

# HANDS-ONAP

Israel 2017

Experience **VNF** onboarding, ONAP hackathon



# Agenda

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- Overview
- High Level Architecture
- Design time Architecture
- Run time Architecture
- Summary

# Outline

- Overview
- High Level Architecture
- Design Component Architecture
- Run-Time Component Architecture
- Summary

# Linux Foundation Framework, Governance, Control

Bringing the best of both worlds together



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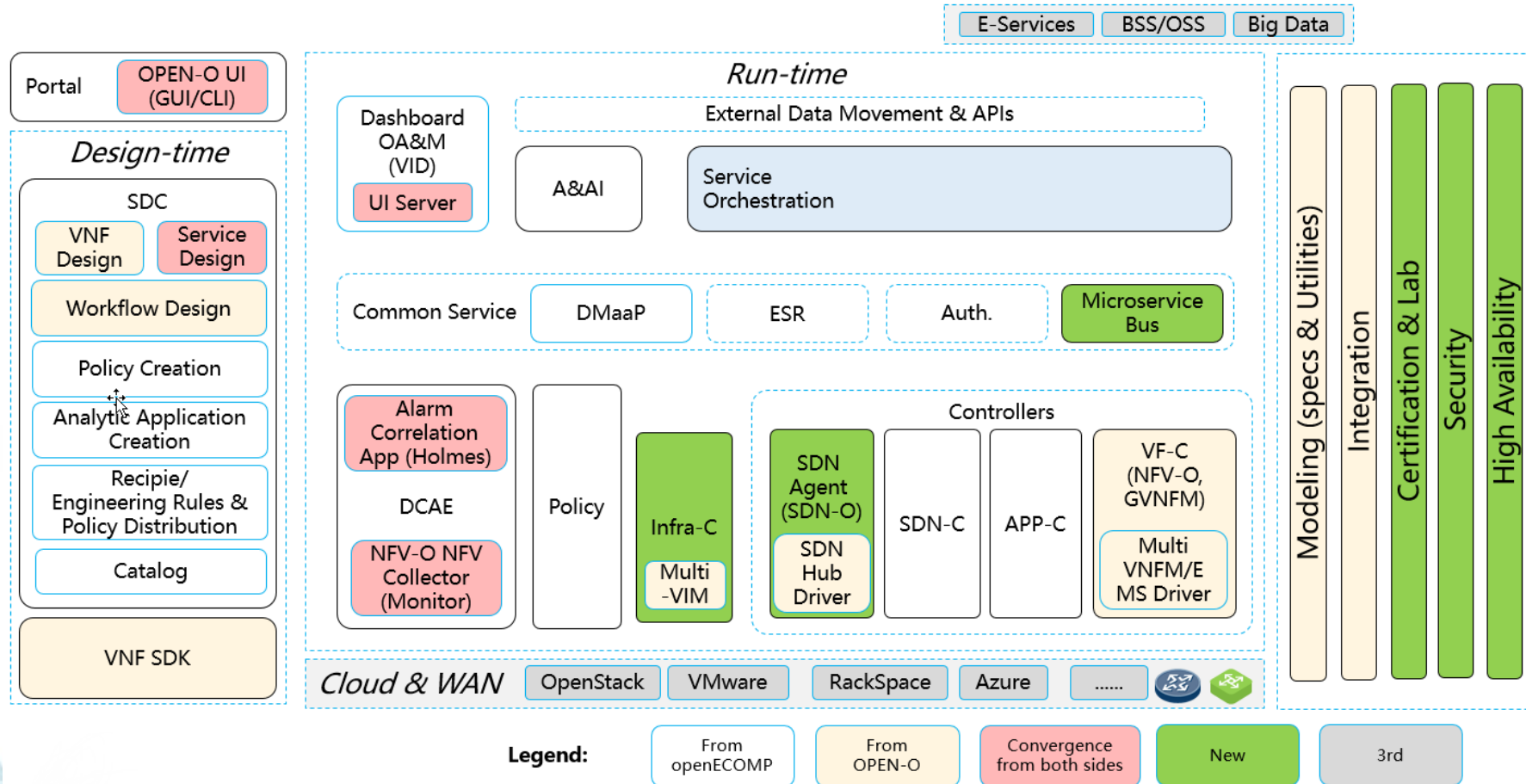


- + 2+ years of Deployment Maturity at AT&T
- + Comprehensive: Design +Orchestration + Control + Policy + Analytics
- + Model-based design enabling self-serve capabilities for instantiation and closed loop automation

- + Open TOSCA model
- + Most Advanced Open Source Process & tool chain
- + Architected for ease of VNF insertion (SDK)



# Open ECOMP and Open-O Merger into ONAP harmonized architecture

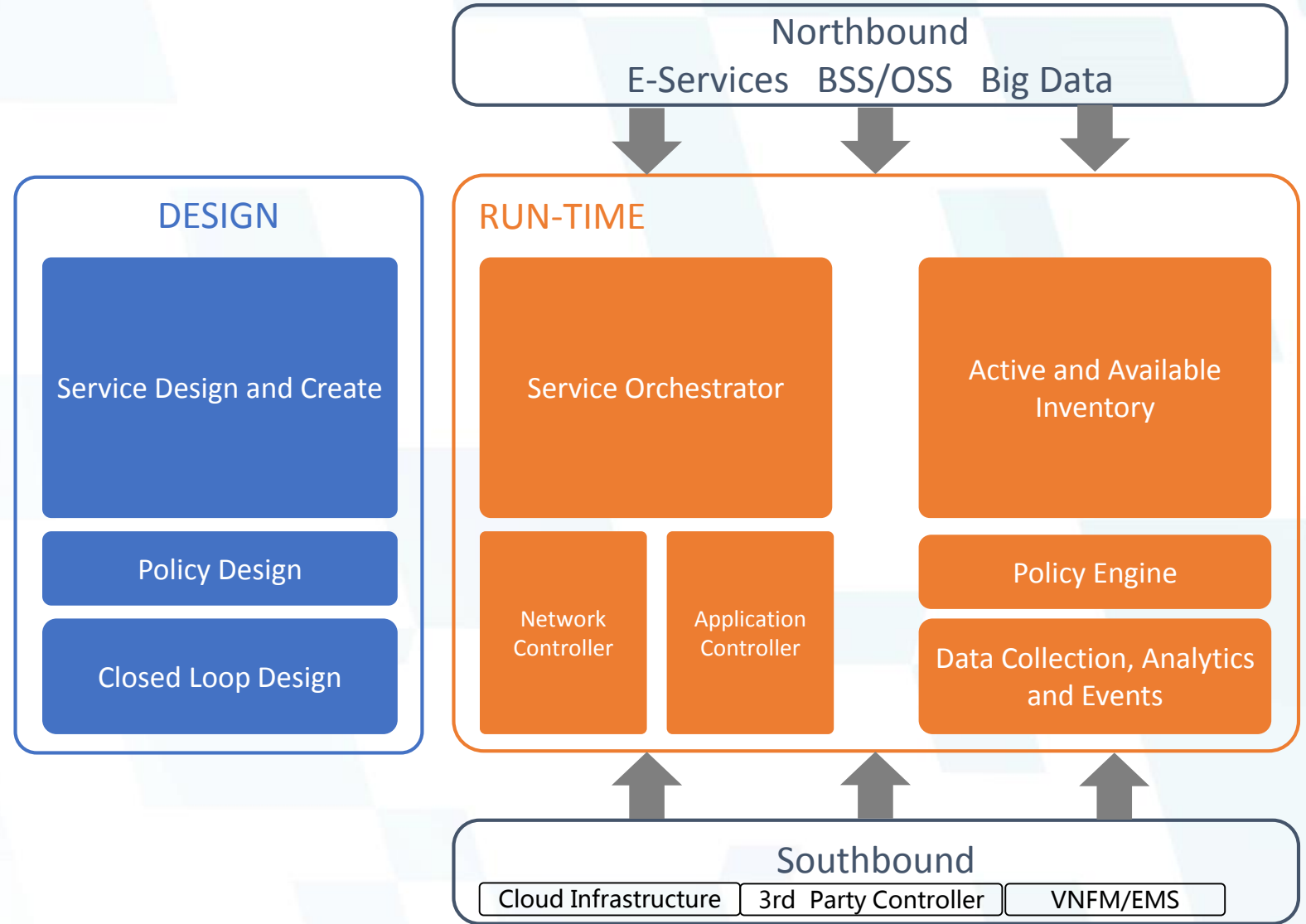


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# ONAP Architecture Overview

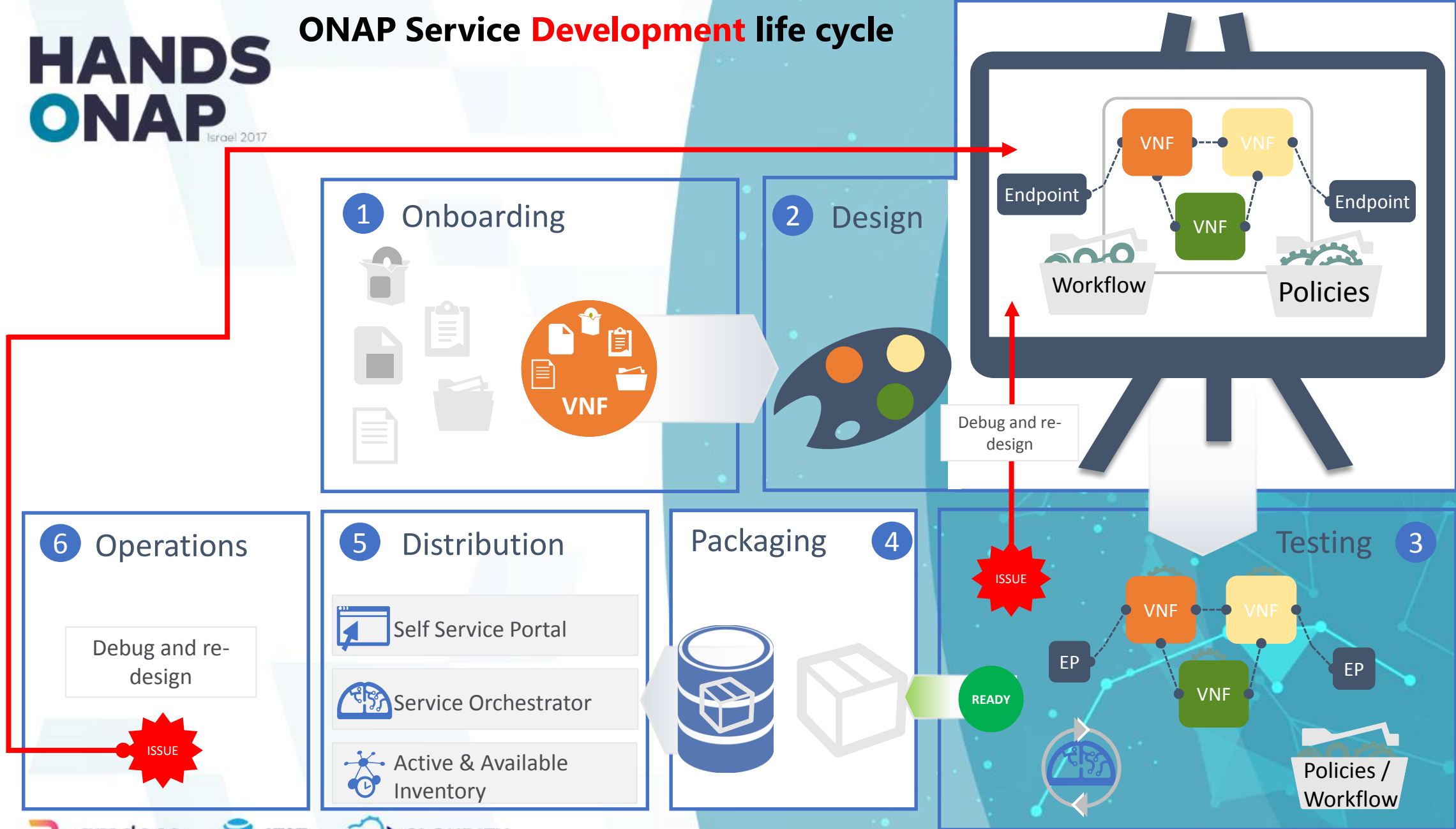
## Three Main Groups

- Design
- Deploy
- Operate

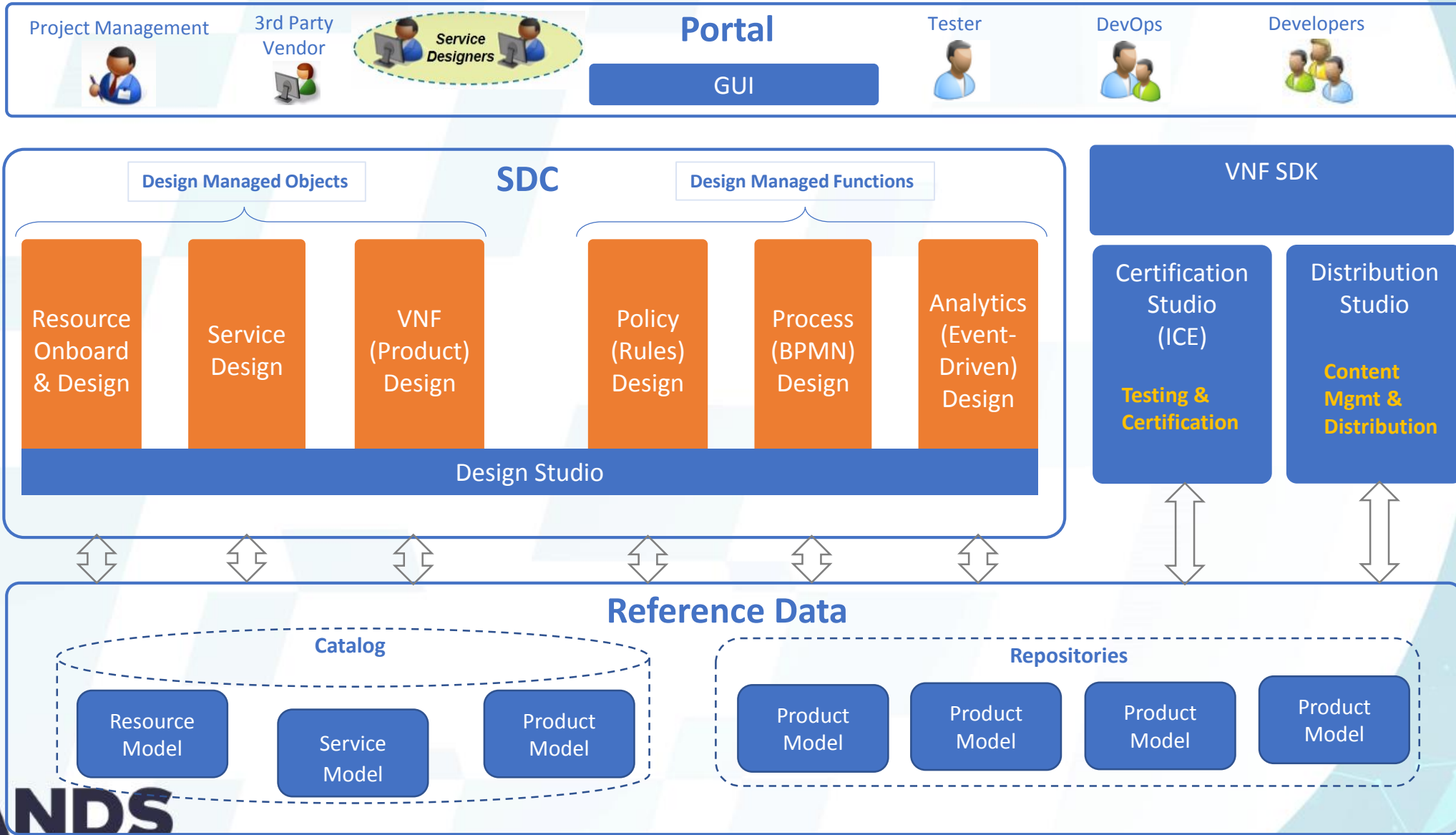


- Overview
- High Level Architecture
- Design Main Component Architecture
- Run-Time Main Component Architecture
- Summary



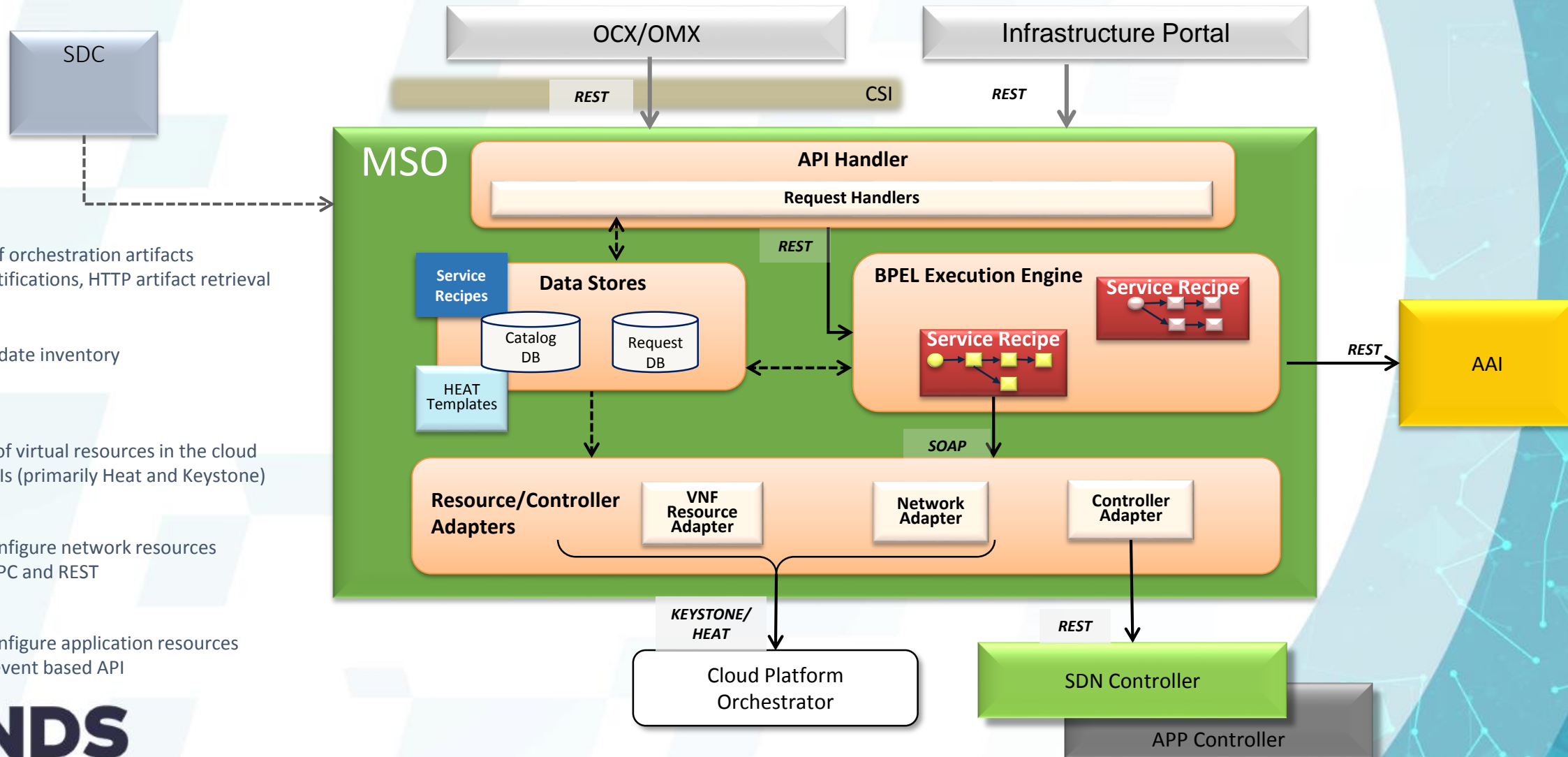


# ONAP SDC Architecture Overview



- Overview
- High Level Architecture
- Design Main Component Architecture
- **Run-Time Main Component Architecture**
- Main Process and Flows

# ONAP MSO (SO) Architecture and Interfaces Overview



## Interfaces

### SDC

- Distribution of orchestration artifacts
- UEB event notifications, HTTP artifact retrieval

### AAI

- Query and update inventory
- RESTful API

### Multi-VIM

- Instantiation of virtual resources in the cloud
- Openstack APIs (primarily Heat and Keystone)

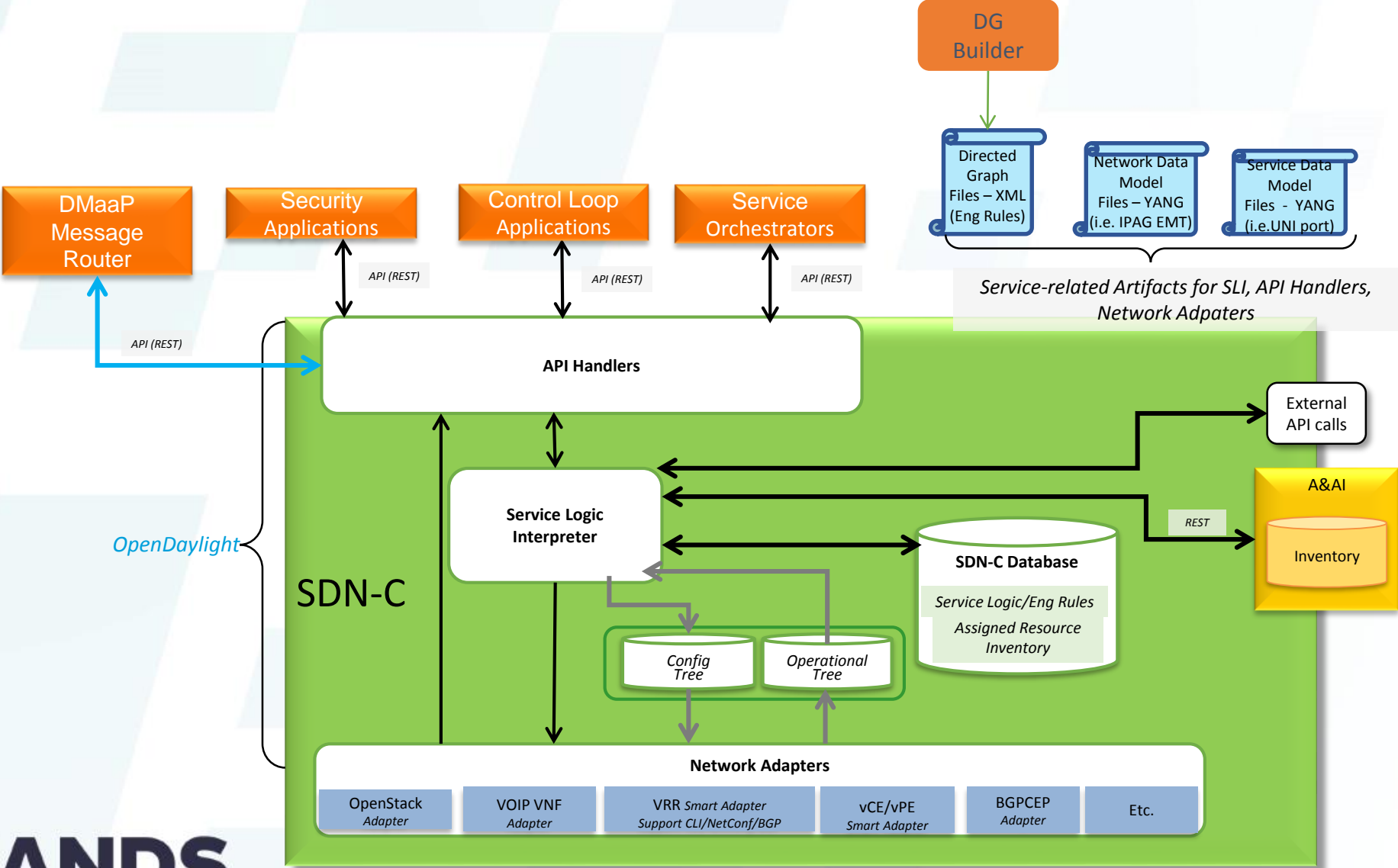
### SDN Controller

- Assign and configure network resources
- Yang-based RPC and REST

### App Controller

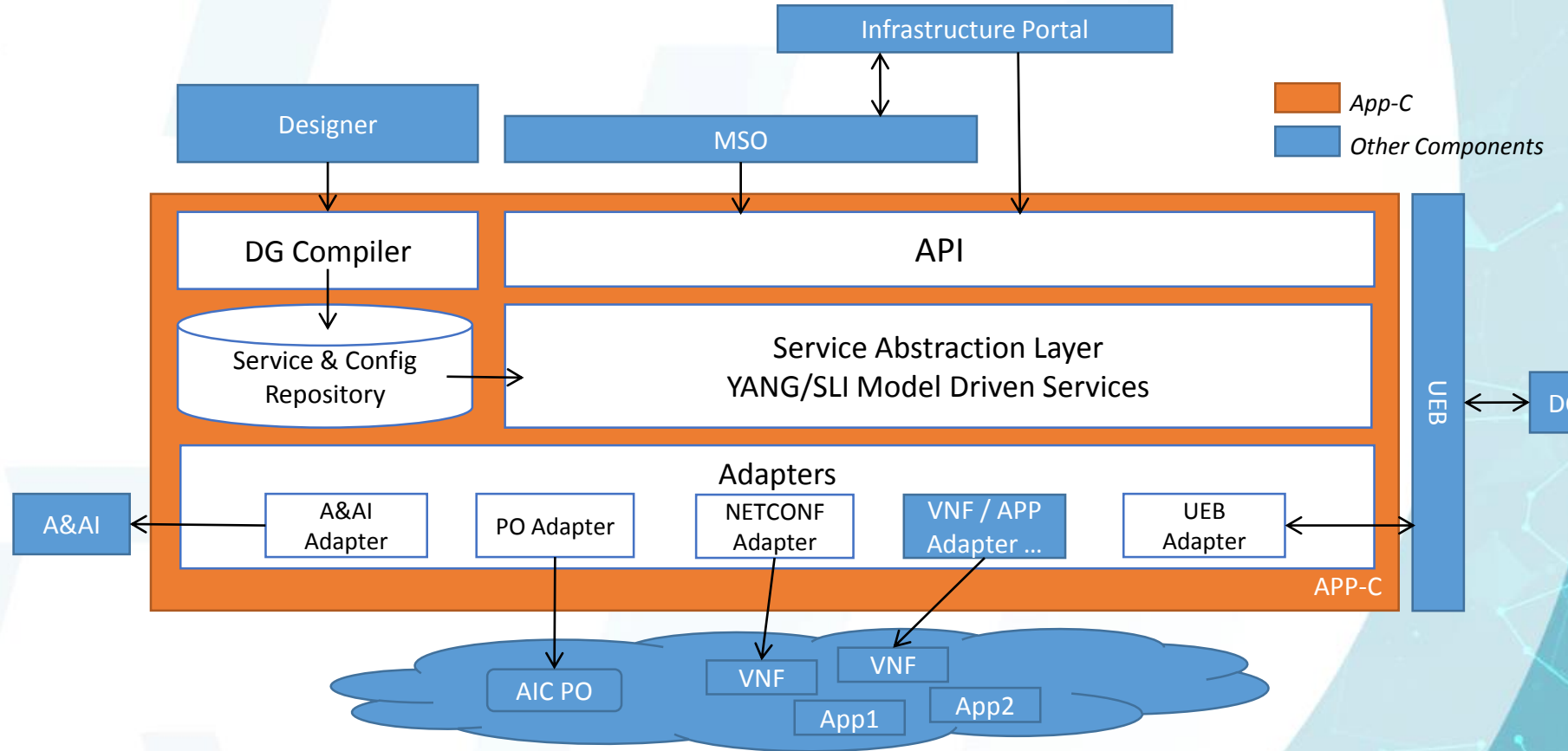
- Assign and configure application resources
- Yang and/or event based API

# ONAP SDN-C Architecture and Interfaces Overview



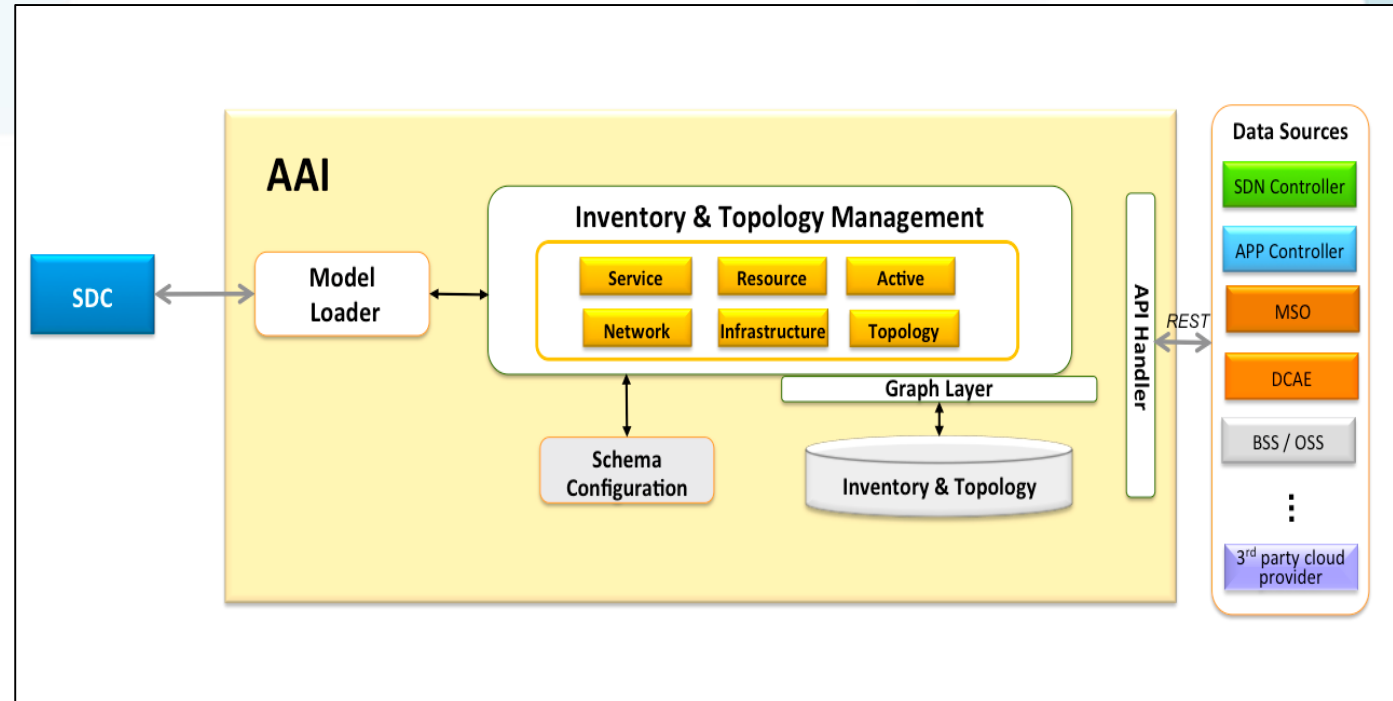
# ONAP APP-C Architecture Overview

- Configuration Management
- Control Loop Actions
  - Restart
  - Rebuild
  - Migrate
  - Suspend / Destroy



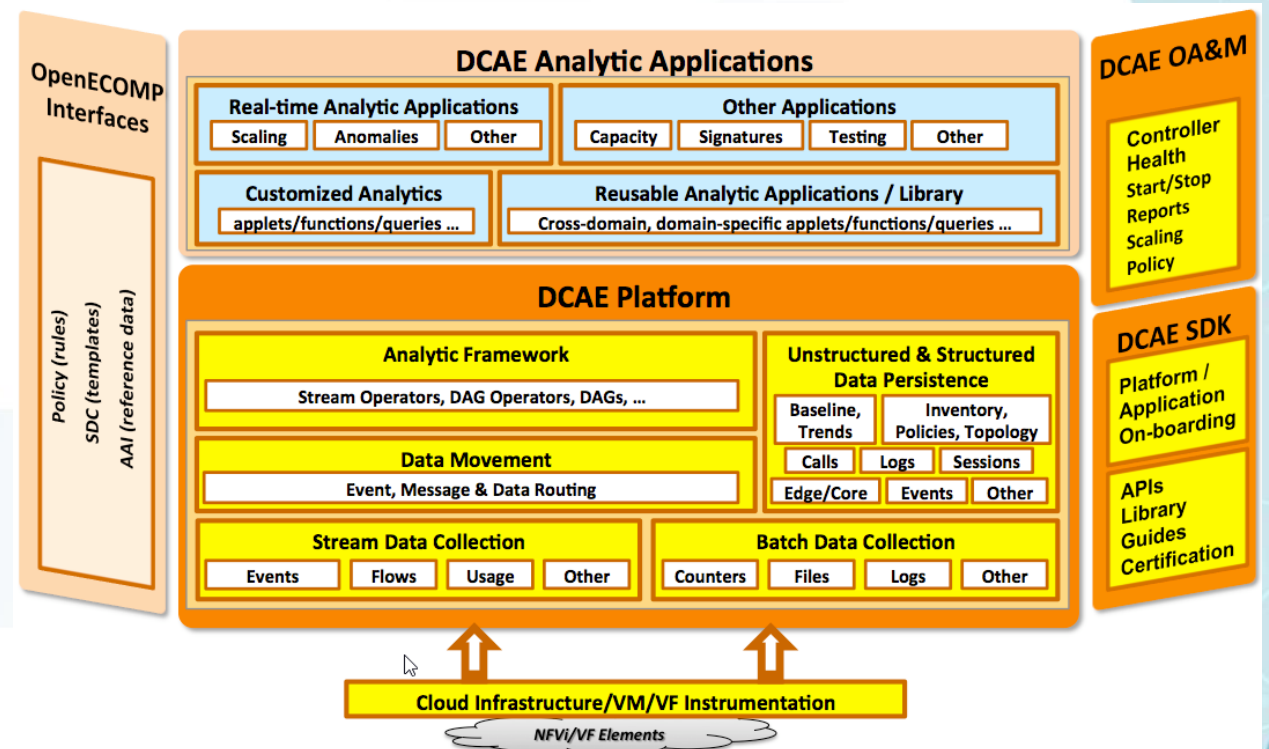
# ONAP A&AI Architecture Overview

- Central registry to create a global view of inventory and network topology
- Receives updates from various inventory
- Provides standard APIs



# ONAP DCAE Architecture Overview

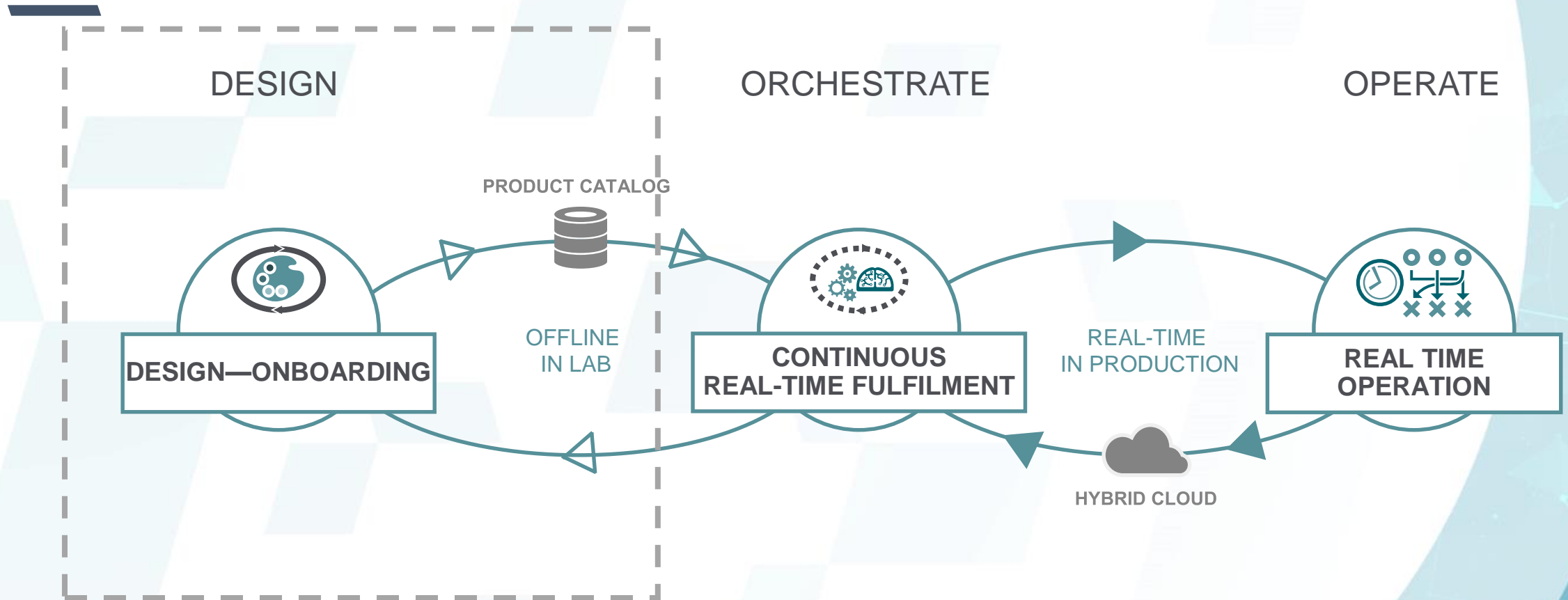
- Data Collection, Analytics, and Events (DCAE) subsystem
- gathers performance, usage, and configuration data from the managed environment
- This data is then fed to various analytic applications, and if anomalies or significant events are detected
- The primary functions of the DCAE subsystem are to
  - Collect, ingest, transform and store data as necessary for analysis
  - Provide a framework for development of analytics



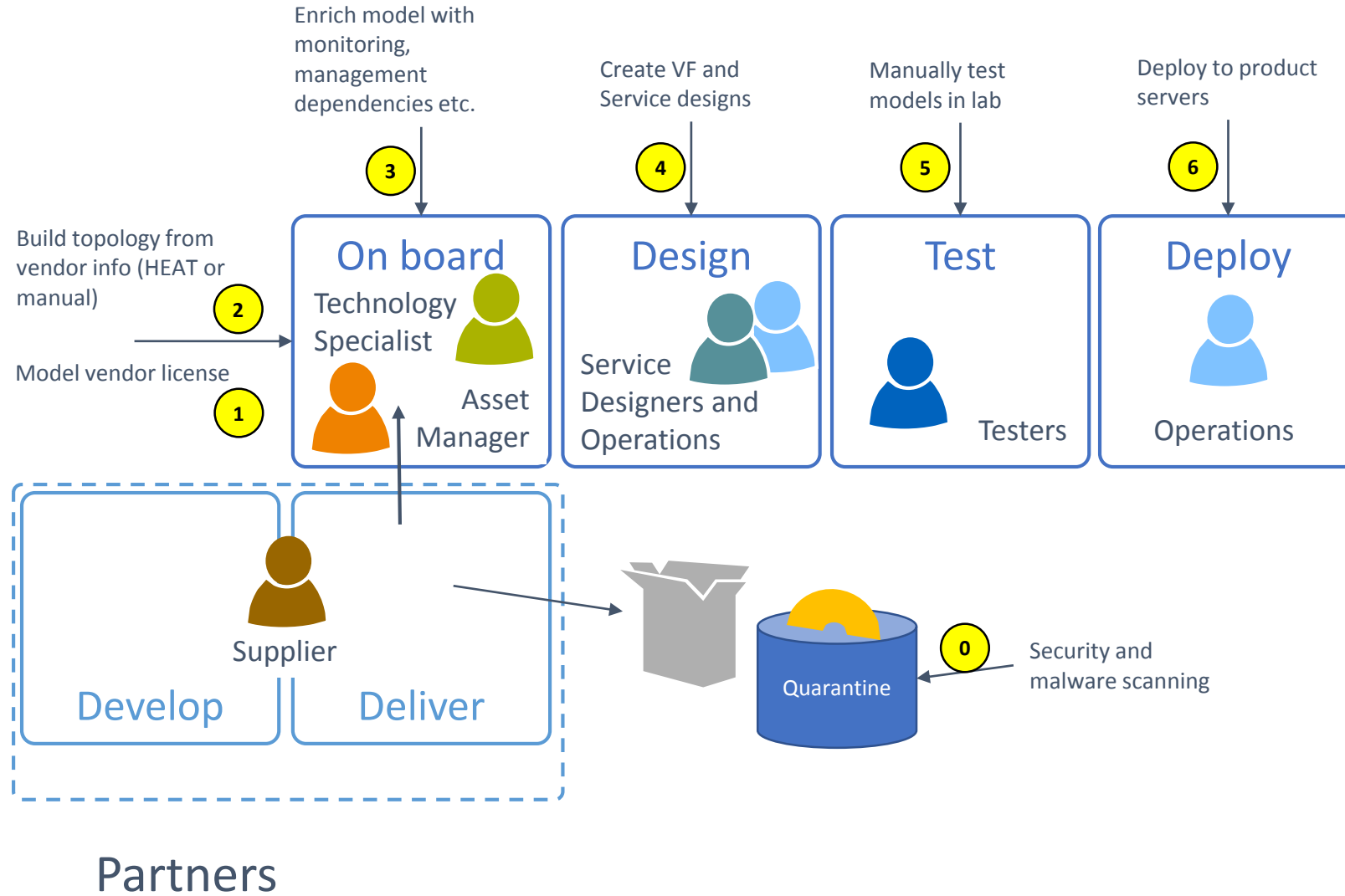


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# ONAP Service Lifecycle Management



# Design Flow – VNF and Service Design



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