# 5G Use Case Meeting notes for Jan 23, 2020

# Date

23 Jan 2020

## Attendees

- Benjamin Cheung
- Zu Qiang (Ericsson)Oskar Malm
- Bob Papa

- Marge HillisTimo PeralaVimal Begwani
- Shankaranarayanan Puzhavakath Narayanan

# Discussion items

TIME FOR THIS MEETING WILL BE 2PM UTC = 10AM EST (USA); 7 AM PST (USA)

Item	Who	Notes	
Discus sion this week	All in 5G U /C	<ol> <li>CMPv2 &amp; AAF status - RED at M2/M3 right now.</li> <li>REQ-140 - Create Client, Plugin using Client and mechanisms for using CMPv2 as a CA. DONE Problem w/ CMPv2 need committers. AAF S/W hard to work with not much documentation, troubleshooting, which triggered a new approach for Architecture. Due to second pt, have proposed architecture for R6, some new work planned originally suggestion from user-063b3 change to Yellow status.</li> <li>Harmonization U/C - Some things pushed out (Partial Green) at M2/M3 - O1 enhancements moved to G release hoping to harmonize (1) Fault &amp; (2) Config change Notification (CMNotify) Thus CMNotify will be pushed to R7. Meetings to harmonize 3GPP standards. Waiting for Standards to be Harmonized. Intentionally descope something so that we don't cause churn. Don't want to implement something that would have to be re-implemented.</li> <li>VES Spec updates - Meeting setup for 23 Jan 2020 by Marge Hillis . To try to figure out which is most current draft, may have to go to DCAE project next week 30 Jan 2020 to discuss how to proceed. Need to make sure it is one w/ the correct content. DRAFT 4. Alok G. is on medical leave, and Albino Pinho is the current delegate. PM schema update needed. Security change.</li> </ol>	

M2 All in Deadli 5G U ne /C Delive rables M2 Deliverables **DEADLINE**: JAN 21, 2019

R6 Frankfurt Release: Frankfurt Milestone Status

Release Planning Page: Release Planning

M1 Deliverables Checklist: Deliverables for Planning Milestone Checklist Template

Deliverables by Milestone: Frankfurt Deliverables by Milestone

### (1) FUNCTIONALITY FREEZE -

#### M2 MILESTONE: Functionality freeze

No new visible functionality is to be added to the current ONAP release.

A stable document describing the API is documented and available in wiki.

Base set of impacts to VNF Requirements identified by use case/ project.

#### (2) API & DATA MODEL FREEZE -

#### M3 MILESTONE: API & data model freeze.

Mark the end of API and Data Model change. API and Data Model are now Frozen.

Any changes to the API must be brought to the knowledge of the TSC for review and approval.

50% of Functional Test Case are automated.

#### (3) FUNCTIONAL TEST CASES -

Functional Test Cases are defined & documented

#### M2 CHECKLIST: Release Planning (legacy)

- (1) Functionality freeze, no new visible functionality is to be added to the current ONAP release.
- (2) Functional Test Cases Each Project team has defined & documented Functional Test Cases.
- (3) API Documented A stable document describing the API is documented and available in wiki.
- (4) VNFReq Base set of impacts to VNF Requirements identified by use case/ project.
- (5) Release Status Update M2 scorecard Frankfurt Release Requirements
   API docs complete Where?
- Data Models (e.g, JSON, YANG, Swagger, etc.) shared with Modeling/Community
- Architecture Review complete (if required)
- No Gerrit requests older than 36 hrs.
- Provide docker to integration testing for Wave1: oParent, PortalSDK
- OOM port list update
- Fix any Integration blocker Daily status updates on integration blockers, Highest/High issues
- Review and plan resolution of any License scan, security issues
- Update Frankfurt Risks

#### (CONTINUOUS) - DOCUMENTATION - Documentation (Read the Docs) - M1 - M4

- READ THE DOCS: https://onap.readthedocs.io/en/latest/index.html
- Navigate to > <u>USER GUIDES</u> > <u>Verified USE CASES</u>
- Use Case Page: https://docs.onap.org/en/dublin/submodules/integration.git/docs/docs\_usecases.html
- Doc PTL Sofia Wallin Ask Sofia to help w/ training. OPEN POINT.
  - Doc TEAM meets at 8AM EDT USA on Thursdays. https://zoom.us/j/907176290

CONF EREN CES & DEMOS

All in 5G U /C ORAN/ONAP Plugfest held Thurs Dec 5, 2019 (AM EDT UTC-4 USA) at Rutgers WIN Lab (Brunswick NJ).

Official WIKI Site: https://wiki.o-ran-sc.org/x/egBv

RECORDING OF DEMOS PLUGFEST

 $\label{lem:https://zoom.us/recording/play/jbp0ivv4Cs0RwyWM1YilqHDMXWvnwxCH-Xwh3PCezteHdg\_5TRBGmGX-tnvvv4ze? startTime=1575556625000$ 

#### CONFERENCE

- Jan 13-16, 2019 Prague DDF -
- LINK to presentations & presentation proposals
- PROPOSALS: https://wiki.lfnetworking.org/display/LN/Call+for+ONAP+DDF+Topics+-+Prague+2020
- SCHEDULE: https://wiki.lfnetworking.org/pages/viewpage.action?pageId=25364127

#### **PLUGFEST**

- POC & Plugfest in End June 2020 BRONZE Release of ORAN.
- WINLAB? A1/O1 ORAN & ONAP Joint Plugfest.
- Tracy Van Brakle Martin Skorupski Marci Haas
- Panel Discussion // Possibly planned for Feb 2020.

#### **CONFERENCES**

April 22-24 Open Network & Edge Summit (ONES) - Los Angeles - GuiLin R7 (Planning).

- Request for PROPOSALS:
- LFN is organizing. Heather Kirksey. 2-3 days of ONES / then separate ONAP
- LINK: https://events.linuxfoundation.org/open-networking-edge-summit-north-america/

Early June DDF - Asia (GuiLin R7)

ACTION: Will remote presentations be possible, links to remotely attend? When is final schedule up.

RunTi me Config DB Joann e Liu Rudel

Benja min Cheung Architecture S/C presentation for Run Time DB.

TOPIC	Wiki
ARCHITECTURE FLOWS	ARCHCOM: InfoFlow - RunTime Config DB Information Flow
COMPONENT DESCRIPTION	ARC RunTime DB Component Description - R6 Frankfurt
PROJECT PROPOSAL	RunTime Config DB Project Proposal (Oct 25 2019)

Team is working to define the Proposal (see wiki).

Then it will be presented at the Arch S/C and then TSC.

For R6, will be part of CC-SDK. Met with Yuriy Malakov & Dan Timoney . CONFIGURATION PERSISTENCE SERVICE R6 not a separate component in R6.

Netwo	Borisla	Update on slicing proposal. SO/Seshu presented.		
rk Slicing R6 Propo sal	V Glozm an Shank ar PN	Multiple functional requirements/Use Cases. Recursive orchestration of nested services. Didn't want independent W/F for flows but try to leverage/reuse work. Presented the End to End U/C with macro-view for E2E slice. and components impacted. Right now impact will be on SO, OOF, Policy, SDC and AAI. What controller will be used for managing slices? Focusing on design aspects and instantiation and activation. Put up logical E2E slice. Target simple VNFs. Focus to create VNF vs reconfiguring a VNF? Slice segments are going to be both dedicated/shared. Started with discovering existing resources; assume segments created with VNF		
	Swami	/PNFs in inventory & discoverable. Spinup new slice instances.		
	nathan Seeth	02 Jan 2020:		
	araman	(1) ROADMAP - Proceeding with detail, developments for roadmap beyond R6.     (2) API - defining API in progress		
	LIN MENG	• (3) <b>PoC</b> - Prototype of PoC from Orange focusing on VNF-portion.		
		<ul> <li>(4) SO - Implementation in SO W/F and hierarchy using Svc ref concept to be discussed beyond R6.</li> <li>(5) ORCHESTRATION - documentation what will ONAP do wr.t. slice orchestration</li> </ul>		
		<ul> <li>(6) MODELING - Discussing Modeling aspects, how to represent CSI, NSSI, NSSMF etc how to implement in SO how to communicate w/ external domain NSSMF.</li> </ul>		
		<ul> <li>(7) VID - Discussion: Millind Jalwadi</li> <li>JSON based screens for VID, Is there a slicing GUI that could be re-used.</li> </ul>		
		<ul> <li>would want to upstream that NSST NSSD</li> <li>Part of the Network Slicing Use Case.</li> </ul>		
		Presentation/slides at: NETWORK SLICING PoC in R6 Frankfurt (Obsolete)		
		Use Case Realization Call: November 20, 2019 for Network Slicing discussion		
		WEEKLY MEETING: MONDAYS		
		E2E Network Slicing use case meeting		
		https://zoom.us/j/125249795 Meeting ID: 125 249 795 One tap mobile +16465588656,,125249795# US (New York) +16699006833,,		
		125249795# US (San Jose) Dial by your location +1 646 558 8656 US (New York) +1 669 900 6833 US (San Jose) 877 369 0926 US Toll-free 855 880 1246 US Toll-free +1 647 558 0588 Canada 855 703 8985 Canada Toll-free Meeting ID: 125 249 795 Find your		
		local number: https://zoom.us/u/adzJIWSfnF		
ODAN	\/immal	1:30 PM Isreal Time, 6:30 AM EDT.		
ORAN /3GPP ONAP	Vimal Begwa	Trying to settle on scope of the Use Case. List of many possible contributions that will take more than one release to complete. Impacts for items to be added to wiki (analysis).		
Harmo	ni Marge Hillis	Prioritize the work items what we could propose to accomplish.		
nizatio n U/C		CM Notify as a new domain has been accepted on the DCAE S/C today Oct 24 2019.		
		Dongho Kim will be creating the test/integration page.		
		21 Nov 2019 - A1 & O1 test integration pages have been added & links.		
		02 Jan 2020 Sandeep code was merged w/ SDN-C branch. Current container has the latest code. Continuing to test. In AT&T lab now being tested.		
		09 Jan 2020 In progress. On track. O1 may need attention.		
		Marge Hillis will setup a call to discuss possibly some gaps maybe move things to R7. Meetings w/ Dave Smith et al. trying to push through harmonization. Standards meeting in Nov. 2019. There was push back & negotiation between 3GPP & ONAP as to how to proceed. This is because it was first exercise, once we have a process in place it should go more smoothly. 3GPP specified some stuff and tried to over-specify into ONAP. Shortcoming in 3GPP current CMnotification only handles one MO if this was adopted. Working with 3GPP to correct. Waiting to see if 3GPP will accept the proposal. Working w/ standards for 3GPP FEB SA5 standards meeting.		
		Harmonization U/C - Some things pushed out (Partial Green) at M2/M3 - O1 enhancements moved to G release hoping to harmonize (1) Fault & (2) Config change Notification (CMNotify) Thus CMNotify will be pushed to R7. Meetings to harmonize 3GPP standards. Waiting for Standards to be Harmonized. Intentionally descope something so that we don't cause churn. Don't want to implement something that would have to be re-implemented.		
		09 Jan 2020 From SDN-R when we send config change align to NetConf Yang model avail. whatever yang model used, want config DB schema to be aligned w/ yang model to keep model driven. wanted Yang Models from ORAN if possible. In license catch-22.		
PCI	aranar ayanan	Some yang models for RAN on ORAN website due to licensing issues from Martin Skorupski took 3GPP model converted to files to compile. Issue w/ ORAN getting ok from 3GPP that it is a valid rep of 3GPP model. Option (1) use previous yang model, or (2) switch to ORAN model if available immediately. yang to SQL schema. Only need some parts of the model for SON project. Currently MariaDB continue to use. Piotr, Marek, et al. If there are useful file wo/ IPR issues, should be a way to use interim files.		
WoW w/ Model		Way of Working between Architecture , Modeling Subcommittee & Use Case Teams and what happens and touch-points at M0/M1 /M2/M3.		
& Arch		Process for Modeling WoW and development with Architecture & Modeling.		
		Proposed ONAP Release Process Updates for Information and Data Modeling		

Use Case Templ ate	SGU/C Team Andy Mayer Scott Blandf ord	Use Case Template - discuss updating the Use Case template & pages with some of these fields. Modeling team has said it would be useful for them to have the pre-condition & post-conditions, and information being passed (info-flows) documented.  Use Case Template  Filling out, describing and creating the Wiki for a Use Case  Use Case Tracking Template and Use Case Template  Proposed Functional Template for Use Cases  Ben talked w/ Andy Mayer U/CR call Oct 23. He said he is preparing the page, and would present here at the 5G U/C S/C call.  REQUIREMENTS SUBCOMMITTEE - requirements sub-group / not bring use cases any more, refer to them as requirements. / proposed change talk less about architecture in requirements mtgs & reviews. more clear split between req & arch discussion. / Alla Goldberg changed U/C S/C to Requirements S/C. Security and ctl loop req will be discussed in those S/C; other things should go to Req S/C.		
5G Servic e Modeli ng, , PM Dictio nary, 5G NRM	5G U /C teams	Chaker Al-Hakim - History Inventory resources associated w/ xNF. Assumptions: what are the resources that I need to inventory about a xNF so that I have a complete view of the VNF. parms added due to nature of VNF. resource inventory didn't have to do with provisioning data that the xNF can have. Should be evolved to reflect what we know today.		
PNF Pre- onboa rding/ onboa rding	PNF U /C teams Benja min Cheung			
PNF / SW Upgra de	Zu Qiang (Ericss on)	Reviewed with SO team.  Preparing for DDF. will discuss with Change Management team, might be presenting. R6 in progress.		
5G/ Bulk PM	Oskar Malm	Preparing presentations at DDF in Prague in DDF for R6 BulkPM functionality in Jan 2020.  Demo in Dec 5, 2019 - R4 functionality. PM control part is green; the other bulk PM for certificate handling has dependency with  REQ-140 - Create Client, Plugin using Client and mechanisms for using CMPv2 as a CA.  DONE		
PNF / NetCo nf	Oskar Malm	Basic U/C unchanged, support for NetConf over TLS. What is being worked on in R6 is to have a improved functionality around certificate handling. When you have a TLS 1.x for authentication for ONAP so the NF when it connects to ONAP it is a valid xNF. Authenticate user cert ONAP needs to get the certs from somewhere - a centralized solution w/ AAF. and connect to ext. PKI via CMPv2. ONAP component minimum version TLS 1.2. Dependency to REQ-140		
PNF / Plug and Play  held meeting for discussing Civic Address elements & Geolocation information w/ the modeling S/C min Cheung PnP - PNFD/SDC AID/AAI Schema Modeling - Discussion Jan 2, 2020  Eventually will the PNFregistration VES event for PnP (R7).  SO presentations related to Building block definitions. Dependency to REQ-140. Option #2 new arch. is agree w/ old.		PnP - PNFD/SDC AID/AAI Schema Modeling - Discussion Jan 2, 2020  Eventually will the PNFregistration VES event for PnP (R7).  SO presentations related to Building block definitions. Dependency to REQ-140. Option #2 new arch. is agreed. Option #1 continue		
R6 Use Case VS Requir ements	All in 5G U /C	TSC Release Page.  Frankfurt Release Requirements  WHAT IS A USE CASE VS A REQUIREMENT? In the REQUIREMENTS Table of the R6 Release Requirements Wiki (above) the Use Case requirements as discussed on the TSC call for Sept 12, and David McBride has asked that we have requirements (jiras) or separate rows. Further follow-up discussions will be had for "what is a use case" and if some of the 5G use cases should be moved up to the first table.		

5G Servic Cheung Modeli ng U /C

## Benja

WIKI: 5G RAN SERVICE MODELING & DEFINITION in R6 Frankfurt

CDS Data dictionary - Define attribute, in that entry tells you how to get that value. Yuriy Malakov

If you needed the IP@ you can go that entry points to the REST call. Used for instantiation and configuration management. Model driven ONAP. Modeling Concepts

3GPP TS28.541/TS28.540 - 5G NRM Network Resource Model analysis (spreadsheet). Looking parameters introduce

Classify parameters - CDS Data Dictionary, A&AI, RunTime Cfg DB.

Presentations - Modeling S/C, U/C S/C, U/C Realization, 5G U/C.

Modeling S/C - Experimental info model introduced (standards driven)

A&AI - classification of A&AI parameters. Commission (might need at installation & commissioning) A&AI.

Onboarding - Onboarding, PNF PNFregistration, CMNotify (VES events), Pre-defined "load 3GPP model"

Information Flows - Where these might be used.

ORAN Standards - Usage of the 3GPP TS28.541 in ORAN Standards. Might want to consider which 3GPP parameters ORAN cares about & when. They might an opinion of when to incorporate parameters.

## **SUPPORTING SLIDES**

Document	File	
Presentation		

## **RECORDING**

Recording	File	
MP4 (Video + Audio)	zoom_0.mp4	

