**Post SA2#148E e-meeting Email Discussion**

**Source: China Mobile, vivo**

**Title: Email discussion on Rel-18 FS\_eNA\_Ph3**

# 1. Work Tasks for Rel-18 FS\_eNA\_Ph3

## 1.1 Importance of Work Tasks

### 1.1.1 Work Tasks Description

The “ Study on Enablers for Network Automation for 5G - phase 3” (FS\_eNA\_Ph3) was approved at SA2#148E e-meeting in S2-2109361, which contains the following Work Tasks and TU estimation.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Work Task ID** | **Work Task Description** | **RAN Dependency**  **(Yes/No/Maybe)** | **TU Estimate**  **(14 + 9 )** | **Inter Work Tasks Dependency** |
| WT#1.1 | whether and how new types of output need to be provided by NWDAF and how would those outputs be defined | NO | 0.5+0.5 | WT#1.1 is self-contained |
| WT#1.2 | Study possible mechanisms for improved correctness of NWDAF analytics | NO | 0.5+0.5 | WT#1.2 is self-contained |
| WT#2.1 | Whether and how NWDAF can assist application detection | NO | 1+0.5 | WT#2.1 is self-contained |
| WT#2.2 | Whether and how to support data and analytics exchange in roaming case (including network sharing) | NO | 1+0.5 | WT#2.2 is self-contained |
| WT#3.1 | data collection and data storage enhancements (including DCCF and ADRF enhancements, e.g., DCCF relocation, ADRF selection, ML model storage) | NO | 0.5+0.5 | WT#3.1 is self-contained |
| WT#3.2 | Whether and how to enhance trained ML Model sharing for different vendors | NO | 1+0.5 | WT#3.2 is self-contained |
| WT#3.3 | UPF data report to NWDAF to support UPF data report for analytics as specified in R16/R17 and additional UPF data identified in R18 | NO | 0.5+0.5 | WT#3.3 is self-contained, but may coordinate with SID FS\_UPCAS |
| WT#3.4 | Study whether and how interactions between NWDAF can leverage MDAS/MDAF functionality for data collection and analytics | NO | 1+0.5 | WT#3.4 is self-contained |
| WT#3.5 | Enhancements related to analytics subscription transfer between NWDAFs (i.e. when analytics are for a group of UEs) | NO | 0.5+0.5 | WT#3.5 is self-contained |
| WT#3.6 | Impact of non-typical situations (e.g. un-scheduled events, disaster) on data collection and analytics | NO | 0.5+0.5 | WT#3.6 is self-contained |
| WT#3.7 | NWDAF-assisted URSP | NO | 1+0.5 | WT#3.7 is self-contained |
| WT#3.8 | enhancements on QoS Sustainability analytics | NO | 1+0.5 | WT#3.8 is self-contained except that “Investigate QoS prediction in Multi-MNO/Cross-border environments” is related with WT#2.2. |
| WT#4.1 | Study whether and how to enhance architecture to support federated learning in the 5GC | NO | 2+1 | WT#4.1 is self-contained |
| WT#4.2 | NWDAF enhancements considering the finer granularity of location information than TA and cell level | NO | 0. 5+0.5 | WT#4.2 is self-contained |
| WT#4.3 | NWDAF enhancements considering inputs from SCP | NO | 0.5+0.5 | WT#4.3 is self-contained |
| WT#4.4 | Study whether and how UE consume data analytics from NWDAF | NO | 1+0.5 | WT#4.4 is self-contained |
| WT#4.5 | Study whether and how to enhance architecture to support online learning in the 5GC | NO | 1+0.5 | WT#4.5 is self-contained |

### 1.1.2 Companies View for the Work Tasks

**Question 1: Whether or not WT#X is essential to be included in Rel-18 FS\_eNA\_Ph3 SID?**

**Please indicate the reason why you think the corresponding WT is not essential in case that Company View is marked as “NO”.**

#### 1.1.2.1 WT#1.1

|  |  |  |
| --- | --- | --- |
| Company Name | Company View  (Yes/No) | Notes  (View on importance of the particular Work Task and whether this task is required to be included in Rel-18. Provide the rationale and justification for the proposal e.g. deployment scenarios, design choices, etc.) |
| Ericsson | No | NWDAF gives today statistics or predictions. Adding new outputs, such as recommendations listed in the Rel-17 KI and discussed in Rel-16 also was proven not adding enough to prioritize it. There are no use cases described that motivate that new type of outputs are needed, This is a WT that has been down prioritized in earlier Releases, Ericsson does not see that the reason to change this, and therefore believe this is not needed. |
|  |  |  |

#### 1.1.2.2 WT#1.2

|  |  |  |
| --- | --- | --- |
| Company Name | Company View  (Yes/No) | Notes  (View on importance of the particular Work Task and whether this task is required to be included in Rel-18. Provide the rationale and justification for the proposal e.g. deployment scenarios, design choices, etc.) |
| Ericsson | No | Even though solutions for improved correctness might enhance the output from NWDAFs, this WT is not deemed essential for NWDAFs function. |
|  |  |  |

#### 1.1.2.3 WT#2.1

|  |  |  |
| --- | --- | --- |
| Company Name | Company View  (Yes/No) | Notes  (View on importance of the particular Work Task and whether this task is required to be included in Rel-18. Provide the rationale and justification for the proposal e.g. deployment scenarios, design choices, etc.) |
| Ericsson | No | Solutions to add/update heuristic packages are part of the existing application detection functionality . This WT introduces a new method that is not needed, given that the existing ones work well. This is a WT that has been down prioritized in earlier Release, Ericsson does not see that the reasons why it was down prioritized has changed, therefore believe this is not essential. |
|  |  |  |

#### 1.1.2.4 WT#2.2

|  |  |  |
| --- | --- | --- |
| Company Name | Company View  (Yes/No) | Notes  (View on importance of the particular Work Task and whether this task is required to be included in Rel-18. Provide the rationale and justification for the proposal e.g. deployment scenarios, design choices, etc.) |
| Ericsson | Yes | Ericsson believes that we usually introduce an architecture for roaming, so in that sense Ericsson see it as essential. There might be opportunities as well as issues with roaming in the area of Analytics therefore Ericsson believe it could be good to study these. |
|  |  |  |

#### 1.1.2.5 WT#3.1

|  |  |  |
| --- | --- | --- |
| Company Name | Company View  (Yes/No) | Notes  (View on importance of the particular Work Task and whether this task is required to be included in Rel-18. Provide the rationale and justification for the proposal e.g. deployment scenarios, design choices, etc.) |
| Ericsson | Yes | The specification for ADRF and DCCF may be improved according to discussions, therefore this is believed to improve vital functions for Analytics. |
|  |  |  |

#### 1.1.2.6 WT#3.2

|  |  |  |
| --- | --- | --- |
| Company Name | Company View  (Yes/No) | Notes  (View on importance of the particular Work Task and whether this task is required to be included in Rel-18. Provide the rationale and justification for the proposal e.g. deployment scenarios, design choices, etc.) |
| Ericsson | No | Ericsson has shown in earlier discussions that sharing of models is a hard task to achieve from technical and liability point of view. To add to this there will also be implementation issues with the integrity of the internals of a “model” from different vendors. This was therefore limited in Rel-17. The NWDAF works without model sharing between vendors, Ericsson therefore does not see this as essential. |
|  |  |  |

#### 1.1.2.7 WT#3.3

|  |  |  |
| --- | --- | --- |
| Company Name | Company View  (Yes/No) | Notes  (View on importance of the particular Work Task and whether this task is required to be included in Rel-18. Provide the rationale and justification for the proposal e.g. deployment scenarios, design choices, etc.) |
| Ericsson | Yes (Depends on UPEAS) | If UPEAS prioritize to define the mechanism for exposure from UPF to different consumers, Ericsson believe it is relevant to define the reports where the consumer is NWDAF. |
|  |  |  |

#### 1.1.2.8 WT#3.4

|  |  |  |
| --- | --- | --- |
| Company Name | Company View  (Yes/No) | Notes  (View on importance of the particular Work Task and whether this task is required to be included in Rel-18. Provide the rationale and justification for the proposal e.g. deployment scenarios, design choices, etc.) |
| Ericsson | Yes | There exists an EN in clause 6.2.3. Ericsson believes it is essential to solve this. |
|  |  |  |

#### 1.1.2.9 WT#3.5

|  |  |  |
| --- | --- | --- |
| Company Name | Company View  (Yes/No) | Notes  (View on importance of the particular Work Task and whether this task is required to be included in Rel-18. Provide the rationale and justification for the proposal e.g. deployment scenarios, design choices, etc.) |
| Ericsson | No | Ericsson does not believe it is needed to study how a source NWDAF shall handle a group subscription. Solutions to this will be discussed in next SA2 meeting in Rel-17. |
|  |  |  |

#### 1.1.2.10 WT#3.6

|  |  |  |
| --- | --- | --- |
| Company Name | Company View  (Yes/No) | Notes  (View on importance of the particular Work Task and whether this task is required to be included in Rel-18. Provide the rationale and justification for the proposal e.g. deployment scenarios, design choices, etc.) |
| Ericsson | Yes | If data collection during a disaster or similar is believed to be an issue, it is essential to look at the possibilities to ensure the network will continue to operate. |
|  |  |  |

#### 1.1.2.11 WT#3.7

|  |  |  |
| --- | --- | --- |
| Company Name | Company View  (Yes/No) | Notes  (View on importance of the particular Work Task and whether this task is required to be included in Rel-18. Provide the rationale and justification for the proposal e.g. deployment scenarios, design choices, etc.) |
| Ericsson | Yes | It will be beneficial to provide analytics to PCF to help on the generation of URSP Rules. |
|  |  |  |

#### 1.1.2.12 WT#3.8

|  |  |  |
| --- | --- | --- |
| Company Name | Company View  (Yes/No) | Notes  (View on importance of the particular Work Task and whether this task is required to be included in Rel-18. Provide the rationale and justification for the proposal e.g. deployment scenarios, design choices, etc.) |
| Ericsson | No | Enhancements to QoS Sustainability are not envisioned as important in this release. |
|  |  |  |

#### 1.1.2.13 WT#4.1

|  |  |  |
| --- | --- | --- |
| Company Name | Company View  (Yes/No) | Notes  (View on importance of the particular Work Task and whether this task is required to be included in Rel-18. Provide the rationale and justification for the proposal e.g. deployment scenarios, design choices, etc.) |
| Ericsson | No | Ericsson has shown in earlier discussions that sharing of models (and FL is deemed belonging to this area) is a hard task to achieve from technical and liability point of view. To add to this there will also be implementation issues with the integrity of the internals of a “model” from different vendors. The NWDAF works without model sharing between vendors, This is a WT that has been down prioritized in earlier Release, Ericsson does not see that the reasons why it was down prioritized has changed, therefore believe this is not essential. |
|  |  |  |

#### 1.1.2.14 WT#4.2

|  |  |  |
| --- | --- | --- |
| Company Name | Company View  (Yes/No) | Notes  (View on importance of the particular Work Task and whether this task is required to be included in Rel-18. Provide the rationale and justification for the proposal e.g. deployment scenarios, design choices, etc.) |
|  |  |  |
|  |  |  |

#### 1.1.2.15 WT#4.3

|  |  |  |
| --- | --- | --- |
| Company Name | Company View  (Yes/No) | Notes  (View on importance of the particular Work Task and whether this task is required to be included in Rel-18. Provide the rationale and justification for the proposal e.g. deployment scenarios, design choices, etc.) |
| Ericsson | No | Unclear use of data produced by SCP, therefore this WT is not envisioned as important in this release. |
|  |  |  |

#### 1.1.2.16 WT#4.4

|  |  |  |
| --- | --- | --- |
| Company Name | Company View  (Yes/No) | Notes  (View on importance of the particular Work Task and whether this task is required to be included in Rel-18. Provide the rationale and justification for the proposal e.g. deployment scenarios, design choices, etc.) |
|  |  |  |
|  |  |  |

#### 1.1.2.17 WT#4.5

|  |  |  |
| --- | --- | --- |
| Company Name | Company View  (Yes/No) | Notes  (View on importance of the particular Work Task and whether this task is required to be included in Rel-18. Provide the rationale and justification for the proposal e.g. deployment scenarios, design choices, etc.) |
| Ericsson | No | Unclear what online learning adds compared what is already available, therefore this WT is not envisioned as important in this release. |
|  |  |  |

### 1.x.3 Summary

Editor’s Note: This clause should contain the brief summary of companies view e.g. n# of companies prefer to go with option A vs. m# of companies prefer to go with option B.

### 1.x.4 Proposed Way Forward

Editor’s Note: This clause should contain propose a way forward. For e.g. Given that majority of companies prefer to go with option A, it is proposed that Option A is agreed as way forward.