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Autonomous Networks Multi-SDO Initiative

Discussion on a proposed ONAP presentation

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Technical Community Coordinator for Generic Network Management

Background – TM Forum Initiative

- Announcing Industry-wide Multi-SDO Initiative - Autonomous Networks
- Multiple Standards Developing Organizations (SDOs) announce working together for an aligned vision of AN with better collaboration between Industry Stakeholders.
- “The long journey towards autonomy has only just begun and the industry needs standards to guide the best way to achieve Autonomous Networks (AN).”
- “Ideally, these standards should fit well together and form a coherent whole.”
- Initially the proposal was to create joint documents

SDO	Group/Project	SDO	Role
3GPP	SA5	**IETF**	WG on AN
CCSA	TC7	**ITU-T**	FG-AN
ETSI	ENI, F5G, MEC, NFV, PDL, TC INT/AFI, ZSM	**Linux Foundation***	ONAP
GSMA	Future Networks	**NGMN**	Automation
IEEE	Future Networks	**TM Forum**	AN Project

*Open Source Community

Response from SDOs and ONAP

In response to the liaison TM Forum sent 5th Oct on a proposed Participation Agreement which would be used for all *joint documents.* developed through M-SDO.

3GPP

- Current situation is that 3GPP have responded indicating they are unable to sign up to the Participation Agreement as they believe it is in conflict with their IPR rules
  However, they are keen to collaborate and urged the MSDO to find another way to facilitate collaboration and timely exchange of information.
- SA5 chair noted that Liaison responsibility is now delegated to the subgroup e.g. SA5 which gives some addition freedoms.

FG-AN indicated that as they are a time limited activity they don't believe it will be possible to sign up to joint documents.

ONAP prefers to try to work through current bilateral agreement between Linux Foundation and TM Forum.

ETSI have had a general discussion. ETSI doesn't believe there is an unsurmountable IPR agreement issue.

Outcome of latest meeting – November 22nd

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Summary

- Creating jointly authored M-SDO documents seems infeasible based on feedback received so far
- We will move to a single series of open meetings
- Last formal meeting rescheduled to January 31st

The first Open Meeting is scheduled for January 14th at 13:00 UTC (90mins)

- TM Forum Presentation on Intent Management Interfaces and APIs
- Meeting invites will be shared through Outlook calendar to the AN-SDO@collaboration.tmforum.org distribution list.

Meeting Schedule

- Meeting schedule is updated at Multi-SDO AN Meeting Schedules
- The proposal is to move to open discussion meetings at 6-week intervals in 2022: January 14th, March 7th , April 11th

TM Forum Presentation
Intent Management Interfaces and APIs

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Objectives

- Communicate status of TM Forum Intent work
- Identify opportunities for collaboration Industry Acceleration on Intent based Interfaces, APIs models/ontologies.

Agenda

- Introduction (5mins)
- Context of Intent management Interfaces APIs - Kevin McDonnell (5 mins)
- Intent Management Interfaces proposals (50 mins)
  - IG1253 Intent Management Architecture, models/ontologies and interfaces - Jörg Niemöller
  - TMF 721 Intent API -- Kevin McDonnell
- Open discussion, feedback, and next steps (30 mins)

It will be recorded and put in the meeting minutes on the AN workspace at 2022-01-14 M-SDO Open Meeting: TM Forum Intent Management interfaces and API Presentation - AN-SDO Collaboration

Previous Autonomous Networks Webinar

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Global Architecture Forum

Autonomous Networks with intent-driven operations

tmforum labs

November 23, 2021 | 13:00 GMT

WATCH ON-DEMAND

Watch this Global Architecture Forum webinar to learn how TM Forum members have developed a reference architecture for autonomic networks and a comprehensive approach to intent modelling and intent interfaces. Our host, Aaron Boasman-Patel, TM Forum, is joined by project leads Kevin McDonnell, Huawei and Jörg Niemöller, Ericsson to discuss the benefits of these proposals for realizing an autonomous network.

They will outline:

- What is the autonomous networks reference architecture?
- What are intent-driven operations?
- How will service providers use them?

Kevin McDonnell
Senior Director,
Intelligent Automation
Huawei

Jörg Niemöller
Expert of Analytics and
Customer Experience
Ericsson

Aaron Boasman Patel
VP, AI & Customer Experience
TM Forum

[TM Forum Autonomous Networks Webinar]

ONAP participation - discussion

- The Multi-SDO Initiative - Autonomous Networks was presented to TSC
- Proposal from TCC - NW Management to take the opportunity to do an ONAP presentation, which was endorsed by TSC.
- The purpose would be to promote ONAP
  - General awareness and presentation of available resources
  - Use of code in Proof-of-Concepts
  - Solicit use cases

Inspiration from ONES 2021

SDO and Open Source Partnership

Alla Goldner
Director of Technology, Strategy and Standardization

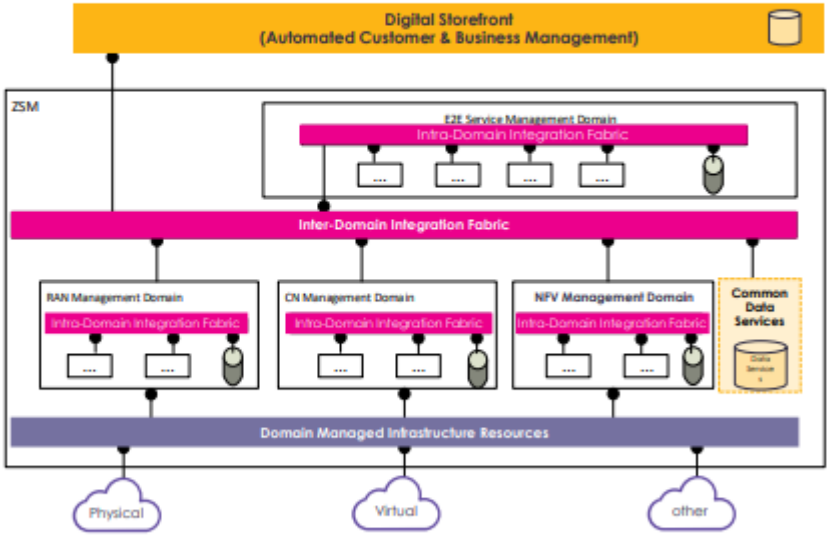
September 2021

amdocs

Inspiration from ONES 2021 – ETSI ZSM

ONAP to Support ETSI ZSM

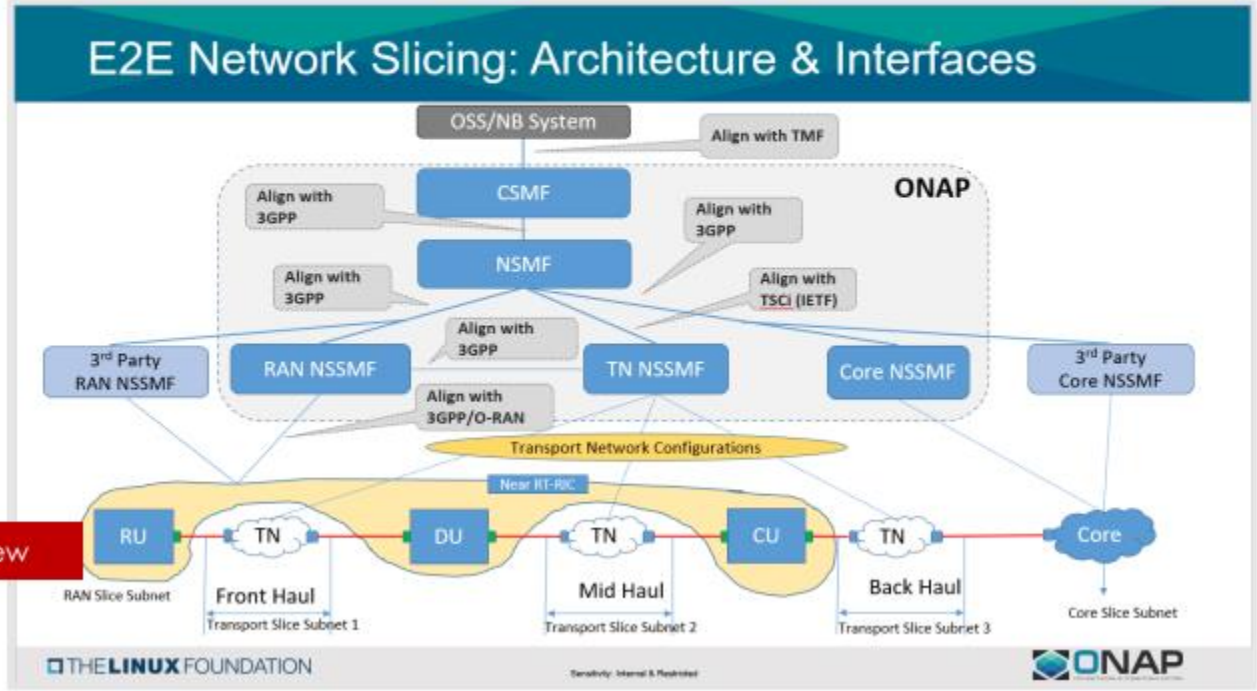
- Multi-domain Network Slice Orchestration



- Cross-domains E2E Network slicing management
- Management domains for E2E Service: RAN, Core and transport are provided by different providers.
- Direct interworking between domains is also assumed

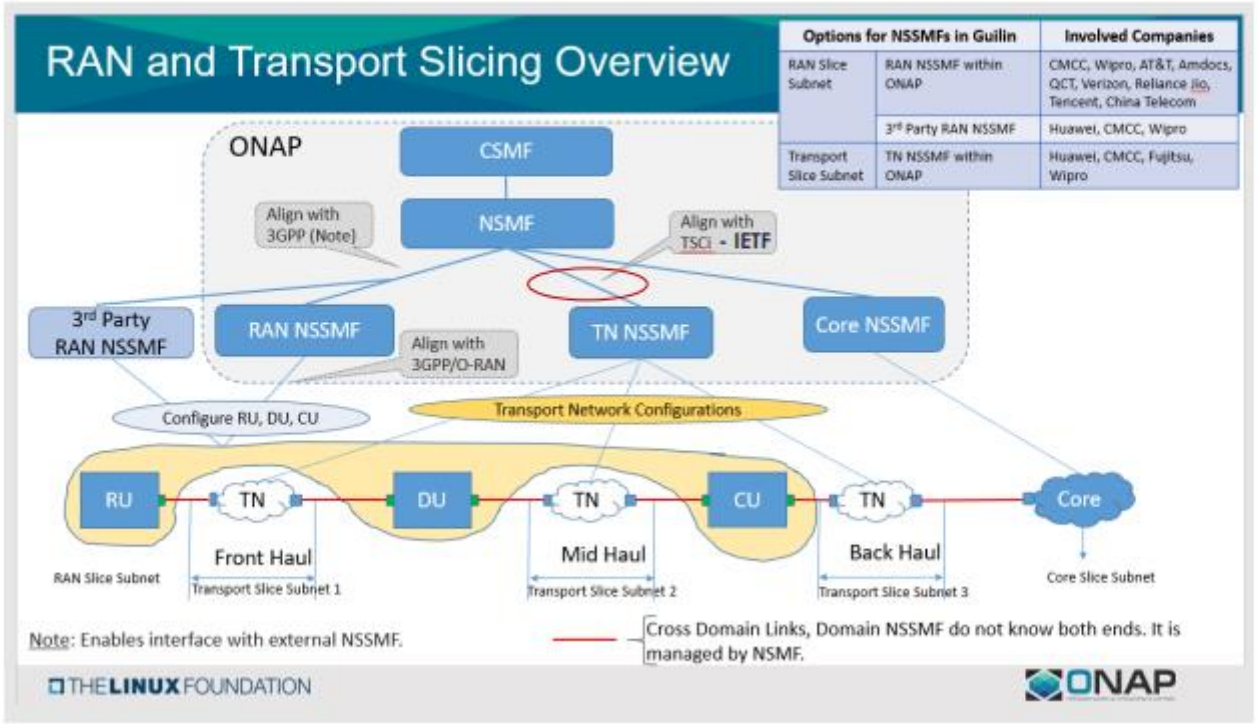
Inspiration from ONES 2021 – 3GPP SA5

ONAP End-to-end Network Slicing Use-case
- Leverages SA5 Slicing standards



Inspiration from ONES 2021 – IETF

ONAP Inter-working Transport Network Domain NSSMF



Some Potential ONAP Topics (non-exclusive list)

- Intent Driven Networking
- Network Slicing
- CNF Orchestration
- Policy & Control Loops

What about RAN?

- O-RAN Alliance not among the organizations that received the LS

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