# Notes of TMF AN and 3GPP SA5 joint meeting 23rd Feb 2022

Draft

TM Forum attendees

Kevin McDonell Huawei

Joerg Niemoeller Ericsson

Dave Milham TM Forum ( notes)

Aaron Boasman-Patel TM Forum

# 3GPP presentation: Ruiyue Xu

Emphasis on intent definition and categories on TS28.312 v0.08.0.

Intention is to publish in Meeting #17 June 2022.

### Slide #5 Intent definition

TM Forum and 3GPP are quite aligned on these definitions.

### Slide #6 Intent Categories

Question. Why Intent APIs are specialised for CSC/CSP/NOP?

A. Requirements are different.

TM Forum think we can use one common API with different intents (ontologies) to handle different requirements.

**⇨Follow up item:: TMF 3GPP: Can we resolve different requirements on these interface IRP with one API and different intents or do we need different design time interfaces.**

(Ed note later comment on the data models and the 3GPP APIs being separated from models -slide #10 suggests that we may not be that far apart may just be terminology misunderstanding).

### Slide #7 Intent driven MnS 28.312

**⇨Follow up item:: TMF 3GPP:** Activation and deactivation of intent - need to resolve the interaction model and the intent semantics between 3GPP SA5/ TM Forum approaches

### Slide #8 Intent driven closed loop

Agreement that 3GPP TM Forum approaches are quite well aligned.

Noted that TM Forum Intent scope is broader than 3GPP i.e. customer / product / service domains not just Network / resource domains.

3GPP would like to look at TM FORUM AN Use Cases.

**⇨Follow up item TM Forum** to provide TMF AN use cases.

### Slide #10 Stage 2 /3 specified in TS28.532 TS 28.312

Intent driven MnS Stage 2 and Stage 3 TS 28.312 v 0.8.0 (S5-221747) and TS 28.532

**⇨Follow up item:: 3GPP/TMF:** Noted that 3GPP based on the use of UML TMF is based on RDF need discussion on resolution of these differences. These means covering both Stage 2 and stage 3 specifications and the relationships between them.

Different terminology: MoI is more like term target in TM Forum.

3GPP Use cases don’t cover things like negotiation.

Discussion of ECA policy being static automation not autonomy. .

**⇨Follow up item:: 3GPP/TMF:** models - what needs to be decided at design time and what needs to be decided/changed at run time?

### Slide #11 Workflow

Looks similar to equivalent in TMF IG1253 but a subset (does not have negotiation and semantics of activating and deactivating intent could be different)

**⇨Follow up item:: 3GPP/TMF:** Mapping and semantic of API / workflow terms used in 3GPP and TMF AN needs to be documented.

### Slide #12 Study plan

* R18 Study on enhanced intent driven management services for mobile networks (the outcome will be documented in TR 28.912)
Status: new SID agreed in Dec 2021 and to be start in April 2022 R18
* Study on intent-driven management for network slicing (the outcome will be documented in TR XXXX)
 Status: new SID agreed in Jan 2022 and to be start in April 2022.

### Slide #13 3GPP Plans

Any joint work needs to follow /align with 3GPP timeline:

**⇨Follow up item:: TM Forum:** review 3GPP timeline and factor into what can be agreed and when

**⇨Follow up item:: TM Forum:** Note 3GPP have tight timelines on R17 and there is a need for 3GPP to use some of the prior stage 1 stage 2 work for r17.

## TMF Presentation: Joerg Niemoeller

Not all slides were presented.

### Slide #21

Question: Knowledge and thinking: Are we defining these?

1. These are a conceptual model of how intent can be used. AN project is not specifying the internals. Slide inspired by general AI models.

Discussion of whether models can be used for non-AI solutions. TM Forum view is yes. These AI examples are to demonstrate that it can be used with AI.

### Slide #23

Question: Are we define knowledge and information?

A. Knowledge is about semantics

Stephen Mwanje Knowledge is something that has a location or context. Information is how that is exchanged across interface .

Question Are we defining Knowledge /Decision /Actuation?
We are modelling these to assist comprehension but no plan for AN project to define internals.

### Slide #43 /44 Model Federation

Considerable decision on merits of using UML approach for federating the TMF RDF proposal which is based on RDF.

*Ed Note Difference of views points based on UML language as extension model (inheritance Stage 2 ) and instantiating( I.e. going from Class to Objects Stage 3) As opposed to RDF model which has a common model that is dynamic extended (Stage 3).*

Lengthy discussion on the use by 3GPP on use of UIM CIM a part of their Infor model and the basis for Intent extensions.

Discussion on support by TMF or UIM CIM . Simple answer is yes n the Shared Information Models (SID ). Issue has been with TM Forum UML tools where we put in touch points ( references to CIM/UIM ) and removed our network models ; but then found we needed to copy the CIM model back into SID by value rather than by reference because of tooling limitations.

**⇨Follow up item:: TM Forum:** Need to clarify what we collectively means by instantiating model ( from UML concept) and federating models ( as per TMF RDF approach).

**⇨Follow up item:: TM Forum:** Need to follow up to the 3GPP Extensions to the CIM UIM model as a plug in for Intent. Separation of stage 2 and stage 3 models needs to be discussed further. Key document for review is 28.312

#### Procurement and conformance

Can apply to both offline design line model or run-time models

## Procedural

3GPP set out their general approach to progressing work.

Both TM Forum and 3GPP are happy to continue with bilateral discussions and liaisons.

Dave mention that he will act as point coordinate and has asked Our Liaison manger to expedite 3GPP liaison requests.

We are happy to take comment and input on any of our public docuemtn either directly to our team for members and /or through liaisons.

Zoulan asked about the topics for the next meeting.

Proposal is that we use the follow up items in this draft set of notes and those created in equivalent report by SA5 to identify the candidate agenda topics.

General consensus that modelling and federation are the top priority topics.

Agreed we can set up bilateral meetings between experts to accelerate discussions.

### Next call

Agreed next call will be 16th March probably at the same time 11:00-13:00 GMT.

3GPP SA5 will send out an invite.