**Notes of SA2#139E\_CC#1**

# Opened: 01 June 2020, 15.00 CEST

~ 145 people attended the conference call

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

Alibaba

Allot

Apple

ASTRI

AT&T

Broadcom

BT

Cablelabs

CATT

Charter

China Mobile

China Telecom

China Unicom

Cisco

Convida Wireless

Deutsche Telekom

DOCOMO

Ericsson

ETRI

FirstNet

Futurewei

Huawei

Intel

Interdigital

IPCom

KDDI

KPN

Lenovo

LGE

Matrixx

MediaTek

Motorola Mobility

Motorola Solutions

NEC

Nokia

NTT DOCOMO

OPPO

Orange

OTD

Philips

Qualcomm

Samsung

Spirent

Telefonica

Tencent

T-Mobile USA

Thales

TNO

Umlaut

Verizon

Vivo

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: It is intended to go through the agenda below documents and also meeting planning if time allows.   
**Agenda:** <https://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_139e_Electronic/Inbox/CCs/SA2%23139E_CC%231/SA2%231139E_CC%231_Agenda_r2.docx>

Documents are on the 3GPP FTP server: <https://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_139e_Electronic/Inbox/CCs/SA2%23139E_CC%231/>

# Agenda 4.1

## 1. Reply LS on manual CAG ID selection and granularity of UAC parameters for PNI-NPNs (S2-2003640)

Ericsson clarified that the revision didn't take previous CC into account to change bullet 3 and propose either remove or modify. Easier to remove the bullet. The latest revision is S2-2003640r01, removing bullet 3. It was proposed to add SA WG1 in copy, as the incoming LS was also copying SA WG1. RA2 should be corrected to RAN WG2 and the future SA WG2 meetings corrected. This revision was then agreed.

MCC made the changes and revised the LS in TD S2‑2004335 which was approved.

## 2. LS on Service on I-NEF Event Exposure

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| S2-2003528 | LS In | Action | LS from CT WG3: Reply LS on Service on I-NEF Event Exposure | CT WG3 (C3-201494) | Rel-16 | Revision of postponed S2-2002645 from S2-138E. Response drafted in S2-2004035 |
| S2-2004035 | LS OUT | Approval | [DRAFT] LS on I-NEF | Nokia, Nokia Shanghai Bell | Rel-16 | Response to S2-2003528 |
| S2-2004036 | CR | Approval | 23.501 CR2374 (Rel-16, 'F'): Removal of I-NEF | Huawei, HI Silicon, Ericsson, Nokia, Nokia Shanghai Bell | Rel-16 |  |
| S2-2004037 | CR | Approval | 23.502 CR2320 (Rel-16, 'F'): Removal of I-NEF | Nokia, Nokia Shanghai Bell, Ericsson, Huawei, HiSilicon | Rel-16 |  |
| S2-2004038 | CR | Approval | 23.273 CR0126 (Rel-16, 'F'): Removal of I-NEF | Nokia, Nokia Shanghai Bell, Ericsson, Huawei, HiSilicon | Rel-16 |  |

**Discussion and conclusion:**

These documents were presented by Nokia on behalf of the derafting group.

S2-2004035: Nokia clarified that early approval of the LS would be useful for transmitting to CT WG1. It was clarified that the related CRs would also need to be agreed for attachment to the LS.

S2-2004036: Some corrections were proposed.

S2-2004037: Deutsche Telekom commented that there is a typo in 4.15.3.1.

S2-2004038: 23.273 CR should also be an attachment to the LS OUT.

It was decided to allow further review of these CRs and they will be proposed to set the LS OUT and CRs for approval at the Wednesday Ph1 revisions deadline [03 June 2020 (Wednesday), 1600 UTC].

## 3. Early UE capability retrieval for eMTC

<https://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_139e_Electronic/Inbox/CCs/SA2%23139E_CC%231/Way%20forward_UE_capability%20retrieval_v1.pptx>

**Early UE capability**

Related papers: S2-2003575, S2-2004188, S2-2004189, S2-2004193

**Background**

- RAN2 sent an LS in R2-2003935 with the following action for SA2:

- To consider feasibility of introducing enhancements to enable the (ng-)eNB for early UE capability retrieval for eMTC UEs connected to EPC and 5GC in Rel-16, and if confirmed feasible, specify the required changes based on truncated 5G-S-TMSI solution in their specifications.

- For EPS support of early capability retrieval for eMTC is straightforward as the same procedure already exists for NB-IoT.

- For 5GS it is important to highlight that even though RAN2 LS asks about eMTC UEs only, RAN2 assumes that truncated 5G-S-TMSIs will be used by all UEs in the call ("same UE identity shall be used by all UEs in the cell.")

- Various companies raised concerns during pre-e-meeting discussions on the reflector that this reduces the available AMF Set ID /Pointer/TMSI number space (due to truncation) for all UEs that connect to 5GC via E-UTRA.

**Proposed way forward:**

- For EPS:

- Agree CR in S2-2004193 to clarify that Early UE capability retrieval is supported also for eMTC (note: it is already supported for NB-IoT).

- For 5GS:

- Send a reply LS to RAN2 (see S2-2004188r01) to

- illustrate the concern on AMF Set ID/AMF pointer/TMSI number space if 5G-S-TMSI truncation was applied to all UEs connecting to 5GC via E-UTRA;

- confirm that AMF could provide the truncated 5G-S-TMSI configuration to LTE-M UEs;

- request RAN2 to evaluate whether it is feasible to enable ng-eNBs to determine whether the UE identifier signaled in Msg3 is a truncated 5G-S-TMSI or not and to inform SA2 accordingly.

**Discussion and conclusion:**

Presented by Qualcomm. Proposes:

Agree CR in S2-2004193.

Send a reply LS to RAN2 (based on S2-2004188r01).

Huawei suggested the CR would need more clarification and proposed that this should not be agreed in this CC. Qualcomm asked whether the LS could be targeted for approval on the Wednesday Ph1 revisions deadline.

Nokia agreed that the CR needs further consideration, but the LS may be approved.

It was decided to update the LS OUT and CRs based on discussion during e-meeting and approve them by Final deadline for Ph1 [04 June 2020 (Thursday), 1600 UTC].

## 4. LS on which features cannot interwork with ETSUN

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| --- | --- | --- | --- | --- | --- | --- |
| S2-2003549 | LS In | Action | LS from CT WG4: LS on which features cannot interwork with ETSUN | CT WG4 (C4-202536) | Rel-16 | Response drafted in S2-2003706 and S2-2004124 |
| S2-2003706 | LS OUT | Approval | [DRAFT] Reply LS on which features cannot interwork with ETSUN | Nokia, Nokia Shanghai Bell | Rel-16 | Response to S2-2003549 |
| S2-2004124 | LS OUT | Approval | [DRAFT] LS response on which features cannot interwork with ETSUN | Huawei,HiSilicon | Rel-16 | Response to S2-2003549 |
| S2-2004125 | CR | Approval | 23.501 CR2375 (Rel-16, 'F'): Interworking between ETSUN and URLLC/TSN | Huawei, HiSilicon, China Mobile | Rel-16 |  |
| S2-2004126 | CR | Approval | 23.502 CR2322 (Rel-16, 'F'): Interworking between ETSUN and URLLC/TSN | Huawei, HiSilicon,China Mobile | Rel-16 |  |
| S2-2003705 | CR | Approval | 23.501 CR2371 (Rel-16, 'F'): URLLC - TSN interworking with ETSUN | Nokia, Nokia Shanghai Bell | Rel-16 |  |

<https://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_139e_Electronic/Inbox/CCs/SA2%23139E_CC%231/Way%20forward_ETSUN-URLLC-TSN%20-v2.pptx>

**LS on which features cannot interwork with ETSUN:**

**Background:** CT4 asked SA2 to clarify which features cannot interwork with ETSUN and add the clarification in relevant specification if needed, and to confirm in particular whether URLLC applies to PDU session with I-SMF.

**Related papers:** S2-2003549, S2-2003706, S2-2004124, S2-2004125, S2-2004126, S2-2003705

**TSN, redundant user plane Paths:**

- Following points seem to be agreed thus Proposed way forward

- WF1 : in this release

- no support for TSN interworking with ETSUN

- Redundant User Plane Paths (23.501 § 5.33.2) is only supported when the UE is in the SMF service area (no ETSUN).

**QoS monitoring and dynamical CN PDB:**

- Different views on whether the QoS monitoring and dynamical CN PDB can be supported.

- (WF2) Features To be supported in ETSUN case. This is because only parameters need be transferred via the I-SMF and no special I-SMF function is required. For the dynamic CN PDB provision SMF can use the QoS monitoring measurement result to set the CN PDB and notify to NG-RAN.

- versus

- (WF3) No need to support theses features in ETSUN case: PDU Sessions with timing constraints do not fit with remote configurations related with I-SMF and these features do not come for free as they require changes to N16a in order to carry QoS monitoring and dynamic CN PDB from SMF to I-SMF

- No additional functionality is specified for URLLC in order to support Home Routed roaming scenario in this Release

**- Only one of following way forward to be endorsed: in this release**

- WF2: QoS monitoring and dynamical CN PDB is supported for PDU Sessions with I-SMF

- WF3: QoS monitoring and dynamical CN PDB is not supported for PDU Sessions with I-SMF

**NPN:**

- For NPN

- NID is neither defined for HR roaming nor is defined over N16. SNPN roaming etc… is for R17

- Complex NPN deployments could be deferered to R17

- BUT diverging views

- Only one of following way forward to be endorsed: in this release

- WF4: no NPN interaction with ETSUN is defined.

- WF5: NPN interaction with ETSUN is defined.

**Other features:**

- WF5: In this release, any other feature (except the features defined in previous slides or features already documented in 23.501 / 23.502) that would add I-SMF requirements or induce N16a modification (wrt current April 2020 specifications) cannot be supported when an I-SMF needs to apply for a PDU Session; for a PDU Session needing such feature the SMF releases the PDU Session when an I-SMF has been inserted

**Discussion and conclusion:**

Presented by Nokia. Proposes:

**LS on which features cannot interwork with ETSUN:**

There were some issues raised and this should be further discussed during the Ph1 e-meeting.

**LS on which features cannot interwork with ETSUN:**

Ericsson commented that Huawei indicated two contradictory positions. Huawei clarified that they think the two issues are different and should be discussed separately.

**NPN:**

This should be discussed further in the Ph1 e-meeting, keeping in mind that NPN deployment is to be included in Rel-17.

**Other features:**

This should be discussed further in the Ph1 e-meeting.

## 5. LS on S1/NG DAPS handover

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| --- | --- | --- | --- | --- | --- |
| S2-2003579 | LS In | Action | LS from RAN WG3: LS on S1/NG DAPS handover | RAN WG3 (R3-202932) | Rel-16 |
| S2-2003861 | LS OUT | Approval | [DRAFT] Reply LS on S1/NG DAPS handover | QUALCOMM Europe Inc. - Italy | Rel-16 |
| S2-2004010 | LS OUT | Approval | [DRAFT] Reply LS on S1/NG DAPS handover | Nokia, Nokia Shanghai Bell | Rel-16 |
| S2-2003848 | CR | Approval | 23.401 CR3602 (Rel-16, 'F'): Alignment CR for DAPS HO | Qualcomm Incorporated | Rel-16 |
| S2-2003860 | CR | Approval | 23.502 CR2318 (Rel-16, 'F'): Alignment CR for DAPS HO | Qualcomm Incorporated | Rel-16 |
| S2-2003654 | CR | Approval | 23.501 CR2368 (Rel-16, 'F'): PCO support for DNS over (D)TLS (avoiding attacks against DNS traffic) | Nokia, Nokia Shanghai Bell, Qualcomm Incorporated | Rel-16 |

<https://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_139e_Electronic/Inbox/CCs/SA2%23139E_CC%231/Way%20forward_DAPS-v0.pptx>

**DAPS Hand-Over:**

Related papers: S2-2003579, S2-2003861, S2-2004010, S2-2003848, S2-2003860

**Background:**

- The incoming LS is about a new intra-system HO mechanism that RAN3 has defined and for which RAN3 is asking us to do corresponding SA2 EPC and 5GC specification updates. This work requires CT4 specification updates and there is no known input to next weeks' CT4 meeting.

- CT4 impacts (no other CT impacts):

- new procedures to propagate actual success HO completion from target (Handover Notify with new IE ) to source RAN  (Handover Success = new message) via target and source AMF/MME,

- the negotiation of DAPS needs to take care AMF/MME(s) support, …

**Proposed way forward:**

- There are two ~diverging positions

- S2-2004010: DAPS is an interesting feature BUT RAN3 LSin is too late as it would require CT4 specs change after the CT4 API freeze. Good topic for R17;

- S2-2003860/3848 : we complete the alignment CRs (technical comments of course welcome) and we discuss some of these aspects in SA and RAN. In other words we submit technically correct CRs to SA (and RAN) and discuss there the release

- Proposed Way Forward

- Work and Endorse technically correct SA2 CR(s) (QC holds the pen)

- Send the endorsed CR(s) within a LS to CT and SA, CC RAN telling that it was a late RAN request (CT can only complete their corresponding work AFTER their API freeze) and that we send endorsed technically correct SA2 CR(s) for plenaries to decide upon the release (R16/R17) where to apply the CR(s) (Nokia holds the pen)

**Discussion and conclusion:**

The SA WG2 Chairman suggested the CRs can be conditionally approved depending on whether the Rel-16 work is done in Stage 3. The CRs will be discussed further. They may be eventually conditionally agreed. An LS should be sent to TSG SA, TSG CT, TSG RAN asking for a final decision on applying the CRs to Rel-16 or Rel-17.

## 6. PAP/CHAP and other point-to-point protocols usage in 5GS

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S2-2003540 | LS In | Action | LS from CT WG1: PAP/CHAP and other point-to-point protocols usage in 5GS | CT WG1 (C1-202933) | Rel-16 |
| S2-2004196 | LS OUT | Approval | [DRAFT] Reply PAP/CHAP and other point-to-point protocols usage in 5GS | Qualcomm Incorporated | Rel-16 |

**Discussion and conclusion:**

S2-2004196r01 and S2-2004196r02 have been provided and will be further discussed in the e-meeting.

## 7. Support for Revoke Procedure for NSSAA

<https://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_139e_Electronic/Inbox/CCs/SA2%23139E_CC%231/SA2%23139E%20eNS%20Revoke%20Procedure%20support%20for%20NSSAA%20SBA%20v2.ppt>

**Revoke Procedures Support for NSSAA SBA**

**Outline:**

- Background and Disagreements on Revoke procedure support for NSSAA SBA

- Way Forward Proposal

**Background & Disagreements on Revocation Related SBA Procedures for supporting NSSAA:**

**Point of Disagreements:**

- As the conclusion on NSSAA architecture decision, SA3 has introduced a new NF (NSSAAF) and NF Service. Huawei believed that what have defined in SA3 and SA2 are not complete because it lacks of the revoke procedure support for NSSAA. Huawei argued that the UE may no longer access to the authorized S-NSSAIs due to, e.g., Deregistration or 5GS to EPS mobility in which case the PDU sessions associated with S-NSSAIs subject to NSSAA cannot be maintained. However, there is no corresponding method of how to terminate the notification of re-authentication and re-authorization or revocation from AAA-S via the newly defined NSSAAF, hence the AAA server will keep notify AMF on the re-authorization or Revocation even after UE don't use the slice any more.

- Huawei proposed that the AMF unsubscribes the notification of Re-authentication and Re-authorization or Revocation via the NSSAAF (see Second Change).

- For the opponents of this proposal, it is not clear why this procedure is necessary at this late stage in Rel-16. They would prefer more time to consider the overall scenarios and system impacts.

**Way Forward:**

- Proceed with the rapporteur et al prepared NSSAAF CRs for Rel-16

- Separate CRs for the support of Revocation SBA related procedures for NSSAA

- Send LS to SA3 with Huawei's CR attached to consult with their views on the revocation SBA related procedure support for NSSAA to be incorporated in Rel-16

**TS Rapporteur CR Huawei CR**

TS 23.501: S2-2003743 S2-2004164

TS 23.502: S2-2003744 S2-2004165

NOTE: Rapporteur has prepared LS response to SA3, S2-2003745, to acknowledge the SA2 support for new NF, NSSAAF.

**Discussion and conclusion:**

Huawei clarified that a simple solution is for the UE to ***unsubscribe*** from the service and then no more notifications are provided. Huawei added that there is no overlap for 23.501 CRs, but there is for the 23.502 CRs.

Huawei suggested providing a merged revision of their CR and this can be chosen if acceptable. Ericsson also suggested providing a revision of their CR clarifying how the functions co-exist.

The CRs require further discussion.

The new functionality to support “unsubscribe SBA related procedures for NSSAA” should be kept in separate CRs.

## 1.1. Approval of S2-2003805 [DRAFT] Reply LS on NAS Non delivery for RRC Inactive state

Cisco asked for review of this LS at this CC.

**Discussion and conclusion:**

**It was proposed to add following text in response to answer 2:**

“In SA2's analysis, "PDU Session Resource Setup" containing non-PDU session related NAS message (Service Accept) should typically be sent to RAN, when the UE is in RRC-CONNECTED state.”

Huawei commented to use CM-CONNECTED instead of RRC-CONNECTED.

This should be discussed in the e-meeting for approval of a revision by the Wednesday Ph1 revisions deadline[03 June 2020 (Wednesday), 1600 UTC].

# Agenda 9.1

## 1. Note SID revision on timelines

**The following SID REVISED documents were noted:**

S2-2003969: Revised SID: Architectural enhancements for 5G multicast-broadcast services.

S2-2004042: Revised\_SID\_FS\_eNA\_Ph2.

S2-2004120: Update FS\_enh\_EC SID.

**The following WI SATUS REPORT was noted:**

S2-2003722: FS\_eNPN Status Report.

## 2. Approve FS\_5G\_ProSe SID revision

**S2-2004089 Revised SID: Study on System enhancement for Proximity based Services in 5GS**

There was a S2-2004089r01 provided by Nokia which was reviewed.

*“service continuity between a 5GC path between two UEs and a direct PC5 path between these two UEs is not in scope.”*

Number of companies made comments on the above added bullet. Companies expressed different understanding of the above text. CATT commented that text is not part of the working assumption previously made and it should be removed. SA2 Chairman asked if there are any objections on approving the WID by removing the bullet above. Huawei commented if there is any benefit of approving the WID. SA2 Chairman commented we need an approved WID to schedule the agenda and any disagreements on solution should be debated during the TR phase. This was revised as S2-2004089r02 which was agreed and revised in S2‑2004333, which was approved.

# Requests for new Tdoc Allocation

TR Coversheet for TR 23.761 MUSIM: This was allocated to new TD S2‑2004334.

# AoB

SA WG2 Chairman commented that this is the first time Rel-17 is handled in an e-meeting, the e-meeting is 2 weeks and delegates were asked to make any comments in good time before the revisions deadlines, rather than waiting until the final agreement period to object to all the available revisions. Concern(s) should be provided early on to allow author a chance to address those concern(s). Any new learning will be applied to the Aug e-meeting.

SA WG2 Chairman commented that he has observed CC are requiring 15-25 mins of overtime, and for CC#2 he has hard stop at 1500 UTC. **SA2#139E CC#2 on June-5 will start 30 mins early, i.e. 1230 – 1430 UTC.**

# Closed: 01 June 2020, 17.25 CEST