

# OpenOLT

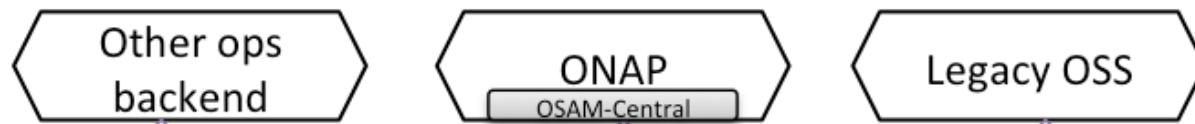
Voltha's Generic OLT Adapter

December 5, 2018

# SEBA

Fault mgmt  
Config  
Accounting  
Performance  
Security  
Inventory

Peripheral/PNF/Pod



OSAM-Local

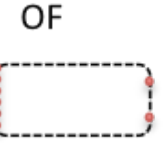
EMS/NMS-adaptor



All control software deployed as Docker containers on compute nodes using Kubernetes



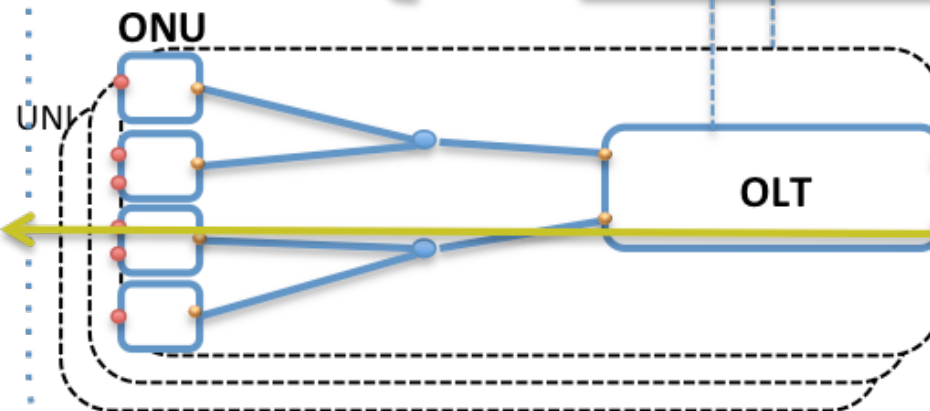
Redfish



OF/P4

Redfish

OpenStack Nova  
K8  
Redfish



BNG as a workload option

- External physical BNG
- vBNG in compute
- BNG as PNF in Agg switches
- BNG as PNF in OLT boxes

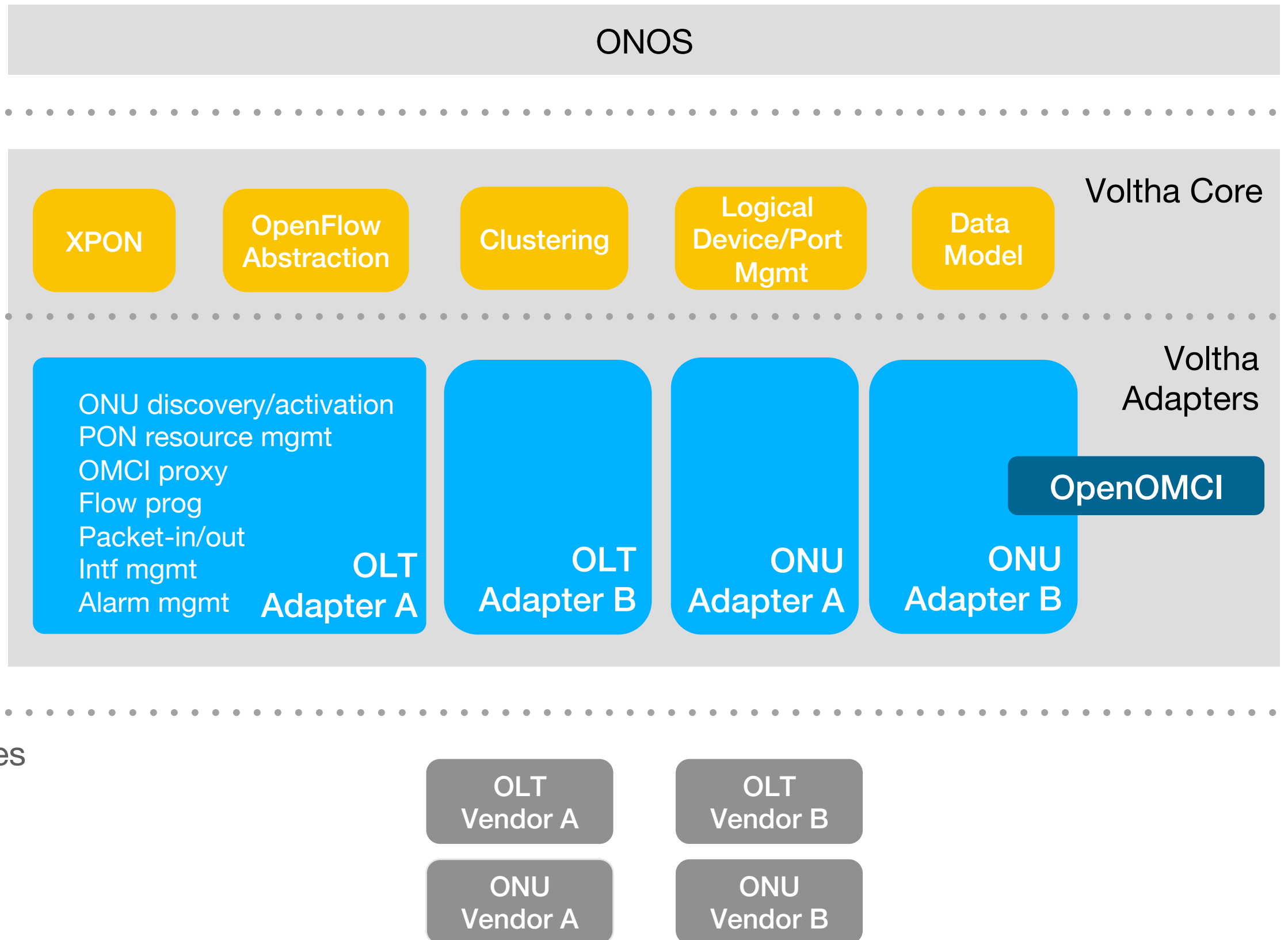
Subscriber traffic 'fast-path' to Internet. Redirected to compute for additional services.

# Voltha Interfaces

OpenFlow  
+  
gRPC/REST

iAdapter  
interface

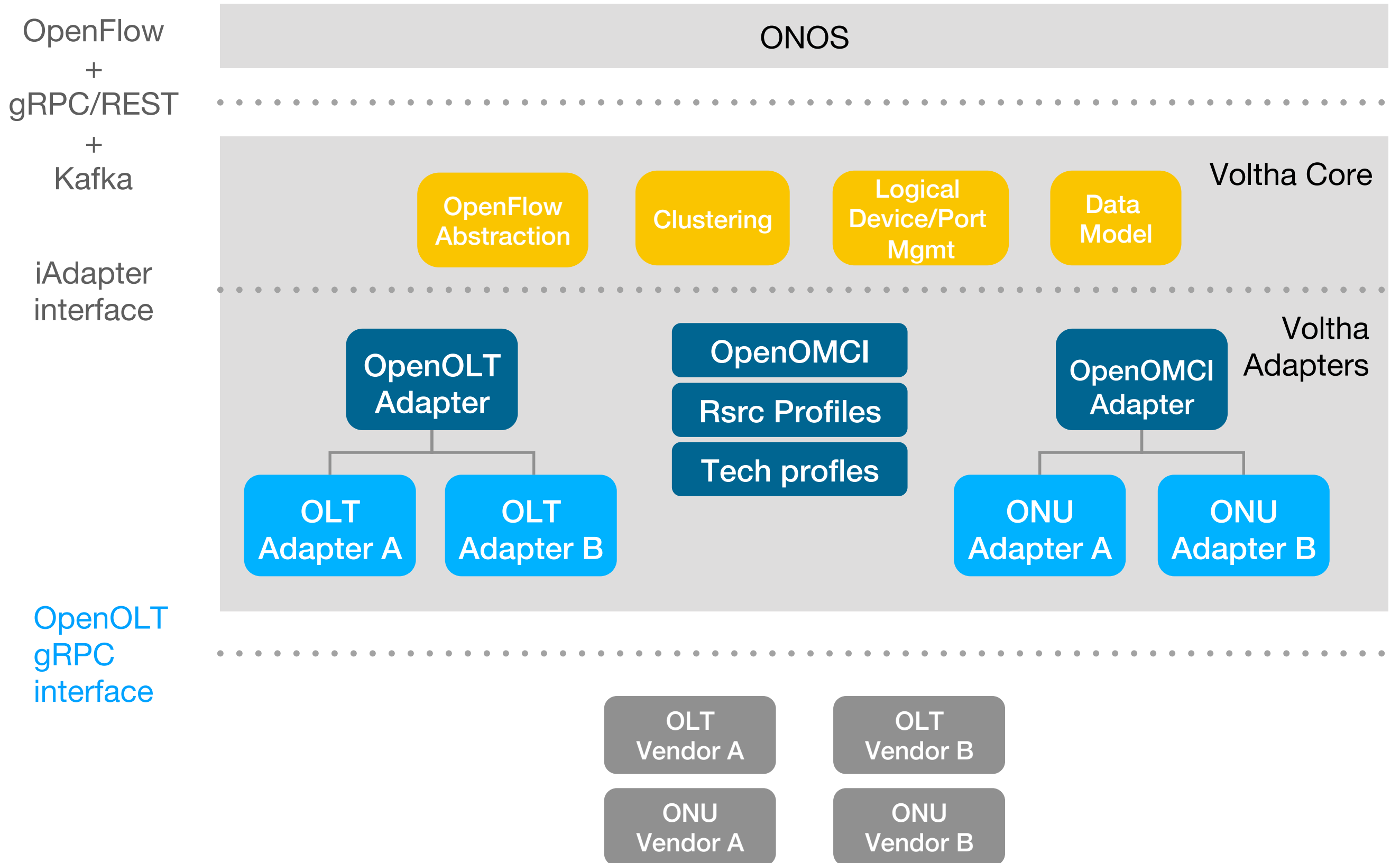
Vendor  
specific  
OLT interfaces



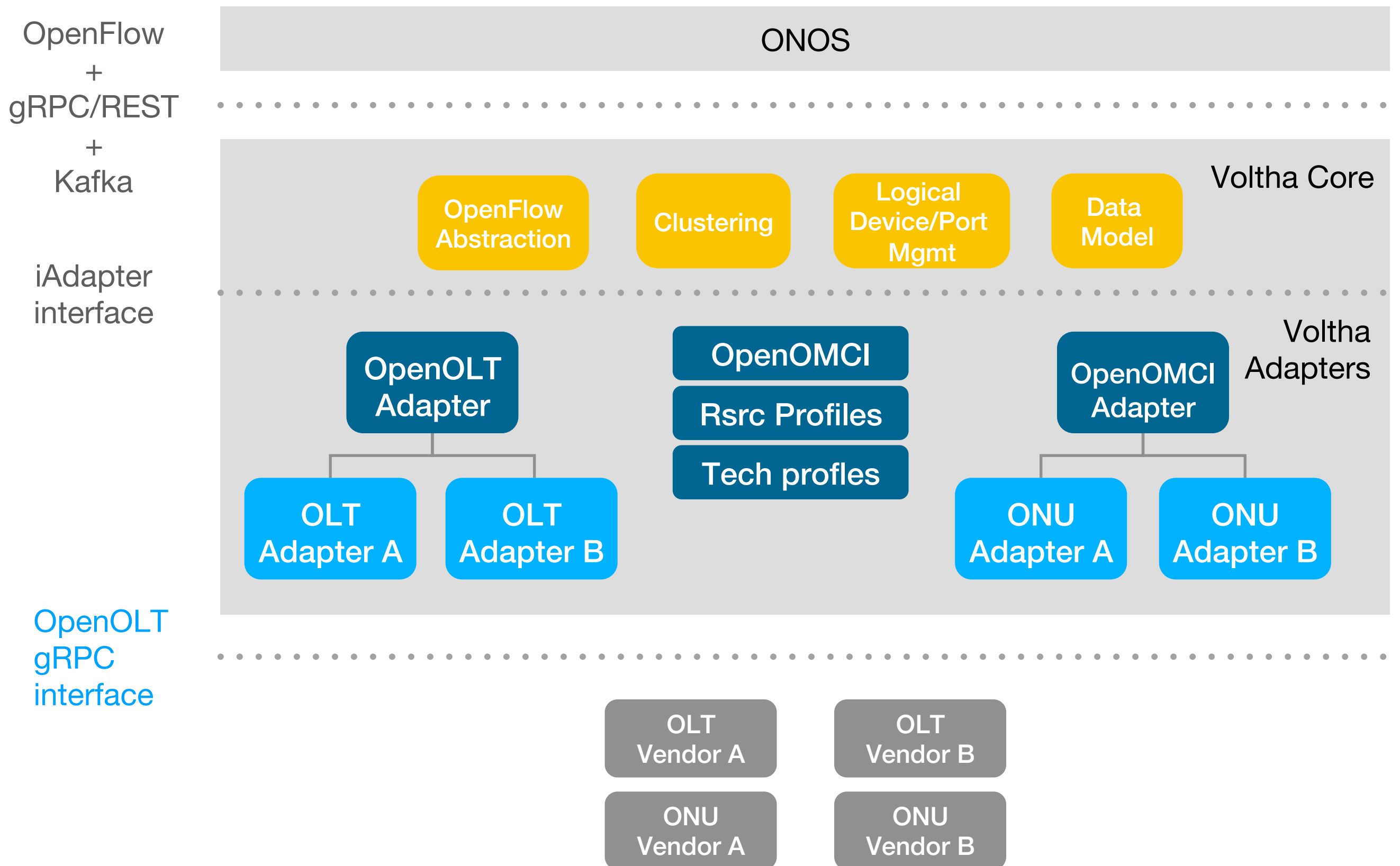
# Disaggregation

- Adapter siloization, vendor lock-in, code duplication
- High-barrier entry for OLT OEM vendors
- Revisit iAdapter interface - Disaggregation works best at the lowest level possible

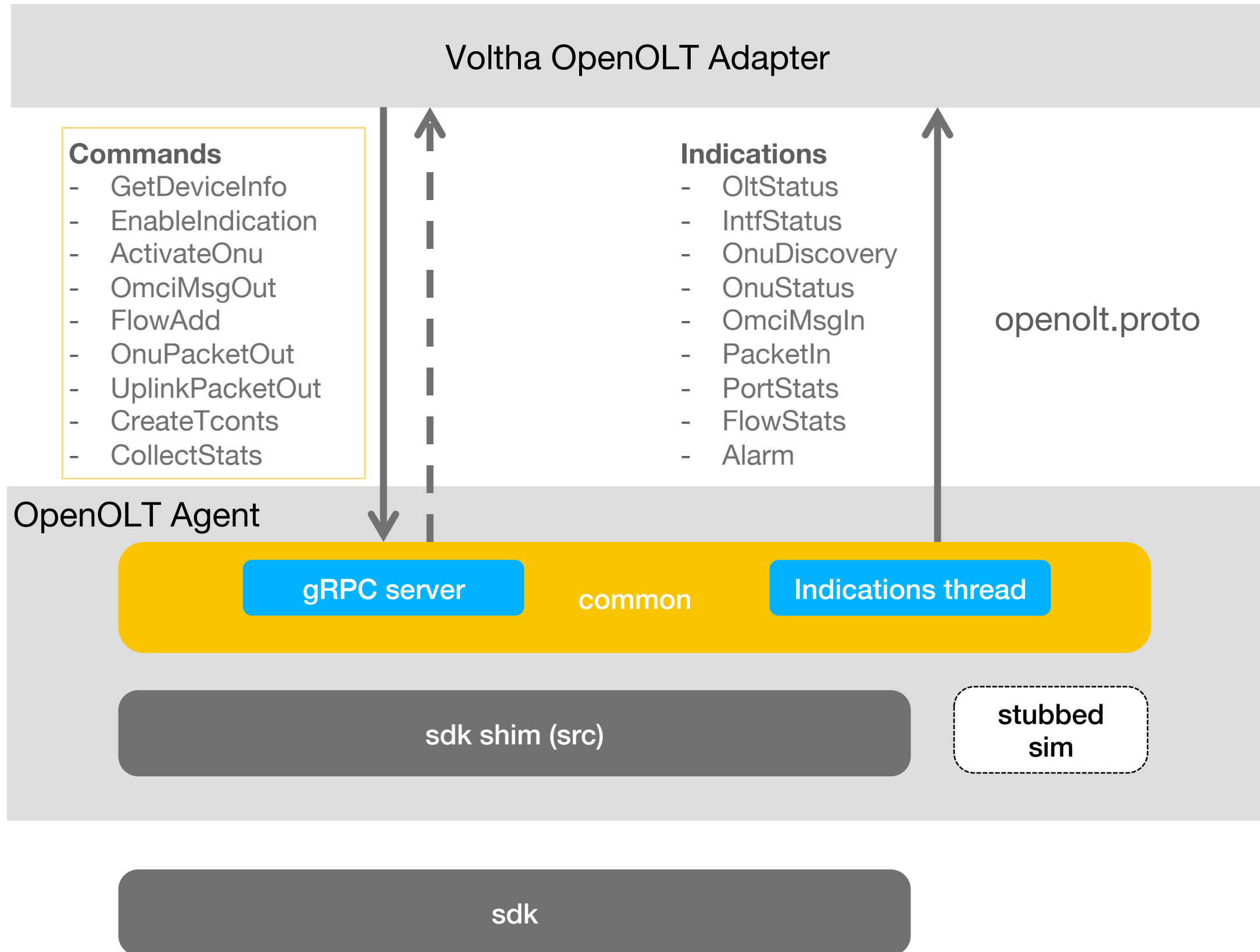
# OpenOLT gRPC interface



# Common adapter and infra



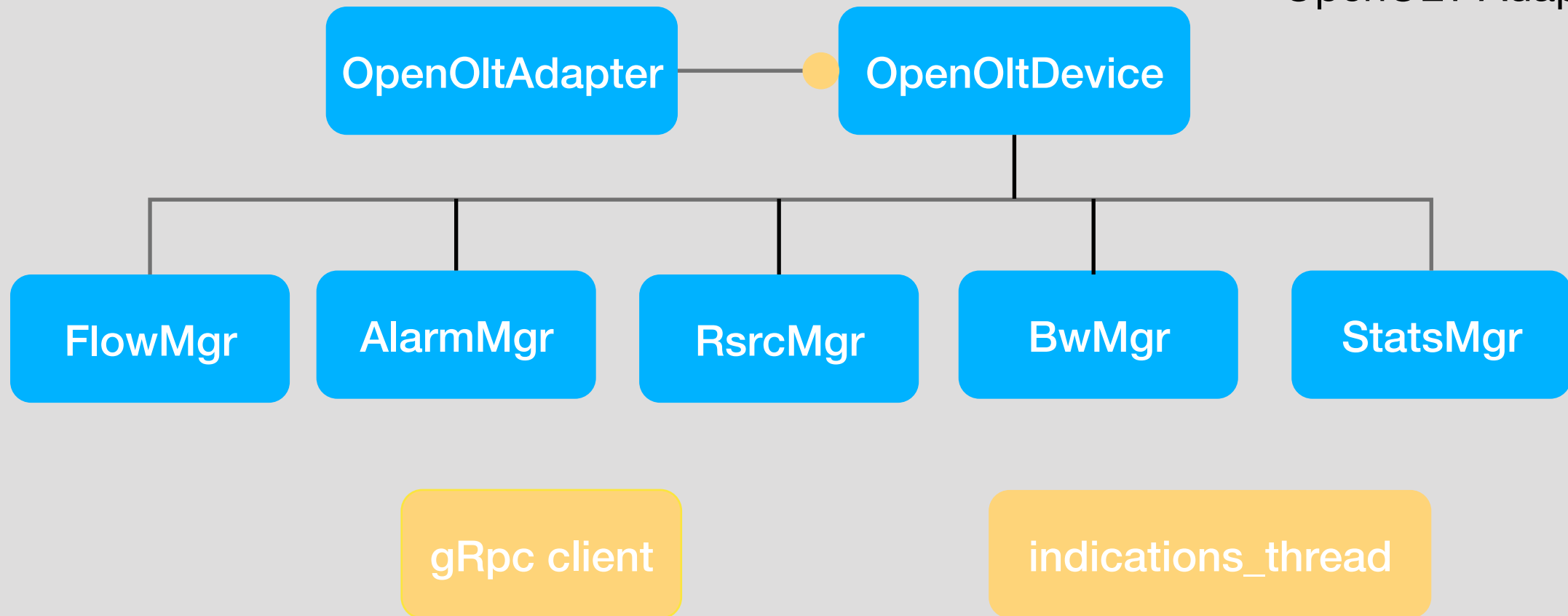
# OpenOLT gRPC



# OpenOLT Adapter Classes

Voltha core

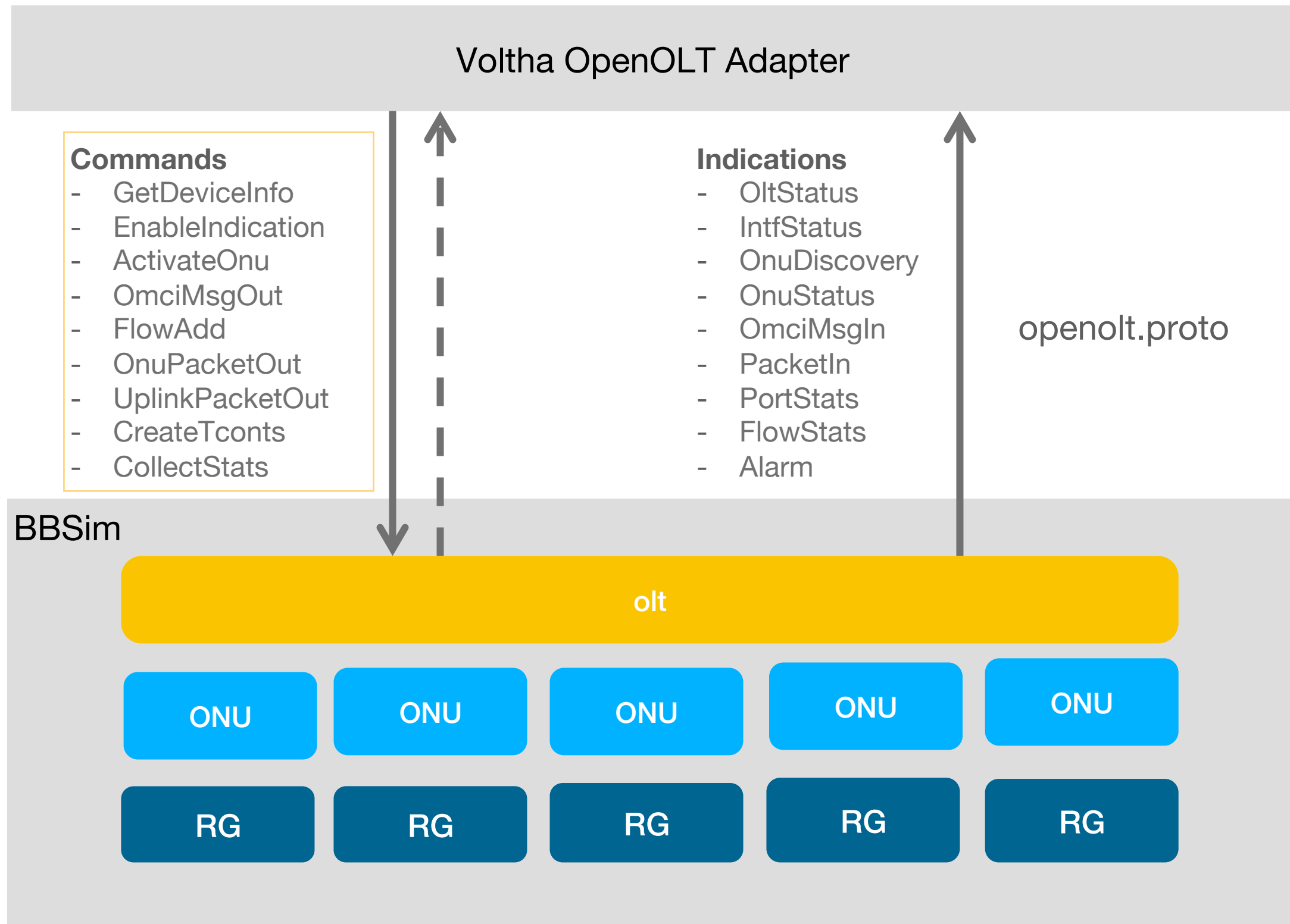
OpenOLT Adapter



OpenOLT Agent



# OpenOLT and BBSim



# Current Focus

- 2.0 Containerization
- Integration with SEBA
- Robustness, scale, BBSim
- Resource and Technology profiles
- Software image download
- Multi-technology support
- Hierarchical QoS
- Multicast