**Notes of SA2#141E\_CC#1**

# Opened: 12 October 2020, 13.00 UTC = 15.00 CEST

~ 225 people attended the conference call

**Attendees**: The following companies were recorded as present (list not exhaustive or verified)

Affirmed Networks

Apple

ASTRI

AT&T

Broadcom

BT

Canon

China Mobile

China Telecom

Cisco

Convida Wireless

Deutsche Telekom

Docomo

Ericsson

ETRI

FirstNet

Futurewei

Google

Huawei

Infoblox

Intel

Interdigital

ITRI

KPN

Lenovo

LGE

MediaTek

NEC

Nokia

NTT DOCOMO

OPPO

Orange

OTD

Perspecta Labs

Qualcomm

Samsung

Sennheiser Electronic GmbH

Sony

T-Mobile USA

Tencent

Telecom Italia

Turkcell

Verizon

Vivo

Volkswagen

Vodafone

ZTE

Puneet Jain (SA WG2 Chairman) chaired the conference call. Notes were taken by Maurice Pope (MCC).

NOTE: Meeting notes are not exhaustive and may not contain all the comments made during the conference call.

Opening statements by SA WG2 Chairman: A general list of issues to be discussed was distributed by the SA WG2 Chairman:

# 1. Rel-16 eNS: Way Forward on LS IN from CT4 on Clarification of AAA-Server address

<https://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_141e_Electronic/INBOX/CCs/SA2%23141E_CC%231/SA2%23141E%20eNS%20Way%20forward%20on%20LS%20from%20CT4%20regarding%20NSSAA.ppt>

Way Forward on LS IN from CT4 on Clarification of AAA-Server address. (Source: Huawei)

**Proposals:**

**Option 1:**

- S2-2007082 (Huawei)

- Send an LS back to CT4 clarifying that they should follow the text of the SA2 specification, and that the figure is not mentioning all parameters, as is common for SA2 procedures. The LS also clarifies that we do not intend to change the Rel-16 design at this late stage.

- No change to the specifications

- SA2 is responsible for the end-to-end system design.

**Option 2:**

- S2-2007303 (LS), S2-2007301 (CR to 23.501), S2-2007302 (CR to 23.502) (Ericsson)

- Proposes CRs to 23.501 and 23.502 that change the Rel-16 design for a feature that is technically correct and does not fulfil the FASMO criteria.

- Proposes to send an LS back to CT4 describing these changes.

- Supporting this option would require that we first accept that we can still do non-FASMO changes to Rel-16 specifications, contrary to the statements on the agenda in S2-2006780

**Way Forward:**

We need to send the LS back to CT4 at this meeting. Their completion of the feature for Rel-16 is being blocked by one company due to the lack of reply LS from our side.

**Option 1:**

- Clarification to CT4 regarding the understanding of SA2 specifications

**Option 2:**

- Decide that the FASMO criteria needs not be strictly enforced

- Perform late unnecessary modifications to Rel-16 specifications and inform CT4 about them

- non FASMO change of functionality (Cat C) to Rel-16, currently specified functionality works

- incoming LS just asks for clarification, not for changing the functionality

**Discussion and conclusion:**

Huawei preferred Option 1 and to reply to CT WG4 in order that they can complete stage 3 work on this. It was clarified that the FASMO criteria needs to be followed, but the CRs will need to be analysed to determine whether they fall within the FASMO category or whether they are due to necessary alignment with other stages' specifications. Huawei suggested that this is then left for e-mail discussion until CC#2 when a decision will be made if necessary. Vodafone commented that they had sympathy with the technical arguments given by Ericsson in their discussion document. **It was decided to allow further discussion on this over e-mail to try to come to agreement and review this at CC#2.**

# 2. Rel-16 Vertical\_LAN: Way Forward on Time Synchronization figure

<https://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_141e_Electronic/INBOX/CCs/SA2%23141E_CC%231/SA2%23141E%20Vertical_LAN%20TSN%20Time%20synchronization%20figure%20Wayforward-v4_Ericsson.ppt>

Way Forward on Time Synchronization figure. (Source: ZTE, Nokia, Huawei, Ericsson)

**Proposals**

**Option 1: (S2-2007507)**

- remove all the "M" and "S" in the figure, because The time sync functionality itself is well explained.

**Option 2: (Huawei)**

- Only Keep M on "DS-TT", S on "NW-TT" since the 5GS bridge receives a gPTP message from "S" port and send it out via "M" port toward external TSN network.

S2-2005152 r02 from SA2#140e

**Option 3: (Ericsson)**

- Ericsson disagrees with the assertion that the figure is wrong. The explanation below the figure provides the interpretation of the figure.

- Not change the diagram. Adding a Note to clarify that the clock comes from transport network

NOTE The UPF and NW-TT gets, for example, the 5G internal system clock via the underlying PTP compatible transport network in the figure 5.27.1-1. The M/S between gNB and UPF indicates the port states of the PTP compatible transport network.

- It states, the figure is an example.

- They are port states of gNB and UPF transport network. (i.e. we are not saying gNB is master of UPF)

- If/When the NW-TT can get 5G clock in other ways, then the figure has more things to change (e.g. location of the 5G GM)

- Given the fact that  both option 1 and option2 are remaining 5G GM directly connected to gNB,  there is no other way that UPF/NW-TT can get 5G internal clock, other than the original figure, the original figure is the only option that gives clear indication of how UPF/NW-TT can receive 5G internal clock.

- If NOTE is not acceptable as FASMO, then we propose to take the NOTE into the rapporteur's CR planned for

**Way forward: ??**

**Discussion and conclusion:**

The SA WG2 Chairman reported that drafting rules are being considered for update to remove potentially offensive language from 3GPP deliverables, so the M and S terminology should be replaced by e.g. Primary and Secondary. Ericsson reported that here is a copy of the IEEE terminology. NTT DOCOMO agreed that the current figures need clarification and preferred Option 2 to clarify the terminology rather than removing it, as proposed in Option 1. Nokia commented that they can accept either Option 1 or Option 2 as the terminology is misleading. Qualcomm also preferred Option 2. ZTE could accept Option 1 or Option 2, but preferred Option 2. Intel preferred Option 2. Samsung could accept Option 1 or Option 2 but preferred Option 1 for compatibility. Huawei could accept Option 1 or Option 2. China Mobile preferred the Ericsson proposal to add a note. Ericsson commented that adding a note to clarify this is preferred if it can be accepted as FASMO, rather than modifying the figure. Tencent could accept Option 1 or Option 2. Vodafone commented that it needs to be explained why there is Secondary on both sides of the UPF or to explain why this is wrong, rather than removing the figure which hides the potential problem. Nokia commented that these deployment aspects need not be shown in the TS, so the figure can be removed, as attempts to modify the figure has not been successful before. The SA WG2 Chairman commented that modification of the figure is not a FASMO change, but as the terminology will need to be modified at some point, this may be considered at that time, as TSG SA can direct SA WG2 to make such non-FASMO changes. **It was decided to allow further discussion on this over e-mail with respect to the proposed CRs, to try to come to a way forward and review this at CC#2.**

# 3. Rel-17 FS\_ eNS\_Ph2: Moderated email discussion outcome

<https://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_141e_Electronic/INBOX/CCs/SA2%23141E_CC%231/SA2%23141E%20was%20S2_2007396%20FS_eNS_Ph2%20Moderated%20Discussions%20Outcomes%20on%20Rel-17%20Open%20Issues.ppt>

FS\_eNS\_Ph2 Open Issues. (Source: ZTE (Rapporteur))

**OPEN Issue#1:**

**Extending Interworking Support between EPC and 5GC**

**Moderation Discussions Outcome:**

There are unanimously backing from 11 companies to support quota management interworking between 5GC and EPC. More specifically, the additional functionality is:

(1) Applicable to all KIs in Rel-17

 3 companies (Ericsson, Samsung and Lenovo) suggested that, the interworking support should apply to all key issues for Rel-17.

(2) Not applicable to EPC

 4 companies (Ericsson, Apple, Samsung and Huawei) made it clear that, the quota management interworking support shall apply only to 5GC and/or PGW-C+IWF.

(3) Operator configuration and/or SLA driven to enable quota management interworking between EPC and 5GC

 4 companies (China Mobile, Ericsson, LG and Lenovo) advocated that such quota management interworking is applied based on operator policy and configuration.

In conclusion, in order to support quota management interworking within Rel-17, all impacted KIs and corresponding solutions need to be updated to address new KI(s) to address the interwork support. This also implies that this study will not be able to conclude by SA2#142E meeting if we need to address this open issue.

**OPEN Issue#2:**

**Max. UEs and Max. PDU Sessions Quota Management support according to access types**

**Moderation Discussions Outcome:**

Among 11 companies responding to this moderated discussions, 5 companies (Nokia, LGE, Matrixx, Samsung and Qualcomm) are firm "yes" w.r.t. to be in scope for Rel-17, 1 company (DoCoMo) supports conditional "yes" if no impacting Rel-17 schedule for this study, and 5 companies (China Mobile, Ericsson, Apple, Lenovo and Huawei) don't think that this issue should be addressed in Rel-17 since we do have specific requirements from GSMA on how to count the PDU session w.r.t. to the access type.

In conclusion, given that we don't have majority support for this open issue. It is proposed to postpone this open issue to the later release.

**OPEN Issue#3:**

**on Operator Controlled on UE's Behaviour on Slicing Access**

**Moderation Discussions Outcome:**

Among 12 companies, 3 companies (China Mobile, Nokia and AT&T) believe that this open issue is in scope of Rel-17. However, there are 8 companies (Ericsson, Apple, DoCoMo, Samsung, Qualcomm, Lenovo, T-Mobile USA and Huawei) believe that this is more a generic issue to be addressed beyond this study.

In conclusion, given the majority oppositions to proceed with this open issue, it is recommended not to include this open issue as part of this study in Rel-17.

**Way forward:**

Agree to review the following submitted PCRs and discussion paper for respective KI(s) in FS\_eNS\_Ph2 that may require the support for EPC and 5GC interworking to be handled in SA2#141E e-meeting approval. The list of PCRs are as follows:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S2-2006874 | pCR | KI#2, Solution 6.6 updates with considering EPS/5GS interworking. | China Mobile | S2-2005211 | Spec: 23.700-40 |
| S2-2006881 | pCR | Updates to Architecture Requirements to consider EPS/5GS interworking . | China Mobile |  | Spec: 23.700-40 |
| S2-2006884 | discussion | Thought on EPC interworking support. | Samsung |  |  |
| S2-2006885 | pCR | KI #6, New Sol: Interworking support. | Samsung |  | Spec: 23.700-40 |

Any submitted PCRs related to open issue#2 & #3 would not be in scope for Rel-17 and will not be handled in SA2#141E e-meeting approval.

**Discussion and conclusion:**

The SA WG2 Chairman asked for clarification if the proposal is to down-scope the work. ZTE explained that this is not down-scoping, but debate on new open issues raised which have no corresponding key issues in the TR. Nokia commented that these are not really new Key Issues as they are aspects of the currently existing Key Issues which need to be addressed, e.g. accounting of PDU sessions not started in an EPC session. On Open Issue#3, this needs to be included to ensure that registration for all Network Slices will not be required in order to ensure that the necessary services can be provided when needed. Ericsson thanked ZTE for moderating this moderated discussion and commented that it seemed reasonable to go ahead with the proposals here as the interworking issues will need to be addressed anyway. Huawei thanked ZTE for moderating this moderated discussion and suggested that These open issues can perhaps be addressed as part of the normative work. Samsung commented that the China Mobile proposals for architecture assumptions update can be used but requested, for Open Issue#2, further information on handling UE registration in the 5G Core rather than leaving it for a future Release and Open Issue#3 can be further discussed over e-mail. **It was decided that Open Issue#1 can be handled over the e-mail and Open Issues#2 and #3 should be further discussed and may be further reviewed at CC#3 or CC#4 if not resolved and Rapporteur should provide a way forward for a show of hands.**

# 4. Rel-17 SID Status Reports.

**The SA WG2 Chairman will need status reports in order to report the outcome of SA WG2#141E and requested Rapporteurs to make them available by 27 October 2020**. MCC will provide numbers for the WI STATUS REPORTS not already requested. The Status reports will be marked OPEN and are expected to be noted after the meeting.

# 5. Allocation of new TDs

Qualcomm requested a number for LS OUT to reply to TD S2‑2007776 LS from ACJA: Support of UAVs in 3GPP system and interfacing with USS/UTM. This was allocated as TD S2‑2007784.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S2-2007784 | LS OUT | Approval | [DRAFT] Reply LS to Support of UAVs in 3GPP system and interfacing with USS/UTM | To: ACJA (GSMA and GUTMA). CC: SA WG6, SA WG3, SA WG1 |

**WI STATUS REPORTS:**

**Existing allocated numbers:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S2-2006831 | WI STATUS REPORT | Information | FS\_eV2XARC\_Ph2 status report | LG Electronics |
| S2-2007306 | WI STATUS REPORT | Information | FS\_eNPN Status Report | Ericsson (rapporteur) |
| S2-2007771 | WI STATUS REPORT | Information | FS\_IS\_UAS-SA2 Status Report | Qualcomm Technologies Int |

**Newly allocated numbers:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S2-2007785 | WI STATUS REPORT | Information | FS\_IIoT Status report | Nokia (Rapporteur) |
| S2-2007786 | WI STATUS REPORT | Information | FS\_eNS\_Ph2 Status Report | ZTE Wistron Telecom AB (Rapporteur) |
| S2-2007787 | WI STATUS REPORT | Information | FS\_ATSSS\_Ph2 Status Report | ZTE (Rapporteur) |
| S2-2007788 | WI STATUS REPORT | Information | FS\_MUSIM Status Report | Intel (rapporteur) |
| S2-2007789 | WI STATUS REPORT | Information | Report of FS\_enh\_EC status | Huawei |
| S2-2007790 | WI STATUS REPORT | Information | FS\_5MBS status report | Huawei |
| S2-2007791 | WI STATUS REPORT | Information | FS\_5G\_ProSe Status Report | CATT. OPPO |
| S2-2007792 | WI STATUS REPORT | Information | FS\_eNA\_ph2 Status Report | Huawei, China Mobile |

# 6. AoB

Release 17 CRs proposed to the meeting. The SA WG2 Chairman suggested not approving any Rel‑17 CRs until 2021 to avoid the overhead of creating mirror CRs which will be needed if the Rel‑17 specifications are created. Ericsson commented that several companies have already submitted Stage 3 Rel‑17 WIs in CT WGs and asked whether SA WG2 should open TEI17 this year. The SA WG2 Chairman relied that this will be decided at the SA2 work planning CC on Oct-19 and any endorsed Rel-17 CRs at this meeting can be submitted to the November meeting if it is decided to do so. China Mobile suggested that if Rel-17 CRs are endorsed at this meeting, they can be attached to any LS that they are needed for. It was clarified that if there are no comments on the Rel-17 CRs they will be endorsed, rather than approved at this meeting. Verizon commented that LS Out to be postponed to next SA2 meeting. China Mobile commented that they thought the LS to CT WG4 can be sent from this meeting if there is agreement on the CRs (endorsement). If it is decided that these new TEI17 CRs need to be approved then an exception can be made, after discussion.

# Closed: 19 August 2020, 15.00 UTC = 16.30 CEST