5G Use Case Meeting notes for Jan 30, 2020

Date

30 Jan 2020

Attendees

- Benjamin Cheung
- Joanne Liu Rudel
- Oskar Malm
- Borislav Glozman
- Egemen Cetinkaya
- Andy Mayer
- Marge Hillis
- Bob Papa
- Damian Nowak
- Junfeng Wang
- -

Discussion items

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

Item	Who	Notes

| Discussion this week

30 Jan 2020 | All in 5G U/C | 1. **M2/M3 CMPv2 & AAF status** - YELLOW at M2/M3 right now.

⚡ ~~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. 30 Jan 2020 Benjamin Cheung reported on the TSC that REQ-140 under development now. TSC asked Damian N. or Pawel B. to join the Monday PTL call to resolve. Pawel Baniewski out on sick leave.
  a. **REPO Created** - Nokia (Pawel) have created a repo this week, discussing architecture now.
  b. **Access** - Confirmed, we can access the Repo.
  c. **Deliveries** - Nokia planning to deliver the *CertService* (accept request from client), *CertService Client* (init container w/ ONAP apps), and integration with external CMP v2 service.
  d. **Integration to Border Components** - No integration with many ONAP modules, like DCAE/VES, SDNC, DCAE/DFC **very likely to be post-posted to R7**. High Risk more than 50% that can't deliver integration part, best effort. Can create the service reused the CMPv2 client, and provide client, but then the client should be integrated with init container application DCAE/VES, SDNC, DCAE/DFC. Oskar: "agree it Might be a risk. but Ericsson is doing One of the integration tasks". The ONAP "bordering" components. Haven't discussed with Vijay DCAE PTL. Oskar: "for SDN-C main risk is when other functions are available, we have the capacity to do the actual integration" Damian: "no likely to be available before end-of-Feb/Begin of March, still estimating software effort. **Consequences** - in scenario where you int ONAP w/ external function won't be able to dist cert generated in external Cert. Authority (CA) within ONAP; thus would still be able to integrate a NF to ONAP but would need to distribute manually bring the certs to ONAP. The Automation of distribution would be missing. The NFs contact the CAs to get certs. Integrate ONAP w/ CMPv2 w/ CertSvc to same Ext. CA. Integrate the xNF gets the cert to Ext. CA. ONAP gets matching trust anchors from same Ext. CA, loaded to an ONAP component. CertSvc bought back dist. within ONAP volume where cert is stored & consumed by ONAP component. 3GPP requires/originated. Consumes maximum of what 3GPP has.
  e. **Slides** - 🔖 ~~ONAPARC-553~~ - AAF impacts for CMPV2 feature in REL F / Content `CLOSED`
  f. **Integration** - This has separate requirements. 140 is the common part in AAF, including client component that can be reused, there is integration work which have separate requirements. This creates a dependency on those other requirements, being delivered with enough time to do integration.
2. **M2/M3 Allotted Resource Model** - Andy Mayer is working on that this Week. Modeling only should not hold up any coding. Changed owners, Kevin Scaggs & Gil Bullard were working on that. TSC asked Andy to join the Monday PTL call to resolve.
3. **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 3GPP SA5 Standards to be Harmonized. Intentionally descoped these so that we don't cause churn. Don't want to implement something that would have to be re-implemented. Trying to get VES SMEs engaged. But won't make R6 because of the timeframe. The VES Specs does need to be updated (see next point). Trying to align ORAN, ONAP & 3GPP aligned.
  a. For R6, OOF-SON-PCI & the RunTime Config DB U/C needed the CMNotify, Sandeep Shah said they had a simulation of CMNotify for demo purposes.
4. **VES Spec updates** - **DCAE project next week** 06 Feb 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 / Trevor Lovett is the current delegate. PM schema update needed. Security change. Trevor has sent out a review. CRs are posted. Does not include the Fault & CMNotify (will be in VES 7.2 which is in R7). Gerard Hynes pulling in VES experts. David Kinsey looking at Harmonization options. David Smith (ATT) Jean-Michel Corneley (Orange) to discuss options for Harmonization. Should happen before DCAE call. From Ericsson Oskar Malm has forwarded. |

M4 Deadline Deliverables	All in 5G U /C	M4 Deliverables **DEADLINE**: **05 Mar 2020**
		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/M3 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 > USER GUIDES > Verified USE CASES - 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

CONFERENCES & 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 https://zoom.us/recording/play/jbp0ivv4Cs0RwyWM1YiIqHDMXWvnwxCH-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.
RunTime Config DB	Joanne Liu Rudel Benjamin Cheung	Architecture S/C presentation for Run Time DB. <table><tr><th>TOPIC</th><th>Wiki</th></tr><tr><td>ARCHITECTURE FLOWS</td><td>ARCHCOM: InfoFlow - RunTime Config DB Information Flow</td></tr><tr><td>COMPONENT DESCRIPTION</td><td>ARC RunTime DB Component Description - R6 Frankfurt</td></tr><tr><td>PROJECT PROPOSAL</td><td>RunTime Config DB Project Proposal (Oct 25 2019)</td></tr></table> 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.

Network Slicing R6 Proposal	Borislav Glozman
	
	Shankar PN
	
	Swaminathan Seetharaman
	
	LIN MENG
		Update on slicing proposal. SO/Seshu presented.
		
		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 /PNFs in inventory & discoverable. Spinup new slice instances.
		
		02 Jan 2020:
		
		- (1) **ROADMAP** - Proceeding with detail, developments for roadmap beyond R6.
		- (2) **API** - defining API in progress.
		- (3) **PoC** - Prototype of PoC from Orange focusing on VNF-portion.
		- (4) **SO** - Implementation in SO W/F and hierarchy using Svc ref concept to be discussed beyond R6.
		- (5) **ORCHESTRATION** - documentation what will ONAP do wr.t. slice orchestration
		- (6) **MODELING** - Discussing Modeling aspects, how to represent CSI, NSSI, NSSMF etc how to implement in SO how to communicate w/ external domain NSSMF.
		- (7) **VID** - Discussion: Milind Jalwadi
		  - JSON based screens for VID, *Is there a slicing GUI that could be re-used.*
		  - would want to upstream that NSST NSSD
		  - Part of the Network Slicing Use Case.
		
		Presentation/slides at: NETWORK SLICING PoC in R6 Frankfurt (Obsolete)

ORAN /3GPP ONAP Harmonization U/C	Vimal Begwani Marge Hillis	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). Prioritize the work items what we could propose to accomplish. 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.
OOF SON PCI	N.K. Shankaranarayanan	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. 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 & Arch		Way of Working between Architecture , Modeling Subcommittee & Use Case Teams and what happens and touch-points at M0/M1 /M2/M3. Process for Modeling WoW and development with Architecture & Modeling. Proposed ONAP Release Process Updates for Information and Data Modeling

Use Case Template	5G U/C Team Andy Mayer Scott Blandford	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. Proposed Functional Template for Use Cases (driven from MEF/TM Forum) - showing interactions & information flows. Use Case Template Filling out, describing and creating the Wiki for a Use Case Use Case Tracking Template and Use Case Template 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. Monday - 03 Feb 2020 - what input for Req review; should not go into realization aspects should be moved out of req review. What type of info & how much info at M0. when just reviewing proposed req. Andy has said Proposed Functional Template for Use Cases this is ready to go live.
, PM Dictionary, 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-onboarding/onboarding	PNF U/C teams Benjamin Cheung	
PNF / SW Upgrade	Zu Qiang (Ericsson)	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 / NetConf	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	Benjamin Cheung	held meeting for discussing Civic Address elements & Geolocation information w/ the modeling S/C 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 w/ old.
R6 Use Case VS Requirements	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) on 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 Service Modeling U/C	Benjamin Cheung	**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.
		Presentation at Use Case Realization call 29 Jan 2020
		Use Case Realization Call: January 29, 2020 - next step to present to Modeling S/C.

SUPPORTING SLIDES

Document	File
Presentation	

RECORDING

Recording	File
MP4 (Video + Audio)	zoom_0.mp4

Audio Only	audio_only.m4a	
M3U, Chat	playback.m3u	chat.txt
	meeting_saved_chat.txt	