



# Infrastructure Manager for ONAP

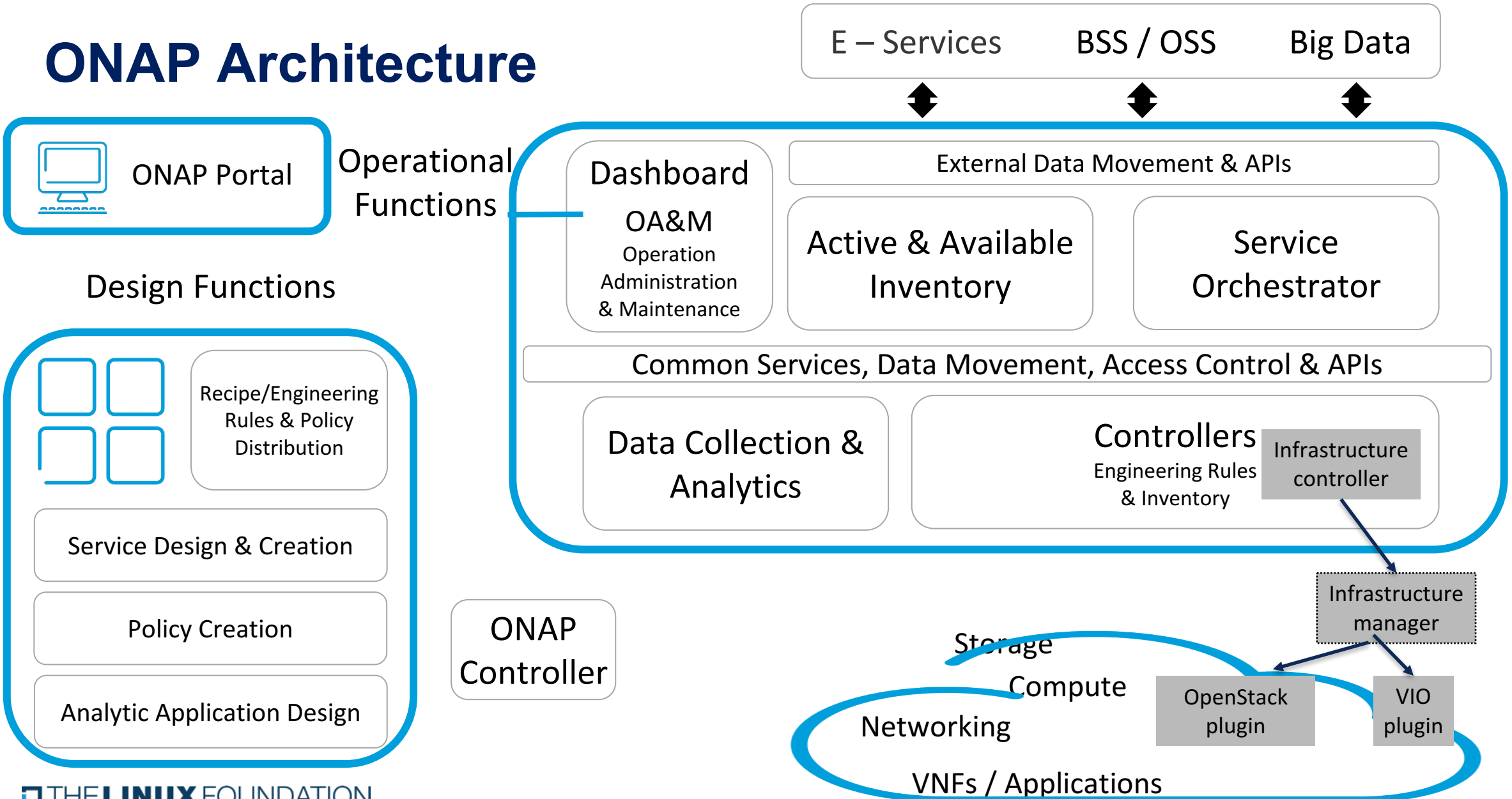
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# Why Need Infrastructure Manager

- ECOMP
  - MSO calls OpenStack
- ONAP
  - Different NFVI provider
  - Container or VM?
  - OpenStack
    - Community
    - Enterprise
    - Version

# ONAP Architecture



# Infrastructure Manager

- Manage different VIM
  - Registry
  - Validation
  - Version
- Operate VIM registries
  - LCM
  - Upgrade
  - Verification

# Interface Design

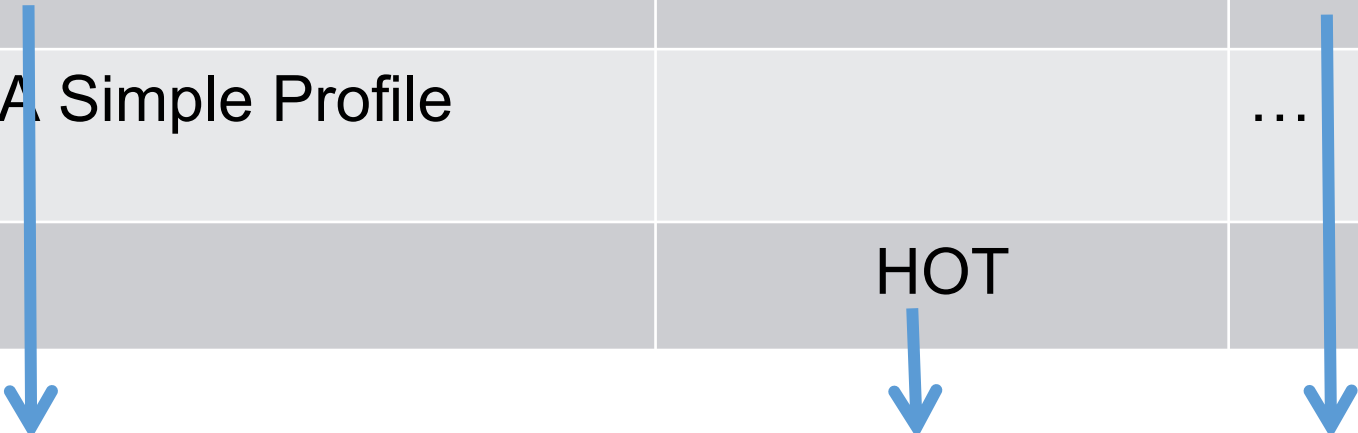
- VIM
  - Version
  - Vendor identification
  - Interface Types
  - Key function categories
    - CPU Utilization Criteria (usage, monitoring)
    - VM/Network Limitations (resource management)
    - Creation, deletion, modify, other (LCM)

# Model Design Requirements

- Capability declaration
  - Cluster management and scheduling
  - Infrastructure layer monitoring
  - Hardware advantages
- Customization
  - Settings
  - Update
  - Meta data
- Potential modeling language
  - Tosca, HOT, OVF

# Deployment Model

	Open-O	ECOMP	
Network service	TOSCA	TOSCA	
VNF IM	IFA+	/	
VNF DM	TOSCA NFV		OVF
	TOSCA Simple Profile		...
		HOT	


  
**Infrastructure Manager (OpenStack, VMware, ...)**

# Multi-VIM in OPENO

- Name: Multi-VIM
- Repository Name:
  - [multivimdriver-openstack](#)
  - [multivimdriver-vmware-vio](#)

- Scope

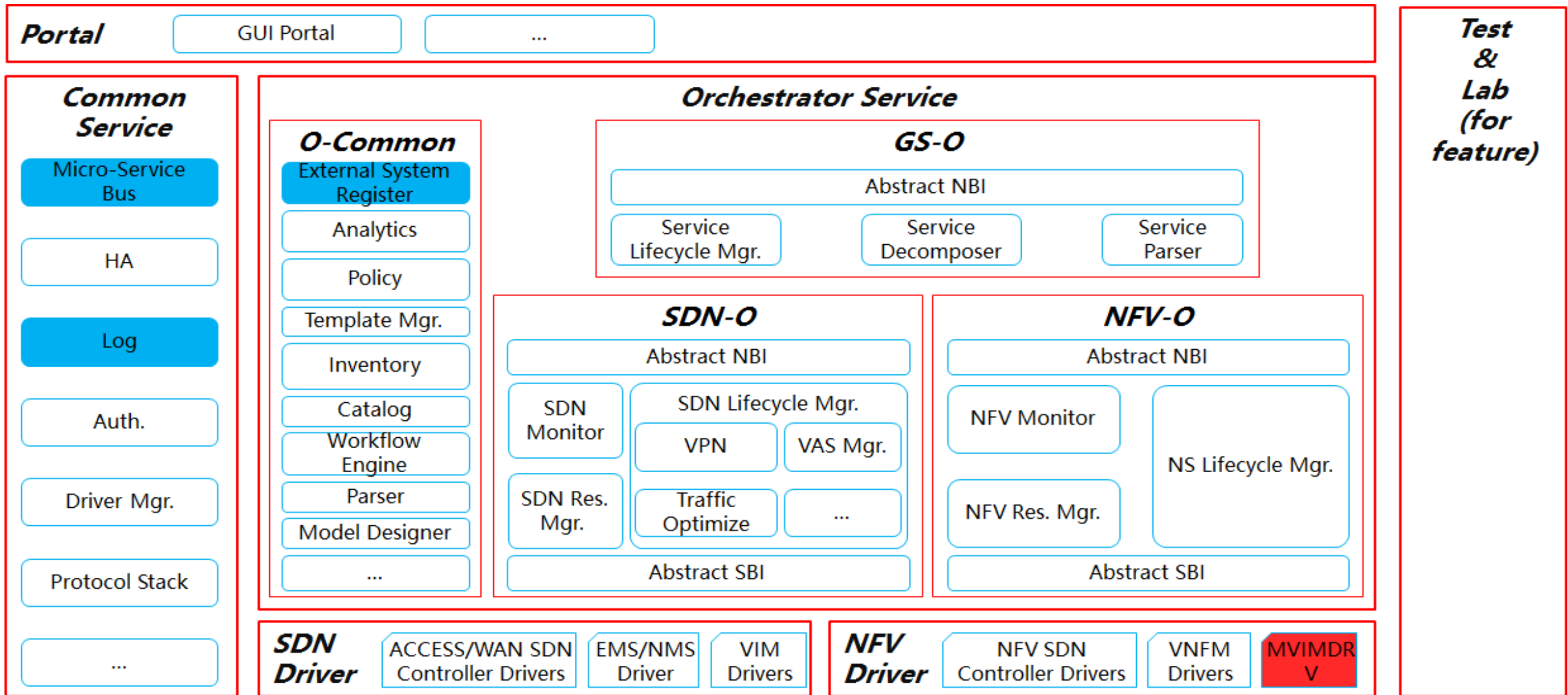
Multiple VIM Driver is to offer single access point of Restful APIs for OPEN-O micro-services (NFVO/VNFEM) to access multiple VIMs

Multiple VIM Driver is to encapsulate the variants VIMs as much as possible to minimize the impact of changes of VIMs.

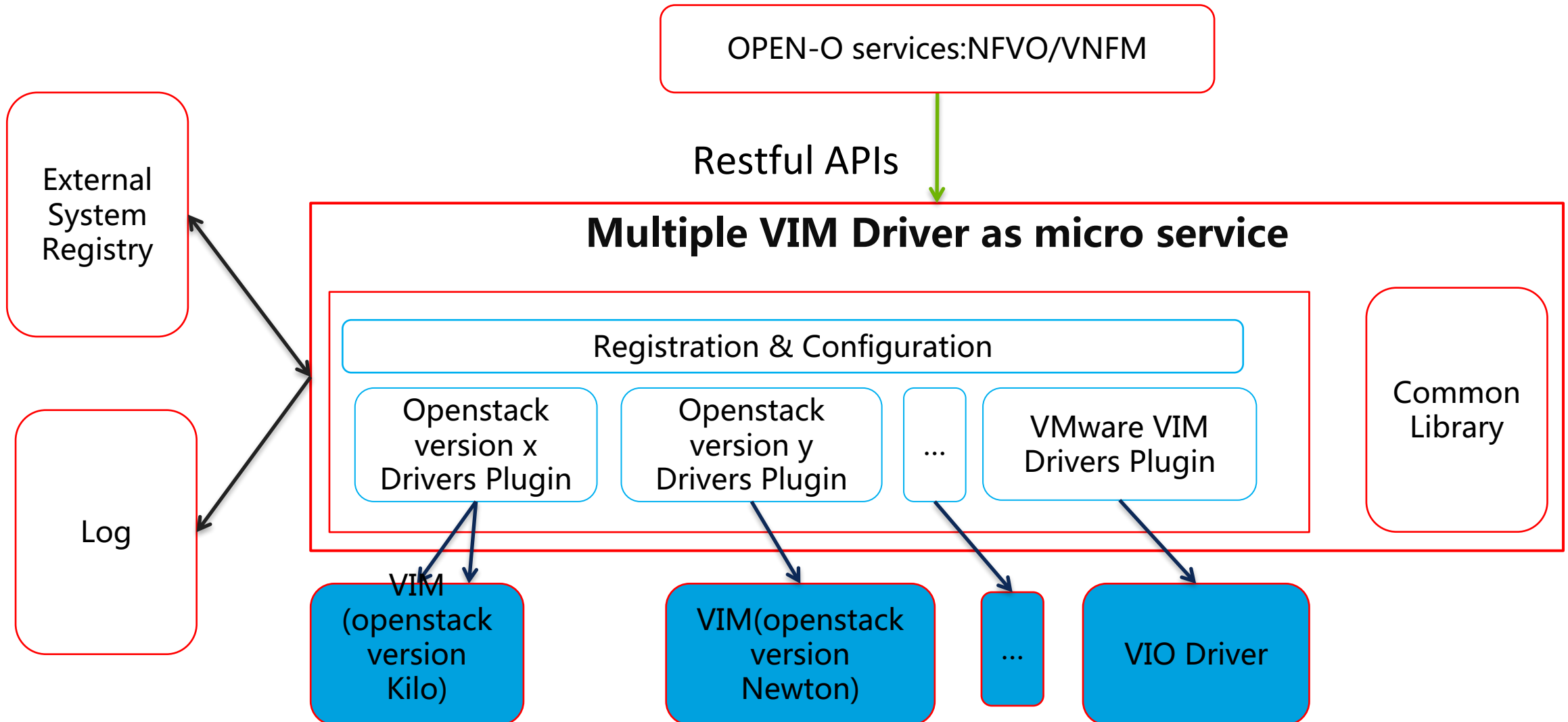
Multiple VIM Driver is to expose a plugin frame to enable adding/removing VIMs without re-deploying the multiple VIM driver micro-service itself.



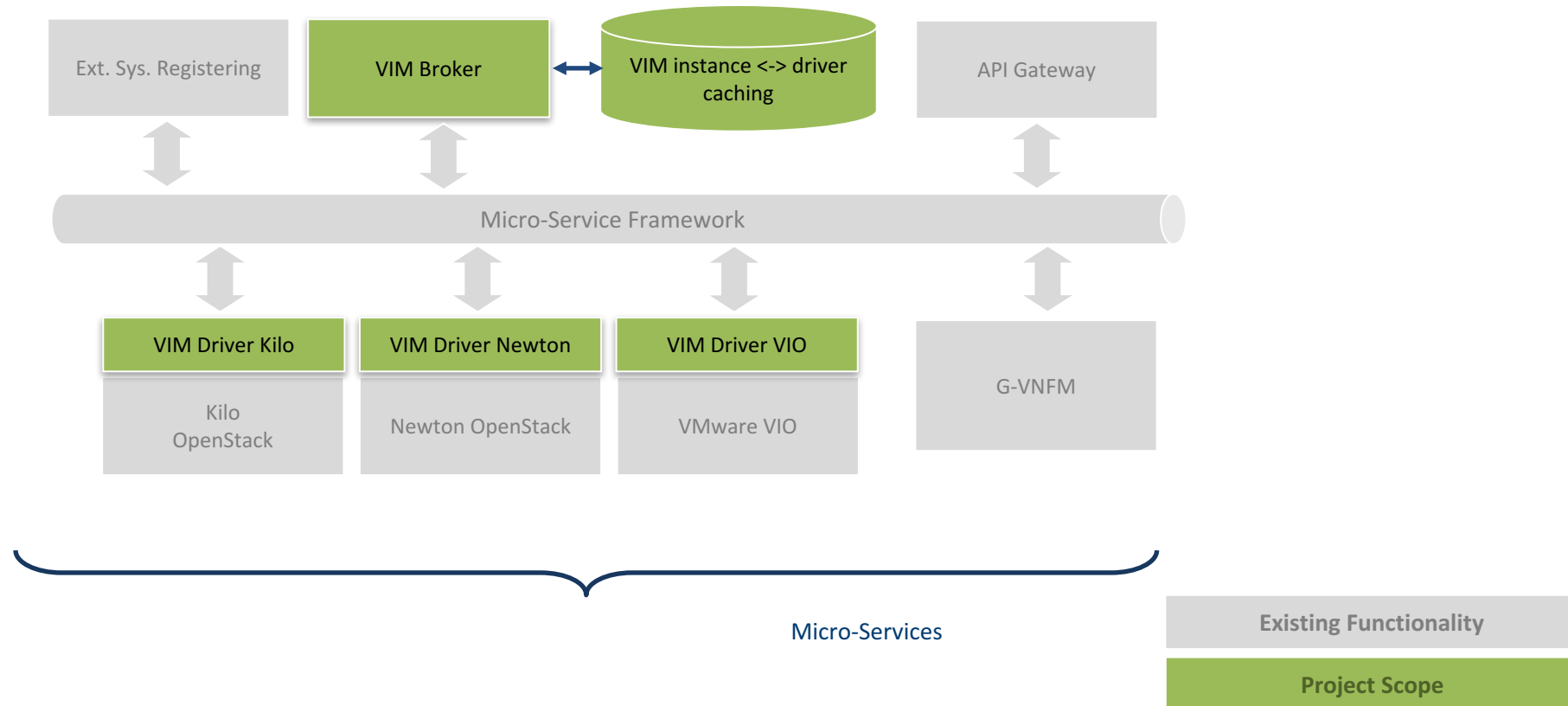
# Project Scope



# Expose Rest API



# Multi VIM driver R2



# VMware contribution

- VIO --- VMware Integrated OpenStack
- Supported use case
- Scope --- participated since Dec, 2016, target for use case integration by R2 release time window.

# Windriver contribution

- OpenStack driver
  - Kilo
  - Newton
- EPA enabled



Q&A

