



Open Network Automation Platform (ONAP) Architecture Overview

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Outline

- ✦ Motivation and Background
- ✦ Meta Data Driven Strategy
- ✦ ONAP Architecture Overview
- ✦ Illustrative Flow: Design, Deploy and Operate

Key Imperatives and Drivers for ONAP:

- As We Move Towards Software Defined Networks and Virtualized Network Functions, We Need a New Approach for Operational Management Framework to Realize the Following Objectives:
 - Increase Value of the Network:
 - *Rapidly on-board new services*
 - *Facilitate new business & revenue models*
 - *Make Network Programmable in real-time*
 - Reduce Capex:
 - *Reduce / Eliminate dependency on development cycles*
 - *Dynamically adjust capacity & Allocate Resource When / Where Needed*
 - *Lower aggregated spare capacity*
 - Reduce OpEx:
 - *Automated service delivery and activation with Zero Touch Flow Through*
 - *Policy & Analytics-driven closed loop optimization*

Linux Foundation Framework, Governance, Control

Bringing the best of both worlds together



ECOMP

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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)

*The Linux Foundation is creating the **greatest shared technology investment in history** by enabling open source collaboration across companies, developers, and users.*

*We are the **organization of choice** to build ecosystems that **accelerate open technology development and commercial adoption.***

Meta Data Driven ONAP Platform Strategy

ONAP Design Time Framework

- ❖ Catalog-driven Graphical design studio to:
 - Define Recipes for instantiating & Configuring VNFs & Services
 - Design Monitoring & Managing VNFs & Services
- ❖ Test & Validate artifacts
- ❖ Distribute meta-data to Execution Environment

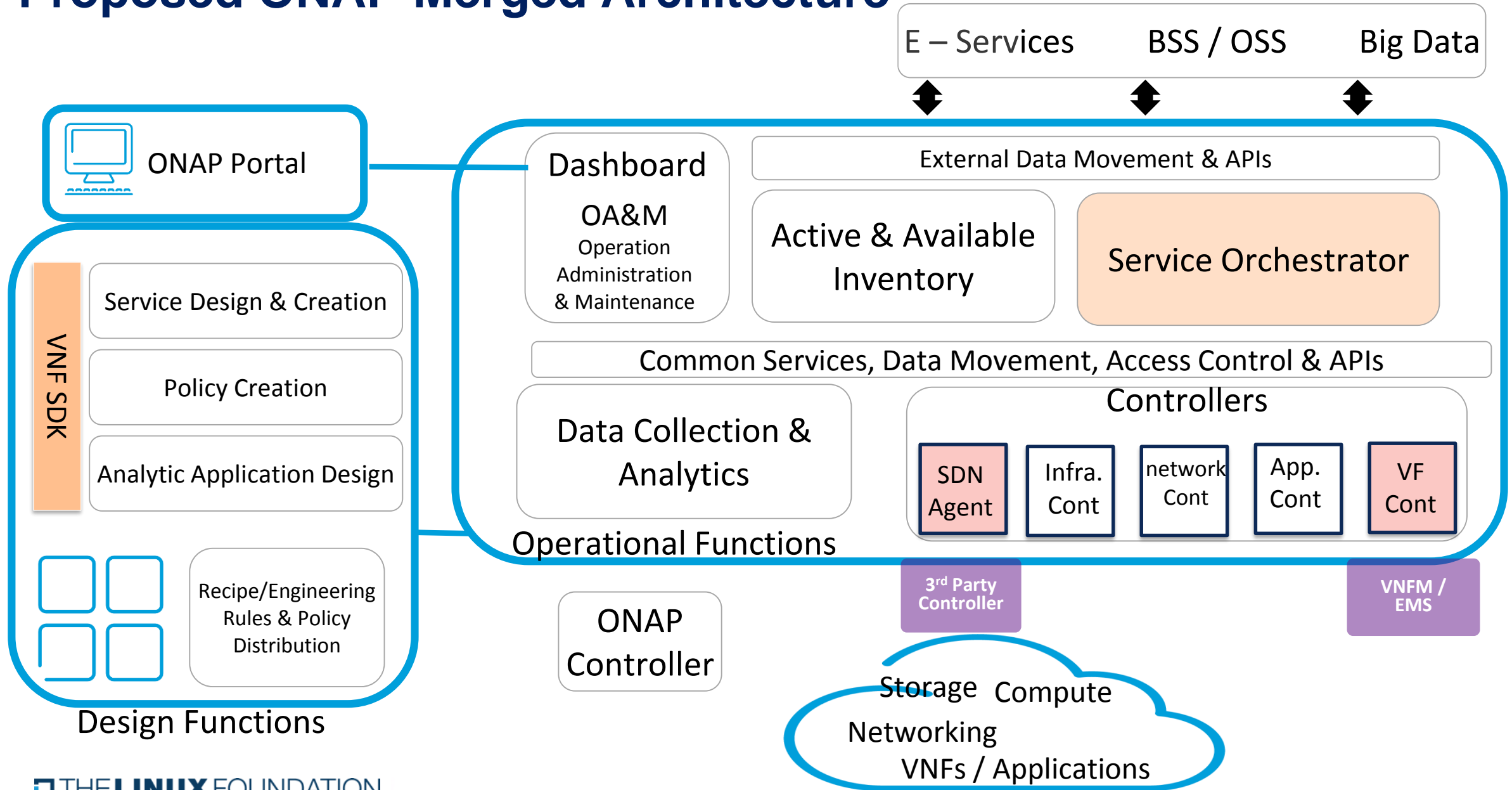
ONAP Execution Time Framework

- ❖ Meta-data driven execution modules to:
 - Instantiate VNFs, Configure VNFs & E2E Services
 - Track Active & Available Inventory
 - Monitor and Take Automatic Corrective Action
- ❖ Operational Dashboard

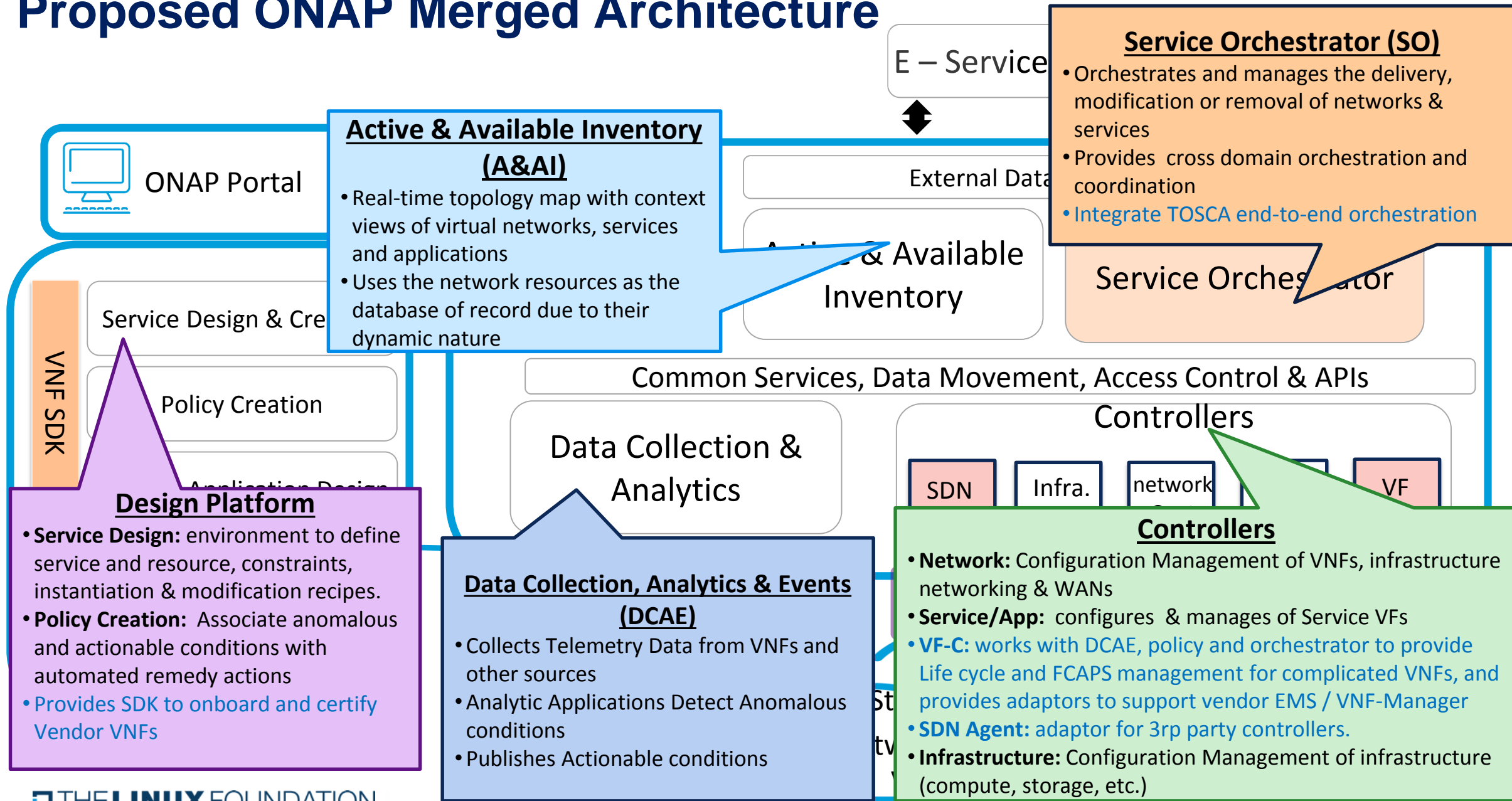


ONAP Platform

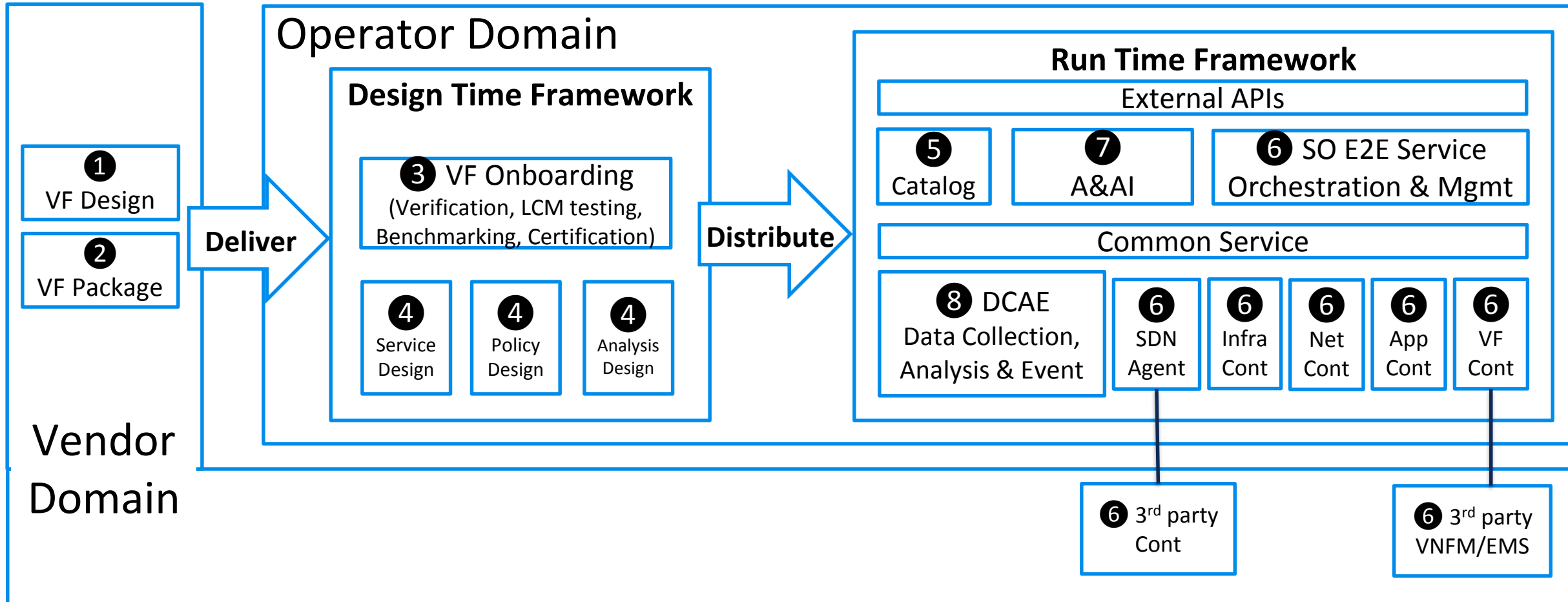
Proposed ONAP Merged Architecture



Proposed ONAP Merged Architecture



ONAP Illustrative Flow: Design, Deploy and Operate





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Thank you

Questions?