

VNFs relation to APIs: R3 DM discussion & Recommendation

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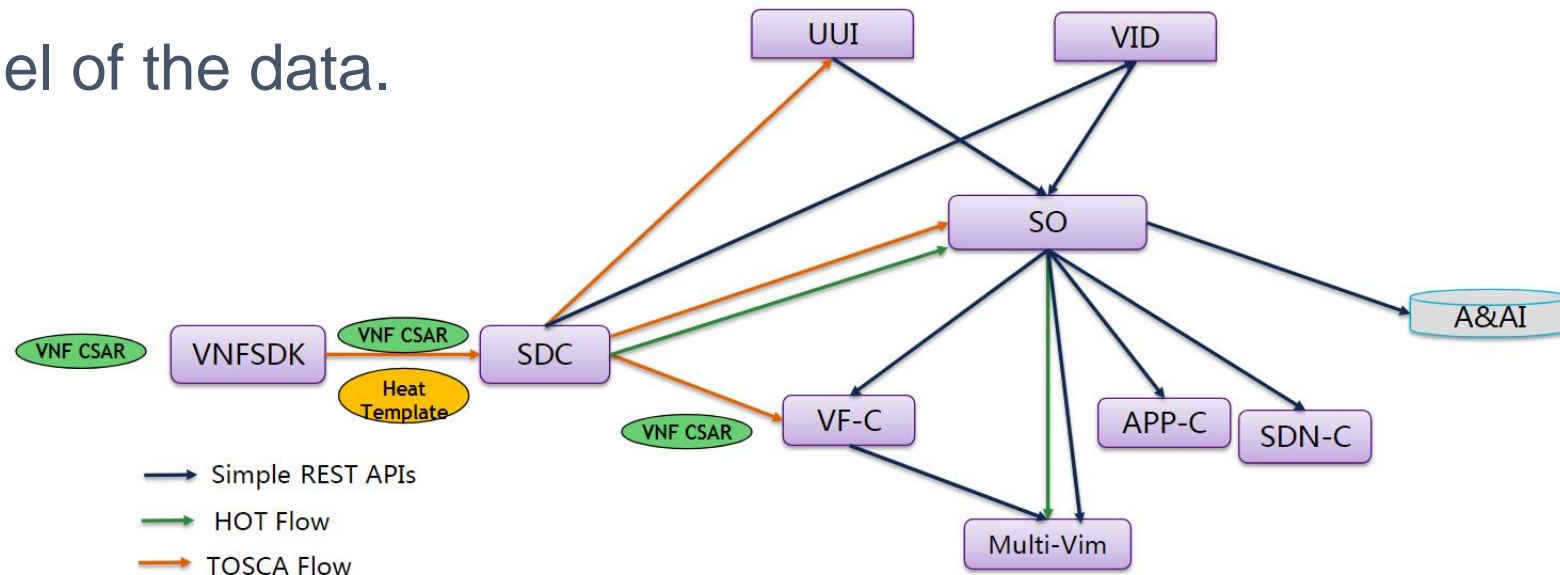
July 5, 2018

Main part of VNFD

- VNF topology: describes VDU, Connection point, virtual link, ext connection point.
- VNF deployment aspects: 1 or more DFs, configurable parameters, instantiation level, placement constrains, number of VDU instances, scaling.
- VNF LCM operations: LCM operations support per DFs, input parameters, and artifacts.

VNFD relation to APIs

- It is important to understand:
 - Who are the end points consuming the VNFD.
 - What parts of the VNFD, each end point(s) is consuming. For example, SO, UUI, VF-C.
 - Expected behavior
 - Run-time or instance model of the data.



Summary

- Until we do not understand who & what part or whole VNFD DM is consumed, it is very hard to answer the original questions or goals (translation issues).
- VNFD is not just about design-time. It is part of the run-time and used during the life of VNF instance.
 - Concern: translation will lose the original VNFD DM (properties, input parameters, VNF LCM operations). Also, CSAR package too.
 - Concern: TOSCA grammars enhancement and support.

Recommendation #1

Recommendation for R3(Casablanca):

- Onboarded VNFD (SOL001 TOSCA- based) should not be translated,
- Actions recommended to be progressed to validate the feasibility of an ONAP internal modeling evolution for VNFD in the future releases
 - Continue to explore and document ONAP (internal and external) integration points/touch points.
 - further understanding of design time to run-time data model connections at each of ONAP components, who are consuming VNFD and which part,
 - Identify translation mapping principles and requirements.

Back-up

Background

- Related to ongoing discussion about “why does R3 need multiple data models” or “why not have one model for all?”
- Ref:
<https://wiki.onap.org/display/DW/ONAP+R3+Data+Model+Compliance+with+ETSI+IFA>

Mapping: VNFD structure

Design Time		Run-Time		
VNFD	Example	ETSI NFV (APIs)	ONAP:SO	ONAP: UII
VNFD Identifier		vnfdId in CreateVnfRequest	?	
Deployment Flavour		flavourId in InstantiateVnfRequest	?	
Instantiation Level		instantiationLevelId	?	
External Connection point		cpdId in InstantiateVnfRequest	?	
...				
...				

Just few of the VNFD structure elements.

Only for discussion

Mapping: VNFD operations at ONAP end points

LCM operation	Input parameters	Output parameters	Operation results
...			

VNFD operations.
Only for discussion