# 2023-02-08 Meeting notes - Joint OAM / NONRTRIC / SIM Community meeting

# Time & Location:

Meeting Detail: Times & Joining Info

Wednesdays at 16:00 UTC in Summer (DST), 17:00 UTC in Winter !

Zoom Bridge : https://us02web.zoom.us/j/89069708424?pwd=aGJOZm54eTUxd0FXR0VCU1N0ejBrUT09

- Ensure you are signed into your Zoom account to join.
- Meeting ID: 890 6970 8424.
- See the Calendar: (https://lists.o-ran-sc.org/g/main/calendar)
- NOTE: During the "Daylight Savings Time" changeover periods (US vs Europe vs Asia) the time of the meetings may fluctuate.
  - Summer Daylight Savings time eventually stabilizes to: 9am PDT | 12pm EDT | 16:00 UTC | 17:00 BST | 18:00 CEST | 19:00 EEST | 21:30 IST | 00:00 CST (Thurs) | 01:00 JST (Thurs)
  - Winter (non-DST) time eventually stabilizes to: 9am PST | 12pm EST | 17:00 UTC | 17:00 GMT | 18:00 CET | 19:00 EET | 22: 30 IST | 01:00 CST (Thurs) | 02:00 JST (Thurs)
  - (During WinterSummer DST changeover follow US time. SummerWinter DST changeover follow Europe time
- Meeting ID: 890 6970 8424
  - You will need a Participant ID so you will need to join the meeting from a Zoom client first to get this.
- Dial in: (Local numbers)
  - +1 646 558 8656 US (New York)
  - +49 30 5679 5800 Germany
  - ° +49 69 3807 9883 Germany
  - +353 1 240 8941 Ireland
  - ° +46 8 4468 2488 Sweden
  - ° +46 8 5016 3827 Sweden
  - +358 3 4109 2129 Finland
  - +358 9 7252 2471 Finland

#### Please checkout the calendars:

- https://lists.onap.org/g/onap-meetings/calendar
- https://lists.o-ran-sc.org/g/main/calendar

# Anti-Trust Notice

- Antitrust Policy Notice
- Antitrust Policy

## Date

08 Feb 2023

#### Attendees

- John Keeney (Ericsson EST & OSC NONRTRIC)
- Martin Skorupski (Highstreet & OSC OAM)
- Alex Stancu (Highstreet & OSC SIM)
- James Li (CMTI & OSC INT)
- Joseph Thaliath (Samsung & OSC AIMLFW)
- N.K. Shankaranarayanan (ONAP TSC)
- Halil Cakal (Ericsson EST)
- Kevin Timoney (Ericsson EST)
- Sonia Sangari (Ericsson EST)
- Kamel Idir (Ericsson)
- user-6ca6d (CPQD)
- May not have captured a full attendee list for this meeting  $\,$  ... please add/remove yourself  $\stackrel{{\rm U}}{\ominus}$

# See also / co-located (ONAP/O-RAN-SC/SMO - Meeting)

Co-located with ONAP 2023-02-08 Meeting notes (ONAP/O-RAN-SC/SMO - Meeting)

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      - SIM (Alex Stancu)
      - OAM (Martin Skorupski)
      - O-DU (Hariom Gupta Vidhu Shekhar Pandey)
        OSC Integration / INT (James Li )

      - RSAC/SMO (David Kinsey)
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# Recording

Recording (MP4 - lo res)

## Notes:

## Housekeeping:

- Calendar:
  - https://lists.o-ran-sc.org/g/main/calendar
  - https://lists.onap.org/g/onap-meetings/calendar
  - 09:00 PST | 12:00 EST | 17:00 UTC | 17:00 GMT | 18:00 CET | 22:30 IST | 01:00 (+1d) CST
- OSC SMO project calls now move to its own time slot alternate Thursdays
  - See OSC RSAC Calendar: https://wiki.o-ran-sc.org/display/RSAC/calendars
  - See also OSC Meetings calendar: https://lists.o-ran-sc.org/g/main/calendar
  - (Note this meeting to open to anyone, including non-ORAN members)
  - We will maintain this slot for ONAP Alignment, and try flag issues/question to/from SMO meetings.
  - See OSC SMO Project meeting notes
- See also OSC AIML Project meeting notes

# **OSC Project roundup:**

#### News from OSC TOC call last week

- https://wiki.o-ran-sc.org/display/TOC#ORANSCTechnicalOversightCommittee(TOC)
  - Last week's TOC (Thursday):
    - No call last week
  - This week's TOC (Tomorrow):
    - Discussion on copyright & O-RAN F2F preparation

#### NONRTRIC (John Keeney)

- G Maintenance Release small bug fixes etc
- Image preparation & release continues. No very significant updates from G Release • As per last week. Development for each of the topics below continue ....
- Release H Planning continues:
  - (R1) Service Exposure & Management
    - CAPIF Aligned Service Registry
    - Secured/Sandbox execution environment
    - · Controlled access & exposure of service to/from rApps
  - (R1) Data Management & Exposure
    - Previous focus on PM data but will extend to other use cases too
    - Aim to work with AIML project for Training (and Inference ?) data access
  - rApp Management
    - Built on ONAP "Automation Composition" model & platform to implement rApp use cases

rApp-specific extensions needed

- Packaging, Onboarding & Orchestration of rApps
  - rApp-specific packaging & Onboarding
    - Aim to align with / inform ongoing work in O-RAN (& OSC) about Common App packaging &
    - Onboarding.
- (rApps with & without µService)
- Overlap with Service Exposure work to examine role of an rApp Manager to support controlled exposure & LCM of
- µService and non-µService parts of an rApp
- Continued A1-Policy & A1-Enrichment-Information evolution (& R1-A1)
  - A1 Spec evolution
  - A1-Policy work in ONAP (continues in ONAP London) candidate for R1-A1(P)
  - A1-EI management as part of DME candidate for how to include A1-EI in R1-DME
- Sample use cases (rApps)
  - Requirements Drivers for rApp/R1 development
  - High degree of cross-project integration activity
- Testing, Maintenance & Housekeeping
  - Function Test & Integration Test environment.
  - Support integration, deployment & configuration of SMO/Non-RT-RIC related functions & usecases in OSC Integration env.
  - Project coordination, Documentation, Delivery, Reporting, Cross-project alignment, Community demos, O-RAN Standardization support, etc.

#### SIM (Alex Stancu)

- Working with NorthEastern Univ about NS3 Simulator updates for latest E2 version
- O1 simulator alignment with latest O1 updates
- Still trying to see if there is any effect from possible closer interaction with OAI project might be discussed at O-RAN F2F?

#### **OAM (Martin Skorupski)**

• Updating OAM with latest O1 specs.

#### **O-DU (Hariom Gupta Vidhu Shekhar Pandey)**

No Update

#### OSC Integration / INT (James Li)

- Working on XTesting for xApp onboarding etc
- Examining how to work with INF project re O2 interface, & overlap with Tacker team in SMO.

#### **RSAC/SMO (David Kinsey)**

- Ref: RSAC Meetings
  - Discussion on H Release Planning
  - Discussion to update info for H Release on:
  - Good discussion with Timo Perala & N.K. Shankaranarayanan re Requirements in ONAP, and the possibility of better alignment See below.

#### AI/ML platform project (Joseph Thaliath)

- Minutes & Meeting: Meeting notes
- Calendar: https://lists.o-ran-sc.org/g/main/calendar
- No update this week

#### **ONAP Use cases (N.K. Shankaranarayanan)**

- Long discussion last week!
- TS 28.532 seems to indicate that a combination of href & path parameters should give enough info to extract objectClass and objectInstance of the source of any CM change.
- Will update the sample message in https://jira.onap.org/browse/INT-2180 && https://jira.onap.org/browse/INT-2181
- Work in ONAP CPS can be tracked at https://jira.onap.org/browse/CPS-1407 && https://wiki.onap.org/display/DW/CPS-1434% 3A+VES+Message+to+update+CPS+DB

## **ONAP / OSC / O-RAN Alliance: Cooperation & Alignment**

- RSAC today (see above): Good discussion with Timo Perala & N.K. Shankaranarayanan re Requirements in ONAP, and the possibility of better alignment - ref David Kinsey Rittwik Jana.
  - Request for list of overlapping topics ... ref list in last week's minutes:
    - Draft from N.K. Shankaranarayanan
      - O1-/OFHM-related OAM, IM/DM Models WG10 (O1, OAM), WG4 (OFHM), WG5 ?
        - Good amount of existing work and harmonization effort (e.g., yang models, VES msgs)
        - Very strong alignment between OSC & ONAP (avoid duplication single codebase)

- Would be helpful to make release timelines etc better aligned.
- Non-RT-RIC A1-related: WG2
  - Good amount of existing work and harmonization effort (e.g. A1 interface, modification of ONAP RAN-Sim to support A1
  - Continue effort to re-use code and principles
- Non-RT-RIC rApp: WG2 (WG10, app management)
  - Good amount of work in OSC reusing alot from ONAP
  - (\*\*New area) Ongoing effort to seek out ways to align with ONAP control loops and use cases (originally designed without knowledge of R1)
  - e.g. Already reusing ONAP functions as part of rApp management/LCM
- SMO Policy Functions:
  - ° (\*\* New area) ONAP has had a Policy Enforcement Function since beginning, and there is no obvious
  - mapping to existing SMO architecture
  - e.g. inter-rApp coordination ??
  - rApps using Policy Functions as rApp might use any other SMO service, or rApp might contains Policies (ref work in ONAP ACM / App manager)
- O2 related, cloud management WG6
  - ONAP has a lot of work on NF orchestration and management looking at O2 support
  - (\*\*New area) Relatively less focus on cloud infrastructure management (role for other LFN projects? e.g.
  - Nephio?)
  - (\*\*New area) integration of use cases which cover both IMS and DMS part of O2
- Orchestration (end-to-end aspects, including components inside SMO) -
  - (\*\*New area) ONAP has lot of work on Service Design and Orchestration. May be worthwhile for OSC to be align to leverage past work?
- AI/ML related (Training, ...) WG2
  - (\*\*New area) ONAP work did not assume role of Non-RT and Near-RT RIC. Al/ML work was generic.
  - (\*\*New area) ONAP did not consider controlled data access / exposure.
- Security WG11
  - · Good amount of shared objectives security of interfaces design, system implementation, code design etc
  - Can share best practices etc
- Simulation work -> OSC
  - Ongoing effort to leverage/harmonize
  - OSC sim work oriented towards OAM (CU/DU/O1), ONAP Sim work oriented towards use case (RAN-Sim)
    - Reusing OSC simulators in ONAP usecases (e.g. RANSim, A1 Policy functions)
  - ONAP RAN-Sim adaptation A1 termination, abstraction of near-rt-ric and xapp, exploring porting
- End-to-end use case -> WG1, OSC
  - ° End-to-end slicing, SON, Intent-based, OAM, life-cycle management
  - Scope for sharing work and aligning objectives
- Architecture -> WG1
  - (\*\*New area) Identification of building block sub-systems esp. related to SMO. (SMOS/SMOF concept?)
  - Target to have only small list of recommended approaches, harmonization/code re-use within same approach

### LFN DTF:

- 13-16 February LFN Developer & Testing Forum
  - https://wiki.lfnetworking.org/pages/viewpage.action?pageId=82903240
     https://wiki.gov/pages/viewpage.action?pageId=82903240
  - https://teamup.com/ksgw6qzqcmg9zbzsfq

## **Questions / Comments / AOB:**

- How is PM data gathered in ONAP / OSC / O-RAN Alliance ... or other opensource ... for use by SMO functions/A1MLFW/NonRTRIC/rApps etc ?
   O. N.K. Shankaranarayanan John Keeney Joseph Thaliath
  - ONAP has a comprehensive solution for PM file collection/parsing/filtering etc DMAAP
    - e.g. https://wiki.onap.org/pages/viewpage.action?pageId=92997132
  - OSC NONRTRIC has a PoC on PM file collection/parsing/filtering etc Kafka NONRTRIC ICS DME
    - e.g. G-Release: Demonstration: "PM Collection & Delivery to rApps" See Demo for more information
    - OSC AIML looking at interface to ICS/DME for training
  - OSC SMO has some functions for PM VES event collections InfluxDB
  - OSC AIML looking at interface to InfluxDB for training
- Joseph Thaliath More info on AIMLFW plans for data access:



- Joseph Thaliath Still looking at how ML training can happen in SMO, when inference happens in near-RT-RIC (e.g. train with O1, inference with E2 will not work)
  - Ongoing study in O-RAN Alliance about RAN analytics data exposure to SMO (& rApps) e.g. a new Y1 interface? ... but at a very early stage.

Meeting ends