**Notes of SA2#140E\_CC#1**

# Opened: 19 August 2020, 13.00 UTC = 15.00 CEST

~ 150 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

Canon

CATT

Charter

China Mobile

China Telecom

China Unicom

Cisco

Comcast

Convida Wireless

Deutsche Telekom

DENSO

Dish

Ericsson

ETRI

FirstNet

Frauenhofer

Futurewei

GOHIGH DATA NETWORKS TECH.

Google

Huawei

Hughes Network Systems

III

Infoblox

Intel

Interdigital

IPcom

KPN

Lenovo

LGE

Matrixx

Mavenir

MediaTek

Motorola Mobility

NEC

Nokia

NTIA

NTT DOCOMO

OPPO

Orange

Perspecta Labs

Philips

Qualcomm

Reliance Jio

Sandvine

Samsung

Sharp

Sony

Spreadtrum

SyncTechno

Telecom Italia

Telefonica

Tencent

T-Mobile USA

Thales

Verizon

Vivo

Vodafone

Volkswagon

Xiaomi

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. 5WWC: Handling of IPv6 addresses for FN-RG

SA2#140E 5WWC IPv6 LLA per BBF LS.ppt.pptx. <https://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_140e_Electronic/INBOX/CCs/SA2%23140E_CC%231/SA2%23140E%205WWC%20IPv6%20LLA%20per%20BBF%20LS.ppt.pptx>

BBF Request (S2-2003627):

1. Support for FN-RGs using IPv6oE procedures

Current FN-RGs in IPoE supports the specification defined in RFC2464 for Local Link Assigment based on self-assignment from MAC address and there is no means for override such assignment from 5G CN. Proposed solution is to extend NAS in PDU sessno establishment for signaling to SMF the selected LLA

2. Support for FN-RGs using PPPoE and IPv6CP procedures

IETF RFC 5072 NCP negotiation procedures performed between the FN-RG and W-AGF require the AGF to know the SMF's link local address. Proposed solution to add an information element to the PDU Session Establishment Accept message that provides this information to the W-AGF for use in RFC 5072 negotiation procedures.

The discussion has been postponed from the previous meeting

Options to address the above

1. To endorse the BBF proposals approving CR for addition of new parameters in NAS SMF Container exchanged in PDU session messages and the SMF behavior related to LLA management when request from FN-RG (S2-2004926)

2. Do not change 3GPP specifications. Assume that BBF can resolve the issue anyway, e.g. by W-AGF being specified as a layer 3 node and performing interworking between the SMF and an FN-RG for IPv6 procedures/packets"

**Discussion:**

Nokia commented that the problem is that local UEs can be controlled, but legacy UEs cannot be controlled. There are two proposed solutions to receive a value which is mapped to the UE address or, as proposed by Huawei to add functionality to do this. The issue is that the responsibility for doing this is unclear and therefore Nokia support option#1. Ericsson commented that these values are per link and there is no technical issue. Telecom Italia commented that issue raised by Huawei is philosophical and not technical. Huawei commented that there may be some SMF impact, which is a technical issue.

Support for option #1: 11 Telecom Italia, Nokia, Ericsson, Charter, Broadcom, Cisco, Sandvine, Deutsche Telekom, Vodafone, Telefonica, Orange

Support for option #2: 1 Huawei

**It was decided to go forward with option#1, using S2-2004926 as a baseline for further discussion.**

# 2. eSBA: reply to CT4 LS S2-2004802 on SCP registration and discovery

SA2#140e CC# eSBA SCP reply LS - v3.pptx: <https://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_140e_Electronic/INBOX/CCs/SA2%23140E_CC%231/SA2%23140e%20CC%23%20eSBA%20SCP%20reply%20LS%20-%20v3.pptx>

Reply to CT4 LS S2-2004802 on SCP registration and discovery:

- CT4 has dependent CRs in parallel meeting. Sending out reply LS asap desirable (25th or 26th).

Principles of reply?

- Q1: TS 23.501 23.502 misalignments:

- Follow CT4 recommendation to remove Interconnected NF Ids and SCP IDs from TS 23.501?

- Add NF type to 23.501 or remove from 23.502? Add interconnected SCP domain?

- Q2: SCP domains in NF profiles: Follow CT4 recommendation to add them?

- Q3: Can NF consumer use NRF to detect SCP? Follow CT4 recommendation to allow this?

Many similar contributions, a merger will be required. Can we agree a basis?

**Discussion:**

There was some discussion and it was decided to continue with the existing SA WG2 agreements. There was general support to remove NF type. This will be discussed further over email.

# 3. eNS: Way Forward on LS IN from CT WG4 on Clarification of AAA-Server address

SA2#140E eNS Way forward on LS from CT WG4 regarding NSSAA.ppt: <https://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_140e_Electronic/INBOX/CCs/SA2%23140E_CC%231/SA2%23140E%20eNS%20Way%20forward%20on%20LS%20from%20CT4%20regarding%20NSSAA.ppt>

Way Forward on LS IN from CT WG4 on Clarification of AAA-Server address:

Proposals:

Option 1:

- S2-2005477 (Huawei)

- Send an LS back to CT WG4 with the following statement (clarification):

- SA WG2 confirms to CT WG4 that the AAA-S address is sent by the AMF to the NSSAAF in step 4 of the procedure. As a general rule, Stage 2 procedures do not necessarily include all parameters. SA WG2 confirms also that the AAA-S address is fetched from the UDM/UDR together with the indication of whether the S-NSSAI is subject to NSSAA.

- No change to the specifications

Option 2:

- S2-2004879 (LS), S2-2004877, S2-2004878 (CRs) (Ericsson)

- Send an LS back to CT WG4 with the following statements:

- There is no need for the AMF to provide the AAA-S address to the NSSAAF in step 4 of the NSSAA procedure described in section 4.2.9.2 of TS 23.502.

- There is no need for the UDM to store and provide the AAA-S address to the AMF as the AMF does not interact with the AAA-S directly. Instead, the AMF needs to discover and select an NSSAAF at the HN as defined in section 6.3.17 of TS 23.501.

- Since the NSSAAF resides at the HN, the NSSAAF is capable of determining the AAA-S that needs to be used for NSSAA procedures per S-NSSAI based on local configuration at NSSAAF.

- Changing the specifications 23.501 and 23.502:

- - the indication whether the S-NSSAI is subject to Network Slice-Specific Authentication and Authorization ~~and associated AAA Server Address~~.

- 4. The AMF sends the EAP Identity Response to the NSSAAF in a Nnssaaf\_NSSAA\_Authenticate Request (EAP Identity Response, ~~AAA-S address,~~ GPSI, S-NSSAI).

- The NSSAAF is responsible to send the NSSAA requests to the appropriate AAA-S based on local configuration of AAA-S address per S-NSSAI.

Way Forward (via show hands):

Option 1: Clarification to CT WG4 regarding the understanding of SA WG2 specifications

Option 2: Perform late modifications to Rel-16 specifications and inform CT WG4 about them

**Discussion:**

Huawei commented that Ericsson proposal is not FASMO. Nokia commented that there is still a question on whether these would be FASMO changes for Rel-16 and asked whether the functionality wanted by Ericsson could be realised without modifications to the specifications. Ericsson commented that their preference is not to introduce multiple options.

This will be discussed further over email. If issue cannot be resolved then it would come back at CC#2 for potential show of hands.

# 4. FS\_eNS\_Ph2: Way Forward Proposal on handling KI#7 PCRs

SA2#140E FS\_eNS\_Ph2 KI#7 PCRs Way Forward This Meeting.ppt: <https://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_140e_Electronic/INBOX/CCs/SA2%23140E_CC%231/SA2%23140E%20FS_eNS_Ph2%20KI%237%20PCRs%20Way%20Forward%20This%20Meeting.ppt>

Way Forward Proposal on handling KI#7 PCRs

Background & Disagreements on KI#7

Point of Disagreements:

- All S-NSSAI within Allowed NSSAI shall be uniformly served by all frequency band within UE's TAs/RA.

What has been attempted:

- An offline moderated discussion (see S2-2005177) was held on the question - what is the expected configuration for the operating frequency among the TAs/RA for a given Allowed NSSAI that is granted to the UE, but lack of majority support on one way or the other.

What were agreed w.r.t. to Rel-15/16 from offline moderated discussions:

- All S-NSSAI within Allowed NSSAI are uniformly served within UE's TAs/RA.

- Mechanism available today for RAN influence cell (re)selection and redirection.

- RAN reports to 5GC for the support of S-NSSAI on per TA basis (not per cell).

However, participating companies from offline moderated discussions support sending LS to RAN to consult their views for the cell configuration within TAs/RA to serve S-NSSAI(s) within Allowed NSSAI.

Way Forward (via show hands):

Option-1:

- Adopt Nokia's et al proposal, S2-2004858, as the working assumption to mandate uniform cell configuration support within UE's TAs/RA to serve all S-NSSAI(s) within the Allowed NSSAI.

Option-2:

- Send LS to RAN2 and RAN3 to seek their views based on rapporteur prepared LS S2-2005164 - to be used as the base to draft the final LS out.

- All KI#7 related PCRs are reviewed based on their respective architecture working assumption for technical comments. Rejection on PCR cannot be based on disagreement on the architecture working assumption of whether or not "all" S-NSSAIs within Allowed NSSAI shall support the "same" radio frequency band(s).

**Discussion:**

T-Mobile asked ZTE whether their option 2 proposal was to introduce text into the TR while awaiting the RAN WG response. ZTE explained that the working assumption is used and disagreement with the working assumption should not be used as a reason to block pCRs from agreement.

Ericsson supported uniform cell configuration support in UEs. Huawei commented that they have no problem sending LS, but the timing is difficult, as a reply is unlikely to be available for the next meeting. Nokia commented that there is a problem with converging on what is acceptable as a working assumption on the support of different bands and it is anyway unclear whether different frequency band support within the TA/RA will work. Samsung commented that it is a good idea to involve RAN WGs in this decision as soon as possible as this will impact their work, but this would not preclude agreeing on Option 1. Samsung also agreed that for option 2, solution progress should continue while awaiting RAN WG feedback. AT&T commented that this will take time to properly study and suggested trying to solve the basic issues of non-uniform support of slice in RA/TA before trying to solve this within this Release.

The SA WG2 Chairman commented that different solution to a key issue can be documented in the TR. Documenting a solution should not be blocked due to evaluation comments but at the same time it is not a blank check to document large number of solutions in the TR (i.e. solution should be technically correct and have some merits). The SA WG2 Chairman suggested adding an Editor’s Note for solutions which need RAN WG feedback.

There was general support for sending the LS to RAN2/3. Wording of the LS would be discussed further.

# 5. Way forward on CRs in AI#4.1 and AI#5.1 that are not in the scope of the SA2#140E.

S2-2005746 (CR) Fixing Redirection for EPS Fallback indication (Nokia, Nokia Shanghai Bell, Verizon, Samsung)

Ericsson commented that Nokia had agreed that this should be postponed. It was agreed to postpone this CR.

S2-2005822 (CR) Corrections to MME Emergency Configuration Data for enable the selection of different emergency gateways based on UE capabilities (Nokia, Nokia Shanghai-Bell)

Ericsson commented that this was out of scope for this meeting and should be postponed. It was agreed to postpone this CR.

S2-2005492 (CR) Correction on Deregistration procedures for SMS over NAS (Nokia, Nokia Shanghai Bell).

S2-2005493 (CR) Correction on Deregistration procedures for SMS over NAS (Nokia, Nokia Shanghai Bell).

These can be handled as they were returned to SA WG2 from TSG SA. Qualcomm commented that there were a number of CRs not agreed at TSG SA, but it was not clear that they could still be submitted to this meeting. The SA WG2 Chairman suggested that since these CRs were returned by TSG SA to SA2 they are left in for discussion at this meeting, but if no progress / agreement can be reached, then they can be postponed to the next meeting, in the normal way.

LSs for information under 4.1: Samsung suggested that at the revision deadline, where there has been no comment to keep them open or action, they should be noted. This was agreed.

It was decided not to move misplaced items from 4.1 as this would disrupt the e-mail threads for discussions.

The following documents submitted under 5.1, are out of scope for this meeting and were marked as postponed:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 5.1 | S2-2005546 | CR | Approval | 23.502 CR2379 (Rel-16, 'F'): Correction on EPS fallback with emergency service | Samsung | Rel-16 | POSTPONED |
| 5.1 | S2-2005548 | CR | Approval | 23.502 CR2381 (Rel-16, 'F'): Correction on EPS fallback for voice service quality | Samsung | Rel-16 | POSTPONED |
| 5.1 | S2-2005596 | CR | Approval | 23.502 CR2384 (Rel-16, 'F'): Update Nudm\_UECM\_Get service operation | CATT | Rel-16 | POSTPONED |
| 5.1 | S2-2005820 | CR | Approval | 23.502 CR2399 (Rel-16, 'F'): PDU SID handling in SMF for PDNs with IWK with 5GS | Cisco Systems | Rel-16 | POSTPONED |

# 6. TRs to be sent for information from SA2#140E.

Following 3 documents have been submitted

S2-2005581 (coversheet for FS\_eNPN TR 23.700-7 for information to TSG SA)

S2-2005361 (coversheet for FS\_enh\_EC TR 23.748 for information to TSG SA)

S2-2005423 (coversheet for FS\_eNA\_Ph2 TR 23.700-91 for information to TSG SA)

Nokia commented that they also plan to send FS-IIoT TR 23.700-20 for information to TSG SA.

If there are any further TRs that can be ready for presentation to TSG SA#89, then a request for a TD number for a cover sheet should be sent to the Chairman and secretary.

# 7. Allocation of new TDs

The following number was allocated:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 7.1 | S2-2005866 | LS OUT | [DRAFT] LS on Tx Profile for NR PC5 | SA WG2 | Rel-16 | eV2XARC | To: RAN WG2 CC: RAN WG1 |

The MCC Secretary allocated numbers for any Rel-17 FS Status Reports which were not already reserved under 9.2:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 9.2 | S2-2005867 | WI STATUS REPORT | FS\_IIoT Status report | Nokia (Rapporteur) | FS\_IIoT |
| 9.2 | S2-2005868 | WI STATUS REPORT | FS\_eNS\_Ph2 Status Report | ZTE Wistron Telecom AB (Rapporteur) | FS\_eNS\_Ph2 |
| 9.2 | S2-2005869 | WI STATUS REPORT | FS\_ID\_UAS\_SA2 Status Report | Qualcomm (Rapporteur) | FS\_ID\_UAS\_SA2 |
| 9.2 | S2-2005870 | WI STATUS REPORT | FS\_eNA\_Ph2 Status Report | Huawei (Rapporteur) | FS\_eNA\_Ph2 |
| 9.2 | S2-2005871 | WI STATUS REPORT | FS\_ATSSS\_Ph2 Status Report | ZTE (Rapporteur) | FS\_ATSSS\_Ph2 |

# 8. AoB

Nokia asked when WI Status reports should be provided. Final Rel-17 SID status report should be uploaded within 2 days after the close of e-meeting.

# Closed: 19 August 2020, 15.00 UTC = 17.00 CEST