ONAP R3 Modeling High Level Requirements

Based on timeplan of modeling subcommittee, high level requirements need to be finished by M0,

There are 4 categories of high level requirement,

The first category is that those requirement will be implemented and commited by the impacted projects in this release

the second category will document the current implementation in those projects.

Other two categories like lower priority and experimental will not be included in the release 3, the contributor will work with best effort to influence future release.

Owners of each requirement needs to coordinate the modeling spec commitment and code commitment with PTLs of impacted project.

1) Will be implemented and included in the release 3

Modeling Domain	Modeling Requirement	Modeling Requirement Description	Impacted Projects	Use Case Relevance	Modeling Spec Commitment	Code Commitment	Provider Priority	Mapping to M1 requirement	Owner
Resource	VNFD	ONAP Resource Data Model for Design Time? -Agreement that the VNF Descriptor model for On-Boarding and the Internal ONAP models are distinct. (note: an internal model may be used as one of the on-boarding options) •For R3 the VNF Descriptor On-Boarding options include: HEAT and TOSCA (SOL004 v2.5.1 VNF Package, ONAP R3 Resource DM) (see note) -Acknowledgement that there are two Internal ONAP VNF Descriptor Data Models that, for R3, will evolve wherever possible in a coordinated way in support of the Casablanca Use Cases •ONAP R2+ Design-Time Resource DM clean version enhancements for VoLTE, CCVPN, vCPE (stretch goal) •ONAP SDC TOSCA AID enhancements for vCPE -Engage impacted ONAP Components to understand the VNF Descriptor aspects of these two Internal ONAP R3 Resource Data Models are applied •Document ONAP R3 VNFD on-boarding and internal models roadmap with all ONAP components stakeholders	SDC A&AI OOF SO VFC Policy	VoLTE VCPE CCVPN	AT&T Intel	AT&T Intel	AT&T: High	SDC (Y) A&AI (Y) SO (Y) OOF(Y) Policy (Y) VFC (Y)	Andy Mayer (AT &T) Anatoly Katzman (AT&T) maopeng zhang
	PNF for 5G	software version	SDC SO	5G		Nokia		SDC (Y) SO (Y)	Benjamin Cheung shitao li Michela Bevilacqua Jacqueline Beaulac maopeng zhang Hongliang Bian Chesla Wechsler (AT&T)

2) Documentation after implemented, or implemented but not in the release

Modeling Domain	Modeling Requirement	Modeling Requirement Description	Impacted Projects	Use Case Relevance	Modeling Spec Commitment	Code Commitment	Provider Priority	Mapping to M1 requirement	Owner
Service	Service Order	It includes the definition of the managed objects that allows a BSS system to create/delete /update/get an order of a service to a ONAP instance. The Service Order Modeling provided by Ext API R2 team must be reviewed to become part of the ONAP common service IM (Service Order - Information Model View)	Ext API(y)	VoLTE CCVPN Change Mgt	CMCC Huawei ZTE Vodafone AT&T Verizon Orange	CMCC Huawei ZTE Vodafone Orange	CMCC: High Vodafone: High AT&T: High Verizon-High	ExtAPI (Y)	Andy Mayer (AT&T)
	Service Catalog	A Service Catalog is a group of ServiceDescriptors that an organization provides to the consumers via ONAP. https://wiki.mef.net/display/CESG/Service+Catalog	Ext API	VoLTE CCVPN	CMCC Huawei ZTE Vodafone AT&T Verizon Orange	CMCC Huawei ZTE Orange	CMCC: High Vodafone: High AT&T: High Verizon-High	ExtAPI (Y)	Kevin Scaggs (AT&T)
	Service Descriptor	Design time model: service descriptor model, document the existing service model in SDC	Ext API SO SDC	(All) VoLTE CCVPN 5G vCPE	CMCC Huawei ZTE Vodafone AT&T Verizon Orange	CMCC Huawei ZTE Orange	CMCC: High Vodafone: High AT&T: High Verizon-High	SDC (Y) EXTAPI(Y) SO(Y)	LIN MENG (CMCC)
Resource	License	Presently modeled and used in SDC, (ONAP license model)	SDC (No impact, information providing only)		AT&T Verizon		AT&T: Medium Verizon-Medium	SDC (Y)	Kevin Scaggs(AT&T)
	Alloted resource	1 document the existing SDCs current implementation 2 continue to work on the feature. (maybe some implementation will follow these features)	SDC	All	AT&T Intel	AT&T Intel	AT&T: High	SDC (Y)	Andy Mayer (AT&T)
	Scaling (HEAT template)	Scaling Use Case Extension . Casablanca focus: Document the Policy Model that is being implemented by the ONAP Policy Framework.	SDC (no impact) A&AI (no impact) SO (no impact) Policy Clamp (no impact)	vDNS (Scaling)	AT&T		CMCC: Medium Vodafone: Medium AT&T: High	SDC (no impact) A&AI (no impact) SO (no impact) Policy (Y) Clamp (no impact)	Andy Mayer (AT&T) Gil Bullard ((AT&T)
	ResourceComposite	• the composition relationship between different resources which is implemented by the current SDC code shall be documented • the semantics rules of the current SDC/VNFSDK implementation shall be documented; potential new rules would be captured and brought back to SDC for the next release	SDC VNFSDK(y)	VoLTE CCVPN	CMCC Huawei ZTE Vodafone AT&T Verizon Intel	CMCC Huawei ZTE Intel	CMCC: High Vodafone: High AT&T: High Verizon-High	SDC (Y) VNFSDK (Y)	Xu Yang maopeng zhang
	Network Service	1 create a data model for network service	SDC VFC	VoLTE CCVPN 5G	CMCC Huawei ZTE AT&T	CMCC Huawei ZTE	CMCC: High Vodafone: High AT&T: Medium	SDC (Y) VFC (Y)	Chuyi Guo maopeng zhang

Telemetry	Events & VES	VES Event Descriptor Model according to VES spec v6.0	DCAE SDC		AT&T Verizon		AT&T: High Verizon-High	DCAE(Y) SDC (Y)	Kevin Scaggs(AT&T) Jessie S Jewitt (ARM) Michela Bevilacqua

Below tables are not downgrade, but casablanca won't make it

3) Lower Priority:

Modeling Domain	Modeling Requirement	Modeling Requirement Description	Impacted Projects	Use Case Relevance	Modeling Spec Commitment	Code Commitment	Provider Priority	Owner
Service	servicecomposite	Design/run time model : Service IM review according to the agreed Service Composite pattern. (Composite Pattern UML diagram)	SDC (L) Ext API (=SDC) SO	VoLTE CCVPN	CMCC Huawei ZTE Vodafone AT&T Verizon	CMCC Huawei ZTE	CMCC: High Vodafone: High AT&T: High Verizon-High	shitao li
	Service Scaling	A run time service instance could be updated by scaling in/out its capacity via deleting/adding new resources instances, e.g. sites in CCVPN usecase.	SDC SO AAI	VoLTE CCVPN	CMCC Huawei ZTE Vodafone AT&T Verizon		CMCC: High Vodafone: High AT&T: Medium Verizon-Medium	LIN MENG
	Service Instance	Run time model: service instance model in relation to the design time model and Service Composite pattern. (Composite Pattern UML diagram)	A&AI Ext API SO SDC	(All) VoLTE CCVPN vCPE	CMCC Huawei ZTE Vodafone AT&T Verizon Orange		CMCC: High Vodafone: High AT&T: High Verizon-High	Kevin Scaggs(AT&T)
Resource	ResourceComposite	Design time model: Resource composite model introduction according to the agreed Service Composite pattern. It includes the NS model review from Service component to Resource Composite and change of Modeling Domain (Composite Pattern UML diagram) The ResourceComposite includes below sub-requirements: • support composite pattern (i.e., ResourceAtomic and ResourceComposite) in the IM and DM	SDC(->) VNFSDK	VoLTE CCVPN	CMCC Huawei ZTE Vodafone AT&T Verizon Intel	CMCC Huawei ZTE Intel	CMCC: High Vodafone: High AT&T: High Verizon-High	Xu Yang

	Network Service (modeling subcommitee DM approve firstly)	Context: 1. In R2 VoLTE case, SDC support VoLTE service composed of IMS /EPC service as VNF. IMS/EPC Service can be composed of VNF, and VLD resources. In service layer, VOLTE service should focus on the IMS/EPC/... service composition, not coupled with the specific IMS/EPC/... resource composition. In the different scenes, IMS service can be implemented in different resources layer, for example, small capacity or large capacity, VNF in one DC or VNF on multiDC, even all PNFs or PNFs/VNFs, etc The multiple resource composition should not affected the service design. So network service is introduced, which is in charge of different IMS resource composition and let the service design not coupled with the resource composition design in detail. 2. TMF support service and resource, and also in resource layer, there is resource composite. and Network service from ETSI can be mapping to the resource composite 3. model subcommittee progress: Network service is agreed in resource IM group. Networkservice IM Network service Descriptor has been discussed in DM group. Networkservice DM 4. SDC progress org.openecomp.resource.vfc.NSD has been imported in ONAP catalog in R2 https://gerrit.onap.org/r/gitweb?p=sdc.git;a=tree;f=catalog-be/src/main/resources/import/tosca/nfv-types/NSD;h=bf5cabb52dc41025f4708c7c095e304196e7e6a6;hb=refs/heads/master SDC functionality does not support NSD yet in R2 SDC requiremnets in R3: 1. SDC design UI, catalog(FE,BE,Database, API) shall support NS and related package based on R2 link 2. In resource design, NS descriptor shall be composed of VNFD, and VLD at least to support VoLTE based on R2 resources 3. In service design, service descriptor could be composed of the NSD. 4. NS descriptor shall refinement to support R3 NS DM Proposal(Stretch goal)	SDC	VoLTE CCVPN 5G	CMCC Huawei ZTE AT&T	CMCC Huawei ZTE	CMCC: High Vodafone: High AT&T: Medium	Chuyi Guo maopeng zhang
	VNF instance (run time)	Run time model of a VNF instance (low)	A&AI	VoLTE CCVPN 5G vCPE	CMCC Huawei ZTE AT&T Verizon Intel	CMCC Huawei ZTE	CMCC: High Vodafone: High AT&T: High Verizon-High	Kevin Scaggs (AT&T) Jessie S Jewitt (ARM) maopeng zhang
	PNF instance (run time)	Run time model of a PNF Instance.	SDNC A&AI SO	VoLTE CCVPN 5G	CMCC Huawei ZTE Vodafone	CMCC Huawei ZTE	CMCC: Medium Vodafone: Medium	Weitao Gao Michela Bevilacqua Jacqueline Beaulac maopeng zhang Hongliang Bian
	WAN Connection	Wan Connection Information Model	SDC(->) SO A&AI SDNC	VoLTE CCVPN	CMCC Huawei ZTE AT&T Verizon	CMCC Huawei ZTE	CMCC: High Vodafone: High AT&T: Medium Verizon-Medium	Zhuoyao Huang Chuanyu Chen Gaurav Agrawal
	SD-WAN	CCVPN SD-WAN Information Model			CMCC Huawei AT&T Verizon		CMCC: High Vodafone: High AT&T: Medium Verizon-High	Chuanyu Chen Gaurav Agrawal
	ElementGroup enhancement (lower)	Tied to modeling of Scaling, Homing, Placement, etc.	SDC SO		AT&T		AT&T: Medium	Andy Mayer (AT&T) Kevin Scaggs (AT&T)
Infrastructure	Multi-cloud	The cloud abstractions needed for homing in the edge cloud across public cloud and service-provider-owned-cloud	Multicloud	Edge automation	AT&T		AT&T: Medium	Arun Gupta(AT&T) Jessie S Jewitt (ARM)
Telemetry								

4) Experimental:

Modeling Domain	Modeling Requirement	Modeling Requirement Description	Impacted Projects	Use Case Relevance	Modeling Spec Commitment	Code Commitment	Provider Priority	Owner
Resource	Container	Resource modeling changes in the IM, design time DM and runtime DM	Multi-Cloud		Intel	Intel		Alexander Vul Ethan Lynn Damon Li
	Acceleration Management (BoF)	Discussing the requirement for acceleration management in ONAP, including research motivation, problem statement, as well as proposals. Welcome to join this thread. (Acceleration Management (BoF))						Lei Huang