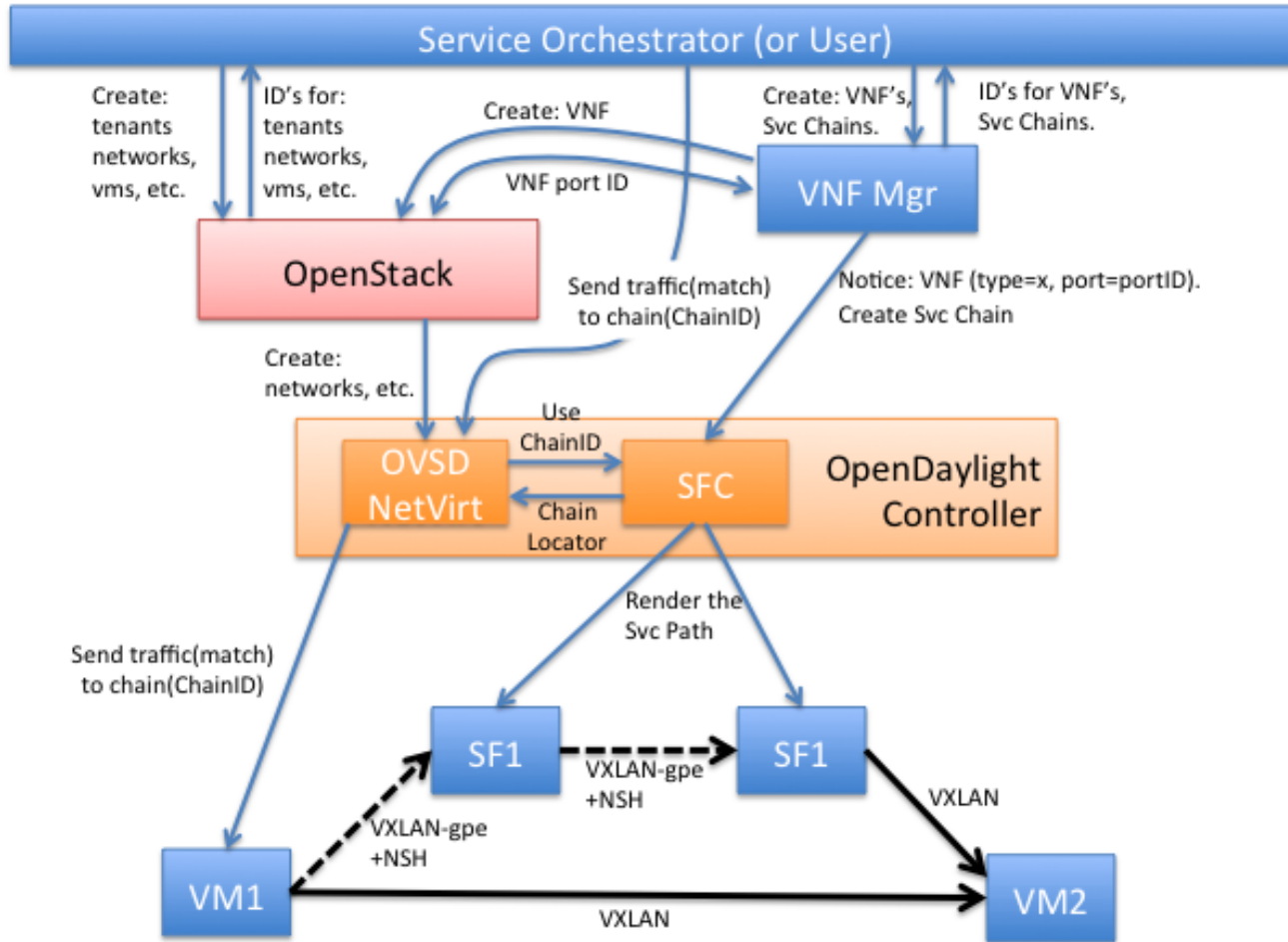
# hw\_vtep Yang



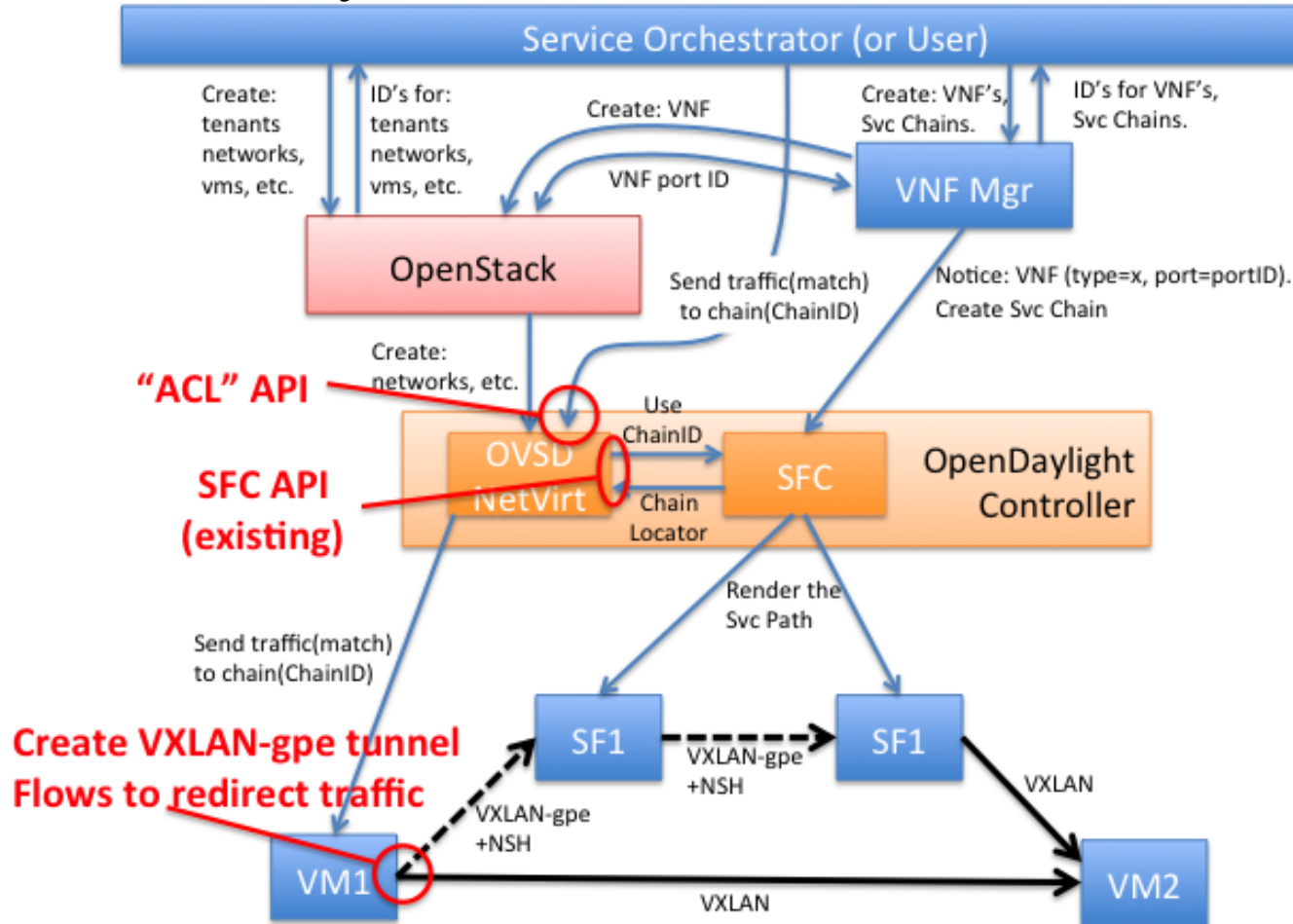
# hw\_vtep Tasks

- Architecture
- Yang model
- ODL Neutron: add I2-gw to neutron northbound
- OpenStack I2-gw / odl plugin
- Infra work
  - library from private to library as a feature
  - extract command pattern
- hw\_vtep southbound plugin
  - mdsal side
  - ovsdb side
- NetVirt
  - dataChangeListeners for I2-gw mdsal
  - read/write for I2-gw mdsal
  - flow programming
- Unit and Integration Test
- Documentation

# High Level NetVirt/SFC Model



# Work Needed by NetVirt



# NetVirt SFC Tasks

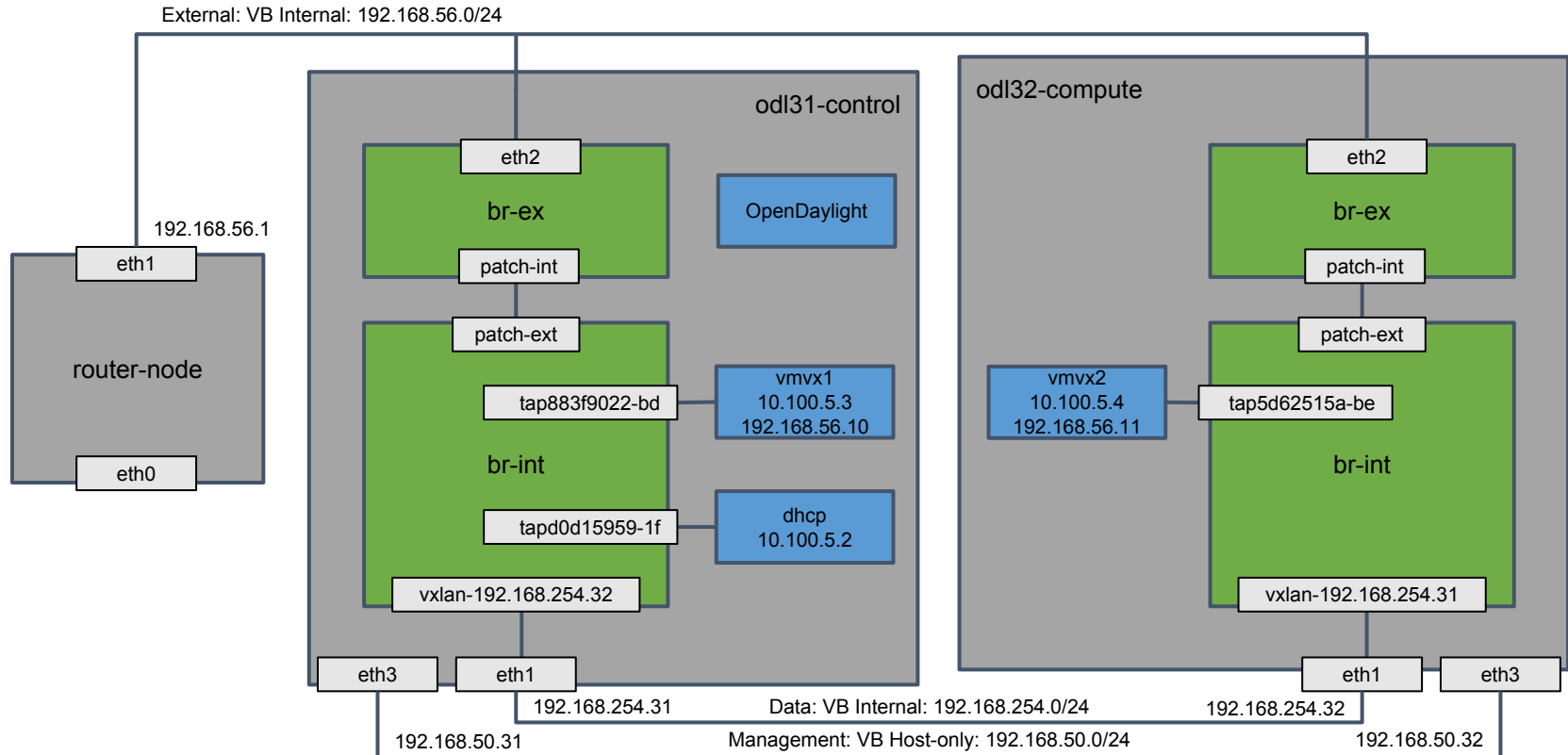
- Classification (“ACL”) API
  - Look at default classifier in SFC
- NetVirt-SFC API
  - Request Chain
  - Receive Chain Locator
  - Possibly coordinate on final destination locator.
- Data Plane
  - VXLAN-gpe Tunnel
  - NSH Header
  - Coordination for final destination.



# Types of Network Address Translation (NAT)

- Static NAT
  - e.g., Floating IP Addresses (what we do now)
- Dynamic NAT
  - Like Floating IP, but addresses are assigned dynamically.
- Single-Address NAT/Overloading/Masquerading/Port-Based NAT, Network Address Port Translation (NAPT) and Port Address Translation (PAT).
  - NAT router has only one registered IP address.
  - NAT router maps each internal client that needs to communicate with the Internet to a different port from the registered IP address.
  - Example Mapping Table
    - 10.0.0.1:5678 <-> 203.22.11.20:7650
    - 10.0.0.1:5679 <-> 203.22.11.20:7651
    - 10.0.0.2:5678 <-> 203.22.11.20:7652

# SNAT Discussion



# Security Groups

- Which to implement
- contrack

# Migrate NetVirt to MD-SAL Neutron

- NetVirt has neutron handlers that should map easily to data Change listeners
- NetVirt reads heavily from the neutron pojos
- Leverage the concept of operational and config to express neutron northbound functionality that is either not supported or not available

Backup

# SFC

- Classification
  - Traffic ingressing and egressing from the SFC chain
  - OpenFlow pipeline coexistence
  - Classifier restconf to indicate the classifier
- Bridge sharing
  - OpenStack wants control of the bridges for the overlay
  - SFC wants control of the bridges for NSH overlay

# BACKUP Slides

# Clustering, HA and Persistence

TBD....