**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.

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| **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

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| 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.) |
| Orange | NO | The question of “whether and how new types of output need to be provided” (for instance, recommandations or actions) is not a priority; compared to a more accurate definition of closed loops as defined in 5G procedures.  It is necessary to have feedback from the field before addressing this topic. |
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#### 1.1.2.2 WT#1.2

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| 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.) |
| Orange | NO | Important to address this topic that was deprioritised in the last releases. However, it is necessary to have feedback from the field before addressing this topic. |
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#### 1.1.2.3 WT#2.1

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| 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.) |
| Orange | NO | The topic “Whether and how NWDAF can assist application detection” has already been studied in Rel-17, without agreement on a solution. It is not the purpose of NWDAF to perform all kinds of ML processing. Besides, such solutions are already present in UPF implementations. |
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#### 1.1.2.4 WT#2.2

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| 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.) |
| Orange | YES | The topic of roaming should be addressed as a precautionary measure to at least circumvent potential problems. But other topics have higher priority |
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#### 1.1.2.5 WT#3.1

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| 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.) |
| Orange | NO | It is necessary to have feedback from the field before addressing this topic. The only aspect that may need addressing in R18 is ML model storage. |
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#### 1.1.2.6 WT#3.2

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| 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.) |
| Orange | NO | Interoperability across vendors is important but we need feedback from the field as to whether the decomposition as standardized in Rel-17 has impeding limitations. |
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#### 1.1.2.7 WT#3.3

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| 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.) |
| Orange | YES | A total of 7 analytics over 14 are based on UPF data collection. A very important topic to address given that there is no procedure for the NWDAF to retrieve data directly from a UPF. |
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#### 1.1.2.8 WT#3.4

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| 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.) |
| Orange | YES | Important to address how NWDAF can leverage analytics from MDAS/MDAF, identify new use cases and avoid cases where NWDAF and MDAS/MDAF provide redundant analytics |
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#### 1.1.2.9 WT#3.5

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| 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.) |
| Orange | NO | The question of “analytics subscription transfer between NWDAFs” should be addressed when we have a first experience on which use cases and analytics really need multiple NWDAFs and inter-NWDAF cooperation. Other topics have higher priority |
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#### 1.1.2.10 WT#3.6

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| 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.) |
| Orange | YES | The question of improving network resilience (cf. ENISA reports) for highly complex networks, based on context awareness, trend analysis and predictions is a key topic. It might be a real challenge on first 5G deployments. Besides, this may be an important source of use cases for the NWDAF or the MDAF. |
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#### 1.1.2.11 WT#3.7

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| 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.) |
| Orange | YES | This topic is not of high priority; however improving URSP (or other PCF policies) may bring consistency into the approach. |
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#### 1.1.2.12 WT#3.8

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| 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.) |
| Orange | YES | The LS from 5GAA (S2-2108993) demonstrates that there is market demand for more precise prediction of the QoS. |
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#### 1.1.2.13 WT#4.1

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| 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.) |
| Orange | YES | Interesting topic, but we need a real use case which shows the benefits of such approach. |
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#### 1.1.2.14 WT#4.2

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| 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.) |
| Orange | YES | 5GAA has indicated that a cell level QoS prediction will not be accurate enough for any UE within the cell. |
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#### 1.1.2.15 WT#4.3

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| 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.) |
| Orange | YES | The usage of the SCP as a data source could simplify data collection or provide alternatives. |
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#### 1.1.2.16 WT#4.4

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| 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.) |
| Orange | NO | The consumption of NWDAF analytics by the UE is beyond the scope of NWDAF. It may also become a risk in terms of compute and signalling load, and security. |
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#### 1.1.2.17 WT#4.5

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| 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.) |
| Orange | NO | Support of this feature may improve the procedure for model training. But we do not see at present time what is missing in the architecture to do it. |
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### 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.