

REQ-890 – CNFO – Jakarta Extensions

Lukasz Rajewski (Orange)

Seshu Kumar M (Huawei)

Marcin Krasowski (Samsung)

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

Owners: Lukasz Rajewski (Orange), Seshu Kumar M (Huawei)

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

SAMSUNG orange intel



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vFW CNF Use Case Evolution

Konrad Bańka (Samsung)
Samuli Silvius (Samsung)
Łukasz Rajewski (Orange)

23.06.2020

REQ-182

This slide features a purple and blue nebula background. At the top, it lists the logos for SAMSUNG, orange, and intel. The main title is 'DLF NETWORKING vFW CNF Use Case Evolution'. Below the title, the names of the presenters are listed: Konrad Bańka (Samsung), Samuli Silvius (Samsung), and Łukasz Rajewski (Orange). The date '23.06.2020' is in the bottom left corner. A grey starburst graphic with 'REQ-182' is in the bottom right.

orange HUAWEI T-Mobile SAMSUNG AT&T intel



DLF NETWORKING
Virtual Developer & Testing Forum
June 22 - 25, 2020

ONAP CNFO
Orchestration of the Containerized Network Functions

Seshu Kumar M (Huawei)
Łukasz Rajewski (Orange)

DLF NETWORKING

REQ-341

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DLF NETWORKING
Virtual Technical Meetings

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

Łukasz Rajewski (Orange)
Seshu Kumar M (Huawei)

14.10.2020

REQ-458

This slide features a purple and blue nebula background. At the top, it lists the logos for orange, HUAWEI, SAMSUNG, NOKIA, AT&T, and intel. The main title is 'REQ-341 – CNFO – Next Steppingstones Towards CNF In Production Deployments'. Below the title, the names of the presenters are listed: Łukasz Rajewski (Orange) and Seshu Kumar M (Huawei). The date '14.10.2020' is in the bottom left corner. A grey starburst graphic with 'REQ-458' is in the bottom right.

orange SAMSUNG Tech Mahindra NOKIA HUAWEI



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REQ-627

This slide features a night view of a mosque with illuminated domes and minarets. At the top, it lists the logos for orange, SAMSUNG, Tech Mahindra, NOKIA, and HUAWEI. The main title is 'REQ-627'. A grey starburst graphic with 'REQ-627' is in the bottom right.

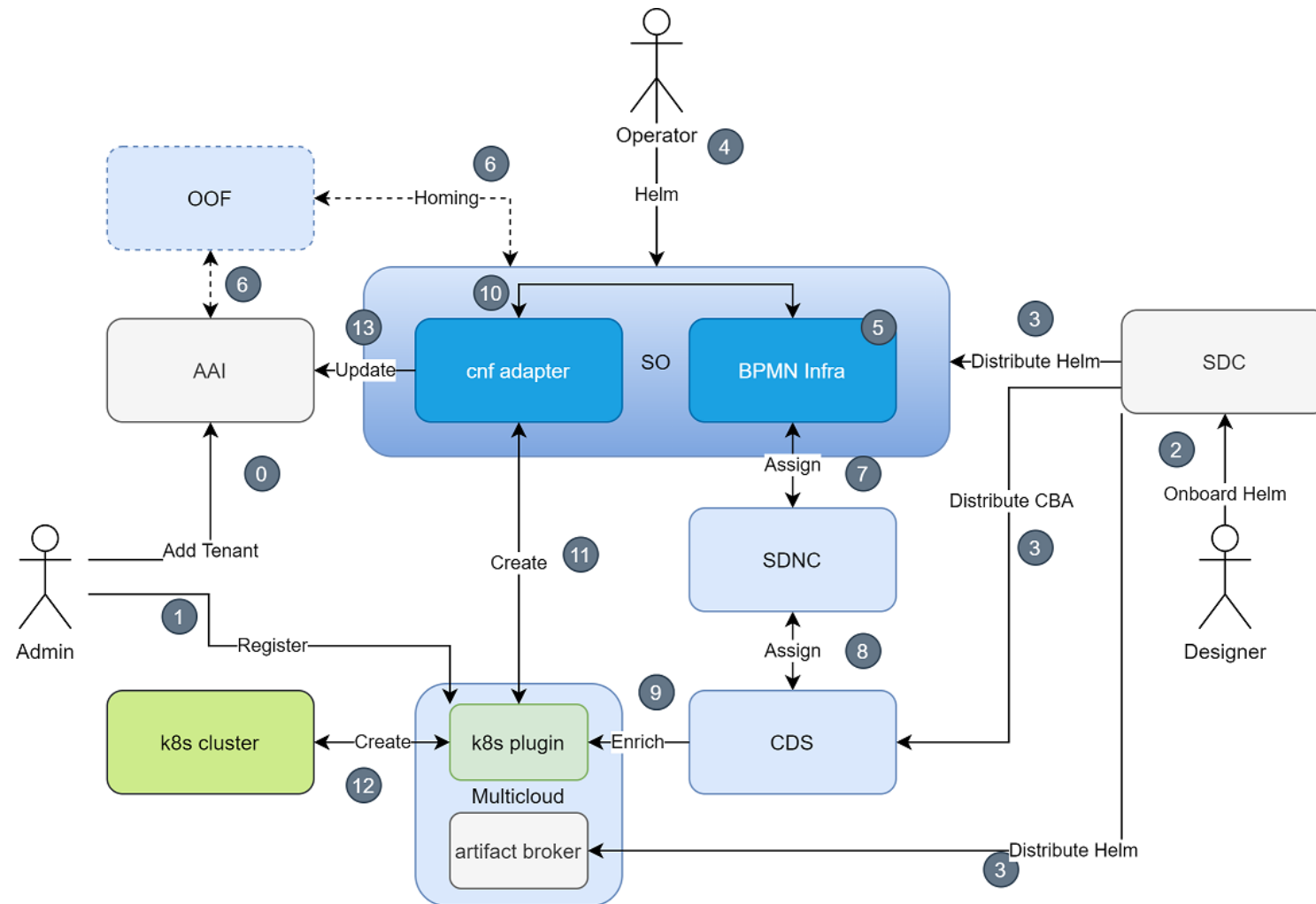
orange SAMSUNG Tech Mahindra HUAWEI intel



REQ-890

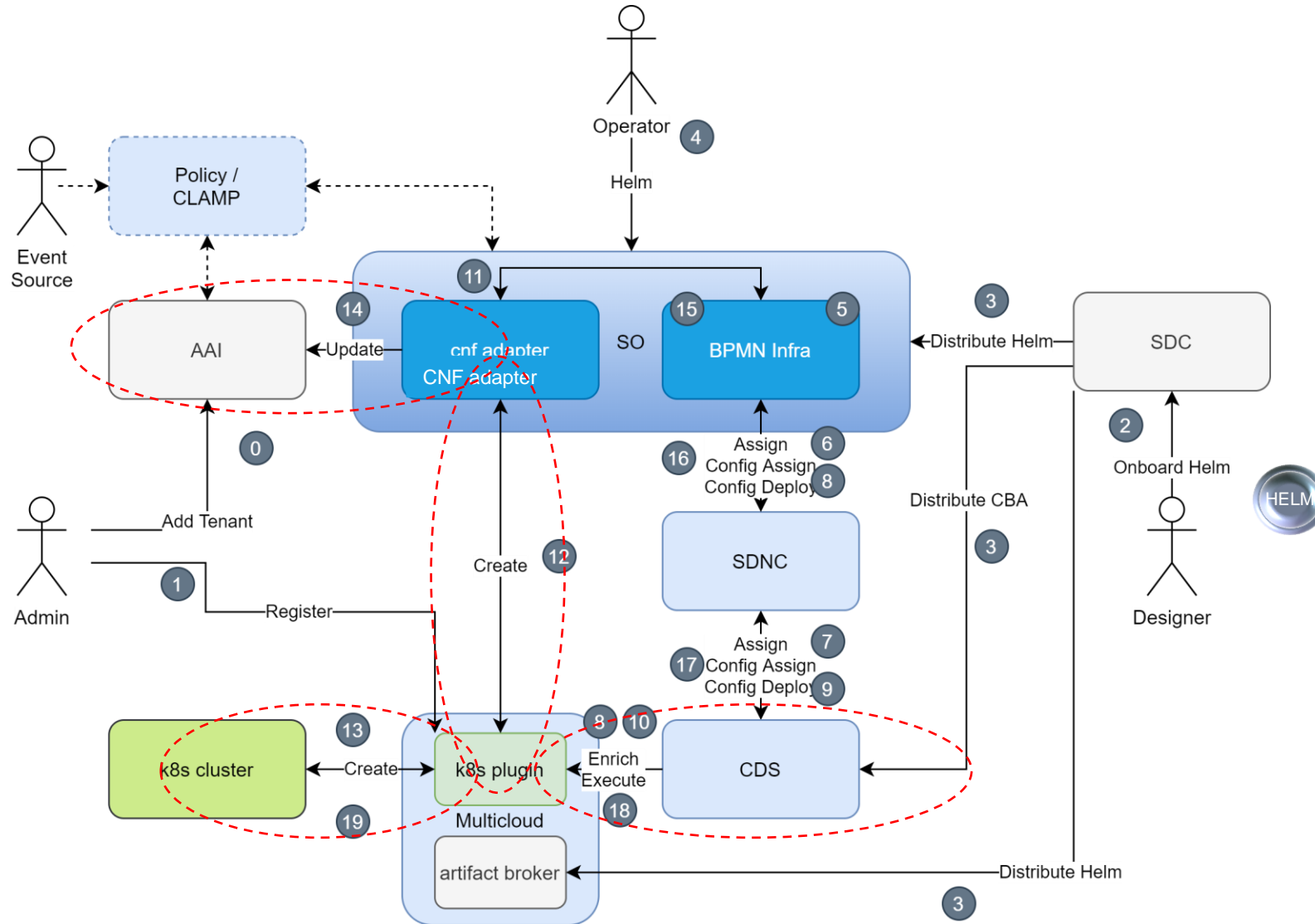
This slide features a cityscape with a prominent skyscraper. At the top, it lists the logos for orange, SAMSUNG, Tech Mahindra, HUAWEI, and intel. The main title is 'REQ-890'. A grey starburst graphic with 'REQ-890' is in the bottom right.

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 support 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

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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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