REQ-890 – CNFO – Jakarta Extensions

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CNFO - Summary for the requirement subcommittee

Executive Summary - Provide CNF orchestration support through integration of K8s adapter in ONAP SO

- Support for provisioning CNFs using an external K8s Manager

- Support the Helm based orchestration

- leverage the existing functionality of Multi cloud in SO

- Bring in the advantages of the K8s orchestrator

- Set stage for the Cloud Native scenarios

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Business Impact - Enables operators and service providers to orchestrate CNFs based services along with the VNFs and PNFs

Business Markets - All operators and service providers that are intended to use the CNFs along with PNFs / VNFs

Funding/Financial Impacts - Reduction in the footprint of the ONAP for CNF support.

Organization Mgmt, Sales Strategies -*There is no additional organizational management or sales strategies for this requirement outside of a service providers "normal" ONAP deployment and its attendant organizational resources from a service provider.*
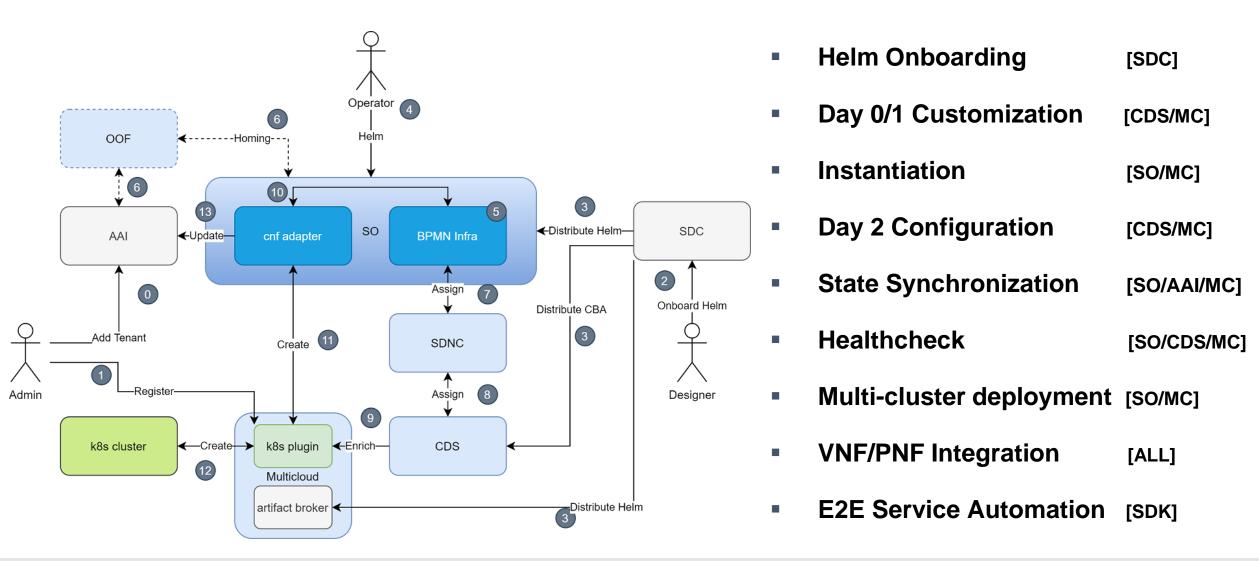
REQ-341 Guilin

REQ-458 Honolulu

REQ-627 Istanbul

REQ-890 Jakarta

CNFO Evolution

vFW CNF Use Case Evolution

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REQ-182

ONAP CNFO

Orchestration of the Containerized Network Functions

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REQ-341

REQ-341 – CNFO – Next Steppingstones
Towards CNF In Production Deployments

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REQ-458

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REQ-890

CNFO After Istanbul

- **Helm Onboarding**   [SDC]
- **Day 0/1 Customization**   [CDS/MC]
- **Instantiation**   [SO/MC]
- **Day 2 Configuration**   [CDS/MC]
- **State Synchronization**   [SO/AAI/MC]
- **Healthcheck**   [SO/CDS/MC]
- **Multi-cluster deployment** [SO/MC]
- **VNF/PNF Integration**   [ALL]
- **E2E Service Automation**   [SDK]
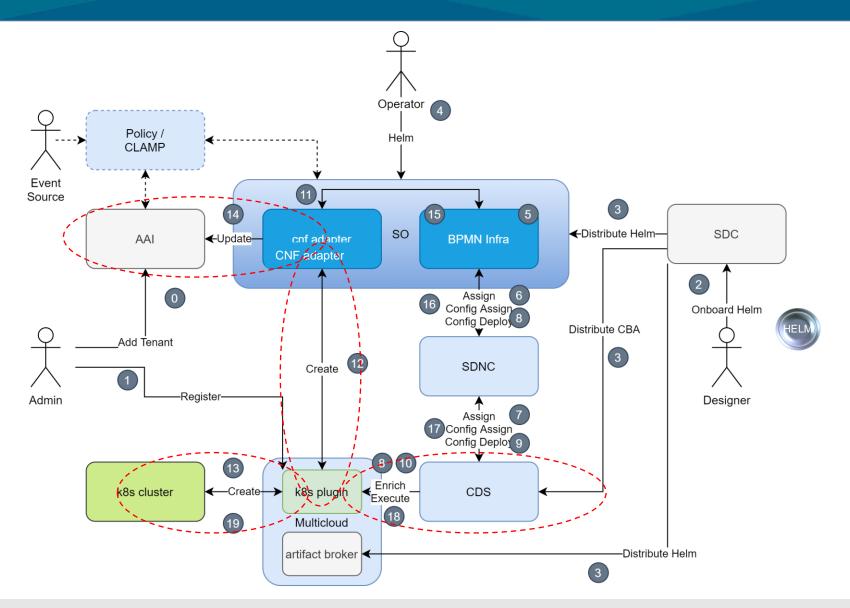
Istanbul - CNF Adapter Instantiation Flow

Improved Day2 & CNF Update

- AAI Update After Day-2
- Improved CDS suport for CNF
- Helm Upgrade
- SO CNF Update BB
- CNF Update Workflow (stretch)
- K8sResource Status Change in CLAMP (PoC)

Scope for REQ-890 – Jakarta

- ## Multicloud/K8sPlugin

  - ### Instance Helm Upgrade

    - Base on new RB definition version

    - Similar to Helm Upgrade operation

  - ### Pre-/Post Upgrade Hooks

  - ### Status API notifications mechanism

- ## CCSDK/CDS

  - ### Native Support for k8sPlugin APIs added in Istanbul & Jakarta

- ## Policy/CLAMP (PoC)

  - ### K8sResource Status Change Event

  - ### K8sResource Enrichment for CDS/SO Action Execution

REQ-890

ONAP
OPEN NETWORK AUTOMATION PLATFORM

Scope for REQ-890 – Jakarta

- ## SO CNFO Enhancements

  - AAI synchronization after Day-2 Operations

    - Auto-update of information in AAI (K8sResource Create/Update/Delete)

    - Based on status notifications from k8sPlugin

  - CNF Update Support

    - CNF Upgrade BB (Helm Upgrade)

    - CNF Update Workflow (stretch)

- CNF Creation with status verification (stretch)

- CNF Tenant recognition (stretch)

- Distribution of Helm package to k8splugin by CNF Adapter (stretch)

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