

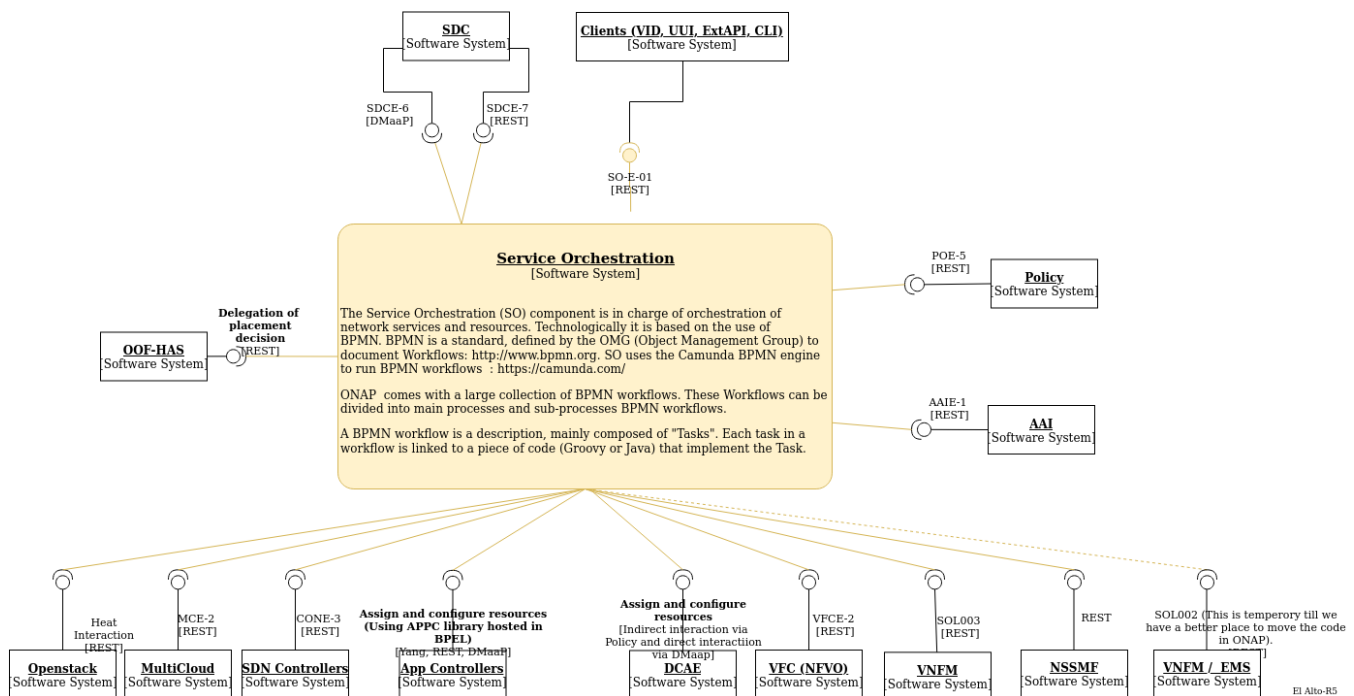
ARC Service Orchestrator Component Description -El Alto

Status: to be reviewed on Jan 21, 2019

Service Orchestrator:

1. High Level Component Definition and Architectural Relationships

2. API Definitions



2a. Exposed APIs

Interface Name	Definition	Capabilities	Version	Status	Payload Model(s)
SO-E-01	Service and Resource order requests	Service Instance management (Service, Volume Group, VF Module, VNF) Health check, global and node. Infrastructure provider management (Certificates, networks, sub-networks, security groups)	3.1.2	Production	Embedded in interface

2b. Consumed APIs

Interface Name	Description
SDCE-6	Service/Resource model notification
POE-5	Delegation of decision to policy logic
OOF-HAS	Delegation of placement decision
AAIE-1	Ingest/update state of services and resources
MCE-2	Assign and configure infrastructure resources

CONE-3	Assign and configure network resources
APPC	Assign and configure resources (Using APPC library hosted in BPMN) [Yang, REST, DMaaP]
VFCE-2	Delegation of Network Service LCM
SOL003	Delegation of orchestration to VNFM
SDCE-7	Service/Resource model query

3. Component Description

Orchestration is the execution of various modules capabilities in harmony as a consolidated process to accomplish the desired tasks. The Service Orchestrator (SO) component of ONAP provides orchestration at a very high level, with an end to end view of the infrastructure, network, and applications.

SO's primary function is the automation of end-to-end service instance provisioning activities. SO is responsible for the instantiation and configuration of VNFs in support of overall end-to-end service instantiation, operations and management. SO executes well-defined processes to complete its objectives and is typically triggered by the receipt of service requests generated by other ONAP components or by Order Lifecycle Management in the BSS layer. The orchestration procedure is either created manually or obtained from the Service Design and Creation (SDC) component of ONAP, where all service designs are created and exposed/distributed for consumption

Internally, SO is organized as a set of modules with well defined responsibility. External adapters (SDNC, OpenStack, VFC and SOL003) encapsulate most communication with external systems. Persistence is exposed to other SO modules – not externally, by DB adapters (Catalog and Request). The underlying workflow component resides in the BPMN Execution Engine. The BPMN Execution Engine also interacts with other ONAP systems such as App controllers, AAI and OOF-HAS. Interactions with SNC are hosted by the SDC Controller. Likewise the API Request Handler exposes SOs API for interaction with clients. Finally there is also a monitoring component that allows insight into the execution state of workflows.

4. Known System Limitations

<https://docs.onap.org/en/dublin/submodules/so.git/docs/release-notes.html>

5. System Deployment Architecture

https://docs.onap.org/en/casablanca/submodules/so.git/docs/developer_info/Working_with_SO_Docker.html

6. New Release Capabilities

Support CCVPN extension

SO ETSI (SOL003, SOL002 and SOL005) plugin support

Improve PNF orchestration

Support the 5G slicing orchestration

7. References

1. Interfaces: https://docs.onap.org/en/dublin/submodules/so.git/docs/api/offered_consumed_apis.html
2. Known system limitations: <https://docs.onap.org/en/dublin/submodules/so.git/docs/release-notes.html>
3. Deployment information: https://docs.onap.org/en/casablanca/submodules/so.git/docs/developer_info/Working_with_SO_Docker.html