

2021-08-25 Meeting notes (ONAP/O-RAN-SC/SMO - Meeting) - Agenda

25 Aug 2021 | 9am PDT | noon EDT | 16:00 UTC | 18:00 CEST | 21:30 IST

ZOOM: <https://us02web.zoom.us/j/89069708424?pwd=aGJOZm54eTUxd0FXR0VCU1N0ejBrUT09>
Meeting ID: 890 6970 8424

Attendees

- Alex Stancu ★
- Abhinav Singh
- Alessandro Gerardo D'Alessandro
- Amar Kapadia
- Amy Zwarico
- Andrea Buldorini
- Andy Mayer
- @Anh Le
- bhanu chandra
- Byung-Woo Jun
- Claudio David Gasparini ★
- Christophe Closset ★
- @David Kinsey
- Damian Nowak
- David Allabaugh
- bhanu chandra ★
- Dibas Das
- @Dmytro Gassanov
- emmanuel sarris
- Fernando Oliveira ★
- Gervais-Martial Ngueko ★
- Grzegorz Wielgosinski
- HariomGupta(HCL) ★
- Joachim Blixt
- John Keeney ★
- Kamel Idir ★
- user-7f92d
- Konrad Baka
- Kuldeep Negi
- Lasse Kaihlavirta
- Lathishbabu Ganesan
- Manoj Nair
- Martin Skorupski ★
- marcin krasowski ★
- Marcin Wilk ★
- NICHOLAS KARIMI MUIGAI ★
- Michela Bevilacqua
- N.K. Shankaranarayanan ★
- Paulo Costa
- Pawel Slowikowski
- Ruslan Kashapov
- Sonia Sangari ★
- Scott Blandford ★
- subhash kumar singh
- Swaminathan Seetharaman
- Timo Perala ★
- @Vidhu Pandey ★
- William Diego Maza ★
- Zu Qiang (Ericsson) ★
- Sven van der Meer

Informed

- Andrea Buldorini
- Alexander Dehn
- George Clapp
- Herbert Eiselt
- KAPIL SINGAL
- Tracy Van Brakle

See also

- [2021-08-25 Meeting notes - Joint OAM / NONRTRIC / SIM SCRUM meeting](#)

Goals

- share information between
 - O-RAN-SC Non-RT-RIC
 - O-RAN-SC OAM
 - O-RAN-SC O-DU
 - ONAP CCSDK/SDNC/SDN-R
 - LFN 😊

Recording

- [Recording \(MP4 low-res\)](#)

Please add/remove yourself. Thanks!

Discussion items

Time	Item	Who	Notes
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00:00	Admin	John Keeney Martin Skorupski	Next meetings: 2021-09-01: Martin Skorupski 2021-09-08: John Keeney 2021-09-15: Martin Skorupski 2021-09-22: John Keeney										
00:01	O-RAN-SC	O-RAN-SC PTLs	O-RAN-SC ToC https://wiki.o-ran-sc.org/display/TOC Projects: Non-RT-RIC: John Keeney SIM: Alex Stancu OAM: Martin Skorupski O-DU:Hariom Gupta(HCL)										
00:10	PM streaming	N.K. Shankaranarayanan	using VES for PM streaming discussion <table><thead><tr><th>File</th><th>Modified</th></tr></thead><tbody><tr><td>Microsoft Powerpoint Presentation O1_VES_20210825.pptx</td><td>Aug 26, 2021 by Martin Skorupski</td></tr><tr><td>File faultDataFormat_son_poc.json</td><td>Aug 26, 2021 by Martin Skorupski</td></tr><tr><td>File CMNotificationFormat_son_poc.json</td><td>Aug 26, 2021 by Martin Skorupski</td></tr><tr><td>File perfDataStreamDataFormat_son_poc.json</td><td>Aug 26, 2021 by Martin Skorupski</td></tr></tbody></table> Download All - gathering feedback  DCAEGEN2-2880 - Support for VES 7.2 OPEN	File	Modified	Microsoft Powerpoint Presentation O1_VES_20210825.pptx	Aug 26, 2021 by Martin Skorupski	File faultDataFormat_son_poc.json	Aug 26, 2021 by Martin Skorupski	File CMNotificationFormat_son_poc.json	Aug 26, 2021 by Martin Skorupski	File perfDataStreamDataFormat_son_poc.json	Aug 26, 2021 by Martin Skorupski
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00:30	Update for ONAP Req sub-committe	Timo Perala	ONAP Requirements subcommittee request an update on areas where ONAP and O-RAN share interest. - What is/are the area/s of common interest? - What is the current state of affairs? - What are the future topics to address? - Any issues that require more emphasis from the community, or more formal collaboration relation between the two communities is needed? - Anything else you think it worthwhile to highlight. Updates/feedback for next Monday meeting - SON based use case - Slice based use case - VES messages - A1 Policy - SMO Deployment - Test environment - Simulators - Topology ... Further discussions - O2 - coordination O-RAN-SC / ONAP - primary / secondary yang model - feedback to yang developers ... Suggestion - update LNF slides from Feb and May										
	Q/A												
	End												

00:20	O1-VES	Stanislav Marszalek user-7f92d	• O1-VES collection (@33:30 in recording) ◦ PM Mapper - for PM Bulk ▪ Stanislaw Marszalek Stanislaw Marszalek Slides:  Unknown Attachment • O1 is just via ves:fileReady FTPes ▪ issues in PM-Mapper should be handle via Jira ans slack • https://lists.onap.org/g/onap-discuss/message/23433 • DCAEGEN2-2874 PM Mapper output - sMeasTypesList  DCAEGEN2-2874 - VES 7.1 - enhancements CLOSED • DCAEGEN2-2873 PM Mapper output - granularityPeriod issue  DCAEGEN2-2873 - PM Mapper output - granularityPeriod issue CLOSED ▪ issues in VES spec are more problematic, as O-RAN Alliance is using the domain "stdDefined" INFO: PM Streaming: ASN.1 via WebSocket according to O-RAN Spec - O-RAN Operations and Maintenance Interface 4.0 - November 2020 Martin Skorupski Check with O-RAN Wg10 where the restriction to ASN.1 came from. Topic was discussed in DCAE Meeting: 2021-08-04 DCAE Meeting Notes HV-VES vs "standard" VES collector info: HV-VES not used by OOF-SON use case (yet) info: no relation between HV-VES and PM-Mapper 2021-08-11 user-7f92d I refactored current Jira's base on our discussion: • https://jira.onap.org/browse/DCAEGEN2-2873 (bug) • https://jira.onap.org/browse/DCAEGEN2-2874 (VES 7.1 enhancements) And also create a new one: • https://jira.onap.org/browse/DCAEGEN2-2880 (support for VES 7.2)
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	VES - CM-Notify	Pawel Slowikowski The following 3GPP CM notifications specified in 3GPP TS 28.532 [4] are supported in O-RAN: <pre> notifyMOIAttributeValueChanges notifyMOICreation notifyMOIDeletion notifyMOIChanges </pre> Its syntax is defined in <pre> ~/_3gpp/MnS ((SA88-Rel16)) \$ grep -anri notifyMOI* </pre> <pre> OpenAPI/provMnS.yaml:87: notifyMOICreation: OpenAPI/provMnS.yaml:95: \$ref: '#/components/schemas/notifyMOICreation-NotifType' OpenAPI/provMnS.yaml:108: notifyMOIDeletion: OpenAPI/provMnS.yaml:116: \$ref: '#/components/schemas/notifyMOIDeletion-NotifType' OpenAPI/provMnS.yaml:129: notifyMOIAttributeValueChange: OpenAPI/provMnS.yaml:137: \$ref: '#/components/schemas/notifyMOIAttributeValueChange-NotifType' OpenAPI/provMnS.yaml:150: notifyMOIChanges: OpenAPI/provMnS.yaml:158: \$ref: '#/components/schemas/notifyMOIChanges-NotifType' OpenAPI/provMnS.yaml:365: - notifyMOICreation OpenAPI/provMnS.yaml:366: - notifyMOIDeletion OpenAPI/provMnS.yaml:367: - notifyMOIAttributeValueChange OpenAPI/provMnS.yaml:513: notifyMOICreation-NotifType: OpenAPI/provMnS.yaml:530: notifyMOIDeletion-NotifType: OpenAPI/provMnS.yaml:546: notifyMOIAttributeValueChange-NotifType: OpenAPI/provMnS.yaml:569: notifyMOIChanges-NotifType: OpenAPI/genericNrm.yaml:297: - notifyMOICreation OpenAPI/genericNrm.yaml:298: - notifyMOIDeletion OpenAPI/genericNrm.yaml:299: - notifyMOIAttributeValueChanges </pre> Please see further details: https://forge.3gpp.org/rep/sa5/MnS/blob/SA88-Rel16/OpenAPI/genericNrm.yaml https://forge.3gpp.org/rep/sa5/MnS/blob/SA88-Rel16/OpenAPI/provMnS.yaml Shankar: point to a 3gpp....zip (https://www.3gpp.org/ftp/Specs/archive/28_series/28.532/28532-g81.zip v16.8.1) Marcin has looked into it. - to complete and validate the entire json - additional yamls are required. - there are reference inside to other schemas - needs to be analyses - for validation on the ves-collector. - more infos next week OOF-SON use case roadmap from last June. Marcin was referring to slide 16 in this June 2021 LFN slide deck for the ONAP-SON use case. https://wiki.lfnetworking.org/download/attachments/56066778/LFN_June2021_ONAP_SON_Rel9_20210610_v1.pptx?version=1&modificationDate=1623339917000&api=v2 - VES message handling on SDN-R - used to update CPS - code is in ccsdk/features - northbound (CM Notification Support in ONAP) - DCAE VES Collector - implementation for VES 7.2 in Honolulu - TODD: add link to nexus dcae-ves-collector-image.... (???1.8.0???) - gerrit repo: gerrit.onap.org:29418/dcae-gen2/collectors/ves
00:xx		John Keeney Martin Skorupski O-RAN SC: Copying/Releasing helm charts in O-RAN-SC nexus repo https://jira.linuxfoundation.org/plugins/servlet/theme/portal/2/IT-22586 (maybe restricted access???) Status: canceled (Nexus does not support Helm chart distribution) Question from O-RAN-SC to ONAP: What is possible in ONAP nexus? Sébastien Determe: adds some info Idea: store the artifacts - instead of helm -  RELENG-3837 - [O-RAN] - Helm charts copy and release  Christophe Closset: ONAP on the way to move for helm charts to gitlab....
00:xx	SMO deployment options	Christophe Closset

SMO deployment options

- no tested helm for OAM in O-RAN-SC D-Release - idea update the one from C-release
- for Non-RT-RIC a new helm is available - still some updates to be done
- Please see presentation within  [REQ-887](#) - Deliver ORAN SMO override IN PROGRESS

Meeting? on Friday 6/25

<https://lists.onap.org/g/onap-meetings/viewevent?repeatid=37969&eventid=1192141&calstart=2021-06-25>

- <https://lists.onap.org/g/onap-meetings/viewevent?repeatid=37969&eventid=1192141&calstart=2021-06-25> bhanu chandra
- <https://wiki.onap.org/pages/viewpage.action?pagelid=103422272>
 - (Updated afterward: Minutes & Recording: <https://wiki.onap.org/display/Meetings/2021-06-25+Meeting+notes>)
- proposed by aarna
- see email - TODO add link to wiki
- proposal to use this time slot here

Activity

- kubernetes updates
- issues with certs addressed
- reuse of O-RAN-SC helm
- Winriver lab

<Martin Skorupski needed to leave. John Keeney continues minutes. See also: [2021-06-23 Meeting notes - Joint OAM / NONRTRIC / SIM SCRUM meeting](#) >

- REF: 2 Weeks ago: Proposal for an ONAP deployment specific for an ORAN SMO
 - Ref: <https://jira.onap.org/browse/REQ-887>
- @Christophe : Meeting upcoming
 - Every Friday:
 - <https://lists.onap.org/g/onap-meetings/viewevent?repeatid=37969&eventid=1192141&calstart=2021-06-25> bhanu chandra
 - <https://wiki.onap.org/pages/viewpage.action?pagelid=103422272>
 - (Updated afterward: Minutes & Recording: <https://wiki.onap.org/display/Meetings/2021-06-25+Meeting+notes>)
 - Attempting to replicate functionality in OSC OAM/NONRTRIC/SIM demo - based on OSC charts.
 - Mainly updating charts etc.
 - Certs need updating
 - Will be testing in ONAP WindRiver lab - setup etc. Might be a good place to collaborate.
- John Keeney Any update on how to reuse OSC & other external components?
 - @Christophe, will be challenging in OOM, & need to reuse structure & some charts from OOM
- John Keeney Any ideas where SMO would be different from "Full ONAP"
 - @Christophe: Plan to start with OSC charts/flavour ... then depends on Usecases ...
 - Hope to be able to make use of the override files to create different flavours .. aiming for something similar to OSC version
 - Ref [Closed loop use case & "D" Release - Closed Loop Use Case: Simulation of O-RU and O-DU & "D" - Closed Loop Use Case](#)
- John Keeney Probably need different versions for different usecases
 - @Christophe ... OOM have this same idea to have multiple flavours. Discussion gets broader when non-ONAP components are added.
- @NK Shankar ... Should also consider SON and Slicing usecases.
- John Keeney Recall that the OSC D release usecase is not real world ... and will mature in coming releases. Currently mostly treated as an integration requirements driver
 - Ref [Closed loop use case & "D" Release - Closed Loop Use Case: Simulation of O-RU and O-DU & "D" - Closed Loop Use Case](#)
- @Christophe @NK Shankar Need to consider diversity of DCAE components used. Also need to figure out how different simulators could co-exist.
- Lets continue discussions on Friday Call?

INFO from Christophe - 2021-06-30:

Just a few notes:

- We have agreed with ONAP and other members of O-RAN SC to keep an ad-hoc call on Friday to discuss technical details for now (will remove this meeting once all details are sorted out and use the joint meeting to report status)
- Main comment from John is that we cannot consider an SMO deployment without having a way to deploy Non-RT-RIC as well as ONAP components (hence a debate on how this should materialize : extend OOM?)
- We have progressed on the POC in the meanwhile, Sebastien had an idea and has pushed a small repository on github to show what we are doing for now to create a unique installation for O-RAN, trying to implement the following idea:
 - Started from IT/DEP repo, containing some Helm charts for O-RAN (including Non-RT-RIC)
 - Seems an embryo of using ONAP charts to deploy SMO components but sounded like a fork of ONAP charts
 - Instead of copy pasting OOM charts, he create a git submodule referring to oom ONAP charts repo (to keep ONAP untouched)
 - Rework the O-RAN charts to map them to the OOM structure (like OOM'ized O-RAN charts)
 - Try and build (created some makefiles, inspired from ONAP) then push them to a single chart repository
 - Merged ONAP override and O-RAN override to have a single file
 - Created an Install script to deploy the charts in a single Namespace
 - ... it worked more or less

We plan to show that maybe on Friday call (<https://wiki.onap.org/pages/viewpage.action?pagelid=103422272>)

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Are the following pages related?

- CNF/VNF deployments
 - <https://wiki.onap.org/display/DW/Orchestration+Scenarios>
 - <https://wiki.onap.org/display/DW/O-RAN:+ASD+solution>

2021-07-07:

way forward

- release helm repo by OOM should be created
 - (Added later: John Keeney Also asked about getting a helm chart repo for OSC. <https://lists.o-ran-sc.org/g/discuss/message/331>)
- demo was shown last Friday how it could look like
- next step
 - sample overwrite files
- if access to the "demo git" is required, please reach out to [Christophe Closset Sébastien Determe Gervais-Martial Nguoko](#)

2021-07-14:

- <https://github.com/gmgueko/oran-deployment/pull/1>
- in non-overwrite helm only docker from "released" nexus should be included...

2021-07-21:

- from John Keeney LFN ticket required to put helm into nexus
- control about helm from different project

			2021-07-28: - not much additional features required for SMO deployment. - next step in the area of CNF deployment in combination with SMO - as demoed one year ago by Samsung (including closed loop and A1 Policies) - use case will be updated to Honolulu 2021-08-04: - no updates on last weeks call - cnf deployment - reuse of existing use case implementation. 2021-08-18: - demo of by Samsung for CNF deployment - recording available on the Friday meeting wiki - updates on OOM for O-RU-Sim and O-DU-Sim deployment as CNF - work in progress
	Q/A		
		N.K. Shankaranarayanan	SON use case - based on O1 - How to include A1 in the SON use case? for the Network Slicing Use Case - Will be discussed on Use case Realization call (on Mondays) - use case in O-RAN-SC regarding Network Slicing - similar but not in all details
00:21	<End>		
END			
00:00	Use Case	@all	OSC Proposed e2e integration use case: O-RU FH connection recovery - REF/Background: (OAM) Closed loop use case (RSAC) Meeting 14 Jan: - Slides: https://wiki.o-ran-sc.org/download/attachments/1179971/RU_failure_recovery_use_case.pptx?version=1&modificationDate=1610637325824&api=v2 - Recording: https://zoom.us/rec/share/mKYOGkB3mgpvlo2Hx1eY5Oifw9qV9NQd7NiEj-FxQKP0kUpW0c7yvMO_LLPhA_M.lmx2LCh7-QwDHAfi - Martin Skorupski provided intro - Alarm when fronthaul connection dies (O-DU - O-RU) (VES to SMO) - John Keeney If there is a failure both O-DU & O-RU will try reconnect anyway - without this loop? Martin Skorupski Yes. @? How does SMO connect to O-RU? - Martin Skorupski This is a mix of different deployment options (hierarchical vs hybrid, O1 vs M-Plane). Main issue is agreeing models & terminology. - John Keeney Seems this use case is not real-world useful, especially since recovery will happen automatically anyway, & mix of standards ... - Martin Skorupski John Keeney Using this use case as longer term motivator for SMO/NONRTRIC/rApp development - independent of usecase - Topology ??: - May need a topology service for this use case - John Keeney Will use a simple file/hardcoded for initial versions of this use case. - Pawe Pawlak Andy Mayer Topology in A&AI, CPS ? John Keeney No - not initially. Plan to keep it simple for this release. <bridge dropped recording stopped at this point. Most participants reconnected once bridge started again> - Topology ??: (contd) - John Keeney Lots of options for how this should be done properly in ONAP. - Swaminathan Seetharaman ONAP usecases already have some plans for this e.g. slicing, oof, etc - Andy Mayer A model should be agreed in ONAP. Lots of previous discussions in ONAP - e.g. what goes in A&AI and CPS ... but that was a while ago. - Martin Skorupski SDNR has some topology model too - not standards based. @Sven John Keeney Martin Skorupski Lots of issues with different topology models ... and most existing hierarchical models break down in a 5G /CloudRan environment - Lots of work ... Andy Mayer Martin Skorupski Can create a JIRA in ONAP MODCOM but will keep it simple here for this use case. @? Will other O1 usecases be effected? Martin Skorupski i No. O1 functions continue as before. - Martin Skorupski Please add feedback if any

Action items

