LF
NETWORKING

Virtual Technical Meetings

# ONAP Honolulu - CNF Task Force Requirements

October 14, 2020

ONAP itself uses Micro-service architecture & uses **Cloud Native principles**

ONAP Manages **Network-service & application LCM** across Multiple VIMs (Openstack, K8s)

ONAP **Design tools** support multiple descriptions (Helm, TOSCA, HEAT etc.)

ONAP OOF (Optimization) chooses the right locations to place workloads

ONAP DCAE collects telemetry from remote sites, analyzes them and generate any control loop actions (Scale, Heal)
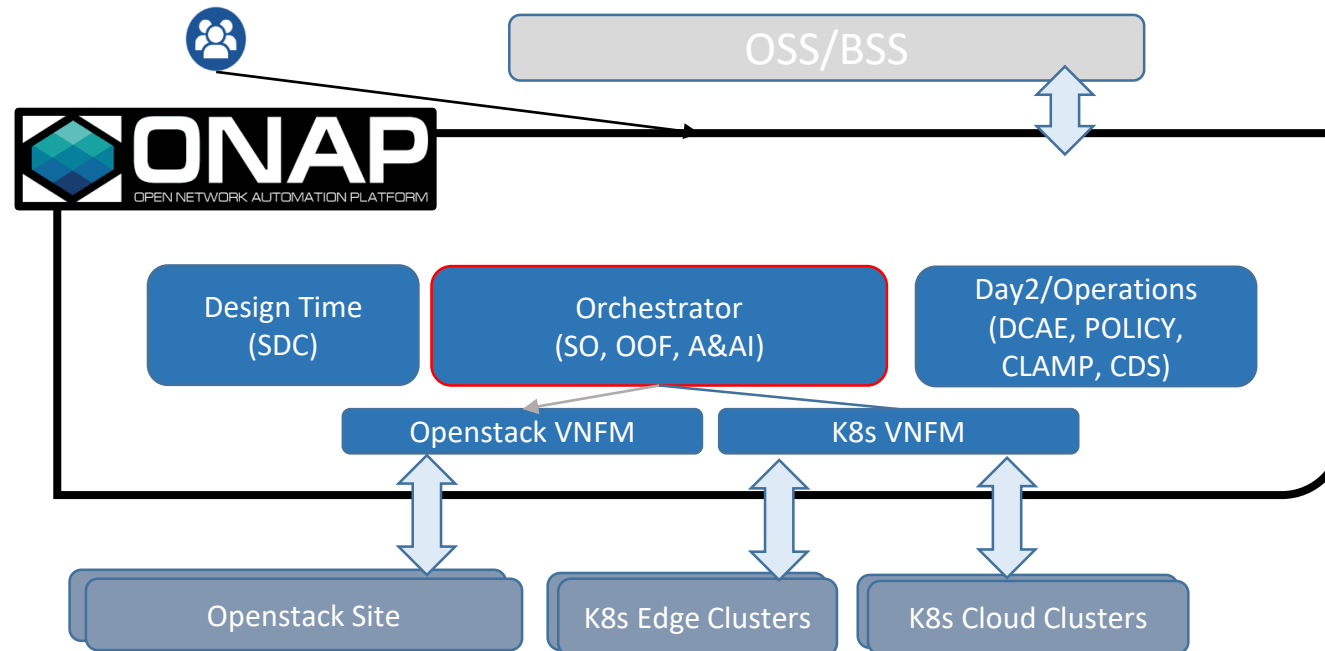
ONAP **supports standard models** & APIs as per ETSI, TMF, MEF, 3GPP

ONAP enables **Day2 configuration** of Network functions via RESTful API, NetConf, K8s CRDs

ONAP AAI is the central repository that keeps site/network element inventory and network service status.

ONAP SO (Service Orchestrator) is orchestrating different workloads: VNFs, PNFs, CNFs

OSS/BSS

ONAP
OPEN NETWORK AUTOMATION PLATFORM

| Design Time (SDC) | Orchestrator (SO, OOF, A&AI) | Day2/Operations (DCAE, POLICY, CLAMP, CDS) |

| Openstack VNFM | K8s VNFM |

| Openstack Site | K8s Edge Clusters | K8s Cloud Clusters |

ONAP is a comprehensive E2E Network Management Platform Solution

ONAP ETSI-Alignment (REQ-334)

| Dublin	El Alto	Frankfurt	Guilin	Future Discussion Topics

• ETSI SOL 2.5.1 support
• SOL003 Adapter
  • Create VNF
  • Instantiate VNF
  • Terminate VNF
  • Delete VNF
  • Subscription
  • Notification
  • Granting
• SO ETSI VNF BB Workflows
• VNFM Simulator in the SO project
• SDC SOL004 PNF onboarding
	• ETSI SOL 2.5.1 support
	• CSIT (test automation) for SOL003 Adapter
	• SOL003 Adapter Bug fixes
	• Communication security between SOL003 Adapter and SVNFM
	  • HTTPS support
	  • SpringBoot-based authentication
	• VNFM Simulator migration to the Integration Test project
	• SDC SOL004 VNF and PNF onboarding
		• ETSI SOL 2.5.1 support
		• SO & SOL003 Adapter enhancements (Ericsson)
		  • SO SOL004 and SOL001 package storage/retrieval support leveraging ETSI Catalog Manager
		  • SOL003-based package management API support
		  • SOL003 VNF LCM Operations
		• ETSI Catalog Manager (CMCC/ZTE)
		  • Storing vendor ETSI packages
		  • Providing ETSI package APIs to the SOL003/SOL005 Adapters
		  • Software Image delivery
		• SOL005 Adapter (Verizon)
		  • Create NS
		  • Instantiate NS
		  • Terminate NS
		  • Delete NS
		• SOL002 Adapter (Samsung)
		  • VNF LCM notification
		• AAF-based HTTPS and Authentication – partial OAuth2 support
			• SDC enhancements (Ericsson, Verizon, Modeling)
			  • SOL007 NS design and packaging
			  • SOL004 VNF/PNF package onboarding
			• SOL003 Adapter enhancements for SO NFVO (Ericsson)
			• NFVO SOL005 Northbound Interface support (Ericsson, Verizon)
			• ETSI Catalog Manager enhancements (CMCC/ZTE)
			• ONAP SO embedded NFVO for hierarchical orchestration, as one of the NFVO options – see the hierarchical orchestration section (Ericsson)
			  • NS LCM orchestration support
				• ETSI SOL 3.3.1 support
				• SDC enhancements
				  • SOL007 NS package onboarding
				  • SOL004 VNF/PNF package onboarding
				  • SOL001 NSD and VNFD mapping to SDC AID DM
				• SOL005/SOL003 Adapter, NFVO enhancements
				  • ETSI Package Management
				  • ETSI runtime model mapping between ETSI and ONAP
				  • FM/PM
				  • Additional NS LCM
				  • **Configuration**
				  • VNF Modify, Heal
				  • Policy-based Scaling
				  • OOF-based Granting
				  • ETSI-based VNF software upgrade
				  • **CNF support**
				• OAuth2-based authentication support between SOL002/SOL003/SOL005 Adapters and SVNFM/NFVO

Completed
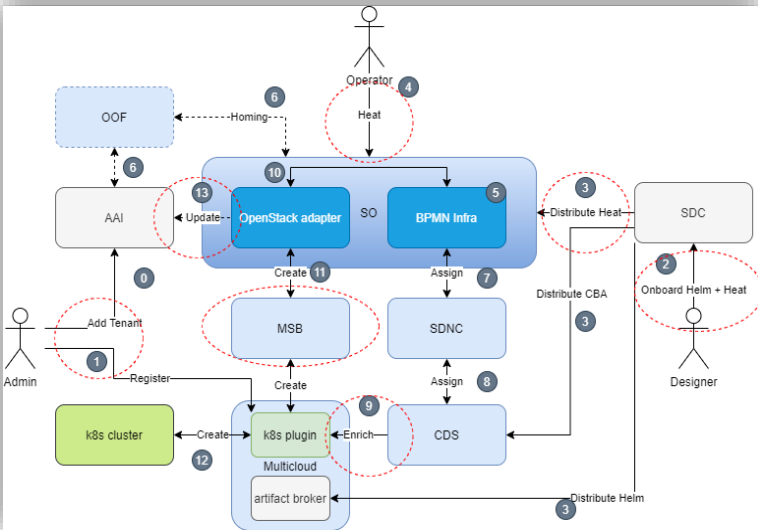
On-Going
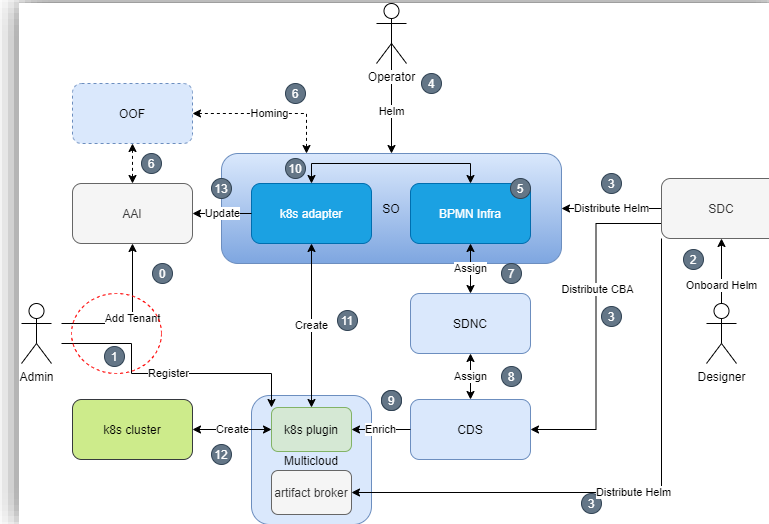
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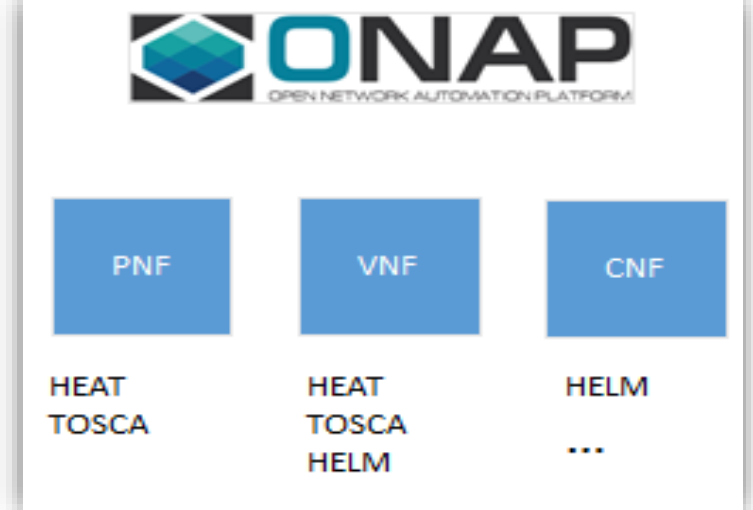
Till Frankfurt

- ✓ Embedding the Helm into the Heat package distro
- ✓ CLOUD_TECHNOLOGY_SPECIFIC artifact distributes Helm
- ✓ Installation of Helm package(s) into K8s cluster
- ✓ Basic Helm enrichment through CDS - Introduced

Guilin Brings

- ✓ HELM artifact is Introduced to make Helm charts a first class citizen
- ✓ HELM artifacts supported in Day 0 and Day 1
- ✓ Native Helm support in E2E Orchestration
- ✓ Enhanced native Helm enrichment through CDS, K8s Plugin interactions.

Beyond

- ✓ Cross community Integration and SDO Compliance
- ✓ Extension to CNF model with Health Check and Monitoring of CNF resources
- ✓ Auto discovery of K8S cluster in ONAP
- ✓ Intent Driven orchestration and Service Control Loop Inc. CNFs

Do not Miss Tomorrow Session @12.30pm

Links

ONAP Cloud Native Task Force Wiki: https://wiki.onap.org/display/DW/TSC+Task+Force+-+Cloud+Native

Mailing List: **onap-cnf-taskforce@lists.onap.org**
List URL: https://lists.onap.org/g/onap-cnf-taskforce