**Third Generation Partnership Project (3GPP™)**

**Meeting Report  
for  
TSG SA WG3  
meeting: 110**

**Athens, Greece, 20/02/2023 to 24/02/2023**

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## 1 Agenda and Meeting Objectives

The attention of the delegates to the meeting of this Technical Specification Group was drawn to the fact that 3GPP Individual Members have the obligation under the IPR Policies of their respective Organizational Partners to inform their respective Organizational Partners of Essential IPRs they become aware of.

The delegates were asked to take note that they were thereby invited:

to investigate whether their organization or any other organization owns IPRs which were, or were likely to become Essential in respect of the work of 3GPP.

to notify their respective Organizational Partners of all potential IPRs, e.g., for ETSI, by means of the IPR Information Statement and the Licensing declaration forms.

The attention of the delegates to the meeting was drawn to the fact that 3GPP activities were subject to all applicable antitrust and competition laws and that compliance with said laws was therefore required by any participant of the meeting, including the Chairman and Vice-Chairmen and were invited to seek any clarification needed with their legal counsel. The leadership would conduct the present meeting with impartiality and in the interests of 3GPP.

Delegates were reminded that timely submission of work items in advance of TSG/WG meetings was important to allow for full and fair consideration of such matters.

The SA3 Chair Suresh Nair, welcomed the delegates to Athens.New SA3 delegates had the chance to present themselves to the group.

Suresh announced that the Rel-19 documents such as those related to the 256-bit algorithms would not be treated in the current meeting. However, a workshop would be dedicated to the 256-bit algorithms given the importance of the subject. This could be an electronic meeting with decision power if needed.

Tim (Vodafone) commented that there were a lot of factors that would delay the process, such as the registration in the French government, so there was a need to start the work quickly.

Qualcomm commented that a conference call would be better than an emeeting. The decisions should take place in a physical meeting.Vodafone added that the SID and the WID had different objectives.

**S3-230600 Agenda**

*Type: agenda For: (not specified)  
 Source: SA WG3 Chair*

**Decision:** The document was **approved**.

**S3-230601 Report for SA3#109e ad-Hoc**

*Type: report For: (not specified)  
 Source: SA WG3 Chair*

**Decision:** The document was **approved**.

**S3-230602 Process for SA3#110**

*Type: other For: (not specified)  
 Source: SA WG3 Chair*

**Decision:** The document was **noted**.

**S3-230603 Process and agenda planning for SA3#110**

*Type: other For: (not specified)  
 Source: SA WG3 Chair*

**Decision:** The document was **noted**.

**S3-231386 Report from SA3#109**

*Type: report For: Approval  
 Source: MCC*

**Decision:** The document was **email approval**.

## 2 Meeting Reports

## 3 Reports and Liaisons from other Groups

**S3-230605 5G capabilities exposure for factories of the future - identified gaps**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: 5G-ACIA*

**Decision:** The document was **noted**.

**S3-231116 draft LS reply to TSG SA on LS S3-223147 on 5G capabilities exposure for factories of the future – identified gaps from 5G ACIA**

*Type: LS out For: Approval  
 to TSG SA, cc TSG SA WG1, 3GPP TSG SA WG2, 3GPP TSG SA WG3, 3GPP TSG SA WG5, 3GPP TSG SA WG6, TSG CT  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

Proposal for answer to SA with resepct to LS from 5G ACIA on indentified gaps in the exposure interface.

**Discussion:**

There were some questions on the provisioning described in G.1, especially from Thales. Huawei suggested not to go so much into detail and delete the paragraph on the provisioning.

**Decision:** The document was **revised to S3-231387**.

**S3-231387 LS reply to TSG SA on LS S3-223147 on 5G capabilities exposure for factories of the future – identified gaps from 5G ACIA**

*Type: LS out For: Approval  
 to TSG SA, cc TSG SA WG1, 3GPP TSG SA WG2, 3GPP TSG SA WG5, 3GPP TSG SA WG6, TSG CT  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-231116)

**Decision:** The document was **approved**.

**S3-230606 LS to 3GPP on PRINS middle boxes**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: GSMA*

**Discussion:**

Nokia: we need feedback from SA2 and CT4. Tw topics: errors and N32 purpose+ certificate management, to be distributred in two LS.

**Decision:** The document was **replied to in S3-231388**.

**S3-231192 LS on PRINS middle boxes**

*Type: LS out For: Approval  
 to GSMA 5GMRR  
 Source: BSI (DE), Nokia, Nokia Shanghai Bell*

**Abstract:**

Reply to GSMA LS on PRINS middle boxes

**Discussion:**

Ericsson supported this LS.

**Decision:** The document was **revised to S3-231388**.

**S3-231388 LS on certificate and key management automation and N32 purpose**

*Type: LS out For: Approval  
 to GSMA 5GMRR, cc GSMA DESS  
 Source: BSI (DE), Nokia, Nokia Shanghai Bell*

(Replaces S3-231192)

**Discussion:**

N32 and key management would be treated here.

**Decision:** The document was **approved**.

**S3-230607 LS on U2N relay direct link setup failure due to RSC mismatch or integrity failure**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: C1-226908*

**Decision:** The document was **replied to in S3-231390**.

**S3-230816 Reply LS on U2N relay direct link setup failure due to RSC mismatch or integrity failure**

*Type: LS out For: Approval  
 to CT1  
 Source: Qualcomm Incorporated*

**Decision:** The document was **revised to S3-231390**.

**S3-231390 Reply LS on U2N relay direct link setup failure due to RSC mismatch or integrity failure**

*Type: LS out For: Approval  
 to CT1  
 Source: Qualcomm Incorporated*

(Replaces S3-230816)

**Decision:** The document was **approved**.

**S3-231069 Reply LS on U2N relay direct link setup failure due to RSC mismatch or integrity failure**

*Type: LS out For: Approval  
 to CT1  
 Source: Ericsson*

**Discussion:**

Huawei and Philips preffered this response to Qualcomm's version.

Qualcomm: integrity protection is not needed.Nokia agreed with this.

Integrity protecton needed: Phillips, OPPO, Ericsson,Huawei,Interdigital.

Not needed: Nokia, Qualcomm,

**Decision:** The document was **merged**.

**S3-230608 LS on Authentication Result Removal**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: C4-224418*

**Decision:** The document was **postponed**.

**S3-231279 Reply LS on Authentication Result Removal**

*Type: LS out For: Approval  
 to CT4  
 Source: Ericsson*

**Discussion:**

Huawei didn’t agree with this LS.

Nokia: CT4 has added information that needs to be removed due to an SA3's mistake. They are waiting for a response because they cannot implement service operations, there are no stage 2 requirements.

The Chair commented that SA3 should own the problem and clean it, SA3 should not create these situations.

Huawei: we cannot reopen or restudy this topic.

Ericsson: CT4 not to waste time on trying to implement this, we ask them to remove it. Nokia: these are dangling APIs that have no stage 2 requirements.

Huawei: they can fix it by themselves, this is a stage 3 issue. They are asking to revert a conclusion from a study.

Ericsson: nothing coming from the study, this is coming from an LS from SA3 to CT4 asking them to do the wrong thing.

Huawei: we had a key issue in the TR and we agreed to close the key issue by sending the LS to CT4.

Suresh: this will impact implementations, we will have a show of hands to decide on this.

It was proposed to have a show of hands, but Huawei didn’t agree on having a show of hands for something to be done in CT4. It’s about fixing the issue, not removing the whole feature.

The Chair asked if SA3 could organize a conference call with CT4. Huawei didn’t find it worth it, there were just a couple of people involved in the discussions. Nokia insisted that this LS had been postponed for two meetings already.

**Decision:** The document was **noted**.

**S3-230609 Reply LS on PLMN ID used in Roaming Scenarios**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: C4-224444*

**Decision:** The document was **replied to in S3-231391**.

**S3-230622 Reply LS On PLMN ID used in Roaming Scenarios**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2207391*

**Decision:** The document was **replied to in S3-231391**.

**S3-230761 Reply LS on PLMN ID used in Roaming Scenarios from CT WG4 and SA WG2**

*Type: LS out For: (not specified)  
 to CT4, SA2, cc GSMA 5GMRR  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

Related to LS S3-232609/C4-224444 and S3-223165/S2-2207391

**Decision:** The document was **revised to S3-231391**.

**S3-231391 Reply LS on PLMN ID used in Roaming Scenarios from CT WG4 and SA WG2**

*Type: LS out For: -  
 to CT4, SA2, cc GSMA 5GMRR  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-230761)

**Decision:** The document was **approved**.

**S3-230610 LS on Authorization of NF service consumers for data access via DCCF**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: C4-225161*

**Decision:** The document was **postponed**.

**S3-231091 Reply LS on Authorization of NF service consumers for data access via DCCF**

*Type: LS out For: Approval  
 to CT4  
 Source: China Mobile*

**Discussion:**

Huawei preferred this version as it was simpler than Nokia's proposal.

**Decision:** The document was **revised to S3-231392**.

**S3-231392 Reply LS on Authorization of NF service consumers for data access via DCCF**

*Type: LS out For: Approval  
 to CT4  
 Source: China Mobile*

(Replaces S3-231091)

**Decision:** The document was **noted**.

**S3-231140 Reply LS on Authorization of NF service consumers for data access via DCCF**

*Type: LS out For: Approval  
 to CT4, cc CT3  
 Source: Ericsson*

**Decision:** The document was **noted**.

**S3-230846 Reply LS on Authorization of NF service consumers for data access via DCCF**

*Type: LS out For: Approval  
 to CT4, cc CT3  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **noted**.

**S3-230612 LS on N32-f addressing information**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: C4-225571*

**Discussion:**

Nokia didn’t see any action on SA3 specs.Ericsson supported this. Huawei commented that GSMa didn’t support CT4's CRs.

**Decision:** The document was **replied to in S3-231393**.

**S3-231393 Reply to: LS on N32-f addressing information**

*Type: LS out For: approval  
 to CT4,GSMA NG  
 Source: Nokia*

**Decision:** The document was **approved**.

**S3-230616 LS reply to 3GPP C4-225571 on N32-f addressing information**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: GSMA*

**Decision:** The document was **noted**.

**S3-230617 Reply LS on authenticity and replay protection of system information**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: R2-2208985*

**Decision:** The document was **noted**.

**S3-231163 Reply LS on authenticity and replay protection of system information**

*Type: LS out For: Approval  
 to RAN2  
 Source: Apple*

**Discussion:**

Thisi is a shorter option than 294.

**Decision:** The document was **revised to S3-231396**.

**S3-231396 Reply LS on authenticity and replay protection of system information**

*Type: LS out For: Approval  
 to RAN2  
 Source: Apple*

(Replaces S3-231163)

**Decision:** The document was **noted**.

**S3-231294 Reply LS on authenticity and replay protection of system information**

*Type: LS out For: Approval  
 to RAN2  
 Source: Samsung, Apple, CableLabs*

**Discussion:**

Qualcomm didn’t agree with this response.It was agreed to go for a shorter response.

**Decision:** The document was **noted**.

**S3-230618 LS on security for selective SCG activation**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: R2-2213337*

**Decision:** The document was **replied to in S3-231397**.

**S3-230674 Reply LS on Security for selective SCG activation**

*Type: LS out For: (not specified)  
 to 3GPP RAN WG2  
 Source: Nokia Italy*

**Decision:** The document was **revised to S3-231397**.

**S3-231397 Reply LS on Security for selective SCG activation**

*Type: LS out For: -  
 to 3GPP RAN WG2  
 Source: Nokia Italy*

(Replaces S3-230674)

**Decision:** The document was **approved**.

**S3-230675 Discussion on (R2-2213337) LS on Security for Selective SCG Activation**

*Type: discussion For: (not specified)  
 Source: Nokia Italy*

**Decision:** The document was **noted**.

**S3-231013 Security on selection SCG activation**

*Type: discussion For: Endorsement  
 Source: Huawei, HiSilicon*

**Decision:** The document was **noted**.

**S3-231014 Reply LS on selective SCG activation**

*Type: LS out For: Approval  
 to RAN2  
 Source: Huawei, HiSilicon*

**Decision:** The document was **merged**.

**S3-231052 [Draft] Reply LS on security for selective SCG activation**

*Type: LS out For: Approval  
 to RAN2  
 Source: OPPO*

**Decision:** The document was **merged**.

**S3-231054 Discussion about LS on SCG Activation**

*Type: discussion For: Endorsement  
 Source: Intel*

**Decision:** The document was **noted**.

**S3-231056 draft\_ Reply LS R2-2213337 LS on security for selective SCG activation**

*Type: LS out For: (not specified)  
 to RAN2  
 Source: Intel*

**Decision:** The document was **merged**.

**S3-231162 Reply LS to S3-230618/R2-2213337 on security for selective SCG activation**

*Type: LS out For: Approval  
 to RAN2  
 Source: Apple*

**Decision:** The document was **merged**.

**S3-231303 Discussion on security for selective SCG activation**

*Type: discussion For: Endorsement  
 Source: Samsung*

**Decision:** The document was **noted**.

**S3-230619 Reply LS on the user consent for trace reporting**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: R3-225250*

**Discussion:**

Ericsson: user consent requirements are not set in SA3 and it's harder to find a solution because of this.What is the user consent needed for in the RAN? This needs to be understood and I havent seen any clarification on this from the group. Vodafone commented that even user consent is not clear, because the user may not be aware of what his consent is for. Operators need to make sure that the cosnent is shown to the user in a way that they can understand what they are confirming or denying.

This was taken offline.

**Decision:** The document was **replied to in S3-231398**.

**S3-230973 Reply LS on the User Consent for Trace Reportings**

*Type: LS out For: Approval  
 to RAN3, cc RAN2, SA5, SA1, RAN  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231398**.

**S3-231398 Reply LS on the User Consent for Trace Reportings**

*Type: LS out For: Approval  
 to RAN3, cc RAN2, SA5, SA1, RAN  
 Source: Huawei, HiSilicon*

(Replaces S3-230973)

**Decision:** The document was **approved**.

**S3-231164 Reply LS on the user consent for trace reporting (S3-230619)**

*Type: LS out For: Approval  
 to RAN3, cc RAN2, SA5, SA1, RAN  
 Source: Apple*

**Decision:** The document was **merged**.

**S3-230620 LS on user consent of Non-public Network**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: R3-226006*

**Discussion:**

Qualcommm commented that they had brought a proposal in previous meetings but it was rejected.

The Chair commented that SA3 just needed to reply simply to these questions.

**Decision:** The document was **replied to in S3-231399**.

**S3-231399 Reply to: LS on user consent of Non-public Network**

*Type: LS out For: approval  
 to RAN3, cc RAN2,SA5  
 Source: Vodafone*

**Decision:** The document was **approved**.

**S3-230624 LS on impact of URSP rule enforcement report to 5GC**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2209327*

**Discussion:**

SA3 decided no need to reply. The questions were outdated.

**Decision:** The document was **noted**.

**S3-230625 LS on Time Synchronization Status notification towards UE(s)**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2209876*

**Discussion:**

It was commented that SA2 had moved on since Toulouse, so this wasn’t relevant anymore.

Ericsson wanted to have minuted that SA2 expected a response but SA3 had decided not to answer.

Qualcomm: SA3 doesn’t need a reply according to my colleagues.

**Decision:** The document was **noted**.

**S3-231280 Reply LS on Time Synchronization Status notification towards UE(s)**

*Type: LS out For: Approval  
 to SA2, cc RAN1, RAN2, RAN3  
 Source: Ericsson*

**Discussion:**

Huawei preferred this option.

**Decision:** The document was **noted**.

**S3-230671 Reply LS on Time Synchronization Status notification towards UE(s)**

*Type: LS out For: Approval  
 to 3GPP SA WG2  
 Source: Nokia Italy*

**Discussion:**

Qualcomm preferred this reply.

**Decision:** The document was **noted**.

**S3-230626 LS reply on Indication of Network Assisted Positioning method**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2211049*

**Decision:** The document was **noted**.

**S3-230627 LS on secured and trusted access to the serving PLMN OAM server by a MBSR**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2301465*

**Decision:** The document was **replied to in S3-231400**.

**S3-230883 Reply LS for LS on secured and trusted access to the serving PLMN OAM server by a MBSR**

*Type: LS out For: (not specified)  
 to SA2, cc SA5, RAN3  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **merged**.

**S3-231033 Reply LS on secured and trusted access to the serving PLMN OAM server by a MBSR**

*Type: LS out For: Approval  
 to SA2,SA5, cc RAN3  
 Source: Huawei, HiSilicon*

**Discussion:**

Ericsson agreed that offline methods were sufficient.

**Decision:** The document was **revised to S3-231400**.

**S3-231400 Reply LS on secured and trusted access to the serving PLMN OAM server by a MBSR**

*Type: LS out For: Approval  
 to SA2,SA5, cc RAN3  
 Source: Huawei, HiSilicon*

(Replaces S3-231033)

**Decision:** The document was **approved**.

**S3-230629 LS on UE event reporting over a user plane connection to LCS client or AF**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2301789*

**Decision:** The document was **postponed**.

**S3-231401 Reply to: LS on UE event reporting over a user plane connection to LCS client or AF**

*Type: LS out For: approval  
 to SA2, cc CT1,CT3  
 Source: Vodafone*

**Discussion:**

Huawei didn’t want to mention OMA SUPL.

Qualcomm didn’t agree so the response was postponed.

**Decision:** The document was **noted**.

**S3-231034 Reply LS on user plane connection between UE and LCS client, AF or LMF**

*Type: LS out For: Approval  
 to SA2, RAN2, CT1, CT3, CT4  
 Source: Huawei, HiSilicon*

**Discussion:**

Ericsson preferred this response.A new study mwas needed. We need TLS 1.3 and not TLS 1.2.

There was a WID proposal for the meeting related to this LS.

**Decision:** The document was **merged**.

**S3-230881 Reply LS for LS on UE event reporting over a user plane connection to LCS client or AF**

*Type: LS out For: (not specified)  
 to SA2, cc CT1, CT3  
 Source: Nokia, Nokia Shanghai Bell*

**Discussion:**

Qualcomm supported this reply.

**Decision:** The document was **merged**.

**S3-230630 LS on LPP message and supplementary service event report over a user plane connection between UE and LMF**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2301857*

**Decision:** The document was **postponed**.

**S3-230882 Reply LS for LS on LPP message and supplementary service event report over a user plane connection between UE and LMF**

*Type: LS out For: (not specified)  
 to SA2, cc RAN2, CT1, CT4  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **merged**.

**S3-231278 Reply LS on LPP message and supplementary service event report over a user plane connection between UE and LMF**

*Type: LS out For: Approval  
 to SA2, cc RAN2, CT1, CT4  
 Source: Ericsson*

**Decision:** The document was **merged**.

**S3-230631 LS on the use of a non-network defined identifier for UE identification**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2302163*

**Decision:** The document was **noted**.

**S3-230639 LS on the use of a non-network defined identifier for UE identification**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S6-223558*

**Decision:** The document was **replied to in S3-231402**.

**S3-231160 Reply LS to S3-230639/S6-223558 on the use of a non-network defined identifier for UE identification**

*Type: LS out For: Approval  
 to SA6, cc SA2  
 Source: Apple*

**Decision:** The document was **revised to S3-231402**.

**S3-231402 Reply LS to S3-230639/S6-223558 on the use of a non-network defined identifier for UE identification**

*Type: LS out For: Approval  
 to SA6, cc SA2  
 Source: Apple*

(Replaces S3-231160)

**Decision:** The document was **approved**.

**S3-230640 CAPIF extensibility**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S6-230294*

**Decision:** The document was **noted**.

**S3-230641 LS on user consent for UE location sharing**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S6-230351*

**Decision:** The document was **postponed**.

**S3-231161 Reply LS on user consent for UE location sharing (S3-230641/S6-230351)**

*Type: LS out For: Approval  
 to SA6  
 Source: Apple*

**Decision:** The document was **merged**.

**S3-230974 Reply LS on user consent for UE location sharing**

*Type: LS out For: Approval  
 to SA6  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231403**.

**S3-231403 Reply LS on user consent for UE location sharing**

*Type: LS out For: Approval  
 to SA6  
 Source: Huawei, HiSilicon*

(Replaces S3-230974)

**Decision:** The document was **noted**.

**S3-230642 Specification of the 256-bit air interface algorithms**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: ETSI SAGE*

**Discussion:**

Thales commented that they had a reply LS related to this.

MCC commented that the algorithm documentation provided by SAGE would be shared in the local FTP server for a limited time with the warning that this was not to be shared, only for SA3 internal use. It was to be clarified whether all this information would be used in 3GPP, how much of it and in what form.

**Decision:** The document was **postponed**.

**S3-231081 Discussion about Reply LS on Specification of the 256-bit air algorithms**

*Type: discussion For: Discussion  
 Source: THALES, Idemia*

**Abstract:**

Discussion about Reply LS on Specification of the 256-bit air algorithms

**Decision:** The document was **noted**.

**S3-231115 Draft Reply LS on Specification of the 256-bit air algorithms**

*Type: LS out For: Approval  
 to ETSI SAGE  
 Source: THALES, Idemia*

**Decision:** The document was **noted**.

**S3-231174 Information on ZUC-256**

*Type: discussion For: Endorsement  
 Source: CATT*

**Decision:** The document was **noted**.

**S3-231189 LS on Latest Information about ZUC-256**

*Type: LS out For: Approval  
 to ETSI SAGE  
 Source: CATT*

**Decision:** The document was **noted**.

**S3-230643 LS on initiation of new work item Y.CCO-req: ""Requirements of orchestration supporting confidential computing for network slices in IMT-2020 networks and beyond""**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: ITU-T SG13*

**Decision:** The document was **noted**.

**S3-230611 Reply LS on Response LS on Identifier availability for Lawful Interception during Inter-PLMN handover**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: C4-225542*

**Decision:** The document was **noted**.

**S3-230613 LS on clarification of coding of hexadecimal digits in SUCI NAI**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: C6-220715*

**Discussion:**

Qualcomm wanted to keep this open.

**Decision:** The document was **postponed**.

**S3-230621 Reply LS on Time Synchronization Status notification towards UE(s)**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: R3-226774*

**Decision:** The document was **noted**.

**S3-230637 Reply LS on user’s consent for EDGEAPP**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S6-223339*

**Decision:** The document was **noted**.

**S3-230638 Reply LS on Network federation interface for Telco edge consideration for a consolidated reply**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S6-223553*

**Decision:** The document was **noted**.

**S3-230636 Reply LS to S5-226028 on Network federation interface for Telco edge consideration and proposals to answer GSMA LSs 5-226016 and S5-226017 from SA**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S5-227039*

**Decision:** The document was **noted**.

**S3-230628 Reply LS on SL positioning groupcast and broadcast**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2301786*

**Decision:** The document was **noted**.

**S3-230632 Reply LS on FS\_eEDGEAPP Solution for Support of NAT deployed within the edge data network**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2302164*

**Decision:** The document was **noted**.

**S3-230633 LS on Identifier availability for Lawful Interception during Inter-PLMN handover**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2302165*

**Decision:** The document was **noted**.

**S3-230634 LS on NSWO feature**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2302168*

**Decision:** The document was **noted**.

**S3-230635 LS on NAI format for 5G NSWO**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2302171*

**Decision:** The document was **noted**.

**S3-230644 Reply LS on Network federation interface for Telco edge consideration**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: SP-221321*

**Decision:** The document was **noted**.

**S3-230649 lawful interception for EPS Fallback for 5G inbound roamers**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: GSMA*

**Discussion:**

To be treated in SA3-LI

**Decision:** The document was **revised to S3-231526**.

**S3-231526 lawful interception for EPS Fallback for 5G inbound roamers**

*Type: LS in For: -  
 Original outgoing LS: -, to -, cc -  
 Source: GSMA*

(Replaces S3-230649)

**Discussion:**

Revised since it had some problems when viewing in Print Mode in Word.

**Decision:** The document was **noted**.

**S3-230650 LS to SA3-LI on Volte roaming lawful interception - limitation to provide caller identify if caller activates OIR**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: GSMA*

**Discussion:**

To be treated in SA3-LI, kpet open to think of implications of this LS.

Revised since it had some problems when viewing in Print Mode in Word.

**Decision:** The document was **revised to S3-231524**.

**S3-231524 LS to SA3-LI on Volte roaming lawful interception - limitation to provide caller identify if caller activates OIR**

*Type: LS in For: -  
 Original outgoing LS: -, to -, cc -  
 Source: GSMA*

(Replaces S3-230650)

**Discussion:**

The SA3-LI Chair asked SA3 to have a look at this LS.

**Decision:** The document was **postponed**.

**S3-230729 TCG progress - report from TCG rapporteur**

*Type: other For: Information  
 Source: InterDigital France R&D, SAS*

**Abstract:**

This contribution provides a brief incremental summary of the progress in TCG Working Groups as of February 2023.

**Discussion:**

1. TCG – Highlights

Publication of new or revised deliverables (incremental changes from the status reported at SA3#109)

• TCG Measurement and Attestation RootS (MARS) Library – published January 2023

• TCG Storage Opal Family Feature Set: C\_PIN Enhancements – public review January 2023

• TCG Storage Interface Interactions Specification (SIIS) – public review December 2022

• TCG DICE Endorsement Architecture for Devices – published November 2022

• TCG Component Class Registry – public review October 2022

• TCG Storage Component Class Registry – public review October 2022

2. Meetings

• TCG Members Meeting Hybrid F2F (Vancouver, BC) 21-23 February 2023

• TCG Members Meeting Hybrid F2F (Munich, DE) June 2023 (TBD)

• MP WG meets every Monday at 10-11 ET

• TMS WG meets every Monday and Friday at 12-13 ET

• CyRes WG meets every Wednesday at 11-12:30 ET

**Decision:** The document was **noted**.

## 4 Work areas (Rel-18)

### 4.1 New WID on Security Assurance Specification for Management Function (MnF)

**S3-230866 Mnf-specific Over-Privileged Data Process threat addressing**

*Type: pCR For: Approval  
 33.526 v0.4.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231457**.

**S3-231457 Mnf-specific Over-Privileged Data Process threat addressing**

*Type: pCR For: Approval  
 33.526 v0.4.0  
 Source: Huawei, HiSilicon*

(Replaces S3-230866)

**Decision:** The document was **approved**.

**S3-230867 Mnf-specific Unprotected Management data during transmission threat addressing**

*Type: pCR For: Approval  
 33.526 v0.4.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231458**.

**S3-231458 Mnf-specific Unprotected Management data during transmission threat addressing**

*Type: pCR For: Approval  
 33.526 v0.4.0  
 Source: Huawei, HiSilicon*

(Replaces S3-230867)

**Decision:** The document was **approved**.

**S3-231006 Updates to MnF SCAS clause 4.3**

*Type: pCR For: Approval  
 33.526 v0.4.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **approved**.

**S3-231007 Editorial updates to MnF SCAS**

*Type: pCR For: Approval  
 33.526 v0.4.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231459**.

**S3-231459 Editorial updates to MnF SCAS**

*Type: pCR For: Approval  
 33.526 v0.4.0  
 Source: Huawei, HiSilicon*

(Replaces S3-231007)

**Decision:** The document was **approved**.

**S3-231005 Living document for MnF SCAS**

*Type: draftCR For: Approval  
 33.926 v17.6.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **approved**.

**S3-231460 Draft TS 33.526**

*Type: draft TS For: Approval  
 33.526 v..  
 Source: Huawei*

**Decision:** The document was **email approval**.

**S3-231461 Cover sheet TS 33.526 information**

*Type: TS or TR cover For: Approval  
 33.526 v..  
 Source: Huawei*

**Decision:** The document was **approved**.

### 4.2 New WID on SECAM and SCAS for 3GPP virtualized network products

**S3-231097 Presentation of TR33.927 to TSG for information and approval**

*Type: TS or TR cover For: Approval  
 33.927 v0.3.0  
 Source: China Mobile*

**Decision:** The document was **approved**.

**S3-231098 Adding description about dispute resolution to clause and 6.5 in TR33.936**

*Type: pCR For: Approval  
 33.936 v0.4.0  
 Source: China Mobile*

**Decision:** The document was **approved**.

**S3-231099 Presentation of TR33.936 to TSG for information and approval**

*Type: TS or TR cover For: Approval  
 33.936 v0.4.0  
 Source: China Mobile*

**Decision:** The document was **approved**.

**S3-231100 Proposal to add 4.1 in TS33.527**

*Type: pCR For: Approval  
 33.527 v0.1.0  
 Source: China Mobile*

**Decision:** The document was **approved**.

**S3-231101 Adding description about introduction for security functional requirements and related test cases into clause 4.2**

*Type: pCR For: Approval  
 33.527 v0.1.0  
 Source: China Mobile*

**Decision:** The document was **approved**.

**S3-231102 adding description about security functional requirements deriving from 3GPP specifications and related test cases into clause 4.2**

*Type: pCR For: Approval  
 33.527 v0.1.0  
 Source: China Mobile*

**Decision:** The document was **approved**.

**S3-231103 adding description about technical baseline into clause 4.2**

*Type: pCR For: Approval  
 33.527 v0.1.0  
 Source: China Mobile*

**Decision:** The document was **revised to S3-231462**.

**S3-231462 adding description about technical baseline into clause 4.2**

*Type: pCR For: Approval  
 33.527 v0.1.0  
 Source: China Mobile*

(Replaces S3-231103)

**Decision:** The document was **approved**.

**S3-231104 adding description about security requirements of operating systems, web servers and network devices to clause 4.2**

*Type: pCR For: Approval  
 33.527 v0.1.0  
 Source: China Mobile*

**Decision:** The document was **approved**.

**S3-231105 adding description about security functional requirements on GVNP lifecycle management and related test cases to clause 4.2**

*Type: pCR For: Approval  
 33.527 v0.1.0  
 Source: China Mobile*

**Decision:** The document was **revised to S3-231463**.

**S3-231463 adding description about security functional requirements on GVNP lifecycle management and related test cases to clause 4.2**

*Type: pCR For: Approval  
 33.527 v0.1.0  
 Source: China Mobile*

(Replaces S3-231105)

**Decision:** The document was **approved**.

**S3-231106 adding description about security functional requirements on executive environment provision and related test cases to clause 4.2**

*Type: pCR For: Approval  
 33.527 v0.1.0  
 Source: China Mobile*

**Decision:** The document was **revised to S3-231464**.

**S3-231464 adding description about security functional requirements on executive environment provision and related test cases to clause 4.2**

*Type: pCR For: Approval  
 33.527 v0.1.0  
 Source: China Mobile*

(Replaces S3-231106)

**Decision:** The document was **approved**.

**S3-231107 adding description about instantiating VNF from trusted VNF image and related test cases to clause 4.2**

*Type: pCR For: Approval  
 33.527 v0.1.0  
 Source: China Mobile*

**Decision:** The document was **revised to S3-231465**.

**S3-231465 adding description about instantiating VNF from trusted VNF image and related test cases to clause 4.2**

*Type: pCR For: Approval  
 33.527 v0.1.0  
 Source: China Mobile*

(Replaces S3-231107)

**Decision:** The document was **approved**.

**S3-231108 adding description about introduction to clause 4.3**

*Type: pCR For: Approval  
 33.527 v0.1.0  
 Source: China Mobile*

**Decision:** The document was **approved**.

**S3-231109 adding description about technical baseline into clause 4.3**

*Type: pCR For: Approval  
 33.527 v0.1.0  
 Source: China Mobile*

**Decision:** The document was **approved**.

**S3-231110 adding description about security requirements of operating systems and web servers to clause 4.3**

*Type: pCR For: Approval  
 33.527 v0.1.0  
 Source: China Mobile*

**Decision:** The document was **approved**.

**S3-231111 adding description about security requirements of operating systems and web servers to clause 4.3**

*Type: pCR For: Approval  
 33.527 v0.1.0  
 Source: China Mobile*

**Decision:** The document was **noted**.

**S3-231112 adding description about security requirements of separation of inter-VNF and intra-VNF traffic to clause 4.3**

*Type: pCR For: Approval  
 33.527 v0.1.0  
 Source: China Mobile*

**Decision:** The document was **noted**.

**S3-231113 adding description about basic vulnerability testing requirements for GVNP to clause 4.4**

*Type: pCR For: Approval  
 33.527 v0.1.0  
 Source: China Mobile*

**Decision:** The document was **revised to S3-231599**.

**S3-231599 adding description about basic vulnerability testing requirements for GVNP to clause 4.4**

*Type: pCR For: Approval  
 33.527 v0.1.0  
 Source: China Mobile*

(Replaces S3-231113)

**Decision:** The document was **approved**.

**S3-231466 Draft TR 33.936**

*Type: draft TR For: Approval  
 33.936 v0.5.0  
 Source: China Mobile*

**Decision:** The document was **approved**.

**S3-231467 Draft TS 33.527**

*Type: draft TS For: Approval  
 33.527 v0.2.0  
 Source: China Mobile*

**Decision:** The document was **email approval**.

### 4.3 New WID on Mission critical security enhancements phase 3

### 4.4 New WID on Security Assurance Specification (SCAS) for 5G Rel-17 Features

**S3-230645 Discussion on addition of applicability notes in pre-requisites for SCAS**

*Type: discussion For: Discussion  
 Source: Keysight Technologies UK Ltd*

**Abstract:**

Discussion on addition of applicability notes in pre-requisites for SCAS

**Decision:** The document was **noted**.

**S3-230646 Discussion on specification of robustness and fuzz testing for SCAS**

*Type: discussion For: Discussion  
 Source: Keysight Technologies UK Ltd*

**Abstract:**

Discussion on specification of robustness and fuzz testing for SCAS

**Decision:** The document was **noted**.

**S3-230647 Living document for SCAS UPF TS 33.513**

*Type: draftCR For: (not specified)  
 33.513 v17.1.0  
 Source: Keysight Technologies UK Ltd*

**Abstract:**

Living document for SCAS UPF TS 33.513

**Decision:** The document was **approved**.

**S3-230648 Update gNB test cases for Release 17 requirements**

*Type: draftCR For: Approval  
 33.511 v17.3.0  
 Source: Keysight Technologies UK Ltd*

**Abstract:**

Update gNB test cases for Release 17 requirements

**Decision:** The document was **approved**.

**S3-230864 add test case to include SNPN snenario in PLMNID verification**

*Type: draftCR For: Approval  
 33.517 v17.0.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231609**.

**S3-231609 add test case to include SNPN snenario in PLMNID verification**

*Type: draftCR For: Approval  
 33.517 v17.0.0  
 Source: Huawei, HiSilicon*

(Replaces S3-230864)

**Decision:** The document was **noted**.

**S3-230865 add test case to include SNPN snenario in token verification**

*Type: other For: Approval  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231610**.

**S3-231610 add test case to include SNPN snenario in token verification**

*Type: other For: Approval  
 Source: Huawei, HiSilicon*

(Replaces S3-230865)

**Decision:** The document was **approved**.

**S3-230972 Clarification on SCAS**

*Type: draftCR For: Approval  
 33.916 v17.0.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231469**.

**S3-231469 Clarification on SCAS**

*Type: draftCR For: Approval  
 33.916 v17.0.0  
 Source: Huawei, HiSilicon*

(Replaces S3-230972)

**Decision:** The document was **approved**.

**S3-230975 Update requirement and add new test case to clause 4.2.3.4.3.1**

*Type: other For: Approval  
 33.117 v..  
 Source: Huawei, HiSilicon, Deutsche Telekom,CAICT, China Mobile, China Telecom, China Unicom, Keysight Technologies UK*

**Decision:** The document was **noted**.

**S3-230976 Update requirement and add new test case to clause 4.2.3.4.3.2**

*Type: other For: Approval  
 33.117 v..  
 Source: Huawei, HiSilicon, Deutsche Telekom,CAICT, China Mobile, China Telecom, China Unicom, Keysight Technologies UK*

**Decision:** The document was **noted**.

**S3-231010 living doc to TR33.926**

*Type: draftCR For: Approval  
 33.884 v0.4.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **approved**.

**S3-231011 living doc to TR33.216**

*Type: draftCR For: Approval  
 33.884 v0.4.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **approved**.

**S3-231012 living doc to TS33.117**

*Type: draftCR For: Approval  
 33.738 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **approved**.

### 4.5 New WID on Security Assurance Specification for the Authentication and Key Management for Applications (AKMA) Anchor Function Function (AAnF)

**S3-230889 Adding AKMA subscription and AKMA context asynchronization threats to TR 33.926**

*Type: draftCR For: Approval  
 33.926 v17.6.0  
 Source: ZTE Corporation*

**Decision:** The document was **noted**.

**S3-230890 Security Assurance Requirement and Test for AKMA subscription data and AKMA context synchronization**

*Type: pCR For: Approval  
 33.537 v0.3.0  
 Source: ZTE Corporation*

**Decision:** The document was **noted**.

**S3-231086 Addtion to 4.2.3**

*Type: pCR For: Approval  
 33.537 v0.3.0  
 Source: China Mobile*

**Decision:** The document was **approved**.

**S3-231088 Presentation of TS33.537 to TSG for approval**

*Type: TS or TR cover For: Approval  
 33.537 v0.3.0  
 Source: China Mobile*

**Decision:** The document was **approved**.

**S3-231468 Draft TS 33.537**

*Type: draft TS For: Approval  
 33.537 v0.4.0  
 Source: China Mobile*

**Decision:** The document was **approved**.

### 4.6 New WID on SCAS for split-gNB product classes

**S3-230786 Draft TS 33.523 v0.4.0**

*Type: draft TS For: Approval  
 33.523 v0.4.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **approved**.

**S3-230787 Draft CR: Introducing split gNBs into TR 33.926**

*Type: draftCR For: Approval  
 33.926 v17.6.0  
 Source: Qualcomm Incorporated*

(Replaces S3-224169)

**Decision:** The document was **revised to S3-231473**.

**S3-231473 Draft CR: Introducing split gNBs into TR 33.926**

*Type: draftCR For: Approval  
 33.926 v17.6.0  
 Source: Qualcomm Incorporated*

(Replaces S3-230787)

**Decision:** The document was **revised**.

**S3-231615 Introducing split gNBs into TR 33.926**

*Type: CR For: Approval  
 33.926 v17.6.0 CR-0066 Cat: B (Rel-18)  
  
 Source: Qualcomm Incorporated*

**Discussion:**

It will be dealt with later. Technically endorsed.

**Decision:** The document was **endorsed**.

**S3-230788 Editorial corrections to draft CR to TR 33.926**

*Type: other For: Approval  
 Source: Qualcomm Incoporated*

**Decision:** The document was **approved**.

**S3-230789 Adding user plane test cases for the gNB-CU**

*Type: pCR For: Approval  
 33.523 v0.4.0  
 Source: Qualcomm Incorporated*

(Replaces S3-223347)

**Decision:** The document was **approved**.

**S3-230790 Adding test cases for the gNB-CU-UP**

*Type: pCR For: Approval  
 33.523 v0.4.0  
 Source: Qualcomm Incorporated*

(Replaces S3-223351)

**Decision:** The document was **approved**.

**S3-230791 Adding non-501 test cases for the gNB-CU-CP**

*Type: pCR For: Approval  
 33.523 v0.4.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **revised to S3-231470**.

**S3-231470 Adding non-501 test cases for the gNB-CU-CP**

*Type: pCR For: Approval  
 33.523 v0.4.0  
 Source: Qualcomm Incorporated*

(Replaces S3-230791)

**Decision:** The document was **approved**.

**S3-230792 Adding non-501 test cases for the gNB-CU-UP**

*Type: pCR For: Approval  
 33.523 v0.4.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **revised to S3-231471**.

**S3-231471 Adding non-501 test cases for the gNB-CU-UP**

*Type: pCR For: Approval  
 33.523 v0.4.0  
 Source: Qualcomm Incorporated*

(Replaces S3-230792)

**Decision:** The document was **approved**.

**S3-230793 Adding non-501 test cases for the gNB-DU**

*Type: pCR For: Approval  
 33.523 v0.4.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **revised to S3-231472**.

**S3-231472 Adding non-501 test cases for the gNB-DU**

*Type: pCR For: Approval  
 33.523 v0.4.0  
 Source: Qualcomm Incorporated*

(Replaces S3-230793)

**Decision:** The document was **approved**.

**S3-230794 Editorial changes to draft TS 33.253**

*Type: pCR For: Approval  
 33.523 v0.4.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **approved**.

**S3-230795 Discussion on way forward with SCAS for split gNB work**

*Type: discussion For: Discussion  
 Source: Qualcomm Incorporated*

**Decision:** The document was **noted**.

**S3-230796 Coversheet for TS 33.523**

*Type: TS or TR cover For: Approval  
 33.523 v..  
 Source: Qualcomm Incorporated*

**Decision:** The document was **approved**.

**S3-231498 Draft TS 33.523**

*Type: draft TS For: Approval  
 33.523 v0.5.0  
 Source: Qualcomm*

**Decision:** The document was **email approval**.

### 4.7 Service Based Architecture (Rel-15/16/17)

**S3-230672 Referencing GSMA for interdomain N32 certificates**

*Type: CR For: Approval  
 33.310 v16.12.0 CR-0145 Cat: F (Rel-16)  
  
 Source: BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell*

**Abstract:**

Adds reference to GSMA FS.34

**Discussion:**

Huawei needed more details, as just adding the reference wasn’t very clear. They needed more details from GSMA.

Nokia: we talked with GSMA about this already.

MCC commented that the mirror for Rel-17 was missing.

Huawei: move this change to a more appropriate clause.

**Decision:** The document was **revised to S3-231436**.

**S3-231436 Referencing GSMA for interdomain N32 certificates**

*Type: CR For: Approval  
 33.310 v16.12.0 CR-0145 rev 1 Cat: F (Rel-16)  
  
 Source: BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell*

(Replaces S3-230672)

**Decision:** The document was **agreed**.

**S3-230704 Discussion on authorization issue in inter NF mobility**

*Type: discussion For: Information  
 33.501 v..  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **noted**.

**S3-230705 Clarification on authorization for inter NF mobility**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1531 Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231320**.

**S3-230706 Clarification on authorization for inter NF mobility**

*Type: CR For: Agreement  
 33.501 v18.0.0 CR-1532 Cat: A (Rel-18)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not pursued**.

**S3-230771 PRINS protocol to provide IPX the tool to fulfil its role**

*Type: CR For: Approval  
 33.501 v16.13.0 CR-1549 Cat: F (Rel-16)  
  
 Source: Mavenir*

**Abstract:**

PRINS protocol can not be used as it lacks the mechanism to allow IPX to fulfill its role and its comntractual comitment

**Discussion:**

Nokia: GSMA will vote on this issue so it would be good to send them this as a draft CR to show them our position.

LS in 389 would be sent to GSMA with the draft CR attached.

NTT-Docomo: we will see later for which release they prefer to have this fixed.

BSI agreed that this would help to be treated in GSMA.

Ericsson: point out that this is not agreed in SA3, this will be just a draft.

**Decision:** The document was **not pursued**.

**S3-231419 PRINS protocol to provide IPX the tool to fulfil its role**

*Type: draftCR For: Approval  
 33.501 v16.13.0  
 Source: Mavenir*

**Discussion:**

There was no conclusion on this document.

**Decision:** The document was **noted**.

**S3-230772 PRINS protocol to provide IPX the tool to fulfil its role**

*Type: CR For: Approval  
 33.501 v17.8.0 CR-1550 Cat: A (Rel-17)  
  
 Source: Mavenir*

**Abstract:**

PRINS protocol can not be used as it lacks the mechanism to allow IPX to fulfill its role and its comntractual comitment

**Decision:** The document was **not pursued**.

**S3-230782 CR on IPX originated messages in PRINS**

*Type: CR For: Agreement  
 33.501 v16.13.0 CR-1551 Cat: A (Rel-16)  
  
 Source: NTT DOCOMO INC., Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231200**.

**S3-231200 CR on IPX originated messages in PRINS**

*Type: CR For: Agreement  
 33.501 v16.13.0 CR-1551 rev 1 Cat: A (Rel-16)  
  
 Source: NTT DOCOMO INC., Nokia, Nokia Shanghai Bell*

(Replaces S3-230782)

**Decision:** The document was **not pursued**.

**S3-230783 CR on IPX originated messages in PRINS - R17**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1552 rev -o Cat: A (Rel-17)  
  
 Source: NTT DOCOMO INC., Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not pursued**.

**S3-230784 CR on IPX originated messages in PRINS - R18**

*Type: CR For: Agreement  
 33.501 v18.0.0 CR-1553 Cat: A (Rel-18)  
  
 Source: NTT DOCOMO INC., Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not pursued**.

**S3-230785 draft Reply LS on PRINS middle boxes**

*Type: LS out For: Approval  
 to GSMA 5GMRR, 3GPP SA3, cc GSMA DESS  
 Source: NTT DOCOMO INC.*

**Decision:** The document was **revised to S3-231389**.

**S3-231389 Reply LS on PRINS middle boxes**

*Type: LS out For: Approval  
 to GSMA 5GMRR, 3GPP SA2,CT4, cc GSMA DESS  
 Source: NTT DOCOMO INC.*

(Replaces S3-230785)

**Decision:** The document was **approved**.

**S3-230847 LS on PRINS currently does not fully support the IPX use case**

*Type: LS out For: Approval  
 to CT4  
 Source: Mavenir*

**Decision:** The document was **merged**.

**S3-231141 Remove keyEncipherment KeyUsage from SBA certificates**

*Type: CR For: Agreement  
 33.310 v16.12.0 CR-0147 Cat: F (Rel-16)  
  
 Source: Ericsson*

**Decision:** The document was **agreed**.

**S3-231142 Remove keyEncipherment KeyUsage from SBA certificates**

*Type: CR For: Agreement  
 33.310 v17.5.0 CR-0148 Cat: A (Rel-17)  
  
 Source: Ericsson*

**Decision:** The document was **agreed**.

**S3-231143 X.509 Certificate Extension for 5G Network Function Types**

*Type: CR For: Agreement  
 33.310 v16.12.0 CR-0149 Cat: F (Rel-16)  
  
 Source: Ericsson*

**Discussion:**

Nokia commented that the IETF RFC 9310 didn’t seem to be finished. This had to be checked.

**Decision:** The document was **agreed**.

**S3-231144 X.509 Certificate Extension for 5G Network Function Types**

*Type: CR For: Agreement  
 33.310 v17.5.0 CR-0150 Cat: A (Rel-17)  
  
 Source: Ericsson*

**Decision:** The document was **agreed**.

**S3-231195 CR on IPX originated messages in PRINS**

*Type: CR For: Agreement  
 33.501 v16.13.0 CR-1551 rev 1 Cat: A (Rel-16)  
  
 Source: NTT DOCOMO INC., Nokia, Nokia Shanghai Bell*

**Decision:** The document was **withdrawn**.

**S3-231200 CR on IPX originated messages in PRINS**

*Type: CR For: Agreement  
 33.501 v16.13.0 CR-1551 rev 2 Cat: F (Rel-16)  
  
 Source: NTT DOCOMO INC., Nokia, Nokia Shanghai Bell*

(Replaces S3-230782)

**Decision:** The document was **not pursued**.

**S3-231320 Clarification on authorization for inter NF mobility**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1531 rev 1 Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-230705)

**Discussion:**

Ericsson: fine but it can be much shorter, not a whole new clause.

**Decision:** The document was **revised to S3-231420**.

**S3-231420 Clarification on authorization for inter NF mobility**

*Type: CR For: Agreement  
 33.501 v18.0.0 CR-1531 rev 2 Cat: F (Rel-18)  
  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-231320)

**Decision:** The document was **agreed**.

**S3-231377 LS to GSMA for PRINS profiling**

*Type: LS out For: (not specified)  
 to GSMA  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231532**.

**S3-231532 LS to GSMA for PRINS profiling**

*Type: LS out For: -  
 to GSMA NG, GSMA 5GMRR,GSMA FASG  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-231377)

**Decision:** The document was **approved**.

### 4.8 Security Aspects of Proximity based services in 5GS ProSe (Rel-17)

**S3-231197 CR to TR33.503 Editorial changes**

*Type: CR For: Approval  
 33.503 v17.2.0 CR-0093 Cat: F (Rel-17)  
  
 Source: CATT*

**Decision:** The document was **agreed**.

**S3-230927 Correction in 5.2.4.2**

*Type: CR For: Approval  
 33.503 v17.2.0 CR-0072 Cat: F (Rel-17)  
  
 Source: ChinaTelecom*

**Decision:** The document was **agreed**.

**S3-230929 Correction in 6.1.3.2.2.2**

*Type: CR For: Approval  
 33.503 v17.2.0 CR-0074 Cat: F (Rel-17)  
  
 Source: ChinaTelecom*

**Decision:** The document was **agreed**.

**S3-230931 Correction in 6.2.1 and 6.2.2**

*Type: CR For: Approval  
 33.503 v17.2.0 CR-0075 Cat: F (Rel-17)  
  
 Source: ChinaTelecom*

**Decision:** The document was **agreed**.

**S3-230932 Correction in 6.3.3.3.2**

*Type: CR For: Approval  
 33.503 v17.2.0 CR-0076 Cat: F (Rel-17)  
  
 Source: ChinaTelecom*

**Decision:** The document was **agreed**.

**S3-231018 Correction to ProSe Authentication Vector obtaining process**

*Type: CR For: Approval  
 33.503 v17.2.0 CR-0078 Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Discussion:**

Nokia didn’t agree on the change in step 6, as Nokia had a competing CR with a simiar change in 1066.It was solved to merge all CRs.

**Decision:** The document was **revised to S3-231424**.

**S3-231424 Correction to ProSe Authentication Vector obtaining process**

*Type: CR For: Approval  
 33.503 v17.2.0 CR-0078 rev 1 Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

(Replaces S3-231018)

**Decision:** The document was **agreed**.

**S3-231019 Correction on SUPI in Nudm\_UEAuthentication\_GetProseAv service**

*Type: CR For: Approval  
 33.503 v17.2.0 CR-0079 Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **agreed**.

**S3-231068 Clarify Kausf\_p generation**

*Type: CR For: Agreement  
 33.503 v17.2.0 CR-0083 Cat: F (Rel-17)  
  
 Source: Ericsson*

**Decision:** The document was **revised to S3-231425**.

**S3-231425 Clarify Kausf\_p generation**

*Type: CR For: Agreement  
 33.503 v17.2.0 CR-0083 rev 1 Cat: F (Rel-17)  
  
 Source: Ericsson*

(Replaces S3-231068)

**Decision:** The document was **agreed**.

**S3-231066 Nudm service operation correction**

*Type: CR For: Agreement  
 33.503 v17.2.0 CR-0081 Cat: F (Rel-17)  
  
 Source: Ericsson*

**Decision:** The document was **merged**.

**S3-231130 Clarify RID for PAnF discover**

*Type: CR For: Agreement  
 33.503 v17.2.0 CR-0089 Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **merged**.

**S3-231131 LS to CT4 to update RID usage in PAnF**

*Type: LS out For: Approval  
 to CT4, cc SA2  
 Source: Nokia, Nokia Shanghai Bell*

**Discussion:**

Huawei: this is not needed.Ericsson agreed.

**Decision:** The document was **noted**.

**S3-231067 KDF input parameter for generating AV of ProSe authentication**

*Type: CR For: Agreement  
 33.503 v17.2.0 CR-0082 Cat: F (Rel-17)  
  
 Source: Ericsson*

**Discussion:**

Huawei and Nokia didn’t agree with this CR.

**Decision:** The document was **merged**.

**S3-231024 Discussion paper about theserving network check during EAP-AKA'**

*Type: discussion For: Discussion  
 33.503 v..  
 Source: Huawei, HiSilicon*

**Decision:** The document was **noted**.

**S3-231023 Clarify about the ProSe authentication**

*Type: CR For: Agreement  
 33.503 v17.2.0 CR-0080 Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **merged**.

**S3-231323 Discussion on Serving Network Name used in ProSe**

*Type: discussion For: Endorsement  
 33.503 v..  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **noted**.

**S3-231128 Use relay UE SNN to generate AV for ProSe authentication**

*Type: CR For: Agreement  
 33.503 v17.2.0 CR-0087 Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231559**.

**S3-231559 Use relay UE SNN to generate AV for ProSe authentication**

*Type: CR For: Agreement  
 33.503 v17.2.0 CR-0087 rev 1 Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-231128)

**Decision:** The document was **agreed**.

**S3-231129 Use remote UE SNN to generate AV for ProSe authentication**

*Type: CR For: Agreement  
 33.503 v17.2.0 CR-0088 Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not pursued**.

**S3-231324 Discussion on U2N discovery security procedure**

*Type: discussion For: Endorsement  
 33.503 v..  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **noted**.

**S3-231133 Locate target DDNMF in U2N discovery security procdure**

*Type: CR For: Agreement  
 33.503 v17.2.0 CR-0090 Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not pursued**.

**S3-231134 Update discovery key response of U2N discovery security procdure**

*Type: CR For: Agreement  
 33.503 v17.2.0 CR-0091 Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not pursued**.

**S3-231206 DDNFM Selection during U2N Relay Discovery Security Procedure**

*Type: CR For: Approval  
 33.503 v17.2.0 CR-0094 Cat: F (Rel-17)  
  
 Source: Xiaomi Technology*

**Decision:** The document was **not pursued**.

**S3-230928 Correction in 6.1.1**

*Type: CR For: Approval  
 33.503 v17.2.0 CR-0073 Cat: F (Rel-17)  
  
 Source: ChinaTelecom*

**Decision:** The document was **agreed**.

**S3-231000 Clarification of PAnF action when CP-PRUK is stale**

*Type: CR For: Approval  
 33.503 v17.2.0 CR-0077 Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not pursued**.

**S3-231070 U2N relay direct link setup failure due to RSC mismatch or integrity failure**

*Type: CR For: Agreement  
 33.503 v17.2.0 CR-0084 Cat: F (Rel-17)  
  
 Source: Ericsson*

**Discussion:**

Interdigital supported this principle. Huawei also agreed, provided that there was some rewording.

Xiaomi didn’t agree.In their view there was a problem in the remote UE, not the relay.

Interdigital reminded that CT1 was waiting for SA3 to solve this issue.

**Decision:** The document was **not pursued**.

**S3-231071 Remote UE Report in UP based solution for 5G ProSe UE-to-Network Relay**

*Type: CR For: Agreement  
 33.503 v17.2.0 CR-0085 Cat: F (Rel-17)  
  
 Source: Ericsson*

**Discussion:**

Interdigital had a similar proposal in tdoc 751 for Rel-18.

**Decision:** The document was **revised to S3-231430**.

**S3-231430 Remote UE Report in UP based solution for 5G ProSe UE-to-Network Relay**

*Type: CR For: Agreement  
 33.503 v17.2.0 CR-0085 rev 1 Cat: F (Rel-17)  
  
 Source: Ericsson*

(Replaces S3-231071)

**Decision:** The document was **agreed**.

**S3-231072 Remote UE Report in CP based solution for 5G ProSe UE-to-Network Relay**

*Type: CR For: Agreement  
 33.503 v17.2.0 CR-0086 Cat: F (Rel-17)  
  
 Source: Ericsson*

**Discussion:**

Similar proposal in tdoc 752 by Interdigital.

**Decision:** The document was **revised to S3-231431**.

**S3-231431 Remote UE Report in CP based solution for 5G ProSe UE-to-Network Relay**

*Type: CR For: Agreement  
 33.503 v17.2.0 CR-0086 rev 1 Cat: F (Rel-17)  
  
 Source: Ericsson*

(Replaces S3-231072)

**Decision:** The document was **agreed**.

**S3-231135 Discussion on separation of U2N discovery security procedure**

*Type: discussion For: Endorsement  
 33.503 v..  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **noted**.

**S3-231136 clarify protocol layer for discovery message protection**

*Type: CR For: Agreement  
 33.503 v17.2.0 CR-0092 Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **agreed**.

**S3-231207 A Note for Protection of DCR in U2N Communication**

*Type: CR For: Approval  
 33.503 v17.2.0 CR-0095 Cat: F (Rel-17)  
  
 Source: Xiaomi Technology*

**Decision:** The document was **not pursued**.

**S3-231247 Correction to privacy protection of UP-PRUKID/CP-PRUKID and RSC in DCR**

*Type: CR For: Approval  
 33.503 v17.2.0 CR-0096 Cat: F (Rel-17)  
  
 Source: Beijing Xiaomi Mobile Software*

**Decision:** The document was **not pursued**.

**S3-231127 Discussion on Serving Network Name used in ProSe**

*Type: discussion For: Endorsement  
 33.503 v..  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **withdrawn**.

**S3-231132 Discussion on U2N discovery security procedure**

*Type: discussion For: Endorsement  
 33.503 v..  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **withdrawn**.

### 4.9 All topics (Rel-15/16/17/18 )

**S3-230623 Reply LS on the impact of MSK update on MBS multicast session update procedure**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2209287*

**Decision:** The document was **replied to in S3-231410**.

**S3-231352 Reply LS on the impact of MSK update on MBS multicast session update procedure**

*Type: LS out For: Approval  
 to SA2, cc SA4, CT1, CT4  
 Source: Ericsson*

**Decision:** The document was **merged**.

**S3-230651 Support for multiple lists of root CA certificates**

*Type: CR For: Approval  
 33.501 v16.13.0 CR-1526 Cat: F (Rel-16)  
  
 Source: BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell*

**Abstract:**

SEPP to support multiple lists of root CAs.

**Discussion:**

Ericsson: Do we need to standardise this?

Mavenir supported this CR.DT as well.

**Decision:** The document was **revised to S3-231423**.

**S3-231423 Support for multiple lists of root CA certificates**

*Type: CR For: Approval  
 33.501 v16.13.0 CR-1526 rev 1 Cat: F (Rel-16)  
  
 Source: BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell*

(Replaces S3-230651)

**Decision:** The document was **agreed**.

**S3-230652 Support for multiple lists of root CA certificates**

*Type: CR For: Approval  
 33.501 v17.8.0 CR-1527 Cat: A (Rel-17)  
  
 Source: BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell*

**Abstract:**

SEPP to support multiple lists of root CA certificates

**Decision:** The document was **revised to S3-231448**.

**S3-231448 Support for multiple lists of root CA certificates**

*Type: CR For: Approval  
 33.501 v17.8.0 CR-1527 rev 1 Cat: A (Rel-17)  
  
 Source: BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell*

(Replaces S3-230652)

**Decision:** The document was **agreed**.

**S3-230653 Support for multiple lists of root CA certificates**

*Type: CR For: Approval  
 33.501 v18.0.0 CR-1528 Cat: A (Rel-18)  
  
 Source: BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell*

**Abstract:**

SEPP to support multiple lists of root CA certificates

**Decision:** The document was **revised to S3-231449**.

**S3-231449 Support for multiple lists of root CA certificates**

*Type: CR For: Approval  
 33.501 v18.0.0 CR-1528 rev 1 Cat: A (Rel-18)  
  
 Source: BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell*

(Replaces S3-230653)

**Decision:** The document was **agreed**.

**S3-230656 Clarification of hashing**

*Type: CR For: Approval  
 33.117 v17.2.0 CR-0097 Cat: F (Rel-17)  
  
 Source: BSI (DE)*

**Abstract:**

Add the terms “cryptographic” and “with unique salt per record” to hash algorithm requirement, purpose and expected results.

Add checks for correct and salted cryptographic hashing.

**Decision:** The document was **revised to S3-230682**.

**S3-230657 Clarification of authorization verification**

*Type: CR For: Approval  
 33.117 v17.2.0 CR-0098 Cat: F (Rel-17)  
  
 Source: BSI (DE)*

**Abstract:**

Add verification of user authorization.

Accordingly, add successful authorization to the expected results.

**Decision:** The document was **revised to S3-230683**.

**S3-230658 Clarification of brute force mitigation mechanism verification**

*Type: CR For: Approval  
 33.117 v17.2.0 CR-0099 Cat: F (Rel-17)  
  
 Source: BSI (DE)*

**Abstract:**

Add pre-condition and execution step to test alternatively measures.

Make use of CAPTCHA feature optional, to be in line with requirements.

Add check for incorrect CAPTCHA

**Decision:** The document was **revised to S3-230684**.

**S3-230659 Clarification of privilege escalation methods to check for**

*Type: CR For: Approval  
 33.117 v17.2.0 CR-0100 Cat: F (Rel-17)  
  
 Source: BSI (DE)*

**Abstract:**

Add check of capabilities as additional example in pre-conditions

**Decision:** The document was **revised to S3-230685**.

**S3-230660 Clarification of service reachability restriction verification**

*Type: CR For: Approval  
 33.117 v17.2.0 CR-0101 Cat: F (Rel-17)  
  
 Source: BSI (DE)*

**Abstract:**

Make the test execution more generic for a variable number of network interfaces and checking for service reachability on all interfaces.

Add evidence for port scanner name and version and make configuration evidence more specific

**Decision:** The document was **revised to S3-230686**.

**S3-230661 Clarification of auto-launch verification**

*Type: CR For: Approval  
 33.117 v17.2.0 CR-0102 Cat: F (Rel-17)  
  
 Source: BSI (DE)*

**Abstract:**

Add execution step to test every available type of physical port for removable media devices.

Add execution step to ensure that the removable media device triggers an automatic launch.

Add execution step to verify that there is no automatic launch when a

**Decision:** The document was **revised to S3-230687**.

**S3-230662 Clarification of SYN Flood attack prevention test**

*Type: CR For: Approval  
 33.117 v17.2.0 CR-0103 Cat: F (Rel-17)  
  
 Source: BSI (DE)*

**Abstract:**

Added vendor documentation describing SYN Flood attack prevention mechanism to pre-conditions.

Added vendor documentation check to test steps.

Added more precise instructions to last execution step.

Added executed SYN Flood attack to expected format of ev

**Decision:** The document was **revised to S3-230688**.

**S3-230663 Clarification of privilege verification**

*Type: CR For: Approval  
 33.117 v17.2.0 CR-0104 Cat: F (Rel-17)  
  
 Source: BSI (DE)*

**Abstract:**

Rewrite the execution steps to ensure that the web server is configured with minimal privileges.

Add concrete test steps to actually verify the fulfilment of the requirements.

Add evidence for part of the configuration that shows how the privileges are dr

**Decision:** The document was **revised to S3-230689**.

**S3-230664 Clarification of CGI/Scripting component directory check**

*Type: CR For: Approval  
 33.117 v17.2.0 CR-0105 Cat: F (Rel-17)  
  
 Source: BSI (DE)*

**Abstract:**

Fixed test purpose to comply with requirements.

Added execution step to consult the web server configuration for CGI folders.

Removed irrelevant execution step concerning the system settings.

Added web server configuration and folder listing to format of

**Decision:** The document was **revised to S3-230690**.

**S3-230665 Clarification of SSI System Command Excecution test**

*Type: CR For: Approval  
 33.117 v17.2.0 CR-0106 Cat: F (Rel-17)  
  
 Source: BSI (DE)*

**Abstract:**

Added test step to actually check for the intended test purpose.

Fixed expected results to comply with test steps and purpose.

Added log of new test step to expected format of evidences

**Decision:** The document was **revised to S3-230691**.

**S3-230673 Referencing GSMA for interdomain N32 certificates**

*Type: CR For: Approval  
 33.310 v17.5.0 CR-0146 Cat: F (Rel-17)  
  
 Source: BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell*

**Abstract:**

Adding reference to GSMA FS.34

**Decision:** The document was **revised to S3-231435**.

**S3-231435 Referencing GSMA for interdomain N32 certificates**

*Type: CR For: Approval  
 33.310 v17.5.0 CR-0146 rev 1 Cat: F (Rel-17)  
  
 Source: BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell*

(Replaces S3-230673)

**Decision:** The document was **agreed**.

**S3-230676 Discussion on AMF SCAS test for incorrectly encoded security capabilities**

*Type: discussion For: Agreement  
 33.512 v..  
 Source: BSI (DE)*

**Decision:** The document was **noted**.

**S3-230677 Threat reference for incorrectly encoded UE security capabilities on the NG interface**

*Type: CR For: Approval  
 33.926 v17.6.0 CR-0065 Cat: B (Rel-17)  
  
 Source: BSI (DE)*

**Decision:** The document was **revised to S3-230715**.

**S3-230678 New SCAS test on valid UE security capability encoding while AS security establishment**

*Type: CR For: Approval  
 33.512 v17.3.0 CR-0023 Cat: B (Rel-17)  
  
 Source: BSI (DE)*

**Decision:** The document was **revised to S3-230716**.

**S3-230679 New WID on 5G Security Assurance Specification (SCAS) for the Policy Control Function (PCF)**

*Type: WID new For: Agreement  
 Source: BSI (DE)*

**Abstract:**

The objective is to develop the SCAS for the PCF network product class, with the aims to:

- identify critical assets and threats of the PCF not already identified in TR 33.926

- develop and/or adapt PCF specific security functional requirements and relate

**Decision:** The document was **revised to S3-231187**.

**S3-230680 New WID on 5G Security Assurance Specification (SCAS) for the Unified Data Repository (UDR)**

*Type: WID new For: Agreement  
 Source: BSI (DE)*

**Decision:** The document was **revised to S3-231190**.

**S3-230681 Need for SCAS Improvements**

*Type: discussion For: Endorsement  
 Source: Deutsche Telekom AG*

**Abstract:**

The ecosystem on network equipment evaluation, established by NESAS, requires improvements of SCAS documents to ensure their applicability in practice. It is proposed to SA3 to work on improving SCAS.

**Discussion:**

The Chair commented that maybe a separate conference call could rubber stamp this kind of CRs. A joint meeting is needed in order to agree on the documents.

Sven (DT) commented that which Release would be impacted was still an open question. For example, adding new test cases in Rel-19 when they were needed for those using earlier Releases.

Ericsson commented that a process was needed in the cases when problems with test were found by the labs.Sven replied that such process existed already in GSMA. Ericsson added that SA3 also needed feedback in this situation as well.

Alex (GSMA): important to figure out the test and release and build from there.

**Decision:** The document was **noted**.

**S3-230682 Clarification of hashing**

*Type: CR For: Approval  
 33.117 v17.2.0 CR-0097 rev 1 Cat: F (Rel-17)  
  
 Source: Federal Office for Information Security (BSI), Deutsche Telekom*

(Replaces S3-230656)

**Abstract:**

Add the terms “cryptographic” and “with unique salt per record” to hash algorithm requirement, purpose and expected results.

Add checks for correct and salted cryptographic hashing.

**Decision:** The document was **revised to S3-231193**.

**S3-230683 Clarification of authorization verification**

*Type: CR For: Approval  
 33.117 v17.2.0 CR-0098 rev 1 Cat: F (Rel-17)  
  
 Source: Federal Office for Information Security (BSI), Deutsche Telekom*

(Replaces S3-230657)

**Abstract:**

Add verification of user authorization.

Accordingly, add successful authorization to the expected results.

**Discussion:**

Huawei queried about the release impacted.

Alex (GSMA): EU would prefer Rel-16, they could accept Rel-17.

Huawei: in reality they could just pick up the latest Release, so it doesn’t matter so much.

**Decision:** The document was **agreed**.

**S3-230684 Clarification of brute force mitigation mechanism verification**

*Type: CR For: Approval  
 33.117 v17.2.0 CR-0099 rev 1 Cat: F (Rel-17)  
  
 Source: Federal Office for Information Security (BSI), Deutsche Telekom*

(Replaces S3-230658)

**Abstract:**

Add pre-condition and execution step to test alternatively measures.

Make use of CAPTCHA feature optional, to be in line with requirements.

Add check for incorrect CAPTCHA

**Decision:** The document was **agreed**.

**S3-230685 Clarification of privilege escalation methods to check for**

*Type: CR For: Approval  
 33.117 v17.2.0 CR-0100 rev 1 Cat: F (Rel-17)  
  
 Source: Federal Office for Information Security (BSI), Deutsche Telekom*

(Replaces S3-230659)

**Abstract:**

Add check of capabilities as additional example in pre-conditions

**Decision:** The document was **revised to S3-231194**.

**S3-230686 Clarification of service reachability restriction verification**

*Type: CR For: Approval  
 33.117 v17.2.0 CR-0101 rev 1 Cat: F (Rel-17)  
  
 Source: Federal Office for Information Security (BSI), Deutsche Telekom*

(Replaces S3-230660)

**Abstract:**

Make the test execution more generic for a variable number of network interfaces and checking for service reachability on all interfaces.

Add evidence for port scanner name and version and make configuration evidence more specific

**Decision:** The document was **agreed**.

**S3-230687 Clarification of auto-launch verification**

*Type: CR For: Approval  
 33.117 v17.2.0 CR-0102 rev 1 Cat: F (Rel-17)  
  
 Source: Federal Office for Information Security (BSI), Deutsche Telekom*

(Replaces S3-230661)

**Abstract:**

Add execution step to test every available type of physical port for removable media devices.

Add execution step to ensure that the removable media device triggers an automatic launch.

Add execution step to verify that there is no automatic launch when a

**Decision:** The document was **agreed**.

**S3-230688 Clarification of SYN Flood attack prevention test**

*Type: CR For: Approval  
 33.117 v17.2.0 CR-0103 rev 1 Cat: F (Rel-17)  
  
 Source: Federal Office for Information Security (BSI), Deutsche Telekom*

(Replaces S3-230662)

**Abstract:**

Added vendor documentation describing SYN Flood attack prevention mechanism to pre-conditions.

Added vendor documentation check to test steps.

Added more precise instructions to last execution step.

Added executed SYN Flood attack to expected format of ev

**Decision:** The document was **agreed**.

**S3-230689 Clarification of privilege verification**

*Type: CR For: Approval  
 33.117 v17.2.0 CR-0104 rev 1 Cat: F (Rel-17)  
  
 Source: Federal Office for Information Security (BSI), Deutsche Telekom*

(Replaces S3-230663)

**Abstract:**

Rewrite the execution steps to ensure that the web server is configured with minimal privileges.

Add concrete test steps to actually verify the fulfilment of the requirements.

Add evidence for part of the configuration that shows how the privileges are dr

**Decision:** The document was **not pursued**.

**S3-230690 Clarification of CGI/Scripting component directory check**

*Type: CR For: Approval  
 33.117 v17.2.0 CR-0105 rev 1 Cat: F (Rel-17)  
  
 Source: Federal Office for Information Security (BSI), Deutsche Telekom*

(Replaces S3-230664)

**Abstract:**

Fixed test purpose to comply with requirements.

Added execution step to consult the web server configuration for CGI folders.

Removed irrelevant execution step concerning the system settings.

Added web server configuration and folder listing to format of

**Decision:** The document was **agreed**.

**S3-230691 Clarification of SSI System Command Execution test**

*Type: CR For: Approval  
 33.117 v17.2.0 CR-0106 rev 1 Cat: F (Rel-17)  
  
 Source: Federal Office for Information Security (BSI), Deutsche Telekom*

(Replaces S3-230665)

**Abstract:**

Added test step to actually check for the intended test purpose.

Fixed expected results to comply with test steps and purpose.

Added log of new test step to expected format of evidences

**Decision:** The document was **revised to S3-231196**.

**S3-230707 Discussion paper of UPU implementation gaps**

*Type: discussion For: Information  
 33.501 v..  
 Source: Nokia, Nokia Shanghai Bell*

**Discussion:**

Lenovo: we prefer option 1.

Qualcomm: we agree on the problem statement. Solution one requires more changes than necessary, but we agree on this as a baseline. They didn’t agree with solution 2.

Huawei: the change is too big. We want to avoid impact on previous releases.No preference on the solutions, but they objected to make changes before rel-18.

Ericsson needed to have more time to study this because the issue was complex.

Nokia commented that solving this in Rel-18 would be OK.

Qualcomm agreed on the impact caused by solution 1. No need for protection with the current header information.

**Decision:** The document was **noted**.

**S3-230708 Enhancement in UPU procedure to protect UPU header-sol1**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1533 Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not pursued**.

**S3-230709 Enhancement in UPU procedure to protect UPU header-sol1**

*Type: CR For: Agreement  
 33.501 v18.0.0 CR-1534 Cat: A (Rel-18)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not pursued**.

**S3-230710 Enhancement in UPU procedure to protect UPU header-Sol2**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1535 Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not pursued**.

**S3-230711 Enhancement in UPU procedure to protect UPU header-Sol2**

*Type: CR For: Agreement  
 33.501 v18.0.0 CR-1536 Cat: A (Rel-18)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not pursued**.

**S3-230712 Correction in N5CW device authentication**

*Type: CR For: Agreement  
 33.501 v16.13.0 CR-1537 Cat: F (Rel-16)  
  
 Source: Nokia, Nokia Shanghai Bell,*

**Discussion:**

Cablelabs: we agree on the problem but fix it in the Annex, not here.

Qualcomm: we don’t see the problem.

Huawei: there is no issue here.

**Decision:** The document was **not pursued**.

**S3-230713 Correction in N5CW device authentication**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1538 Cat: A (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell,*

**Decision:** The document was **not pursued**.

**S3-230714 Correction in N5CW device authentication**

*Type: CR For: Agreement  
 33.501 v18.0.0 CR-1539 Cat: A (Rel-18)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not pursued**.

**S3-230715 Threat reference for incorrectly encoded UE 5G security capabilities on the AMF NG interface**

*Type: CR For: Approval  
 33.926 v17.6.0 CR-0065 rev 1 Cat: B (Rel-17)  
  
 Source: Federal Office for Information Security (BSI), Deutsche Telekom*

(Replaces S3-230677)

**Discussion:**

Huawei: this looks more like a comformance test rather than an assurance test; it's a bit outside the SCAS domain.

**Decision:** The document was **not pursued**.

**S3-230716 New SCAS test on valid UE security capability encoding while AS security establishment**

*Type: CR For: Approval  
 33.512 v17.3.0 CR-0023 rev 1 Cat: B (Rel-17)  
  
 Source: Federal Office for Information Security (BSI), Deutsche Telekom*

(Replaces S3-230678)

**Decision:** The document was **not pursued**.

**S3-230745 [33.180] R16 Clarify protected KmsResponse payloads**

*Type: CR For: Agreement  
 33.180 v16.11.0 CR-0205 Cat: F (Rel-16)  
  
 Source: Motorola Solutions, Inc*

**Abstract:**

Refers the reader to clause 9.3.4.2 for instructions on encrypting a KmsResponse payload.

**Decision:** The document was **revised to S3-231415**.

**S3-231415 [33.180] R16 Clarify protected KmsResponse payloads**

*Type: CR For: Agreement  
 33.180 v16.11.0 CR-0205 rev 1 Cat: F (Rel-16)  
  
 Source: Motorola Solutions, Inc*

(Replaces S3-230745)

**Decision:** The document was **agreed**.

**S3-230746 [33.180] R16 Clarify protected KmsResponse payloads (mirror)**

*Type: CR For: Agreement  
 33.180 v17.8.0 CR-0206 Cat: A (Rel-17)  
  
 Source: Motorola Solutions, Inc*

**Abstract:**

mirror

**Decision:** The document was **revised to S3-231416**.

**S3-231416 [33.180] R16 Clarify protected KmsResponse payloads (mirror)**

*Type: CR For: Agreement  
 33.180 v17.8.0 CR-0206 rev 1 Cat: A (Rel-17)  
  
 Source: Motorola Solutions, Inc*

(Replaces S3-230746)

**Decision:** The document was **agreed**.

**S3-230747 [33.180] R16 Fix XML schema**

*Type: CR For: Agreement  
 33.180 v16.11.0 CR-0207 Cat: F (Rel-16)  
  
 Source: Motorola Solutions, Inc*

**Abstract:**

Add TrK-ID and Signature-ID to schema

**Decision:** The document was **agreed**.

**S3-230748 [33.180] R17 Fix XML schema (mirror)**

*Type: CR For: Agreement  
 33.180 v17.8.0 CR-0208 Cat: A (Rel-17)  
  
 Source: Motorola Solutions, Inc*

**Abstract:**

mirror

**Decision:** The document was **agreed**.

**S3-230768 Including SNPN ID in SBA and N32 related descriptions**

*Type: CR For: (not specified)  
 33.501 v17.8.0 CR-1547 Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231604**.

**S3-231604 Including SNPN ID in SBA and N32 related descriptions**

*Type: CR For: -  
 33.501 v17.8.0 CR-1547 rev 1 Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-230768)

**Decision:** The document was **agreed**.

**S3-230769 Including SNPN ID in SBA and N32 related descriptions**

*Type: CR For: (not specified)  
 33.501 v18.0.0 CR-1548 Cat: A (Rel-18)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231605**.

**S3-231605 Including SNPN ID in SBA and N32 related descriptions**

*Type: CR For: -  
 33.501 v18.0.0 CR-1548 rev 1 Cat: A (Rel-18)  
  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-230769)

**Decision:** The document was **agreed**.

**S3-230804 Clarification to the UPU procedures**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1488 rev 1 Cat: F (Rel-17)  
  
 Source: Qualcomm Incorporated*

(Replaces S3-223331)

**Decision:** The document was **not pursued**.

**S3-230805 Discussion on issue with UPU MAC calculation**

*Type: discussion For: Discussion  
 Source: Qualcomm Incorporated*

**Decision:** The document was **noted**.

**S3-230806 Resolving the EN on CAA level ID during UUAA procedures**

*Type: CR For: Agreement  
 33.256 v17.2.0 CR-0009 rev 4 Cat: F (Rel-17)  
  
 Source: Qualcomm Incorporated*

(Replaces S3-223332)

**Decision:** The document was **not pursued**.

**S3-230807 Removing the ENs on passing the CAA-level ID to UE during revocation**

*Type: CR For: Agreement  
 33.256 v17.2.0 CR-0020 Cat: F (Rel-17)  
  
 Source: Qualcomm Incorporated*

**Decision:** The document was **not pursued**.

**S3-230844 Authorization of NF service consumers for data access via DCCF**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1554 Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not pursued**.

**S3-230845 Authorization of NF service consumers for data access via DCCF**

*Type: CR For: Agreement  
 33.501 v18.0.0 CR-1555 Cat: A (Rel-18)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not pursued**.

**S3-230853 Clarification on SoR AF**

*Type: CR For: Agreement  
 33.501 v18.0.0 CR-1556 Cat: F (Rel-18)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231186**.

**S3-230854 Address EN on S-NSSAI mapping**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1557 Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not pursued**.

**S3-230855 Address EN on AF Authorization**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1558 Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Discussion:**

Ericsson: this is introducing an authorization feature that hasn’t been defined. We don’t agree with having this procedure in step 3.

**Decision:** The document was **revised to S3-231406**.

**S3-231406 Address EN on AF Authorization**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1558 rev 1 Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

(Replaces S3-230855)

**Decision:** The document was **not pursued**.

**S3-230856 Address issue in NSSAA procedures for multiple registration**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1559 Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231188**.

**S3-230857 draft LS on issues in NSSAA procedures for multiple registration**

*Type: LS out For: Approval  
 to SA2  
 Source: Huawei, HiSilicon*

**Decision:** The document was **noted**.

**S3-230858 Address ENs in revocation procedures**

*Type: CR For: Agreement  
 33.256 v17.2.0 CR-0021 Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not pursued**.

**S3-230875 Clarification on unused HTTP methods - Rel16**

*Type: CR For: Approval  
 33.117 v16.9.0 CR-0107 Cat: F (Rel-16)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **agreed**.

**S3-230876 Clarification on unused HTTP methods - Rel17**

*Type: CR For: Approval  
 33.117 v17.2.0 CR-0108 Cat: A (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **agreed**.

**S3-230891 Add Context\_Remove into table 7.1.1-1**

*Type: CR For: Approval  
 33.535 v17.7.0 CR-0145 Cat: F (Rel-17)  
  
 Source: ZTE Corporation*

**Decision:** The document was **not pursued**.

**S3-230892 Change NF to AAnF Service Consumer in 6.6 and 6.7**

*Type: CR For: Approval  
 33.535 v17.7.0 CR-0146 Cat: F (Rel-17)  
  
 Source: ZTE Corporation*

**Decision:** The document was **not pursued**.

**S3-230970 Contribution**

*Type: CR For: Approval  
 33.501 v18.0.0 CR-1560 Cat: F (Rel-18)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **withdrawn**.

**S3-231031 CR on control-plane procedure in MBS**

*Type: CR For: Approval  
 33.501 v17.8.0 CR-1561 Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Discussion:**

Overlapping with 318.

**Decision:** The document was **revised to S3-231408**.

**S3-231408 CR on control-plane procedure in MBS**

*Type: CR For: Approval  
 33.501 v17.8.0 CR-1561 rev 1 Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

(Replaces S3-231031)

**Decision:** The document was **agreed**.

**S3-231032 Reply LS on the impact of MSK update on MBS multicast session update procedure**

*Type: LS out For: Approval  
 to SA2, cc SA4, CT1, CT4  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231410**.

**S3-231410 Reply LS on the impact of MSK update on MBS multicast session update procedure**

*Type: LS out For: Approval  
 to SA2, cc SA4, CT1, CT4  
 Source: Huawei, HiSilicon*

(Replaces S3-231032)

**Decision:** The document was **approved**.

**S3-231048 Clarification on NEF’s authorization to AF**

*Type: CR For: Approval  
 33.535 v17.7.0 CR-0147 Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **agreed**.

**S3-231050 SCAS release dependency proposal**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **noted**.

**S3-231055 Protection of RRC Resume Request message**

*Type: draftCR For: Approval  
 33.501 v18.0.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **noted**.

**S3-231058 Clarification on user consent in EC**

*Type: CR For: Agreement  
 33.558 v17.3.0 CR-0010 Cat: F (Rel-17)  
  
 Source: Ericsson*

**Decision:** The document was **not pursued**.

**S3-231064 CR to TS 33.501 - Addition of Operator Roaming Hub definition in R17**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1562 Cat: B (Rel-17)  
  
 Source: VODAFONE Group Plc*

**Decision:** The document was **revised to S3-231317**.

**S3-231078 Clarification on user consent Rel-17**

*Type: CR For: (not specified)  
 33.501 v17.8.0 CR-1563 Cat: F (Rel-17)  
  
 Source: Ericsson*

**Discussion:**

Huawei: change in 12.x should go to the Annex V.

Vodafone objected to this CR.This is not considering the regulators' input.

**Decision:** The document was **not pursued**.

**S3-231080 Clarification on user consent Rel-18**

*Type: CR For: (not specified)  
 33.501 v18.0.0 CR-1564 Cat: A (Rel-18)  
  
 Source: Ericsson*

**Decision:** The document was **not pursued**.

**S3-231085 Security aspects of MSGin5G Service in rel-18**

*Type: CR For: Approval  
 33.501 v18.0.0 CR-1565 Cat: B (Rel-18)  
  
 Source: China Mobile*

**Decision:** The document was **revised to S3-231547**.

**S3-231547 Security aspects of MSGin5G Service in rel-18**

*Type: CR For: Approval  
 33.501 v18.0.0 CR-1565 rev 1 Cat: B (Rel-18)  
  
 Source: China Mobile*

(Replaces S3-231085)

**Decision:** The document was **agreed**.

**S3-231087 AAnF sending GPSI to internal AKMA AF**

*Type: CR For: Approval  
 33.535 v17.7.0 CR-0148 Cat: F (Rel-17)  
  
 Source: China Mobile*

**Decision:** The document was **revised to S3-231422**.

**S3-231422 AAnF sending GPSI to internal AKMA AF**

*Type: CR For: Approval  
 33.535 v17.7.0 CR-0148 rev 1 Cat: F (Rel-17)  
  
 Source: China Mobile*

(Replaces S3-231087)

**Decision:** The document was **agreed**.

**S3-231095 Update to security aspects of eNA in 33.501 for Rel-17**

*Type: CR For: Approval  
 33.501 v17.8.0 CR-1566 Cat: F (Rel-17)  
  
 Source: China Mobile*

**Decision:** The document was **not pursued**.

**S3-231096 Update to security aspects of eNA in 33.501 for Rel-18**

*Type: CR For: Approval  
 33.501 v18.0.0 CR-1567 Cat: A (Rel-18)  
  
 Source: China Mobile*

**Decision:** The document was **not pursued**.

**S3-231118 Modified f5\* function for Milenage - Rel-17**

*Type: CR For: Agreement  
 35.206 v17.0.0 CR-0002 Cat: F (Rel-17)  
  
 Source: THALES, Idemia*

**Abstract:**

Modified f5\* function to avoid keystream re-use during re-synchronization

**Discussion:**

Vodafone: how do you manage different versions?

IDEMIA: CT6 covers this part.

Ericsson: there is a problem if this is done outside the SIM.

Qualcomm: MILENAGE and Tuak specs need to be modified. Ericsson agreed.

Huawei: several options for f5\* modification. Why this one? Thales replied that this was the simplest one.

Thales asked if it was up to SAGE to make these changes for MILENAGE and Tuak. Patrik (SAGE chair, Ericsson) couldn’t reply when theses changes could be delivered by SAGE.

Thales proposed to send an LS to SAGE.

**Decision:** The document was **not pursued**.

**S3-231119 Add restriction for multi registrations in two PLMNs**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1568 Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Discussion:**

Qualcomm didn’t agree with the CR.

Huawei: conflicting changes? We don’t see the problem to be corrected.

**Decision:** The document was **not pursued**.

**S3-231120 Discussin paper on control on NSSAA procedures for multi registrations in two PLMNs**

*Type: discussion For: Endorsement  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **withdrawn**.

**S3-231121 control on NSSAA procedures for multi registrations in two PLMNs**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1569 Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Discussion:**

Ericsson: step 1 is clear enough, no need to specify. We only agree on the last change.Qualcomm commented that the concept of mapped S-NSSAIs was not explained anywhere else in SA3 specifications. The first change was unnecessary.

Interdigital agreed that the first change was not needed.

MCC warned that TS 33.501 had a Rel-18 version and that this needed a mirror in case it was agreed.

**Decision:** The document was **revised to S3-231407**.

**S3-231407 control on NSSAA procedures for multi registrations in two PLMNs**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1569 rev 1 Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-231121)

**Decision:** The document was **not pursued**.

**S3-231137 Modified f5\* function for Milenage - Rel-18**

*Type: CR For: Agreement  
 35.206 v17.0.0 CR-0003 Cat: A (Rel-18)  
  
 Source: THALES, Idemia*

**Abstract:**

Modified f5\* function to avoid keystream re-use during re-synchronization for Milenage Rel-18

**Decision:** The document was **not pursued**.

**S3-231138 Modified f5\* function for Tuak - Rel-17**

*Type: CR For: Agreement  
 35.231 v17.0.0 CR-0006 Cat: F (Rel-17)  
  
 Source: THALES, Idemia*

**Abstract:**

Modified f5\* function to avoid keystream re-use during re-synchronization for Tuak Rel-17

**Decision:** The document was **not pursued**.

**S3-231139 Modified f5\* function for Tuak - Rel-18**

*Type: CR For: Agreement  
 35.231 v17.0.0 CR-0007 Cat: A (Rel-18)  
  
 Source: THALES, Idemia*

**Abstract:**

Modified f5\* function to avoid keystream re-use during re-synchronization for Tuak Rel-18.

**Decision:** The document was **not pursued**.

**S3-231145 Aligning DNS and ICMP security for non-3GPP access with 3GPP access**

*Type: CR For: Agreement  
 33.402 v17.0.0 CR-0148 Cat: F (Rel-18)  
  
 Source: Ericsson*

**Discussion:**

Huawei: if this was an issue in CT1, why didn’t they send us an LS? The Chair replied that this is was caused by existing text in TS 33.401.

Revised to change the justification of the cover page.

**Decision:** The document was **revised to S3-231412**.

**S3-231412 Aligning DNS and ICMP security for non-3GPP access with 3GPP access**

*Type: CR For: Agreement  
 33.402 v17.0.0 CR-0148 rev 1 Cat: F (Rel-18)  
  
 Source: Ericsson*

(Replaces S3-231145)

**Decision:** The document was **agreed**.

**S3-231146 Adding recommendation to use one-to-one relation between SNPN and CH AAA**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1570 Cat: F (Rel-17)  
  
 Source: Ericsson*

**Decision:** The document was **not pursued**.

**S3-231147 Adding recommendation to use one-to-one relation between SNPN and CH AAA**

*Type: CR For: Agreement  
 33.501 v18.0.0 CR-1571 Cat: A (Rel-18)  
  
 Source: Ericsson*

**Decision:** The document was **not pursued**.

**S3-231148 SEPP to include and verify the source PLMN-ID**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1572 Cat: F (Rel-17)  
  
 Source: Ericsson [was: Ericsson, Mavenir, Nokia, Nokia Shanghai Bell, Huawei, HiSilicon]*

**Decision:** The document was **revised to S3-231606**.

**S3-231606 SEPP to include and verify the source PLMN-ID**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1572 rev 1 Cat: F (Rel-17)  
  
 Source: Ericsson, Mavenir, Nokia, Nokia Shanghai Bell, Huawei, HiSilicon*

(Replaces S3-231148)

**Decision:** The document was **agreed**.

**S3-231149 SEPP to include and verify the source PLMN-ID**

*Type: CR For: Agreement  
 33.501 v18.0.0 CR-1573 Cat: A (Rel-18)  
  
 Source: Ericsson [was: Ericsson, Mavenir, Nokia, Nokia Shanghai Bell, Huawei, HiSilicon]*

**Decision:** The document was **revised to S3-231607**.

**S3-231607 SEPP to include and verify the source PLMN-ID**

*Type: CR For: Agreement  
 33.501 v18.0.0 CR-1573 rev 1 Cat: A (Rel-18)  
  
 Source: Ericsson, Mavenir, Nokia, Nokia Shanghai Bell, Huawei, HiSilicon*

(Replaces S3-231149)

**Decision:** The document was **agreed**.

**S3-231165 SERP-Draft LS on SERP.docx**

*Type: LS out For: Approval  
 to RAN, RAN2, RAN3  
 Source: Apple*

**Decision:** The document was **noted**.

**S3-231166 CR to TS 33.501 on the Protection of the RRC Resume Request message**

*Type: CR For: Approval  
 33.501 v18.0.0 CR-1575 Cat: C (Rel-18)  
  
 Source: Apple*

**Decision:** The document was **not pursued**.

**S3-231171 CR on 33203-AES-GCM/GMAC in IMS SIP security**

*Type: CR For: Approval  
 33.203 v17.1.0 CR-0267 Cat: C (Rel-18)  
  
 Source: Apple*

**Decision:** The document was **withdrawn**.

**S3-231175 SCP requirements update related to source PLMN-ID**

*Type: CR For: (not specified)  
 33.501 v17.8.0 CR-1576 Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Discussion:**

NTT-Docomo: should or shall?

Nokia: a should.

**Decision:** The document was **revised to S3-231417**.

**S3-231417 SCP requirements update related to source PLMN-ID**

*Type: CR For: -  
 33.501 v17.8.0 CR-1576 rev 1 Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-231175)

**Decision:** The document was **agreed**.

**S3-231176 SCP requirements update related to source PLMN-ID**

*Type: CR For: (not specified)  
 33.501 v18.0.0 CR-1577 Cat: A (Rel-18)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231418**.

**S3-231418 SCP requirements update related to source PLMN-ID**

*Type: CR For: -  
 33.501 v18.0.0 CR-1577 rev 1 Cat: A (Rel-18)  
  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-231176)

**Decision:** The document was **agreed**.

**S3-231186 Clarification on SoR-AF**

*Type: CR For: Agreement  
 33.501 v18.0.0 CR-1556 rev 1 Cat: F (Rel-18)  
  
 Source: Huawei, HiSilicon*

(Replaces S3-230853)

**Discussion:**

Ericsson doubted whether this text was needed.It was obvious for them.

Nokia didn’t find it necessary either.

Vodafone: not operator domain but security domain.

**Decision:** The document was **revised to S3-231426**.

**S3-231426 Clarification on SoR-AF**

*Type: CR For: Agreement  
 33.501 v18.0.0 CR-1556 rev 2 Cat: F (Rel-18)  
  
 Source: Huawei, HiSilicon*

(Replaces S3-231186)

**Decision:** The document was **agreed**.

**S3-231188 Address issues in NSSAA procedures for multiple registration**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1559 rev 1 Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

(Replaces S3-230856)

**Decision:** The document was **not pursued**.

**S3-231191 pCR to Living CR S3-231148\_SEPP to include and verify the source PLMN-ID**

*Type: other For: (not specified)  
 33.501 v..  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231394**.

**S3-231394 pCR to Living CR S3-231148\_SEPP to include and verify the source PLMN-ID**

*Type: other For: -  
 33.501 v..  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-231191)

**Decision:** The document was **approved**.

**S3-231193 Clarification of hashing**

*Type: CR For: Approval  
 33.117 v17.2.0 CR-0097 rev 2 Cat: F (Rel-17)  
  
 Source: Federal Office for Information Security (BSI), Deutsche Telekom*

(Replaces S3-230682)

**Abstract:**

Add the terms “cryptographic” and “with unique salt per record” to hash algorithm requirement, purpose and expected results.

Add checks for correct and salted cryptographic hashing.

**Discussion:**

Vodafone: it looks like we are creating requirements from the back doorand creating solutions for them. Do we have these requirements in another specifications (e.g. TS 33.501)? We could produce CRs for TS 33.501.

We are testing things that are not present in our documents.

Nokia: this is not in scope of TS 33.501. This is product security, part of implementation.

Vodafone: the requirements should be present in another document.

Huawei: we want to see the requirements firstly in their proper place.

Alex (GSMA): this is good security hardening of products, that we should be doing anyway. We shouldn’t have a strong resistance as this is not unreasonable. We shouldn’t delay as ENISA needs the input by Summer.

The Chair commented that the requirements should not go to TS 33.501.

Vodafone: We should back fill these things in the virtualization work as well. We shouldn’t be adding test cases with requirements attached. Vodafone asked to have this minuted.These requirements are not in the current 3GPP specs and they should be looked at in the virtualization work because there is an operational aspect. Maybe we could send these requirements to the virtualization work.

Nokia: don’t put these aspects in 3GPP. Every company may have their own security policy, how to handle passwords? This is company specific.

Vodafone: I need to see at least a minimum level of hardening, I'm worried to see this only in a test specification.

The Chair commented that there was nothing new here, but it didn’t exist in the 3GPP domain.

Vodafone: what is considered good hardening in 5G should be captured somewhere.

Ericsson: add the requirements in TS 33.117. We already have password requirements in there, just add more.

Alex (GSMA): which specification for design and which for testing should be clear. Better not to mix them, create a new specification.

Ericsson: Put the requirements in TR 33.926. Alex (GSMA) replied that this was a TR.

Ericsson: strange to introduce the test and then the requirement, do it the other way round.

Marcus (OPPO): TR 33.926 is the wrong place, no requirements there.

Huawei: we need to see the requirements before agreeing on this document.

The Chair asked if it was Huawei's concern that this was a Rel-17 CR affecting current implementations.Huawei replied that this was not the case, they didn’t agree with the CR.

Alex (GSMA): a block rejection of all the changes even if some of them are simple would not give a good impression of 3GPP's role with this subject.

Huawei: we don’t object to all CRs, we have issues with this particular one.

**Decision:** The document was **not pursued**.

**S3-231194 Clarification of privilege escalation methods to check for**

*Type: CR For: Approval  
 33.117 v17.2.0 CR-0100 rev 2 Cat: F (Rel-17)  
  
 Source: Federal Office for Information Security (BSI), Deutsche Telekom*

(Replaces S3-230685)

**Abstract:**

Add check of capabilities as additional example in pre-conditions

**Decision:** The document was **not pursued**.

**S3-231196 Clarification of SSI System Command Execution test**

*Type: CR For: Approval  
 33.117 v17.2.0 CR-0106 rev 2 Cat: F (Rel-17)  
  
 Source: Federal Office for Information Security (BSI), Deutsche Telekom*

(Replaces S3-230691)

**Abstract:**

Added test step to actually check for the intended test purpose.

Fixed expected results to comply with test steps and purpose.

Added log of new test step to expected format of evidences

**Decision:** The document was **agreed**.

**S3-231241 R18 Update I.2.2.2.1 for limitations of AAA server (mirror)**

*Type: CR For: Approval  
 33.501 v18.0.0 CR-1578 Cat: A (Rel-18)  
  
 Source: Xiaomi communications*

**Decision:** The document was **not pursued**.

**S3-231242 R17 Update I.2.2.2.1 for limitations of AAA server**

*Type: CR For: Approval  
 33.501 v17.8.0 CR-1579 Cat: F (Rel-17)  
  
 Source: Xiaomi communications*

**Discussion:**

Nokia: this is out of scope.

**Decision:** The document was **not pursued**.

**S3-231243 R17 Update Subscription and unsubscription procedure of NSACF notification service**

*Type: CR For: Approval  
 33.501 v17.8.0 CR-1580 Cat: F (Rel-17)  
  
 Source: Xiaomi communications*

**Decision:** The document was **merged**.

**S3-231244 R18 Update Subscription and unsubscription procedure of NSACF notification service (mirror)**

*Type: CR For: Approval  
 33.501 v18.0.0 CR-1581 Cat: A (Rel-18)  
  
 Source: Xiaomi communications*

**Decision:** The document was **not pursued**.

**S3-231284 KAF lifetime and Ua\* protocol recommendations**

*Type: CR For: Agreement  
 33.535 v17.7.0 CR-0151 Cat: F (Rel-17)  
  
 Source: Ericsson*

**Discussion:**

Nokia commented that this was based on resuts from a study.

Qualcomm: approve this in Rel-18.

MCC commented that if this was a clarification the cover page should be modified to prove that this was a needed correction and not coming from a study.

Nokia didn’t agree with the first change.

**Decision:** The document was **revised to S3-231421**.

**S3-231421 KAF lifetime and Ua\* protocol recommendations**

*Type: CR For: Agreement  
 33.535 v17.7.0 CR-0151 rev 1 Cat: F (Rel-17)  
  
 Source: Ericsson*

(Replaces S3-231284)

**Decision:** The document was **agreed**.

**S3-231285 Rel17 Clarification on AF authorization for the NSACF notification procedure**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1583 Cat: F (Rel-17)  
  
 Source: Ericsson*

**Decision:** The document was **merged**.

**S3-231286 Rel17 Alignment of NSACF notification procedure with existing procedures**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1584 Cat: F (Rel-17)  
  
 Source: Ericsson*

**Decision:** The document was **not pursued**.

**S3-231287 Rel18 Clarification on AF authorization for the NSACF notification procedure**

*Type: CR For: Agreement  
 33.501 v18.0.0 CR-1585 Cat: A (Rel-18)  
  
 Source: Ericsson*

**Decision:** The document was **not pursued**.

**S3-231288 Rel18 Alignment of NSACF notification procedure with existing procedures**

*Type: CR For: Agreement  
 33.501 v18.0.0 CR-1586 Cat: A (Rel-18)  
  
 Source: Ericsson*

**Decision:** The document was **not pursued**.

**S3-231289 Living document for SERP: draftCR to TS 33.501 on the Protection of the RRC Resume Request message**

*Type: draftCR For: Approval  
 33.501 v18.0.0  
 Source: Ericsson*

**Decision:** The document was **noted**.

**S3-231295 Discussion on Resumecause protection**

*Type: discussion For: Endorsement  
 33.501 v..  
 Source: Samsung*

**Discussion:**

Ericsson: reopen a Study, add a new solution in FSB?

Qualcomm: this is not improving security, it is introducing complexity.

Huawei: this is not maintenance, it should have been placed in another agenda item. This is for Rel-18.

**Decision:** The document was **noted**.

**S3-231297 Living document for SERP: draftCR to TS 33.501 on the Protection of the RRC Resume Request message**

*Type: draftCR For: Approval  
 33.501 v18.0.0  
 Source: Samsung*

**Decision:** The document was **noted**.

**S3-231305 [IAB][Rel-17] IAB inter-CU topology adaptation procedure**

*Type: CR For: Approval  
 33.501 v17.8.0 CR-1588 Cat: F (Rel-17)  
  
 Source: Samsung, Huawei, HiSilicon*

**Discussion:**

MCC commented that this was a new feature for Rel-17, this was frozen. Samsung commented that that CT4 had the feature but it lacked the security for it.

**Decision:** The document was **not pursued**.

**S3-231306 [IAB][Rel-18] IAB inter-CU topology adaptation procedure**

*Type: CR For: Approval  
 33.501 v18.0.0 CR-1589 Cat: A (Rel-18)  
  
 Source: Samsung, Huawei, HiSilicon*

**Decision:** The document was **not pursued**.

**S3-231317 Addition of Operator Roaming Hub definition in R17**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1562 rev 1 Cat: F (Rel-17)  
  
 Source: Vodafone*

(Replaces S3-231064)

**Decision:** The document was **revised to S3-231413**.

**S3-231413 Addition of Operator Roaming Hub definition in R17**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1562 rev 2 Cat: F (Rel-17)  
  
 Source: Vodafone*

(Replaces S3-231317)

**Decision:** The document was **agreed**.

**S3-231318 CR on control-plane procedure in MBS**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1590 Cat: F (Rel-17)  
  
 Source: Ericsson*

**Decision:** The document was **merged**.

**S3-231319 Authentication of AUN3 devices behind RG**

*Type: CR For: Approval  
 33.501 v18.0.0 CR-1591 Cat: B (Rel-18)  
  
 Source: CableLabs, Nokia, Nokia Shanghai Bell, Rogers Communications, Thales, Charter Communications*

**Discussion:**

Huawei: this is very vague. Note it for this meeting.

**Decision:** The document was **not pursued**.

**S3-231321 Authentication for UE behind 5G-RG and FN-RG using NSWO**

*Type: CR For: Agreement  
 33.501 v17.8.0 CR-1592 Cat: F (Rel-17)  
  
 Source: CableLabs, Rogers Communications, Charter Communications*

**Discussion:**

Qualcomm: this is a new feature, we cannot add it now. It should be Rel-18, not completed in Rel-17.

**Decision:** The document was **not pursued**.

**S3-231322 Discussin paper on control on NSSAA procedures for multi registrations in two PLMNs**

*Type: discussion For: Endorsement  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **noted**.

**S3-231325 Authentication for UE behind 5G-RG and FN-RG using NSWO**

*Type: CR For: Agreement  
 33.501 v18.0.0 CR-1593 Cat: A (Rel-18)  
  
 Source: CableLabs, Rogers Communications, Charter Communications*

**Decision:** The document was **revised to S3-231405**.

**S3-231405 Authentication for UE behind 5G-RG and FN-RG using NSWO**

*Type: CR For: Agreement  
 33.501 v18.0.0 CR-1593 rev 1 Cat: B (Rel-18)  
  
 Source: CableLabs, Rogers Communications, Charter Communications*

(Replaces S3-231325)

**Discussion:**

It was agreed to submit it as TE18 given that it was a small change.

Revised to introduce some changes on the cover page.

**Decision:** The document was **agreed**.

**S3-231326 CR on control-plane procedure in MBS**

*Type: CR For: Agreement  
 33.501 v18.0.0 CR-1594 Cat: A (Rel-18)  
  
 Source: Ericsson*

**Decision:** The document was **merged**.

**S3-231353 Correction to Clause 7A.2.1**

*Type: CR For: Approval  
 33.501 v18.0.0 CR-1595 Cat: D (Rel-18)  
  
 Source: Lenovo*

**Decision:** The document was **agreed**.

**S3-231376 Security vulnerability fix for use of AES-GCM and AES-GMAC in 33.203**

*Type: CR For: Approval  
 33.203 v17.1.0 CR-0268 Cat: F (Rel-18)  
  
 Source: Apple Computer Trading Co. Ltd*

**Decision:** The document was **revised to S3-231378**.

**S3-231378 Security vulnerability fix for use of AES-GCM and AES-GMAC in 33.203**

*Type: CR For: Approval  
 33.203 v17.1.0 CR-0268 rev 1 Cat: F (Rel-17)  
  
 Source: Apple*

(Replaces S3-231376)

**Decision:** The document was **not pursued**.

**S3-231379 User consent check by DCCF**

*Type: CR For: (not specified)  
 33.501 v18.0.0 CR-1597 Cat: A (Rel-18)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231383**.

**S3-231380 User consent check by DCCF**

*Type: CR For: (not specified)  
 33.501 v17.8.0 CR-1598 Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231382**.

**S3-231382 User consent check information by DCCF**

*Type: CR For: (not specified)  
 33.501 v17.8.0 CR-1598 rev 1 Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-231380)

**Discussion:**

Ericsson: not needed.

Vodafone: step 4 needs rewording.

It was asked if there was any support for this but there wasn't any.

**Decision:** The document was **not pursued**.

**S3-231383 User consent check information by DCCF**

*Type: CR For: (not specified)  
 33.501 v18.0.0 CR-1597 rev 1 Cat: A (Rel-18)  
  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-231379)

**Decision:** The document was **not pursued**.

**S3-231404 EU 5G Scheme phase 2**

*Type: other For: Presentation  
 Source: ENISA*

**Discussion:**

Vodafone asked if this impacted SCAS specs only. ENISA confirmed this.

ENISA insisted on that there was no need to reivent the wheel. Requirements were not clear yet, they just wanted to keep the channel open.

It was asked if maintenance was being considered for the documents that were referenced (since the 3GPP specs would change their version over time). ENISA replied that normally a pointer to the latest version could be sufficient in some cases. If this latest was not valid, a version would be specified. A permanent conatct with SA3 would be neeeded during the maintenance.

**Decision:** The document was **noted**.

**S3-231409 CR on control-plane procedure in MBS**

*Type: CR For: Agreement  
 33.501 v18.0.0 CR-1599 Cat: A (Rel-18)  
  
 Source: Huawei*

**Decision:** The document was **agreed**.

**S3-231411 LS on modified f5\* algorithms**

*Type: LS out For: Approval  
 to ETSI SAGE  
 Source: Thales*

**Decision:** The document was **approved**.

**S3-231414 Addition of Operator Roaming Hub definition in R18**

*Type: CR For: Agreement  
 33.501 v18.0.0 CR-1600 Cat: A (Rel-18)  
  
 Source: Vodafone*

**Decision:** The document was **agreed**.

**S3-231603 LS on Mapping of F1-C IP addresses in the IAB inter-CU topology adaptation and backhaul RLF recovery procedures**

*Type: LS out For: Approval  
 to RAN3, cc RAN2  
 Source: Qualcomm*

**Decision:** The document was **approved**.

### 4.10 ProSe Secondary Authentication

**S3-230750 Discussion on 5G ProSe Relay and support for Regulatory services**

*Type: discussion For: Endorsement  
 33.503 v..  
 Source: InterDigital Finland Oy*

**Decision:** The document was **noted**.

**S3-230751 Resolution of Remote UE identity Remote UE Report procedure (UP)**

*Type: draftCR For: Approval  
 33.503 v17.2.0  
 Source: InterDigital Finland Oy*

**Decision:** The document was **merged**.

**S3-230752 Resolution of Remote UE identity in Remote UE Report procedure (CP)**

*Type: draftCR For: Approval  
 33.503 v17.2.0  
 Source: InterDigital Finland Oy*

**Decision:** The document was **merged**.

**S3-231074 [Draft] LS on ProSe Secondary Authentication**

*Type: LS out For: Approval  
 to SA2  
 Source: Ericsson*

**Decision:** The document was **noted**.

**S3-230749 Living document to TS 33.503 for Prose Secondary Authentication**

*Type: draftCR For: Approval  
 33.503 v17.2.0  
 Source: InterDigital Finland Oy, ChinaTelecom*

**Discussion:**

Ericsson commented that they preferred a pCR removing the editor's note instead of making the change directly in the living document.

**Decision:** The document was **merged**.

**S3-230980 Secondary Authentication Procedure without N3IWF**

*Type: other For: Approval  
 33.503 v..  
 Source: Huawei, HiSilicon*

**Discussion:**

Ericsson: we can’t see the changes on the baseline here.

**Decision:** The document was **revised to S3-231432**.

**S3-231432 Secondary Authentication Procedure without N3IWF**

*Type: other For: Approval  
 33.503 v..  
 Source: Huawei, HiSilicon*

(Replaces S3-230980)

**Decision:** The document was **noted**.

**S3-230981 Secondary Authentication Procedure with N3IWF**

*Type: other For: Approval  
 33.503 v..  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231433**.

**S3-231433 Secondary Authentication Procedure with N3IWF**

*Type: other For: Approval  
 33.503 v..  
 Source: Huawei, HiSilicon*

(Replaces S3-230981)

**Decision:** The document was **approved**.

**S3-230982 General clause for Secondary Authentication Procedure**

*Type: other For: Approval  
 33.503 v..  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231434**.

**S3-231434 General clause for Secondary Authentication Procedure**

*Type: other For: Approval  
 33.503 v..  
 Source: Huawei, HiSilicon*

(Replaces S3-230982)

**Decision:** The document was **noted**.

**S3-231620 Living document to TS 33.503 for Prose Secondary Authentication**

*Type: draftCR For: Approval  
 33.503 v17.2.0  
 Source: Interidigital*

**Decision:** The document was **email approval**.

### 4.11 New WID on DTLS protocol profile for AKMA and GBA

**S3-230894 General part for GBA DTLS to TS 33.222**

*Type: draftCR For: Approval  
 33.222 v17.2.0  
 Source: ZTE Corporation*

**Decision:** The document was **noted**.

**S3-230898 Shared key-based mutual authentication between UE and NAF to TS 33.222**

*Type: draftCR For: Approval  
 33.222 v17.2.0  
 Source: ZTE Corporation*

**Decision:** The document was **revised to S3-231475**.

**S3-231475 Shared key-based mutual authentication between UE and NAF to TS 33.222**

*Type: draftCR For: Approval  
 33.222 v17.2.0  
 Source: ZTE Corporation*

(Replaces S3-230898)

**Decision:** The document was **noted**.

**S3-231371 Enable IETF DTLS in Ua protocol**

*Type: draftCR For: Approval  
 33.222 v17.2.0  
 Source: Xiaomi communications*

**Decision:** The document was **merged**.

**S3-230899 Shared key-based UE authentication with certificate-based NAF authentication to TS 33.222**

*Type: draftCR For: Approval  
 33.222 v17.2.0  
 Source: ZTE Corporation*

**Decision:** The document was **noted**.

**S3-230900 Living document for GBA DTLS to TS 33.222**

*Type: draftCR For: Approval  
 33.222 v17.2.0  
 Source: ZTE Corporation*

**Decision:** The document was **revised to S3-231476**.

**S3-231476 Living document for GBA DTLS to TS 33.222**

*Type: draftCR For: Approval  
 33.222 v17.2.0  
 Source: ZTE Corporation*

(Replaces S3-230900)

**Decision:** The document was **approved**.

**S3-230893 General part for AKMA DTLS to TS 33.535**

*Type: draftCR For: Approval  
 33.535 v17.7.0  
 Source: ZTE Corporation*

**Decision:** The document was **noted**.

**S3-230896 Shared key-based mutual authentication between UE and AF to TS 33.535**

*Type: draftCR For: Approval  
 33.535 v17.7.0  
 Source: ZTE Corporation*

**Decision:** The document was **noted**.

**S3-231372 Enable IETF DTLS in Ua star protocol**

*Type: draftCR For: Approval  
 33.535 v17.7.0  
 Source: Xiaomi communications*

**Decision:** The document was **noted**.

**S3-230897 Shared key-based UE authentication with certificate-based NAF authentication to TS 33.535**

*Type: draftCR For: Approval  
 33.535 v17.7.0  
 Source: ZTE Corporation*

**Decision:** The document was **noted**.

**S3-230895 Living document for AKMA DTLS to TS 33.535**

*Type: draftCR For: Approval  
 33.535 v17.7.0  
 Source: ZTE Corporation*

**Decision:** The document was **noted**.

**S3-231236 Enable IETF DTLS in Ua protocol**

*Type: CR For: Approval  
 33.222 v17.2.0 CR-0058 Cat: B (Rel-18)  
  
 Source: Xiaomi communications*

**Decision:** The document was **withdrawn**.

**S3-231237 Enable IETF DTLS in Ua star protocol**

*Type: CR For: Approval  
 33.535 v17.7.0 CR-0149 Cat: B (Rel-18)  
  
 Source: Xiaomi communications*

**Decision:** The document was **withdrawn**.

### 4.12 New WID on Security Aspects of the 5G Service Based Architecture Phase 2

**S3-230725 OAuth for subscribe notify**

*Type: CR For: (not specified)  
 33.501 v17.8.0 CR-1540 Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell, Mavenir*

**Decision:** The document was **not pursued**.

**S3-230726 OAuth for subscribe notify**

*Type: CR For: (not specified)  
 33.501 v18.0.0 CR-1541 Cat: A (Rel-18)  
  
 Source: Nokia, Nokia Shanghai Bell, Mavenir*

**Decision:** The document was **revised to S3-231395**.

**S3-231395 OAuth for subscribe notify**

*Type: CR For: -  
 33.501 v18.0.0 CR-1541 rev 1 Cat: F (Rel-18)  
  
 Source: Nokia, Nokia Shanghai Bell, Mavenir*

(Replaces S3-230726)

**Decision:** The document was **agreed**.

**S3-230727 NF service consumer registration by OAM**

*Type: CR For: (not specified)  
 33.501 v17.8.0 CR-1542 Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell, Mavenir*

**Decision:** The document was **not pursued**.

**S3-230728 NF service consumer registration by OAM**

*Type: CR For: (not specified)  
 33.501 v18.0.0 CR-1543 Cat: F (Rel-18)  
  
 Source: Nokia, Nokia Shanghai Bell, Mavenir*

**Decision:** The document was **agreed**.

**S3-230764 SCP trust assumptions**

*Type: CR For: (not specified)  
 33.501 v18.0.0 CR-1544 Cat: F (Rel-18)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **agreed**.

**S3-230766 SBA TLS certificate update**

*Type: CR For: (not specified)  
 33.501 v17.8.0 CR-1545 Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not pursued**.

**S3-230767 SBA TLS certificate update**

*Type: CR For: (not specified)  
 33.501 v18.0.0 CR-1546 Cat: F (Rel-18)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not pursued**.

**S3-231551 SBA TLS certificate update**

*Type: CR For: -  
 33.310 v17.5.0 CR-0151 Cat: F (Rel-18)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **agreed**.

**S3-230874 Clarification on subsribe-notification**

*Type: draftCR For: Approval  
 33.501 v18.0.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **merged**.

**S3-231150 Clarification on access token requests for NF Producers of a specific NF type and token-based authorization for indirect communication with delegated discovery**

*Type: CR For: Agreement  
 33.501 v18.0.0 CR-1574 Cat: B (Rel-18)  
  
 Source: Ericsson*

**Discussion:**

Nokia asked for more time.

Mavenir agreed, there were errors in the CR.

**Decision:** The document was **not pursued**.

### 4.13 New WID on IETF OSCORE protocol profiles for GBA and AKMA

**S3-231199 draft CR: OSCORE as GBA Ua**

*Type: draftCR For: Approval  
 33.220 v17.4.0  
 Source: THALES*

**Abstract:**

OSCORE as GBA Ua

**Decision:** The document was **merged**.

**S3-231238 Enable OSCORE in Ua protocol**

*Type: CR For: Approval  
 33.222 v17.2.0 CR-0059 Cat: B (Rel-18)  
  
 Source: Xiaomi communications*

**Decision:** The document was **withdrawn**.

**S3-231239 Enable OSCORE in Ua star protocol**

*Type: CR For: Approval  
 33.535 v17.7.0 CR-0150 Cat: B (Rel-18)  
  
 Source: Xiaomi communications*

**Decision:** The document was **withdrawn**.

**S3-231281 Living document for AKMA\_GBA\_OSCORE: draftCR to TS 33.535, IETF OSCORE as AKMA Ua\* protocol**

*Type: draftCR For: Approval  
 33.535 v17.7.0  
 Source: Ericsson*

**Decision:** The document was **noted**.

**S3-231282 Living document for AKMA\_GBA\_OSCORE: draftCR to TS 33.220, IETF OSCORE as GBA Ua protocol**

*Type: draftCR For: Approval  
 33.220 v17.4.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-231474**.

**S3-231474 Living document for AKMA\_GBA\_OSCORE: draftCR to TS 33.220, IETF OSCORE as GBA Ua protocol**

*Type: draftCR For: Approval  
 33.220 v17.4.0  
 Source: Ericsson*

(Replaces S3-231282)

**Decision:** The document was **approved**.

**S3-231373 Enable OSCORE in Ua protocol**

*Type: draftCR For: Approval  
 33.222 v17.2.0  
 Source: Xiaomi communications*

**Decision:** The document was **merged**.

**S3-231374 Enable OSCORE in Ua star protocol**

*Type: draftCR For: Approval  
 33.535 v17.7.0  
 Source: Xiaomi communications*

**Decision:** The document was **noted**.

### 4.14 New WID on Security aspect of home network triggered primary authentication

**S3-230977 Skeleton and new SBI of the HONTRA for normative work**

*Type: draftCR For: Approval  
 33.501 v18.0.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231477**.

**S3-231477 Skeleton and new SBI of the HONTRA for normative work**

*Type: draftCR For: Approval  
 33.501 v18.0.0  
 Source: Huawei, HiSilicon*

(Replaces S3-230977)

**Decision:** The document was **approved**.

**S3-230978 Basic HONTRA procedure**

*Type: other For: Approval  
 33.501 v..  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231478**.

**S3-231478 Basic HONTRA procedure**

*Type: other For: Approval  
 33.501 v..  
 Source: Huawei, HiSilicon*

(Replaces S3-230978)

**Decision:** The document was **approved**.

**S3-231264 Add HONTRA procedure in the TS 33.501**

*Type: CR For: Approval  
 33.501 v18.0.0 CR-1582 Cat: B (Rel-18)  
  
 Source: Beijing Xiaomi Mobile Software*

**Discussion:**

Merged into S3-231478

**Decision:** The document was **not pursued**.

**S3-231283 Draft CR for the Home Network Triggered Primary Authentication**

*Type: draftCR For: Approval  
 33.501 v18.0.0  
 Source: Ericsson*

**Decision:** The document was **merged**.

**S3-231355 HONTRA Updates**

*Type: CR For: Approval  
 33.501 v18.0.0 CR-1596 Cat: B (Rel-18)  
  
 Source: Lenovo*

**Discussion:**

Merged into S3-231478

**Decision:** The document was **not pursued**.

**S3-230702 HNTRA procedure for SoR case**

*Type: CR For: Agreement  
 33.501 v18.0.0 CR-1529 Cat: B (Rel-18)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Discussion:**

Merged into S3-231478

**Decision:** The document was **not pursued**.

**S3-230901 Draft CR to TS 33.501-Comply with error code during interworking**

*Type: draftCR For: Approval  
 33.501 v18.0.0  
 Source: ZTE Corporation*

**Decision:** The document was **noted**.

**S3-231299 Network Initiated Primary Authentication**

*Type: CR For: Approval  
 33.501 v18.0.0 CR-1587 Cat: B (Rel-18)  
  
 Source: Samsung*

**Discussion:**

Merged into S3-231478

**Decision:** The document was **not pursued**.

**S3-230902 Draft CR to TS 33.501-Network initiated Primary Authentication**

*Type: draftCR For: Approval  
 33.501 v18.0.0  
 Source: ZTE Corporation*

**Decision:** The document was **merged**.

**S3-230703 HNTRA procedure for UPU wrap around case**

*Type: CR For: Agreement  
 33.501 v18.0.0 CR-1530 Cat: B (Rel-18)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Discussion:**

Merged into S3-231478

**Decision:** The document was **not pursued**.

**S3-230903 Draft CR to TS 33.535-Kakma refresh**

*Type: draftCR For: Approval  
 33.535 v17.7.0  
 Source: ZTE Corporation*

**Decision:** The document was **noted**.

## 5 Rel-18 Studies

### 5.1 Study on 5G security enhancement against false base stations

**S3-231182 FBS - Way forward for KI#2**

*Type: pCR For: Endorsement  
 33.809 v0.20.0  
 Source: Philips International B.V., Apple, Deutsche Telekom*

**Discussion:**

Qualcomm: close the study.

ORANGE: close the study.

The Chair commented that this SID was taking too much time from SA3's work.

**Decision:** The document was **noted**.

**S3-231336 Addressing the editor’s note in 6.27.2.1.1 of Sol#27**

*Type: pCR For: Approval  
 33.809 v0.20.0  
 Source: CableLabs, Deutsche Telekom, Philips International B.V.*

(Replaces S3-223883)

**Decision:** The document was **noted**.

**S3-231339 Addressing EN on NR Repeater in 6.27.2.2.4 of Sol#27**

*Type: pCR For: Approval  
 33.809 v0.20.0  
 Source: CableLabs, Deutsche Telekom, Philips International B.V.*

(Replaces S3-223885)

**Decision:** The document was **noted**.

**S3-231342 Addressing the editor’s note in 6.27.2.2.1of Sol#27**

*Type: pCR For: Approval  
 33.809 v0.20.0  
 Source: CableLabs, Deutsche Telekom, Philips International B.V.*

(Replaces S3-223886)

**Decision:** The document was **noted**.

**S3-231167 5GFBS-UE behaviors on signature verification**

*Type: pCR For: Approval  
 33.809 v0.20.0  
 Source: Apple*

**Decision:** The document was **noted**.

**S3-231298 Resolving EN of solution#7 (TR 33.809)**

*Type: pCR For: Approval  
 33.809 v0.20.0  
 Source: Samsung*

**Decision:** The document was **noted**.

**S3-230822 Conclusion for KI #3**

*Type: pCR For: Approval  
 33.809 v0.20.0  
 Source: Qualcomm Incorporated*

(Replaces S3-223373)

**Discussion:**

Vodafone: never publish it or conclude that there is no normative coming out of this.

Apple: 900 series TR?

ORANGE: no.

It was discussed whether the study could be stopped and leave the TR as a draft. MCC replied that this was possible, just inform SA plenary about it. Vodafone asked if the draft could be referenced, MCC replied that it wasn't possible even if the TR was published since 800 series TRs can only be referenced by other 800 series TRs.

CableLabs: just conclude that there is no agreement and no normative work for every key issue.

ORANGE: there are key issues that are not agreed, so this is not possible.

The Chair asked Apple to bring a clean way to close the study for the next meeting. It would be a contribution concluding the TR and mentioning that no normative work would follow. Apple: no further normative work? Orange: disagree, let's see next meeting.

All contributions for the current meeting were noted.

**Decision:** The document was **noted**.

**S3-231183 FBS - Additions in solution #25**

*Type: pCR For: Approval  
 33.809 v0.20.0  
 Source: Philips International B.V.*

**Decision:** The document was **noted**.

**S3-231296 Solution for Resumecause protection**

*Type: pCR For: Approval  
 33.809 v0.20.0  
 Source: Samsung*

**Decision:** The document was **noted**.

### 5.2 Study on Security Impacts of Virtualisation

**S3-230758 Evaluation of Solution 5**

*Type: pCR For: Approval  
 33.848 v0.14.0  
 Source: Johns Hopkins University APL, US National Security Agency*

**Abstract:**

Eval of Solution 5

**Decision:** The document was **noted**.

**S3-231437 Evaluation of Solution 5**

*Type: pCR For: Approval  
 33.848 v0.14.0  
 Source: Johns Hopkins University APL, US National Security Agency*

**Decision:** The document was **withdrawn**.

**S3-230863 New solution on boot time attestation at 3GPP function level**

*Type: pCR For: Approval  
 33.848 v0.14.0  
 Source: Huawei, HiSilicon*

**Discussion:**

Ericsson didn’t see this solution working.

NIST also found some issues with the text. This was

**Decision:** The document was **noted**.

**S3-230971 Evaluation on Solution 5**

*Type: pCR For: Approval  
 33.848 v0.14.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **noted**.

### 5.3 Study on Security Aspects of Proximity Based Services in 5GS Phase 2

**S3-230812 LS on UE-to-UE relay discovery direct discovery**

*Type: LS out For: Approval  
 to SA2  
 Source: Qualcomm Incorporated*

**Decision:** The document was **noted**.

**S3-230760 Update to Conclusion to KI #1**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: InterDigital Finland Oy*

**Decision:** The document was **noted**.

**S3-231271 pCR to TR33.740 Conclusion of key issue #1**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: CATT*

**Decision:** The document was **noted**.

**S3-230809 Conclusion of KI#1**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **noted**.

**S3-230942 Conclusion for KI #1 in TR 33.740**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: China Telecom Corporation Ltd.*

**Decision:** The document was **noted**.

**S3-231257 Conclusion on Key Issue #1 in TR 33.740**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Beijing Xiaomi Mobile Software*

**Decision:** The document was **noted**.

**S3-230949 Update to the conclusion of KI#2 in TR 33.740**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: China Telecom Corporation Ltd.*

**Decision:** The document was **noted**.

**S3-230757 Update to TR 33.740 Conclusion for KI#2**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: InterDigital Finland Oy*

**Discussion:**

Quakcomm didn’t agree because this was proposing a new security procedure. Existing security procedures can be used here.

**Decision:** The document was **revised to S3-231568**.

**S3-231568 Update to TR 33.740 Conclusion for KI#2**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: InterDigital Finland Oy*

(Replaces S3-230757)

**Decision:** The document was **noted**.

**S3-231025 Add conclusion to KI#2**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Huawei, HiSilicon*

**Discussion:**

Interdigital: dependency on RAN here, this is layer 2. Implications on the security establishment.

Qualcomm supported this but they required some changes.

**Decision:** The document was **revised to S3-231438**.

**S3-231438 Add conclusion to KI#2**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Huawei, HiSilicon*

(Replaces S3-231025)

**Decision:** The document was **approved**.

**S3-231076 Conclusion for KI#2**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Ericsson*

**Decision:** The document was **approved**.

**S3-231177 ProSe - Conclusion on KI#2**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Philips International B.V.*

**Discussion:**

Interdigital: authentication method at application layer is outside scope of 3GPP.

Qualcomm didn’t agree with the second paragraph.

**Decision:** The document was **revised to S3-231579**.

**S3-231579 ProSe - Conclusion on KI#2**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Philips International B.V.*

(Replaces S3-231177)

**Decision:** The document was **approved**.

**S3-231258 Conclusion on Key Issue #2 in TR 33.740**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Beijing Xiaomi Mobile Software*

**Discussion:**

Disagreement with the last bullet from Ericsson, Qualcomm and Philips.

First bullet was agreed.

**Decision:** The document was **revised to S3-231440**.

**S3-231440 Conclusion on Key Issue #2 in TR 33.740**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Beijing Xiaomi Mobile Software*

(Replaces S3-231258)

**Decision:** The document was **noted**.

**S3-231272 pCR to TR33.740 Conclusion of key issue #2**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: CATT*

**Decision:** The document was **merged**.

**S3-231026 Add conclusion to KI#3**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **merged**.

**S3-231442 Add conclusion to KI#3**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **withdrawn**.

**S3-231077 Conclusion for KI#3**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Ericsson*

**Discussion:**

Qualcomm had issues with the changes in blue.

Philips was fine with the first paragraph, had some comments on the second part.

This had to be taken offline.

**Decision:** The document was **revised to S3-231580**.

**S3-231580 Conclusion for KI#3**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Ericsson*

(Replaces S3-231077)

**Decision:** The document was **approved**.

**S3-231178 ProSe - Conclusion on KI#3**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Philips International B.V.*

**Discussion:**

Interdigital had issues with the first and third paragraphs.

Qualcomm as well. The second point was left open for discussion.

**Decision:** The document was **noted**.

**S3-231274 pCR to TR33.740 Conclusion of key issue #3**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: CATT*

**Discussion:**

Second paragraph was not agreed, the last sentence was removed as well, from Qualcomm's comments.

**Decision:** The document was **revised to S3-231443**.

**S3-231443 pCR to TR33.740 Conclusion of key issue #3**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: CATT*

(Replaces S3-231274)

**Decision:** The document was **approved**.

**S3-230759 Update to TR 33.740 Conclusion for KI#4**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: InterDigital Finland Oy*

**Discussion:**

Qualcomm didn’t agree with the first change. The second change needed clarification on what the privacy issue was.

**Decision:** The document was **revised to S3-231569**.

**S3-231569 Update to TR 33.740 Conclusion for KI#4**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: InterDigital Finland Oy*

(Replaces S3-230759)

**Decision:** The document was **noted**.

**S3-231027 Add conclusion to KI#5**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Huawei, HiSilicon*

**Discussion:**

Samsung didnt agree with the proposal.

OPPO: this is not related to key issue 5.

Xiaomi: this should be for Key issue 2.

**Decision:** The document was **noted**.

**S3-231316 Conclusion on KI #5**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Samsung*

**Discussion:**

OPPO: conflict with 369. We would discuss on whether the security is hop by hop or end to end, the security policy aspect.

Qualcomm: I don’t see why the negotiation is there.

Xiaomi was fine with the contribution but some rewording was needed.

OPPO: there is no negotiation here.

**Decision:** The document was **revised to S3-231567**.

**S3-231567 Conclusion on KI #5**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Samsung*

(Replaces S3-231316)

**Decision:** The document was **noted**.

**S3-231369 Conclusion for KI#5**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: OPPO*

**Decision:** The document was **noted**.

**S3-231075 Conclusion for KI#6**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Ericsson, Nokia, Nokia Shanghai Bell*

**Discussion:**

Huawei: add layer 2.

A note was also added.

**Decision:** The document was **revised to S3-231444**.

**S3-231444 Conclusion for KI#6**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Ericsson, Nokia, Nokia Shanghai Bell*

(Replaces S3-231075)

**Decision:** The document was **approved**.

**S3-230904 Conclusion for the KI#6**

*Type: pCR For: Agreement  
 33.740 v0.5.0  
 Source: ZTE Corporation*

**Decision:** The document was **merged**.

**S3-230755 Evaluation TR 33.740 Sol #12**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: InterDigital Finland Oy*

**Discussion:**

Qualcomm: agree on the text, but keep the editor's note.

**Decision:** The document was **revised to S3-231445**.

**S3-231445 Evaluation TR 33.740 Sol #12**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: InterDigital Finland Oy*

(Replaces S3-230755)

**Decision:** The document was **approved**.

**S3-230811 Updates on the solution #24**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **revised to S3-231616**.

**S3-231616 Updates on the solution #24**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Qualcomm Incorporated*

(Replaces S3-230811)

**Decision:** The document was **approved**.

**S3-230933 Evaluation of TR33.740 Solution 11**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: China Telecom Corporation Ltd.*

**Discussion:**

Overlapping with 815 by Qualcomm.

**Decision:** The document was **noted**.

**S3-231028 Address EN and add evaluation for Sol #26**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Huawei, HiSilicon*

**Discussion:**

Qualcomm: we cannot agree with the first paragraph in step 3 and the first paragraph in the evaluation.

Xiaomi didn’t agree with the contribution.

**Decision:** The document was **revised to S3-231582**.

**S3-231582 Address EN and add evaluation for Sol #26**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Huawei, HiSilicon*

(Replaces S3-231028)

**Decision:** The document was **approved**.

**S3-231179 ProSe - Evaluation Solution #10**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Philips International B.V.*

**Discussion:**

Huawei was not fine with the reference to TS 33.536.

**Decision:** The document was **revised to S3-231611**.

**S3-231611 ProSe - Evaluation Solution #10**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Philips International B.V.*

(Replaces S3-231179)

**Decision:** The document was **approved**.

**S3-231253 Update the evaluation of solution #30 in TR 33.740**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Beijing Xiaomi Mobile Software*

**Decision:** The document was **approved**.

**S3-231269 pCR to TR33.740 New Solution for discovery integrated into unicast establishment procedure**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: CATT*

**Discussion:**

Interdigital: we need to check alignment with SA2 (integrity discovery). They also had some doubts on the discovery message.

Xiaomi: add an editor's note.

**Decision:** The document was **revised to S3-231446**.

**S3-231446 pCR to TR33.740 New Solution for discovery integrated into unicast establishment procedure**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: CATT*

(Replaces S3-231269)

**Decision:** The document was **approved**.

**S3-231315 New Solution with evaluation for KI #5**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Samsung*

**Discussion:**

Qualcomm: this only applies to layer 3, not layer 2.

**Decision:** The document was **revised to S3-231566**.

**S3-231566 New Solution with evaluation for KI #5**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Samsung*

(Replaces S3-231315)

**Decision:** The document was **approved**.

**S3-231368 Resolving EN for Solution 22**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: OPPO*

**Decision:** The document was **revised to S3-231553**.

**S3-231553 Resolving EN for Solution 22**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: OPPO*

(Replaces S3-231368)

**Decision:** The document was **approved**.

**S3-231266 pCR to TR33.740 Update Solution28**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: CATT*

**Decision:** The document was **noted**.

**S3-230813 Update the evaluation of solution #8**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **noted**.

**S3-230934 Update to the evaluation of TR33.740 Solution 8**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: China Telecom Corporation Ltd.*

**Decision:** The document was **noted**.

**S3-230939 Update to the evaluation of TR33.740 Solution 24**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: China Telecom Corporation Ltd.*

**Decision:** The document was **noted**.

**S3-230814 Update the evaluation of solution #9**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **noted**.

**S3-230936 Update to the evaluation of TR33.740 Solution 9**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: China Telecom Corporation Ltd.*

**Discussion:**

Huawei supported this contribution.

**Decision:** The document was **noted**.

**S3-230815 Add an evaluation of solution #11**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **noted**.

**S3-230938 Update to the evaluation of TR33.740 Solution 23**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: China Telecom Corporation Ltd.*

**Decision:** The document was **noted**.

**S3-231205 pCR to TR33.740 Update Solution16 and its evaluation**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: CATT*

**Decision:** The document was **revised to S3-231552**.

**S3-231552 pCR to TR33.740 Update Solution16 and its evaluation**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: CATT*

(Replaces S3-231205)

**Decision:** The document was **approved**.

**S3-230979 Add Layer-2 description to sol#27**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **approved**.

**S3-231180 ProSe - Solution #27 update**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Philips International B.V.*

**Discussion:**

MCC commented that normative language should be avoided in the description of solutions. It was commented that as long as the top clause read "potential solutions" this could be accepted.

**Decision:** The document was **approved**.

**S3-231252 Evaluation of solution #21 in TR 33.740**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Beijing Xiaomi Mobile Software*

**Decision:** The document was **approved**.

**S3-231254 Update the evaluation of solution #23 in TR 33.740**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Beijing Xiaomi Mobile Software*

**Discussion:**

MCC: refer to SA2 document instead of saying "aligned with SA2 conclusion".

**Decision:** The document was **noted**.

**S3-231255 Update the evaluation of solution #24 in TR 33.740**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Beijing Xiaomi Mobile Software*

**Decision:** The document was **noted**.

**S3-231256 Update the evaluation of solution #31 in TR 33.740**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Beijing Xiaomi Mobile Software*

**Decision:** The document was **revised to S3-231554**.

**S3-231554 Update the evaluation of solution #31 in TR 33.740**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Beijing Xiaomi Mobile Software*

(Replaces S3-231256)

**Decision:** The document was **approved**.

**S3-231265 pCR to TR33.740 Update Solution17's evaluation**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: CATT*

**Decision:** The document was **approved**.

**S3-231251 Remove the Editor's Note and evaluate the solution #7 in TR 33.740**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Beijing Xiaomi Mobile Software*

**Decision:** The document was **noted**.

**S3-230753 Evaluation TR 33.740 Sol #1**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: InterDigital Finland Oy*

**Decision:** The document was **noted**.

**S3-230754 Evaluation TR 33.740 Sol #13**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: InterDigital Finland Oy*

**Decision:** The document was **noted**.

**S3-230810 Updates on the solution #23**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **noted**.

**S3-230940 Add evaluation in Sol #6**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: OPPO*

**Decision:** The document was **approved**.

**S3-230950 pCR to update TR33.740 Solution 11**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: China Telecom Corporation Ltd.*

**Decision:** The document was **noted**.

**S3-231073 Resolve EN in solution #4**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Ericsson*

**Decision:** The document was **noted**.

**S3-231248 Update to solution #7 in TR 33.740**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Beijing Xiaomi Mobile Software*

**Decision:** The document was **noted**.

**S3-231249 Update to solution #8 in TR 33.740**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Beijing Xiaomi Mobile Software*

**Decision:** The document was **revised to S3-231630**.

**S3-231630 Update to solution #8 in TR 33.740**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Beijing Xiaomi Mobile Software*

(Replaces S3-231249)

**Decision:** The document was **approved**.

**S3-231250 Update to solution #9 in TR 33.740**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Beijing Xiaomi Mobile Software*

**Decision:** The document was **revised to S3-231631**.

**S3-231631 Update to solution #9 in TR 33.740**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Beijing Xiaomi Mobile Software*

(Replaces S3-231250)

**Decision:** The document was **approved**.

**S3-231313 EN Resolution of Sol #19**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Samsung*

**Decision:** The document was **approved**.

**S3-231314 EN Resolution of Sol #29**

*Type: pCR For: Approval  
 33.740 v0.5.0  
 Source: Samsung*

**Decision:** The document was **approved**.

**S3-231439 Draft TR 33.740**

*Type: draft TR For: Approval  
 33.740 v0.6.0  
 Source: CATT*

**Decision:** The document was **email approval**.

### 5.4 Study on privacy of identifiers over radio access

**S3-230733 PCR to 33.870 - Solution #10 Evaluation**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: InterDigital France R&D, SAS*

**Abstract:**

This contribution proposes an evaluation for Solution #10 in TR 33.870.

**Discussion:**

Lenovo: capture the backward the compatibility, UE impact.

Huawei: we disagree with the view on backward compatibility.

Qualcomm:this solution is not back ward compatible. Moving to a different terminal will not protect the SUPI.

Interdigital: clause 5.1.3 key issue,states that the solution needs to be evaluated w.r.t backwards compatiblity.

Qualcomm: I don’t think that this is backward compatible in some scenarios.

It was agreed to add an editor's note on the backwards compatibility, and a new sentence on the protocolos like TLS.

**Decision:** The document was **noted**.

**S3-231172 Updating Solution #9: Concealing length of SUPIs in SUCIs by padding the SUPIs**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: Oy LM Ericsson AB*

**Discussion:**

Thales: I don’t agree with "if the UE doesn’t have an USIM then the parameters are stored in the ME".

Qualcomm: evaluation should go away.

**Decision:** The document was **revised to S3-231441**.

**S3-231441 Updating Solution #9: Concealing length of SUPIs in SUCIs by padding the SUPIs**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: Oy LM Ericsson AB*

(Replaces S3-231172)

**Decision:** The document was **approved**.

**S3-230736 PCR to 33.870 - Solution #9 Evaluation**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: InterDigital France R&D, SAS*

**Abstract:**

This contribution proposes an evaluation for Solution #9 in TR 33.870.

**Decision:** The document was **noted**.

**S3-231202 Resolution of EN in solution #8**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: THALES, Qualcomm Incorporated*

**Abstract:**

Resolution of EN in solution #8

**Decision:** The document was **approved**.

**S3-230737 PCR to 33.870 - Solution #8 Evaluation**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: InterDigital France R&D, SAS*

**Abstract:**

This contribution proposes an evaluation for Solution #8 in TR 33.870.

**Discussion:**

Qualcomm didn’t agree with the first paragraph on the backward compatibility.

Interdigital: we agreed on this definition before. It doesn’t require any changes of the UE and network implementation. We are not compatibles with the SUPIs that are allocated already.

Huawei: this is not a real evaluation, reformulate it or remove it.

**Decision:** The document was **noted**.

**S3-230738 PCR to 33.870 - Solution #7 Evaluation**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: InterDigital France R&D, SAS*

**Abstract:**

This contribution proposes an evaluation for Solution #7 in TR 33.870.

**Discussion:**

Huawei: avoid the statement on backwards compatibility.

Interdigital: if SUPI is replaced in the UE we call it not compatible with the SUPI that was already provisioned.

Nokia: reword the backward compatiblity term.

**Decision:** The document was **noted**.

**S3-230905 Add evaluation to solution 6**

*Type: pCR For: Agreement  
 33.870 v0.5.0  
 Source: ZTE Corporation*

**Discussion:**

Ericsson: where is the padding done?

ZTE: preconfigured in USIM and UDM.

Overlapping with tdoc 739.

Qualcomm: add an editor's note to say that further evaluation is needed.

**Decision:** The document was **revised to S3-231428**.

**S3-231428 Add evaluation to solution 6**

*Type: pCR For: Agreement  
 33.870 v0.5.0  
 Source: ZTE Corporation*

(Replaces S3-230905)

**Decision:** The document was **approved**.

**S3-230739 PCR to 33.870 - Solution #6 Evaluation**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: InterDigital France R&D, SAS*

**Abstract:**

This contribution proposes an evaluation for Solution #6 in TR 33.870.

**Discussion:**

Lenovo: there is an error in the contribution, not the right evaluation.

**Decision:** The document was **noted**.

**S3-230921 EN removal for solution #5**

*Type: pCR For: (not specified)  
 33.870 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **approved**.

**S3-230887 Evaluation for Solution#5**

*Type: pCR For: (not specified)  
 33.870 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Discussion:**

Huawei: not clear where the padding is done.

Ericsson: what if there is no USIM in the device?

Thales: there is no reason to preclude the fact that there is a USIM.

**Decision:** The document was **revised to S3-231429**.

**S3-231429 Evaluation for Solution#5**

*Type: pCR For: -  
 33.870 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-230887)

**Decision:** The document was **approved**.

**S3-230740 PCR to 33.870 - Solution #5 Evaluation**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: InterDigital France R&D, SAS*

**Abstract:**

This contribution proposes an evaluation for Solution #5 in TR 33.870.

**Decision:** The document was **merged**.

**S3-231089 Remove EN and Provide Evaluation for Solution #4**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: China Mobile*

**Decision:** The document was **not treated**.

**S3-230741 PCR to 33.870 - Solution #4 Evaluation**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: InterDigital France R&D, SAS*

**Abstract:**

This contribution proposes an evaluation for Solution #4 in TR 33.870.

**Decision:** The document was **not treated**.

**S3-230742 PCR to 33.870 - Solution #3 Evaluation**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: InterDigital France R&D, SAS*

**Abstract:**

This contribution proposes an evaluation for Solution #3 in TR 33.870.

**Decision:** The document was **not treated**.

**S3-230735 PCR to 33.870 Changes to Solution #2**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: InterDigital France R&D, SAS*

**Abstract:**

This contribution proposes changes to Solution #2 in TR 33.870.

**Decision:** The document was **not treated**.

**S3-230743 PCR to 33.870 - Solution #2 Evaluation**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: InterDigital France R&D, SAS*

**Abstract:**

This contribution proposes an evaluation for Solution #2 in TR 33.870.

**Decision:** The document was **not treated**.

**S3-231364 Update to Solution #1 in ID Privacy**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: Lenovo*

**Decision:** The document was **not treated**.

**S3-230744 PCR to 33.870 - Solution #1 Evaluation**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: InterDigital France R&D, SAS*

**Abstract:**

This contribution proposes an evaluation for Solution #1 in TR 33.870.

**Decision:** The document was **not treated**.

**S3-231173 KI #1 Conclusion**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: Oy LM Ericsson AB*

**Decision:** The document was **not treated**.

**S3-230694 New Informative Annex for TR 33.870**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: NCSC*

**Decision:** The document was **not treated**.

**S3-230731 PCR to 33.870 New clause for comparative evaluation of KI#1 solutions**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: InterDigital France R&D, SAS*

**Abstract:**

This contribution proposes the addition of a new clause for comparative evaluation of KI#1 solutions comparative evaluation of KI#1 solutions.

**Decision:** The document was **not treated**.

**S3-230734 PCR to 33.870 - New clause for mapping solutions and KIs**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: InterDigital France R&D, SAS*

**Abstract:**

This contribution proposes to add a new clause, Mapping of solutions to key issues to be added in TR 33.870.

**Decision:** The document was **not treated**.

**S3-230732 PCR to 33.870 - Aggregate changes**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: InterDigital France R&D, SAS*

**Abstract:**

This contribution provides strictly editorial changes to TR 33.870.

**Decision:** The document was **not treated**.

**S3-230730 Privacy Study - Notes from the offline call on 2023-02-08**

*Type: other For: Information  
 Source: InterDigital France R&D, SAS*

**Abstract:**

This contribution provides notes from the offline Privacy Study call on 2023-02-08.

**Decision:** The document was **not treated**.

**S3-230756 Remove EN to Key Issue #2**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: Johns Hopkins University APL, US National Security Agency, InterDigital, Apple, CableLabs*

**Abstract:**

Remove EN to KI#2

**Decision:** The document was **revised to S3-231583**.

**S3-231583 Remove EN to Key Issue #2**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: Johns Hopkins University APL, US National Security Agency, InterDigital, Apple, CableLabs*

(Replaces S3-230756)

**Decision:** The document was **approved**.

**S3-230821 Solution Proposed for KI#2, protecting users with high priority**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **revised to S3-231584**.

**S3-231584 Solution Proposed for KI#2, protecting users with high priority**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: Qualcomm Incorporated*

(Replaces S3-230821)

**Decision:** The document was **approved**.

**S3-230880 New solution for prevention of detection of priority access**

*Type: pCR For: (not specified)  
 33.870 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell, Johns Hopkins University APL*

**Discussion:**

Thales, Intel: we object to this solution.

**Decision:** The document was **noted**.

**S3-230885 Policy-based C-RNTI and TMSI refresh**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: Intel*

**Discussion:**

Huawei: it is not clear how to mitigate the leakage of information when sending the parameter,information elements, in the clear.

Ericsson:, John Hopkins: no protection of the information in the clear.

Qualcomm: remove the evaluation.

**Decision:** The document was **revised to S3-231585**.

**S3-231585 Policy-based C-RNTI and TMSI refresh**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: Intel*

(Replaces S3-230885)

**Decision:** The document was **approved**.

**S3-230955 A mitigation solution for key issue #2 based on selective usage of priority-access**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **merged**.

**S3-231273 New Solution to KI #2**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: Ericsson-LG Co., LTD*

**Discussion:**

Qualcomm: remove the evaluation. The solution is incomplete. Lot of details are missing, it's premature.

Intel: we object because this is incomplete.

Thales: note this contribution.

**Decision:** The document was **noted**.

**S3-230721 New KI: Protection of Home Network Identifiers**

*Type: pCR For: Approval  
 33.870 v0.5.0  
 Source: MITRE Corporation*

**Abstract:**

Key Issue aims to provide protection of Home Network Identifiers over the air interface in the SUCI

**Discussion:**

Ericsson: We said in the begining of 5G that some of these identifiers didn’t need to be protected.

Qualcomm: what has changed since we decided not to protect them?

Interdigital: laws of privacy has changed. Governments have tightened their privacy requirements.

Vodafone: some way the identifer will show information of the customer. I can't see a realistic way of solving it, though.

NTT-Docomo: we will spend too long time on this, I don't see how this can be deployed.

MITRE: solution is hard, but this is an issue.

Philips: if there is an issue we should study it, even if we don’t see a solution now.

Qualcomm: already studied in phase 1 of 5G. At least we need an analysis from technical point of view. I don’t know about any law for routing information being protected.

**Decision:** The document was **noted**.

**S3-230877 New Key Issue for protecting 3GPP radio identifiers and privacy sensitive information during remote troubleshooting**

*Type: pCR For: (not specified)  
 33.870 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell, Vodafone, Verizon*

**Discussion:**

Huawei: out of scope of the study.

NCSC: availability against privacy issue here.

China Mobile: not comfortable with this.

**Decision:** The document was **noted**.

**S3-231427 Draft TR 33.870**

*Type: draft TR For: Approval  
 33.870 v0.6.0  
 Source: Interdigital*

**Decision:** The document was **email approval**.

### 5.5 Study on Standardising Automated Certificate Management in SBA

**S3-230859 Adding evaluation to solution#3**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231479**.

**S3-231479 Adding evaluation to solution#3**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Huawei, HiSilicon*

(Replaces S3-230859)

**Decision:** The document was **approved**.

**S3-230918 Updating evaluation of solution#8 in TR33.876**

*Type: pCR For: (not specified)  
 33.876 v0.5.0  
 Source: China Telecommunications*

**Decision:** The document was **revised to S3-231480**.

**S3-231480 Updating evaluation of solution#8 in TR33.876**

*Type: pCR For: -  
 33.876 v0.5.0  
 Source: China Telecommunications*

(Replaces S3-230918)

**Decision:** The document was **approved**.

**S3-231268 KI#2 Sol#13 EN resolution and evaluation**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Ericsson-LG Co., LTD*

**Decision:** The document was **revised to S3-231481**.

**S3-231481 KI#2 Sol#13 EN resolution and evaluation**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Ericsson-LG Co., LTD*

(Replaces S3-231268)

**Decision:** The document was **approved**.

**S3-230833 Conclusion of KI#2**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231482**.

**S3-231482 Conclusion of KI#2**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-230833)

**Decision:** The document was **approved**.

**S3-230998 Conclusion proposal for KI # 2**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **merged**.

**S3-230879 Evaluation for Solution#14**

*Type: pCR For: (not specified)  
 33.876 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231483**.

**S3-231483 Evaluation for Solution#14**

*Type: pCR For: -  
 33.876 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-230879)

**Decision:** The document was **approved**.

**S3-230953 Evaluation for solution #15 on certificate update and renewal**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231484**.

**S3-231484 Evaluation for solution #15 on certificate update and renewal**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Huawei, HiSilicon*

(Replaces S3-230953)

**Decision:** The document was **approved**.

**S3-230878 Conclusion of KI#3**

*Type: pCR For: (not specified)  
 33.876 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **merged**.

**S3-230954 Conclusion for key issue #3**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231485**.

**S3-231485 Conclusion for key issue #3**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Huawei, HiSilicon*

(Replaces S3-230954)

**Decision:** The document was **approved**.

**S3-231004 Evaluation of solution 6**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231486**.

**S3-231486 Evaluation of solution 6**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Huawei, HiSilicon*

(Replaces S3-231004)

**Decision:** The document was **approved**.

**S3-230832 Conclusion of KI#5**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231487**.

**S3-231487 Conclusion of KI#5**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-230832)

**Decision:** The document was **approved**.

**S3-231270 KI#6 Sol#7 EN resolution and evaluation**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Ericsson-LG Co., LTD*

**Decision:** The document was **noted**.

**S3-230996 Address the EN of Sol #9**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **noted**.

**S3-230831 Conclusion of KI#6**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **noted**.

**S3-230999 Add the conclusion for key issue #6**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **noted**.

**S3-230828 Discussion paper on new draft rfc on X.509 certificate EKU for JOSE**

*Type: discussion For: Endorsement  
 33.876 v..  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **noted**.

**S3-230827 Enhancement of solution #10**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **approved**.

**S3-230830 Conclusion of KI#7**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231488**.

**S3-231488 Conclusion of KI#7**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-230830)

**Discussion:**

Huawei asked to minute: this revision doesn’t address our concerns.

**Decision:** The document was **approved**.

**S3-230826 Resolution of EN in solution #12 of FS\_ACM\_SBA**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **approved**.

**S3-230829 Conclusion of KI#9**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231586**.

**S3-231586 Conclusion of KI#9**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-230829)

**Decision:** The document was **approved**.

**S3-230997 Address ENs of Sol #1 and add the evaluation**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **approved**.

**S3-231267 KI#1 Sol#2 EN resolution and evaluation**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Ericsson-LG Co., LTD*

**Decision:** The document was **revised to S3-231588**.

**S3-231588 KI#1 Sol#2 EN resolution and evaluation**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Ericsson-LG Co., LTD*

(Replaces S3-231267)

**Decision:** The document was **approved**.

**S3-231262 Update to solution #4 in TR 33.876**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Beijing Xiaomi Mobile Software*

**Decision:** The document was **revised to S3-231589**.

**S3-231589 Update to solution #4 in TR 33.876**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Beijing Xiaomi Mobile Software*

(Replaces S3-231262)

**Decision:** The document was **approved**.

**S3-231263 Update to solution #5 in TR 33.876**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Beijing Xiaomi Mobile Software*

**Decision:** The document was **revised to S3-231590**.

**S3-231590 Update to solution #5 in TR 33.876**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Beijing Xiaomi Mobile Software*

(Replaces S3-231263)

**Decision:** The document was **approved**.

**S3-231358 Proposal Solution #XX ACME use in 3GPP**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Google Inc., CableLabs, Charter Communications, Telefonica, Deutsche Telekom*

**Decision:** The document was **revised to S3-231489**.

**S3-231489 Proposal Solution #XX ACME use in 3GPP**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Google Inc., CableLabs, Charter Communications, Telefonica, Deutsche Telekom*

(Replaces S3-231358)

**Decision:** The document was **approved**.

**S3-230825 Solution of assurance of unique NF identifiers in certificates**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231591**.

**S3-231591 Solution of assurance of unique NF identifiers in certificates**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-230825)

**Decision:** The document was **approved**.

**S3-230952 Slice specific initial enrolment procedure**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231592**.

**S3-231592 Slice specific initial enrolment procedure**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: Huawei, HiSilicon*

(Replaces S3-230952)

**Decision:** The document was **approved**.

**S3-231065 pCR to 33876 - Addition of solution for private cert keys in transit and at rest**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: VODAFONE Group Plc*

**Discussion:**

Nokia: scope issues with this contribution.

Vodafone: adding a clause on best practices? Informative annex?

Huawei: we need to discuss this further with Vodafone. We don’t have a common understanding of this.

**Decision:** The document was **noted**.

**S3-230917 Clarify the use of cross-certificates**

*Type: pCR For: Approval  
 33.876 v0.5.0  
 Source: China Telecommunications*

**Discussion:**

Ericsson: GSMA ruled out cross certification in roaming cases. Why are we including it here?

**Decision:** The document was **noted**.

**S3-231499 Draft TR 33.876**

*Type: draft TR For: Approval  
 33.876 v0.6.0  
 Source: Nokia*

**Decision:** The document was **email approval**.

### 5.6 New SID on AKMA phase 2

**S3-230701 KI1 conclusion for case 1 and case3**

*Type: pCR For: Approval  
 33.737 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell, Xiaomi, Lenovo*

**Decision:** The document was **noted**.

**S3-230908 Conclusion for KI#1**

*Type: pCR For: Agreement  
 33.737 v0.5.0  
 Source: ZTE Corporation*

**Decision:** The document was **noted**.

**S3-231008 Cocnlusion for key issue 1**

*Type: pCR For: Approval  
 33.737 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **noted**.

**S3-231203 Conclusion for Key Issue #1**

*Type: pCR For: Approval  
 33.737 v0.5.0  
 Source: THALES*

**Abstract:**

Conclusion for Key Issue #1

**Discussion:**

Qualcomm, Ericsson: UE impact that wasn't pointed out in the SID.

Qualcomm preferred the Huawei approach.

**Decision:** The document was **noted**.

**S3-230906 Add EN to the solution 1 and 6 and 14**

*Type: pCR For: Agreement  
 33.737 v0.5.0  
 Source: ZTE Corporation*

**Decision:** The document was **noted**.

**S3-230907 Add EN to the solution 5**

*Type: pCR For: Agreement  
 33.737 v0.5.0  
 Source: ZTE Corporation*

**Decision:** The document was **noted**.

**S3-230910 updates to the solution 3 and 9**

*Type: pCR For: Agreement  
 33.737 v0.5.0  
 Source: ZTE Corporation*

**Decision:** The document was **approved**.

**S3-230911 updates to the solution 15**

*Type: pCR For: Agreement  
 33.737 v0.5.0  
 Source: ZTE Corporation*

**Decision:** The document was **noted**.

**S3-231035 Evaluation for Solution #5**

*Type: pCR For: Approval  
 33.737 v0.5.0  
 Source: LG Electronics*

**Decision:** The document was **approved**.

**S3-231036 Evaluation for Solution #12**

*Type: pCR For: Approval  
 33.737 v0.5.0  
 Source: LG Electronics*

**Decision:** The document was **approved**.

**S3-230909 Discussion on multi-registration in AKMA roaming**

*Type: pCR For: Discussion  
 33.737 v0.5.0  
 Source: ZTE Corporation*

**Discussion:**

Ericsson: Part of solution 16 can go to normative. Nokia agreed.

**Decision:** The document was **noted**.

**S3-231505 Draft TR 33.737**

*Type: draft TR For: Approval  
 33.737 v0.6.0  
 Source: China Mobile*

**Decision:** The document was **email approval**.

### 5.7 Study of Security aspect of home network triggered primary authentication

**S3-230803 Proposed addition to the conclusions**

*Type: pCR For: Approval  
 33.741 v0.5.0  
 Source: Qualcomm Incorporated*

(Replaces S3-230291)

**Decision:** The document was **noted**.

**S3-230930 Solution #10 evalution**

*Type: pCR For: Approval  
 33.741 v0.5.0  
 Source: BUPT, China Mobile*

**Discussion:**

Qualcomm: not sure if his evaluation is appropriate.Just write "this solution is not evaluated".

**Decision:** The document was **merged**.

**S3-231009 Clean up of the TR**

*Type: pCR For: Approval  
 33.741 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231548**.

**S3-231548 Clean up of the TR**

*Type: pCR For: Approval  
 33.741 v0.5.0  
 Source: Huawei, HiSilicon*

(Replaces S3-231009)

**Decision:** The document was **approved**.

**S3-231549 TR 33.741 cover sheet**

*Type: TS or TR cover For: Approval  
 33.741 v..  
 Source: Huawei*

**Decision:** The document was **approved**.

**S3-231550 Draft TR 33.741**

*Type: draft TR For: Approval  
 33.741 v0.6.0  
 Source: Huawei*

**Decision:** The document was **email approval**.

### 5.8 Study on security aspects of enablers for Network Automation for 5G – phase 3

**S3-231090 Presentation of TR33.738 to TSG for information**

*Type: TS or TR cover For: Approval  
 33.738 v0.5.0  
 Source: China Mobile*

**Decision:** The document was **revised to S3-231490**.

**S3-231490 Presentation of TR33.738 to TSG for information**

*Type: TS or TR cover For: Approval  
 33.738 v0.5.0  
 Source: China Mobile*

(Replaces S3-231090)

**Decision:** The document was **approved**.

**S3-230969 New solution for authorization on roaming**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231491**.

**S3-231491 New solution for authorization on roaming**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: Huawei, HiSilicon*

(Replaces S3-230969)

**Decision:** The document was **approved**.

**S3-231094 Update to solution #8**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: China Mobile*

**Decision:** The document was **revised to S3-231492**.

**S3-231492 Update to solution #8**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: China Mobile*

(Replaces S3-231094)

**Decision:** The document was **approved**.

**S3-231092 Conclusion for key issue #1**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: China Mobile*

**Decision:** The document was **noted**.

**S3-230835 Resolution of ENs of KI#1 conclusion in eNA\_SEC\_Ph3**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **noted**.

**S3-230956 New solution on authorization for AI/ML model sharing**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **noted**.

**S3-230957 New solution on authorization for AI/ML model sharing**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **noted**.

**S3-231053 Add ADRF storage details**

*Type: pCR For: (not specified)  
 33.738 v0.5.0  
 Source: Intel*

**Decision:** The document was **revised to S3-231493**.

**S3-231493 Add ADRF storage details**

*Type: pCR For: -  
 33.738 v0.5.0  
 Source: Intel*

(Replaces S3-231053)

**Decision:** The document was **approved**.

**S3-230836 NFc registration in KI#3 conclusion in eNA\_SEC\_Ph3**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **merged**.

**S3-230837 Authorization granularity in KI#3 conclusion in eNA\_SEC\_Ph3**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231494**.

**S3-231494 Authorization granularity in KI#3 conclusion in eNA\_SEC\_Ph3**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-230837)

**Decision:** The document was **approved**.

**S3-230838 AI\_ML model encryption in KI#3 conclusion in eNA\_SEC\_Ph3**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell, Intel*

**Decision:** The document was **revised to S3-231495**.

**S3-231495 AI\_ML model encryption in KI#3 conclusion in eNA\_SEC\_Ph3**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell, Intel*

(Replaces S3-230838)

**Decision:** The document was **noted**.

**S3-230924 Conclusion for KI#3: Removal of EN related to Authorization**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: Intel*

**Decision:** The document was **merged**.

**S3-231051 Conclusion for KI#3: Removal of EN related to Registration**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: Intel*

**Decision:** The document was **revised to S3-231496**.

**S3-231496 Conclusion for KI#3: Removal of EN related to Registration**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: Intel*

(Replaces S3-231051)

**Decision:** The document was **approved**.

**S3-230958 Update conclusion to KI#3**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **noted**.

**S3-231152 Updates to conclusions to KI#3 "Security for AI/ML model storage and sharing"**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: Ericsson*

**Decision:** The document was **merged**.

**S3-230840 Evaluation of solution #18 in eNA\_SEC\_Ph3**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231593**.

**S3-231593 Evaluation of solution #18 in eNA\_SEC\_Ph3**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-230840)

**Decision:** The document was **approved**.

**S3-230919 Evaluation for solution#15 in TR33.738**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: China Telecommunications*

**Decision:** The document was **approved**.

**S3-230842 Conclusion of eNA\_SEC\_Ph3 KI#2**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **merged**.

**S3-230922 Conclusion for KI#2 in TR33.738**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: China Telecommunications*

**Decision:** The document was **merged**.

**S3-230925 Conclusion for KI#2**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: Intel*

**Decision:** The document was **merged**.

**S3-231151 Conclusions to KI#2 "Authorization of selection of participant NWDAF instances in the Federated Learning group"**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-231497**.

**S3-231497 Conclusions to KI#2 "Authorization of selection of participant NWDAF instances in the Federated Learning group"**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: Ericsson*

(Replaces S3-231151)

**Decision:** The document was **approved**.

**S3-230839 Evaluation of solution #6 in eNA\_SEC\_Ph3**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Discussion:**

Ericsson: concerned about additional security related data.

**Decision:** The document was **revised to S3-231594**.

**S3-231594 Evaluation of solution #6 in eNA\_SEC\_Ph3**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-230839)

**Decision:** The document was **approved**.

**S3-231356 Update to Solution #9 in eNA**

*Type: pCR For: (not specified)  
 33.738 v0.5.0  
 Source: Lenovo*

**Decision:** The document was **revised to S3-231595**.

**S3-231595 Update to Solution #9 in eNA**

*Type: pCR For: -  
 33.738 v0.5.0  
 Source: Lenovo*

(Replaces S3-231356)

**Decision:** The document was **approved**.

**S3-230841 Conclusion of eNA\_SEC\_Ph3 KI#4**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell, Lenovo*

**Decision:** The document was **noted**.

**S3-230920 Evaluation for solution#19 in TR33.738**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: China Telecommunications*

**Decision:** The document was **approved**.

**S3-230923 Conclusion for KI#5 in TR33.738**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: China Telecommunications*

**Decision:** The document was **revised to S3-231597**.

**S3-231597 Conclusion for KI#5 in TR33.738**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: China Telecommunications*

(Replaces S3-230923)

**Decision:** The document was **approved**.

**S3-231337 New solution addressing KI#6**

*Type: pCR For: (not specified)  
 33.738 v0.5.0  
 Source: Lenovo, Nokia*

**Discussion:**

Qualcomm objected to this, not in scope. Huawei also objected.

**Decision:** The document was **noted**.

**S3-231357 Update to Solution #20 in eNA**

*Type: pCR For: Approval  
 33.738 v0.5.0  
 Source: Lenovo*

**Discussion:**

Huawei: wait a meeting cycle for this solution.

**Decision:** The document was **noted**.

**S3-231500 Draft TR 33.738**

*Type: draft TR For: Approval  
 33.738 v0.6.0  
 Source: China Mobile*

**Decision:** The document was **email approval**.

### 5.9 Study on Security Enhancement of support for Edge Computing — phase 2

**S3-230843 Update in solution #23 (EAS discovery procedure protection)**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell, Huawei, HiSilicon*

**Discussion:**

Vodafone: we don’t provision the UE as described here. I will not object because this is not a solution.

**Decision:** The document was **revised to S3-231447**.

**S3-231447 Update in solution #23 (EAS discovery procedure protection)**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell, Huawei, HiSilicon*

(Replaces S3-230843)

**Decision:** The document was **approved**.

**S3-231016 Addressing the EN in solution#23**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **merged**.

**S3-231017 Conclusion for Key issue#1.2**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Huawei, HiSilicon*

**Discussion:**

Vodafone objected to this contribution, it had to be taken offline.

Ericsson: editor's note, this is not complete.

**Decision:** The document was **revised to S3-231587**.

**S3-231587 Conclusion for Key issue#1.2**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Huawei, HiSilicon*

(Replaces S3-231017)

**Decision:** The document was **approved**.

**S3-230870 Resolving EN of conclusion of KI#2.1**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **noted**.

**S3-231059 Further conclusion for KI# 2.1**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Ericsson*

**Discussion:**

Vodafone: you need to map the statement on the token based solution to an existing solution.

Apple had also issues with the token based solution statement.

**Decision:** The document was **revised to S3-231529**.

**S3-231529 Further conclusion for KI# 2.1**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Ericsson*

(Replaces S3-231059)

**Decision:** The document was **approved**.

**S3-231060 Conclusion update for KI#2.1 to address the GPSI spoofing attack**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Ericsson*

**Discussion:**

Huawei: this is not needed.

Thales didn’t agree with the conclusion either.

Ericsson: we can address the threat in the normative phase without writing it here? Huawei agreed to write something to avoid confusion for implementers.

**Decision:** The document was **revised to S3-231450**.

**S3-231450 Conclusion update for KI#2.1 to address the GPSI spoofing attack**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Ericsson*

(Replaces S3-231060)

**Decision:** The document was **approved**.

**S3-231240 Update Conclusion for KI 2.1**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Xiaomi communications*

**Discussion:**

Qualcomm: we don’t agrree with this.

**Decision:** The document was **revised to S3-231598**.

**S3-231598 Update Conclusion for KI 2.1**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Xiaomi communications*

(Replaces S3-231240)

**Decision:** The document was **noted**.

**S3-231300 Update to conclusion#2.1**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Samsung*

**Discussion:**

Ericsson had issues with the contribution.

Qualcomm: why do we need another way of provising the root certificates in the UE? Vodafone supported this.

Apple: wording not clear.

Thales: no requirement for privacy, change the wording.

**Decision:** The document was **revised to S3-231451**.

**S3-231451 Update to conclusion#2.1**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Samsung*

(Replaces S3-231300)

**Decision:** The document was **approved**.

**S3-230871 Resolving EN of conclusion of KI#2.2**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Huawei, HiSilicon, Thales*

**Discussion:**

Apple: first change not needed, any authentication methods can be used. We don’t agree with the second change either.

Samsung: clarification on the second change.

Huawei: second change refers to an existing solution in the TR.

**Decision:** The document was **merged**.

**S3-231062 Further conclusion for KI#2.2**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Ericsson*

**Decision:** The document was **merged**.

**S3-231301 Update to conclusion#2.2**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Samsung*

**Decision:** The document was **revised to S3-231452**.

**S3-231452 Update to conclusion#2.2**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Samsung*

(Replaces S3-231301)

**Discussion:**

Samsung: there is a big support for this contribution. They asked for a working agreement.

Apple objected because they thought that the issue was left for implementation.

Samsung: there is no need for standardization.

NTT\_Docomo: I have reservations and I would like to see in the WID how this works for an operator-network side. For the sake of progress we can include this in the study.

OPPO: not a conclusion language, make it a note. Apple agreed, China Telecom as well.

**Decision:** The document was **noted**.

**S3-230802 Resolving the EN in solution #22**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **approved**.

**S3-231168 MEC-Addressing the EN#1 in solution#7**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Apple*

**Decision:** The document was **approved**.

**S3-231169 MEC-Addressing the EN#2 in solution#7**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Apple*

**Decision:** The document was **revised to S3-231454**.

**S3-231454 MEC-Addressing the EN#2 in solution#7**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Apple*

(Replaces S3-231169)

**Decision:** The document was **approved**.

**S3-231302 Evaluation for solution#22**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Samsung*

**Decision:** The document was **noted**.

**S3-230872 Resolving EN of conclusion of KI#2.3**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **approved**.

**S3-230873 Resolving EN of conclusion of KI#2.4**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Huawei, HiSilicon*

**Discussion:**

Vodafone: why remove it if the TR is not finished?

Huawei: editorial issue, it should be located in the whole clause 7 and not here.

Vodafone: ok, there are other cases where we are removing editor's notes without reason.

**Decision:** The document was **approved**.

**S3-230723 Conclusion for solution #26.**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: InterDigital Communications*

**Discussion:**

Conflict with tdoc 869.

**Decision:** The document was **noted**.

**S3-230722 Address ENs**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: InterDigital Communications*

**Discussion:**

Ericsson: these details are not very clear.

Huawei: how to verify the tokens is not clear here. Keep the editor's note in the evaluation.

**Decision:** The document was **revised to S3-231455**.

**S3-231455 Address ENs**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: InterDigital Communications*

(Replaces S3-230722)

**Decision:** The document was **approved**.

**S3-230869 Resolving EN of conclusion of KI#2.6**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **noted**.

**S3-231063 A new solution for KI#2.6**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Ericsson*

**Discussion:**

Vodafone: author providing his own evaluation for his solution.We normally put an editor's note in these cases for further evaluation.

**Decision:** The document was **revised to S3-231456**.

**S3-231456 A new solution for KI#2.6**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Ericsson*

(Replaces S3-231063)

**Decision:** The document was **approved**.

**S3-231061 A new key issue on user consent for data sharing via North-Bound APIs**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: Ericsson*

**Discussion:**

Huawei: this should go to SNAAPPY study.Qualcomm didn’t understand the relation with SNAPPY.

**Decision:** The document was **noted**.

**S3-230724 Editorial change**

*Type: pCR For: Approval  
 33.739 v0.5.0  
 Source: InterDigital Communications*

**Decision:** The document was **approved**.

**S3-231453 Draft TR 33.739**

*Type: draft TR For: Approval  
 33.739 v0.6.0  
 Source: Huawei*

**Decision:** The document was **email approval**.

### 5.10 Study on Personal IoT Networks Security Aspects

**S3-230666 conclusion on KI#1**

*Type: pCR For: Approval  
 33.882 v0.5.0  
 Source: vivo*

**Decision:** The document was **noted**.

**S3-230780 KI#1 Conclusions**

*Type: pCR For: Approval  
 33.882 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **noted**.

**S3-230912 Add conclusion for KI#1**

*Type: pCR For: Agreement  
 33.882 v0.5.0  
 Source: ZTE Corporation*

**Decision:** The document was **noted**.

**S3-230989 Add conclusion to KI#1**

*Type: pCR For: Approval  
 33.882 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **noted**.

**S3-231201 Conclusion for Key Issue #1**

*Type: pCR For: Approval  
 33.882 v0.5.0  
 Source: THALES*

**Abstract:**

Conclusion for Key Issue #1

**Decision:** The document was **noted**.

**S3-231354 Add conclusion to KI#1 of TR 33.882**

*Type: pCR For: Approval  
 33.882 v0.5.0  
 Source: Xiaomi Communications*

**Decision:** The document was **noted**.

**S3-230667 conclusion on KI#2**

*Type: pCR For: Approval  
 33.882 v0.5.0  
 Source: vivo*

**Decision:** The document was **noted**.

**S3-230781 KI#2 Conclusions**

*Type: pCR For: Approval  
 33.882 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **noted**.

**S3-230886 Conclusion for KI#2: Authorization of PIN capabilities**

*Type: pCR For: Approval  
 33.882 v0.5.0  
 Source: Intel*

**Decision:** The document was **noted**.

**S3-230913 Add conclusion for KI#2**

*Type: pCR For: Agreement  
 33.882 v0.5.0  
 Source: ZTE Corporation*

**Decision:** The document was **noted**.

**S3-231235 Add conclusion to KI#2 of TR 33.882**

*Type: pCR For: Approval  
 33.882 v0.5.0  
 Source: Xiaomi communications*

**Decision:** The document was **noted**.

**S3-230778 Sol#1 Updating Evaluation**

*Type: pCR For: Approval  
 33.882 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **approved**.

**S3-230779 Sol#3 Removal of EN**

*Type: pCR For: Approval  
 33.882 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231596**.

**S3-231596 Sol#3 Removal of EN**

*Type: pCR For: Approval  
 33.882 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-230779)

**Decision:** The document was **approved**.

**S3-231181 PIN - Evaluation Solution #4**

*Type: pCR For: Approval  
 33.882 v0.5.0  
 Source: Philips International B.V.*

**Decision:** The document was **revised to S3-231539**.

**S3-231539 PIN - Evaluation Solution #4**

*Type: pCR For: Approval  
 33.882 v0.5.0  
 Source: Philips International B.V.*

(Replaces S3-231181)

**Decision:** The document was **approved**.

**S3-230819 Resolution of EN#1 in Solution#7 for KI#1**

*Type: pCR For: Approval  
 33.882 v0.5.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **revised to S3-231540**.

**S3-231540 Resolution of EN#1 in Solution#7 for KI#1**

*Type: pCR For: Approval  
 33.882 v0.5.0  
 Source: Qualcomm Incorporated*

(Replaces S3-230819)

**Decision:** The document was **approved**.

**S3-230820 Resolution of EN#2 in Solution#7 for KI#1**

*Type: pCR For: Approval  
 33.882 v0.5.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **approved**.

**S3-230777 KI#1 New Sol for local PINE authentication**

*Type: pCR For: Approval  
 33.882 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231541**.

**S3-231541 KI#1 New Sol for local PINE authentication**

*Type: pCR For: Approval  
 33.882 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-230777)

**Decision:** The document was **approved**.

**S3-231170 PINE authentication**

*Type: pCR For: Approval  
 33.882 v0.5.0  
 Source: Apple*

**Discussion:**

Qualcomm: it goes against SA2's conclusions. It has impact on primary authentication and the local interface (WLAN, Bluetooth,..).

Interdigital: accept the solution add all these to the evaluation.

Qualcomm: only evaluate solutions that are in line with the other WGs.

**Decision:** The document was **noted**.

**S3-231345 Solution for KI#2**

*Type: pCR For: (not specified)  
 33.882 v0.5.0  
 Source: Lenovo*

**Decision:** The document was **approved**.

**S3-231557 Draft TR 33.882**

*Type: draft TR For: Approval  
 33.882 v0.6.0  
 Source: Vivo*

**Decision:** The document was **email approval**.

### 5.11 Study on SNAAPP security

**S3-230775 Sol#1 Adding Evaluation to Sol#1**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**S3-230774 Sol#3 Updating Evaluation**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**S3-231359 Update to Solution #4 in Snaappy**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: Lenovo*

**Decision:** The document was **not treated**.

**S3-231230 Add evaluation to Sol #9 of TR 33.884**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: Xiaomi communications*

**Decision:** The document was **not treated**.

**S3-231231 Add evaluation to Sol #10 of TR 33.884**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: Xiaomi communications*

**Decision:** The document was **not treated**.

**S3-231310 Update on Sol#11**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: Samsung*

**Decision:** The document was **not treated**.

**S3-231311 Update on Sol#12**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: Samsung*

**Decision:** The document was **not treated**.

**S3-230776 KI#1 Conclusions**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **merged**.

**S3-230966 Conclusion for key issue #2**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **merged**.

**S3-231312 Conclusion on KI#2**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: Samsung*

**Decision:** The document was **merged**.

**S3-230963 Update on solutiion #1**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**S3-230967 Address EN on solutiion #1: username mapping**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**S3-230968 Address EN on solutiion #1: message of scope**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**S3-230773 Sol#3 Resolving ENs on scopes and claims**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**S3-231360 Update to Solution #5 in Snaappy**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: Lenovo*

**Decision:** The document was **not treated**.

**S3-231057 Resolving ENs in solution #6**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: Ericsson*

**Decision:** The document was **not treated**.

**S3-231234 Resolve EN for Sol #9 of TR 33.884**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: Xiaomi communications*

**Decision:** The document was **not treated**.

**S3-231309 Resolving EN on Sol#11**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: Samsung*

**Decision:** The document was **not treated**.

**S3-230965 New Solution on OAuth2.0 Token Revocation**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**S3-231232 KI#1 and KI#2, New Sol on resource owner policies based authorization mechanism**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: Xiaomi communications*

**Decision:** The document was **not treated**.

**S3-231233 KI#2, New Sol on User authorization revocation for API invocation procedure**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: Xiaomi communications*

**Decision:** The document was **not treated**.

**S3-231375 new solution: authorization revocation for persistent changes**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: NTT DOCOMO INC.*

**Decision:** The document was **not treated**.

**S3-230964 Role mapping from TR 23.700-95**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**S3-231381 Editorials for 33.884**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: NTT DOCOMO INC.*

**Decision:** The document was **approved**.

**S3-231384 pCR to 33.884 on architectural assumptions**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: NTT DOCOMO INC.*

**Decision:** The document was **not treated**.

**S3-231545 SNAAPPY conclusions**

*Type: pCR For: Approval  
 33.884 v0.4.0  
 Source: NTT-Docomo*

**Decision:** The document was **approved**.

**S3-231608 Draft TR 33.884**

*Type: draft TR For: Approval  
 33.884 v0.5.0  
 Source: NTT-Docomo*

**Decision:** The document was **email approval**.

**S3-231617 TR 33.884 cover sheet**

*Type: TS or TR cover For: Approval  
 33.884 v..  
 Source: NTT-Docomo*

**Decision:** The document was **approved**.

### 5.12 Study on enhanced security for network slicing Phase 3

**S3-230848 Wayforward discussion for KI#1**

*Type: discussion For: Information  
 33.886 v0.3.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **noted**.

**S3-230849 KI#1 update**

*Type: pCR For: Approval  
 33.886 v0.3.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231506**.

**S3-231506 KI#1 update**

*Type: pCR For: Approval  
 33.886 v0.3.0  
 Source: Huawei, HiSilicon*

(Replaces S3-230849)

**Decision:** The document was **noted**.

**S3-230915 Update to KI#1 providing VPLMN slice information to roaming UE**

*Type: pCR For: Agreement  
 33.886 v0.5.0  
 Source: ZTE Corporation*

**Discussion:**

Thales, Qualcomm didn’t agree with this contribution. There is no threat, it’s integrity protected.

**Decision:** The document was **merged**.

**S3-230914 New solution to KI#1 protecting SoR container from UDM to UE**

*Type: pCR For: Agreement  
 33.886 v0.5.0  
 Source: ZTE Corporation*

**Discussion:**

Thales: note this solution, there is nothing to do.

**Decision:** The document was **noted**.

**S3-230850 Conclusion for KI#1**

*Type: pCR For: Approval  
 33.886 v0.3.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231507**.

**S3-231507 Conclusion for KI#1**

*Type: pCR For: Approval  
 33.886 v0.3.0  
 Source: Huawei, HiSilicon*

(Replaces S3-230850)

**Decision:** The document was **approved**.

**S3-230851 Update to KI#3**

*Type: pCR For: Approval  
 33.886 v0.3.0  
 Source: Huawei, HiSilicon*

**Discussion:**

Ericsson: this is more in the SA2's domain. They have a key issue 6 about this.The security issue is still unclear. No need to have more additions in the existing text.

**Decision:** The document was **noted**.

**S3-230852 New solution to KI#3**

*Type: pCR For: Approval  
 33.886 v0.3.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231508**.

**S3-231508 New solution to KI#3**

*Type: pCR For: Approval  
 33.886 v0.3.0  
 Source: Huawei, HiSilicon*

(Replaces S3-230852)

**Discussion:**

Huawei: key issue 3 was agreed last meeting. We noted all solutions. Ericsson had agreed to wait for the WID completion in SA2, their objection is not following this now.

Nokia: Ericsson also objected stating that we had to follow for SA2 WID and now they object to our solutions as well.

Ericsson: this key issue was handled in a emeeting. We need to see the outcome of SA2 and see the security implications of their decisions, this needs time.

Ericsson objected to 508 and 509.

Huawei: I appeal to Ericsson to allow any solution to go into the TR and not to block the work here. Nokia added that no technical justifications were given to their objections.

Noamen (Huawei): just add a note on the alignment with SA2 to address Ericsson's concerns.

It was agreed to remove the evaluation and add an editor's note for the SA2 alignment.

**Decision:** The document was **approved**.

**S3-231037 New solution to KI#3**

*Type: pCR For: Approval  
 33.886 v0.3.0  
 Source: LG Electronics*

**Decision:** The document was **merged**.

**S3-231125 solution for KI#3 network slice admission control**

*Type: pCR For: Approval  
 33.886 v0.3.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231509**.

**S3-231509 solution for KI#3 network slice admission control**

*Type: pCR For: Approval  
 33.886 v0.3.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-231125)

**Decision:** The document was **approved**.

**S3-231126 conclusion for KI#3 network slice admission control**

*Type: pCR For: Approval  
 33.886 v0.3.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231560**.

**S3-231560 conclusion for KI#3 network slice admission control**

*Type: pCR For: Approval  
 33.886 v0.3.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-231126)

**Decision:** The document was **noted**.

**S3-231122 update to KI#2 temporary network slice**

*Type: pCR For: Approval  
 33.886 v0.3.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **noted**.

**S3-231123 solution for KI#2 temporary network slice for NSSAA**

*Type: pCR For: Approval  
 33.886 v0.3.0  
 Source: Nokia, Nokia Shanghai Bell*

**Discussion:**

Ericsson: this is an SA2 topic.

**Decision:** The document was **noted**.

**S3-231124 conclusion for KI#2 temporary network slice for NSSAA**

*Type: pCR For: Approval  
 33.886 v0.3.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **noted**.

**S3-231619 Draft TR 33.886**

*Type: draft TR For: Approval  
 33.886 v0.4.0  
 Source: Huawei*

**Decision:** The document was **email approval**.

### 5.13 Study on Security aspects for 5WWC Phase 2

**S3-230986 conclusion for KI#4**

*Type: pCR For: Approval  
 33.887 v0.5.0  
 Source: Huawei, HiSilicon*

**Discussion:**

Lenovo: solution 7 has some limitations, and it is not the only option.

Ericsson: we should agree on one solution, not several. The key issue is late, we need another meeting cycle to check solution 7.

**Decision:** The document was **revised to S3-231510**.

**S3-231510 conclusion for KI#4**

*Type: pCR For: Approval  
 33.887 v0.5.0  
 Source: Huawei, HiSilicon*

(Replaces S3-230986)

**Decision:** The document was **noted**.

**S3-231361 Conclusion to KI#4**

*Type: pCR For: Approval  
 33.887 v0.5.0  
 Source: Lenovo*

**Decision:** The document was **noted**.

**S3-231366 Conclusions for KI#4 in 5WWC**

*Type: pCR For: (not specified)  
 33.887 v0.5.0  
 Source: CableLabs*

**Decision:** The document was **noted**.

**S3-231328 Conclusions for KI#5 in 5WWC**

*Type: pCR For: Approval  
 33.887 v0.5.0  
 Source: CableLabs, Rogers Communications, Charter Communications*

**Decision:** The document was **approved**.

**S3-230699 updating conclusion for KI1**

*Type: pCR For: Approval  
 33.887 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell, CableLabs*

**Decision:** The document was **approved**.

**S3-230988 update conclusion for KI#3**

*Type: pCR For: Approval  
 33.887 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **approved**.

**S3-231153 TNAP mobility using modified ERP**

*Type: pCR For: Approval  
 33.887 v0.5.0  
 Source: Ericsson*

**Discussion:**

Nokia wanted to add some editors' notes. Huawei needed some clarifications as well.

Lenovo: this is not needed. Changing EAP is not fine for us.

Ericsson: just add an editor's note. If we block solutions it will be harder to get to conclusions in the next meeting.

**Decision:** The document was **revised to S3-231512**.

**S3-231512 TNAP mobility using modified ERP**

*Type: pCR For: Approval  
 33.887 v0.5.0  
 Source: Ericsson*

(Replaces S3-231153)

**Decision:** The document was **approved**.

**S3-230800 Adding FT details to solution #7**

*Type: pCR For: Approval  
 33.887 v0.5.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **revised to S3-231513**.

**S3-231513 Adding FT details to solution #7**

*Type: pCR For: Approval  
 33.887 v0.5.0  
 Source: Qualcomm Incorporated*

(Replaces S3-230800)

**Decision:** The document was **approved**.

**S3-230801 Adding evaluation to solution #7**

*Type: pCR For: Approval  
 33.887 v0.5.0  
 Source: Qualcomm Incorporated*

**Discussion:**

Lenovo needed some clarifications.

**Decision:** The document was **revised to S3-231514**.

**S3-231514 Adding evaluation to solution #7**

*Type: pCR For: Approval  
 33.887 v0.5.0  
 Source: Qualcomm Incorporated*

(Replaces S3-230801)

**Decision:** The document was **approved**.

**S3-230985 Update solution#10**

*Type: pCR For: Approval  
 33.887 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**S3-230987 Update to sol#11**

*Type: pCR For: Approval  
 33.887 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **approved**.

**S3-231001 update solution #5**

*Type: pCR For: Approval  
 33.887 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**S3-231002 update solution #6**

*Type: pCR For: Approval  
 33.887 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**S3-231003 update solution #8**

*Type: pCR For: Approval  
 33.887 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**S3-231351 Clarifications to Solution #8 5WWC**

*Type: pCR For: Approval  
 33.887 v0.5.0  
 Source: Lenovo*

**Decision:** The document was **not treated**.

**S3-231329 Key issue on indirect authentication of AUN3 devices behind**

*Type: pCR For: Approval  
 33.887 v0.5.0  
 Source: CableLabs, Rogers Communications*

**Decision:** The document was **not treated**.

**S3-231330 Solution for indirect authentication of AUN3 devices behind RG**

*Type: pCR For: Approval  
 33.887 v0.5.0  
 Source: CableLabs, Rogers Communications*

**Decision:** The document was **noted**.

**S3-231334 Conclusions for KI#Y in 5WWC**

*Type: pCR For: Approval  
 33.887 v0.5.0  
 Source: CableLabs, Rogers Communications*

**Decision:** The document was **noted**.

**S3-230700 updating the existing solution mapping**

*Type: pCR For: Approval  
 33.887 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**S3-231511 Draft TR 33.887**

*Type: draft TR For: Approval  
 33.887 v0.6.0  
 Source: Nokia*

**Decision:** The document was **email approval**.

### 5.14 Study on the security aspects of Artificial Intelligence (AI)/Machine Learning (ML) for the NG-RAN

**S3-231290 KI2 conclusion**

*Type: pCR For: Approval  
 33.877 v0.5.0  
 Source: Ericsson*

**Decision:** The document was **noted**.

**S3-231350 New Key Issue for robustness of RAN AI/ML framework against resource exhaustion attacks**

*Type: pCR For: (not specified)  
 33.877 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **noted**.

### 5.15 Study on security support for Next Generation Real Time Communication services

**S3-230860 Adding conclusion on KI#1**

*Type: pCR For: Approval  
 33.890 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **noted**.

**S3-231291 Conclusion for key issue #1**

*Type: pCR For: Approval  
 33.890 v0.5.0  
 Source: Ericsson*

**Decision:** The document was **noted**.

**S3-230861 Adding conclusion on KI#2**

*Type: pCR For: Approval  
 33.890 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **merged**.

**S3-231292 Conclusion for key issue #2**

*Type: pCR For: Approval  
 33.890 v0.5.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-231536**.

**S3-231536 Conclusion for key issue #2**

*Type: pCR For: Approval  
 33.890 v0.5.0  
 Source: Ericsson*

(Replaces S3-231292)

**Decision:** The document was **approved**.

**S3-231293 Update Solution#1**

*Type: pCR For: Approval  
 33.890 v0.5.0  
 Source: Ericsson*

**Decision:** The document was **approved**.

**S3-231558 Draft TR 33.890**

*Type: draft TR For: Approval  
 33.890 v0.6.0  
 Source: Huawei*

**Decision:** The document was **email approval**.

### 5.16 Study on security aspects of enhanced support of Non-Public Networks phase 2

**S3-230946 Resolution of EN – conclusion to KI#1 – Trusted access**

*Type: pCR For: Approval  
 33.858 v0.4.0  
 Source: Nokia, Nokia Shanghai Bell, Lenovo, Intel*

**Decision:** The document was **noted**.

**S3-230984 Update 7.1.2 and 7.1.3**

*Type: pCR For: Approval  
 33.858 v0.4.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **noted**.

**S3-231155 Discussion for removal of Editor's note in conclusion for trusted N3GPP**

*Type: pCR For: Approval  
 33.858 v0.4.0  
 Source: Ericsson*

**Decision:** The document was **noted**.

**S3-231156 Updated conclusion for KI#1 regarding trusted access**

*Type: pCR For: Approval  
 33.858 v0.4.0  
 Source: Ericsson*

**Decision:** The document was **noted**.

**S3-230947 Resolution of EN – conclusion to KI#1 - NSWO**

*Type: pCR For: Approval  
 33.858 v0.4.0  
 Source: Nokia, Nokia Shanghai Bell*

**Discussion:**

Huawei: remove the third bullet, it is not new.

**Decision:** The document was **merged**.

**S3-231157 Updated conclusions for KI#1 regarding NSWO**

*Type: pCR For: Approval  
 33.858 v0.4.0  
 Source: Ericsson*

**Discussion:**

Qualcomm: solution 15 should also be made normative, not informative.

**Decision:** The document was **revised to S3-231501**.

**S3-231501 Updated conclusions for KI#1 regarding NSWO**

*Type: pCR For: Approval  
 33.858 v0.4.0  
 Source: Ericsson*

(Replaces S3-231157)

**Decision:** The document was **approved**.

**S3-230916 conclusion for KI2**

*Type: pCR For: Agreement  
 33.858 v0.4.0  
 Source: ZTE Corporation*

**Discussion:**

Discussed together with 1158. Qualcomm preferred Ericsson's contribution, more simple.

Nobody seemed to support having al these steps in the conclusion.

**Decision:** The document was **noted**.

**S3-231158 Updated conclusion of KI#2 Authentication for UE access to hosting network**

*Type: pCR For: Approval  
 33.858 v0.4.0  
 Source: Ericsson*

**Discussion:**

Lenovo preferred to keep the second editor's note.

**Decision:** The document was **revised to S3-231502**.

**S3-231502 Updated conclusion of KI#2 Authentication for UE access to hosting network**

*Type: pCR For: Approval  
 33.858 v0.4.0  
 Source: Ericsson*

(Replaces S3-231158)

**Decision:** The document was **approved**.

**S3-230945 Resolution of EN – conclusion to KI#1 – Untrusted access**

*Type: pCR For: Approval  
 33.858 v0.4.0  
 Source: Nokia, Nokia Shanghai Bell*

**Discussion:**

Qualcomm: why impact 5G procedures with non standardised EAP methods?

**Decision:** The document was **noted**.

**S3-230948 Resolution of EN – conclusion to KI#1 – N5GC device access**

*Type: pCR For: Approval  
 33.858 v0.4.0  
 Source: Nokia, Nokia Shanghai Bell*

**Discussion:**

Ericsson: don’t remove the editor's note until this is solved in the normative work.

**Decision:** The document was **noted**.

**S3-230992 Update evaluation to solution#3**

*Type: pCR For: Approval  
 33.858 v0.4.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231533**.

**S3-231533 Update evaluation to solution#3**

*Type: pCR For: Approval  
 33.858 v0.4.0  
 Source: Huawei, HiSilicon*

(Replaces S3-230992)

**Decision:** The document was **approved**.

**S3-230993 Add further impacts and evaluations to sol#5**

*Type: pCR For: Approval  
 33.858 v0.4.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231534**.

**S3-231534 Add further impacts and evaluations to sol#5**

*Type: pCR For: Approval  
 33.858 v0.4.0  
 Source: Huawei, HiSilicon*

(Replaces S3-230993)

**Decision:** The document was **approved**.

**S3-230994 Address Editor’s Note to sol#6**

*Type: pCR For: Approval  
 33.858 v0.4.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231535**.

**S3-231535 Address Editor’s Note to sol#6**

*Type: pCR For: Approval  
 33.858 v0.4.0  
 Source: Huawei, HiSilicon*

(Replaces S3-230994)

**Decision:** The document was **approved**.

**S3-230983 New solution on IDi of trusted non-3GPP access**

*Type: pCR For: Approval  
 33.858 v0.4.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231504**.

**S3-231504 New solution on IDi of trusted non-3GPP access**

*Type: pCR For: Approval  
 33.858 v0.4.0  
 Source: Huawei, HiSilicon*

(Replaces S3-230983)

**Decision:** The document was **approved**.

**S3-230995 Delete Editor’s Note in sol#8**

*Type: pCR For: Approval  
 33.858 v0.4.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **approved**.

**S3-231154 Updates to Solution #14**

*Type: pCR For: Approval  
 33.858 v0.4.0  
 Source: Ericsson*

**Discussion:**

Qualcomm wanted to keep the editor's notes open for one more meeting cycle for a proper analisys. Ericsson: this is in line with SA2.

**Decision:** The document was **noted**.

**S3-231363 Update to Solution #16 NPN**

*Type: pCR For: Approval  
 33.858 v0.4.0  
 Source: Lenovo*

**Discussion:**

Ericsson, Nokia and Qualcomm found issues with this digital identifier in the contribution. A justification was needed,

**Decision:** The document was **noted**.

**S3-230990 clarification the scope of sol#1**

*Type: pCR For: Approval  
 33.858 v0.4.0  
 Source: Huawei, HiSilicon*

**Discussion:**

Xiaomi didn’t agree with the contribution.

Huawei: this part is not addressed in the solution.

**Decision:** The document was **noted**.

**S3-230991 Delete Edirot’s Note of sol#7**

*Type: pCR For: Approval  
 33.858 v0.4.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **approved**.

**S3-231503 Draft TR 33.858**

*Type: draft TR For: Approval  
 33.858 v0.5.0  
 Source: Ericsson*

**Decision:** The document was **email approval**.

**S3-231621 Cover sheet TR 33.858**

*Type: TS or TR cover For: Approval  
 33.858 v..  
 Source: Ericsson*

**Decision:** The document was **approved**.

### 5.17 Study on Security of Phase 2 for UAS, UAV and UAM

**S3-230797 Draft TR 33.891 v0.5.1**

*Type: draft TR For: Approval  
 33.891 v0.5.1  
 Source: Qualcomm Incorporated*

(Replaces S3-230441)

**Decision:** The document was **approved**.

**S3-231348 Update to Solution #2 UAS**

*Type: pCR For: (not specified)  
 33.891 v0.5.1  
 Source: Lenovo*

**Decision:** The document was **revised to S3-231537**.

**S3-231537 Update to Solution #2 UAS**

*Type: pCR For: -  
 33.891 v0.5.1  
 Source: Lenovo*

(Replaces S3-231348)

**Decision:** The document was **approved**.

**S3-230798 Coversheet for TR 33.891**

*Type: TS or TR cover For: Approval  
 33.891 v..  
 Source: Qualcomm Incorporated*

**Decision:** The document was **revised to S3-231538**.

**S3-231538 Coversheet for TR 33.891**

*Type: TS or TR cover For: Approval  
 33.891 v..  
 Source: Qualcomm Incorporated*

(Replaces S3-230798)

**Decision:** The document was **approved**.

**S3-231618 Draft TR 33.891**

*Type: draft TR For: Approval  
 33.891 v0.6.0  
 Source: Qualcomm*

**Decision:** The document was **email approval**.

### 5.18 Study to enable URSP rules to securely identify Applications

**S3-231335 Conclusion for KI#1**

*Type: pCR For: (not specified)  
 33.892 v0.4.0  
 Source: Lenovo*

**Decision:** The document was **noted**.

**S3-231015 updates to evaluation of solution2**

*Type: pCR For: Approval  
 33.892 v0.4.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231542**.

**S3-231542 updates to evaluation of solution2**

*Type: pCR For: Approval  
 33.892 v0.4.0  
 Source: Huawei, HiSilicon*

(Replaces S3-231015)

**Decision:** The document was **approved**.

**S3-231333 Evaluation Update of Solution #2**

*Type: pCR For: (not specified)  
 33.892 v0.4.0  
 Source: Lenovo*

**Decision:** The document was **revised to S3-231543**.

**S3-231543 Evaluation Update of Solution #2**

*Type: pCR For: -  
 33.892 v0.4.0  
 Source: Lenovo*

(Replaces S3-231333)

**Decision:** The document was **approved**.

**S3-230943 Resolution to editor’s note in solution 1 concerning threat mitigation**

*Type: pCR For: Approval  
 33.892 v0.4.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231544**.

**S3-231544 Resolution to editor’s note in solution 1 concerning threat mitigation**

*Type: pCR For: Approval  
 33.892 v0.4.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-230943)

**Decision:** The document was **approved**.

**S3-230944 Resolution to editor’s note in solution 1 concerning the provisioning of security material**

*Type: pCR For: Approval  
 33.892 v0.4.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **approved**.

**S3-231556 Draft TR 33.892**

*Type: draft TR For: Approval  
 33.892 v0.5.0  
 Source: Lenovo*

**Decision:** The document was **email approval**.

**S3-231622 Cover sheet TR 33.892**

*Type: TS or TR cover For: Approval  
 33.892 v..  
 Source: Motorola Mobility*

**Decision:** The document was **approved**.

### 5.19 Study on Security Aspects of Ranging Based Services and Sidelink Positioning

**S3-231213 33.893: Resolve the Editor’s Notes in Solution #7**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Xiaomi Technology*

**Decision:** The document was **revised to S3-231515**.

**S3-231515 33.893: Resolve the Editor’s Notes in Solution #7**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Xiaomi Technology*

(Replaces S3-231213)

**Decision:** The document was **approved**.

**S3-231029 New solution for protecting direct communnication**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231516**.

**S3-231516 New solution for protecting direct communnication**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Huawei, HiSilicon*

(Replaces S3-231029)

**Decision:** The document was **approved**.

**S3-231220 33.893: New Solution on Direct Communication Security for Ranging-based Services**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Xiaomi Technology*

**Decision:** The document was **revised to S3-231517**.

**S3-231517 33.893: New Solution on Direct Communication Security for Ranging-based Services**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Xiaomi Technology*

(Replaces S3-231220)

**Decision:** The document was **approved**.

**S3-231030 Conclude to KI#4 about Ranging unicast direct communicaiton**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Huawei, HiSilicon*

**Discussion:**

Xiaomi: this is not agreable.

**Decision:** The document was **noted**.

**S3-231224 33.893: Conclusion on Key Issue #4**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Xiaomi Technology*

**Discussion:**

EricssonL we don’t want any conclusions yet.

**Decision:** The document was **noted**.

**S3-231261 Update and evaluate to solution #9 in TR 33.893**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Beijing Xiaomi Mobile Software*

**Discussion:**

Qualcomm: not sure that this solution fulfils the key issue.

**Decision:** The document was **revised to S3-231623**.

**S3-231623 Update and evaluate to solution #9 in TR 33.893**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Beijing Xiaomi Mobile Software*

(Replaces S3-231261)

**Decision:** The document was **approved**.

**S3-231021 Network assisted SL positioning discovery**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Ericsson*

**Discussion:**

Huawei: not clear if this is security related, more in SA2's scope.

**Decision:** The document was **noted**.

**S3-231022 Network assisted SL positioning security material provisioning**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Ericsson*

**Discussion:**

Huawei required some clarifications on whether it is in the coverage area or outside.

**Decision:** The document was **noted**.

**S3-231219 33.893: New Solution on Discovery Security for Ranging/SL Positioning Service**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Xiaomi Technology*

**Discussion:**

Qualcomm, Philips: last point on ciphering algorithm discovery message confidentiality is not true.

**Decision:** The document was **revised to S3-231624**.

**S3-231624 33.893: New Solution on Discovery Security for Ranging/SL Positioning Service**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Xiaomi Technology*

(Replaces S3-231219)

**Decision:** The document was **approved**.

**S3-231223 33.893: Conclusion on Key Issue #3**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Xiaomi Technology*

**Discussion:**

Qualcomm, Ericsson: we cannot accept solution 9.

**Decision:** The document was **revised to S3-231518**.

**S3-231518 33.893: Conclusion on Key Issue #3**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Xiaomi Technology*

(Replaces S3-231223)

**Decision:** The document was **approved**.

**S3-231208 33.893: Update to the Key Issue #2**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Xiaomi Technology*

**Discussion:**

Qualcom and Huawei didn’t like any of the changes.

Huawei: copying all the SA2 text is not a good way of doing this.

**Decision:** The document was **revised to S3-231625**.

**S3-231625 33.893: Update to the Key Issue #2**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Xiaomi Technology*

(Replaces S3-231208)

**Decision:** The document was **approved**.

**S3-231211 33.893: Update to the Evaluation of Solution #2**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Xiaomi Technology*

**Decision:** The document was **noted**.

**S3-231259 Update to evaluation of solution #3 in TR 33.893**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Beijing Xiaomi Mobile Software*

**Decision:** The document was **approved**.

**S3-231212 33.893: Resolve the Editor’s Notes in Solution #4**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Xiaomi Technology*

**Decision:** The document was **revised to S3-231520**.

**S3-231520 33.893: Resolve the Editor’s Notes in Solution #4**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Xiaomi Technology*

(Replaces S3-231212)

**Decision:** The document was **approved**.

**S3-231217 33.893: New Solution on Role Verification during Discovery based on Discovery Keys**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Xiaomi Technology*

**Discussion:**

Qualcomm and Philips didn’t agree with this.

**Decision:** The document was **noted**.

**S3-231260 Update to solution #5 in TR 33.893**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Beijing Xiaomi Mobile Software*

**Decision:** The document was **approved**.

**S3-231020 Resolving editor notes in Solution #10**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Ericsson*

**Discussion:**

Qualcomm: just delete the second editor's note.

Philips didn’t understand the phrase on the token being revoked due to the lifetime being expired.

This was taken offline.

**Decision:** The document was **revised to S3-231521**.

**S3-231521 Resolving editor notes in Solution #10**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Ericsson*

(Replaces S3-231020)

**Decision:** The document was **approved**.

**S3-231216 33.893: New Solution on Token Provision for UE Role Authorization**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Xiaomi Technology*

**Decision:** The document was **noted**.

**S3-231215 33.893: Add Evaluation to Solution #11**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Xiaomi Technology*

**Decision:** The document was **approved**.

**S3-231218 33.893: New Solution on Client UE Authorization for Service Exposure through the Network**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Xiaomi Technology*

**Decision:** The document was **noted**.

**S3-231047 conclusion on key issue 2**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Huawei, HiSilicon*

**Discussion:**

Adding an editor's note to add coordination with SA2 as proposed by Ericsson.

Xiaomi didn’t agree with the second bullet: this is not authorization.On the first bullet we don’t have requirements related to UE privacy profile handling.

**Decision:** The document was **revised to S3-231626**.

**S3-231626 conclusion on key issue 2**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Huawei, HiSilicon*

(Replaces S3-231047)

**Decision:** The document was **approved**.

**S3-231222 33.893: Conclusion on Key Issue #2**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Xiaomi Technology*

**Discussion:**

Ericsson: solution 2 is not aligned with sA2's normative work. Remove solution 3 in the second bullet.

**Decision:** The document was **noted**.

**S3-230817 Updates to the Key Issue #5**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **revised to S3-231522**.

**S3-231522 Updates to the Key Issue #5**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Qualcomm Incorporated*

(Replaces S3-230817)

**Decision:** The document was **approved**.

**S3-230941 Update KI #5**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: OPPO*

**Discussion:**

OPPO: Broadcast and groupcast shuld have requirements?

Xiaomi: different use cases, different solutions.

Apple: they are different as well.

For Qualcomm they should be together.No difference.

CATT: in RAN2 they don’t mind about this difference. Separate is OK.

The Chair suggested adding requirements for both, and in the future more different requirements could be alaways brought.

**Decision:** The document was **merged**.

**S3-231275 pCR to TR33.893 Update Key issue#5**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: CATT*

**Decision:** The document was **merged**.

**S3-231209 33.893: Potential Requirements for KI #5**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Xiaomi Technology*

**Decision:** The document was **merged**.

**S3-230818 A new solution for group communication security for Ranging/SL Positioning services**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **revised to S3-231600**.

**S3-231600 A new solution for group communication security for Ranging/SL Positioning services**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Qualcomm Incorporated*

(Replaces S3-230818)

**Decision:** The document was **approved**.

**S3-231276 pCR to TR33.893 New solution for protecting groupcast and broadcast data in coverage**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: CATT*

**Decision:** The document was **revised to S3-231601**.

**S3-231601 pCR to TR33.893 New solution for protecting groupcast and broadcast data in coverage**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: CATT*

(Replaces S3-231276)

**Decision:** The document was **noted**.

**S3-231277 pCR to TR33.893 New solution for protecting groupcast and broadcast data out of coverage**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: CATT*

**Decision:** The document was **revised to S3-231602**.

**S3-231602 pCR to TR33.893 New solution for protecting groupcast and broadcast data out of coverage**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: CATT*

(Replaces S3-231277)

**Decision:** The document was **noted**.

**S3-231341 Protection of broadcast communication**

*Type: pCR For: (not specified)  
 33.893 v0.5.0  
 Source: Lenovo*

**Decision:** The document was **not treated**.

**S3-231045 update to solution 1**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**S3-231210 33.893: Additional Evaluation for Solution #1**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Xiaomi Technology*

**Decision:** The document was **not treated**.

**S3-231214 33.893: Resolve the Editor’s Note in Solution #8**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Xiaomi Technology*

**Decision:** The document was **not treated**.

**S3-231185 Ranging - Update Key Issue #1- privacy risks of exposing positioning reference signals**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Philips International B.V.*

**Decision:** The document was **not treated**.

**S3-231184 Ranging - New solution KI#1, #2, #3**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Philips International B.V.*

**Decision:** The document was **not treated**.

**S3-231046 conclusion on key issue 1**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**S3-231221 33.893: Conclusion on Key Issue #1**

*Type: pCR For: Approval  
 33.893 v0.5.0  
 Source: Xiaomi Technology*

**Decision:** The document was **not treated**.

**S3-230884 New Key issue for Monitoring and detecting attacks on ranging devices and services**

*Type: pCR For: (not specified)  
 33.893 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**S3-231519 Draft TR 33.893**

*Type: draft TR For: Approval  
 33.893 v0.6.0  
 Source: Xiaomi Technology*

**Decision:** The document was **email approval**.

### 5.20 Study on Security and Privacy of AI/ML-based Services and Applications in 5G

**S3-231365 Conclusion for KI#1**

*Type: pCR For: Approval  
 33.898 v0.4.0  
 Source: OPPO*

**Discussion:**

Ericsson: there are privacy issues here.No data should be exposed to third parties, as it is the case with the NWDAF.

Nokia: the NWDAF problem is a maintenance issue, this is a study.

Qualcomm agreed with Ericsson. The user consent needs more analysis and SA3 needs to wait for SA2 anyway.

**Decision:** The document was **revised to S3-231523**.

**S3-231523 Conclusion for KI#1**

*Type: pCR For: Approval  
 33.898 v0.4.0  
 Source: OPPO*

(Replaces S3-231365)

**Discussion:**

OPPO: Ericsson is trying to bring an issue that is outside of 3GPP's scope. User-subscriber authorization is not part of the KI.

AT&T agreed with OPPO. This is not part of the study. Apple supported as well. Ericsson could bring a contribution dealing with this.

Nokia: not an issue in this study.

China Mobile: bring a new key issue about this.

**Decision:** The document was **approved**.

**S3-231246 New Sol on OAuth 2.0 based 5GC assistance information exposure**

*Type: pCR For: Approval  
 33.898 v0.4.0  
 Source: Xiaomi communications*

**Decision:** The document was **noted**.

**S3-231245 Add evaluation to Sol #2 of TR 33.898**

*Type: pCR For: Approval  
 33.898 v0.4.0  
 Source: Xiaomi communications*

**Discussion:**

Qualcomm: UE privacy profile is related to user consent? We need to wait for the reply LS from SA2. Then we can add the evaluation.

**Decision:** The document was **noted**.

**S3-230935 Add evaluation in Sol#4**

*Type: pCR For: Approval  
 33.898 v0.4.0  
 Source: OPPO*

**Discussion:**

Ericsson: No framework for user consent. Besides, it is not compliant with GDPR and it misses detail on the exposure to third parties.

Nokia: then this is a gap in Rel-17 to be corrected with a CR.

OPPO: your comment is against the existing framework and not this particular solution. You need to bring a CR.

It was agreed to add an editor's note on the existing framework.

**Decision:** The document was **revised to S3-231525**.

**S3-231525 Add evaluation in Sol#4**

*Type: pCR For: Approval  
 33.898 v0.4.0  
 Source: OPPO*

(Replaces S3-230935)

**Decision:** The document was **approved**.

**S3-230937 Update Sol#5**

*Type: pCR For: Approval  
 33.898 v0.4.0  
 Source: OPPO*

**Decision:** The document was **noted**.

**S3-231627 Draft TR 33.898**

*Type: draft TR For: Approval  
 33.898 v0.5.0  
 Source: OPPO*

**Decision:** The document was **email approval**.

### 5.21 Study on applicability of the Zero Trust Security principles in mobile networks

**S3-230720 New KI: Support for Policy Decision Points and Policy Enforcement Points within 5GC SBA**

*Type: pCR For: Approval  
 33.894 v0.4.0  
 Source: MITRE Corporation*

**Abstract:**

The Policy Decision Point (PDP) and the Policy Enforcement Point (PEP) are logical components defined in [2] and are core to an enterprise implementation of Zero Trust Architecture (ZTA). This key issue studies the adoption of PDPs and PEPs within the SBA

**Discussion:**

Ericsson: out of scope of 3GPP.

Nokia agreed with Ericsson.It's an implementation issue.

Huawei: 5GC is not an enterprise, there is a lack of evaluation here.

**Decision:** The document was **noted**.

**S3-231347 Update of Key Issue #1**

*Type: pCR For: Approval  
 33.894 v0.4.0  
 Source: Lenovo, US National Security Agency, Charter Communications*

**Discussion:**

Huawei: this is not a security requirement.

Firs editor's note remains.

**Decision:** The document was **revised to S3-231527**.

**S3-231527 Update of Key Issue #1**

*Type: pCR For: Approval  
 33.894 v0.4.0  
 Source: Lenovo, US National Security Agency, Charter Communications*

(Replaces S3-231347)

**Decision:** The document was **approved**.

**S3-231338 Solution to Key Issue-1**

*Type: pCR For: Approval  
 33.894 v0.4.0  
 Source: Lenovo, Charter Communications, US National Security Agency*

**Discussion:**

Huawei: there is a lot of things that are out of scope.

**Decision:** The document was **revised to S3-231612**.

**S3-231612 Solution to Key Issue-1**

*Type: pCR For: Approval  
 33.894 v0.4.0  
 Source: Lenovo, Charter Communications, US National Security Agency*

(Replaces S3-231338)

**Decision:** The document was **noted**.

**S3-231340 Solution to KI#1**

*Type: pCR For: Approval  
 33.894 v0.4.0  
 Source: Lenovo, Charter Communications, US National Security Agency*

**Decision:** The document was **revised to S3-231613**.

**S3-231613 Solution to KI#1**

*Type: pCR For: Approval  
 33.894 v0.4.0  
 Source: Lenovo, Charter Communications, US National Security Agency*

(Replaces S3-231340)

**Decision:** The document was **noted**.

**S3-230888 Clarify authorization for non-SBA interfaces**

*Type: pCR For: Approval  
 33.894 v0.4.0  
 Source: China Telecommunications*

**Discussion:**

Huawei: this is not applicable at all. These are not even SBA interfaces, it's irrelevant.

**Decision:** The document was **noted**.

**S3-231343 Update to Tenet #5**

*Type: pCR For: Approval  
 33.894 v0.4.0  
 Source: Lenovo, US National Security Agency, Charter Communications*

**Decision:** The document was **noted**.

**S3-230717 Alignment of 3GPP’s 5G Security to the fifth NIST Tenet of ZTA**

*Type: pCR For: Approval  
 33.894 v0.4.0  
 Source: Ericsson*

**Discussion:**

Nokia: we don’t agree with this document.

Huawei was fine with this evaluation.

**Decision:** The document was **noted**.

**S3-231344 Update to Tenet #6**

*Type: pCR For: (not specified)  
 33.894 v0.4.0  
 Source: Lenovo, US National Security Agency, Charter Communications*

**Decision:** The document was **not treated**.

**S3-230718 Alignment of 3GPP’s 5G Security to the sixth NIST Tenet of ZTA**

*Type: pCR For: Approval  
 33.894 v0.4.0  
 Source: Ericsson*

**Decision:** The document was **not treated**.

**S3-231346 Cleanup of Tenet #7**

*Type: pCR For: Approval  
 33.894 v0.4.0  
 Source: Lenovo, US National Security Agency*

**Decision:** The document was **not treated**.

**S3-231528 Draft TR 33.894**

*Type: draft TR For: Approval  
 33.894 v0.5.0  
 Source: Motorola Mobility*

**Decision:** The document was **email approval**.

### 5.22 Study of Security aspects on User Consent for 3GPP Services Phase 2

**S3-230960 Conclusion for key issue #2 User Consent for NTN**

*Type: pCR For: Approval  
 33.896 v0.5.0  
 Source: Huawei, HiSilicon*

**Discussion:**

Apple: just say "no normative is required".

**Decision:** The document was **revised to S3-231530**.

**S3-231530 Conclusion for key issue #2 User Consent for NTN**

*Type: pCR For: Approval  
 33.896 v0.5.0  
 Source: Huawei, HiSilicon*

(Replaces S3-230960)

**Decision:** The document was **approved**.

**S3-230961 Conclusion for key issue #3 Unified Framework**

*Type: pCR For: Approval  
 33.896 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **approved**.

**S3-231349 Solution to Key Issue #2 UCS NTN**

*Type: pCR For: Approval  
 33.896 v0.5.0  
 Source: Lenovo*

**Decision:** The document was **noted**.

**S3-230765 Solution update - user consent authorization function**

*Type: pCR For: (not specified)  
 33.896 v0.5.0  
 Source: Nokia UK*

**Decision:** The document was **approved**.

**S3-230926 New key issue on enhancement of user consent for using logged MDT for NG-RAN AI/ML**

*Type: pCR For: (not specified)  
 33.896 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Discussion:**

Nokia: this is coming from an LS from RAN.

Qualcomm: there is no LS related to MDT user collection data from a RAN group.

**Decision:** The document was **noted**.

**S3-230959 Clean up for TR 33.896**

*Type: pCR For: Approval  
 33.896 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **approved**.

**S3-231531 Draft TR 33.896**

*Type: draft TR For: Approval  
 33.896 v0.6.0  
 Source: Huawei*

**Decision:** The document was **email approval**.

### 5.23 Study on security enhancements for 5G multicast-broadcast services Phase 2

**S3-230808 A new solution for mitigating privacy attacks exploiting group paging with TMGI**

*Type: pCR For: Approval  
 33.883 v0.5.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **noted**.

**S3-231041 A new solution to address the privacy issue with TMGI**

*Type: pCR For: Approval  
 33.883 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **noted**.

**S3-231042 conclusion on key issue 2**

*Type: pCR For: Approval  
 33.883 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **noted**.

**S3-231044 conclusion on key issue 1**

*Type: pCR For: Approval  
 33.883 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **noted**.

**S3-231307 [MBS] Conclusion for Key Issue#1**

*Type: pCR For: Approval  
 33.883 v0.5.0  
 Source: Samsung*

**Decision:** The document was **noted**.

**S3-231308 [MBS] Resolving ENs in solution#1**

*Type: pCR For: Approval  
 33.883 v0.5.0  
 Source: Samsung*

**Decision:** The document was **approved**.

**S3-231327 [MBS] Evaluation for solution#3**

*Type: pCR For: Approval  
 33.883 v0.5.0  
 Source: Samsung*

**Decision:** The document was **noted**.

**S3-231043 Addressing the editor's note in solution 3**

*Type: pCR For: Approval  
 33.883 v0.5.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **noted**.

**S3-230951 Updates to Solution#2**

*Type: pCR For: (not specified)  
 33.883 v0.5.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **noted**.

**S3-231049 LS on Proposal for common TMGI, MSK and MTK identifiers for MOCN**

*Type: LS out For: (not specified)  
 to SA2  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **noted**.

**S3-231555 Draft TR 33.883**

*Type: draft TR For: Approval  
 33.883 v0.6.0  
 Source: Huawei*

**Decision:** The document was **email approval**.

### 5.24 Study on enhanced Security Aspects of the 5G Service Based Architecture

**S3-230654 TR skeleton FS\_N32SEPP\_SEC - Study on security for N32 and SEPP hosting scenarios**

*Type: other For: (not specified)  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

As per endorsed document S3-230576: key issues and solutions related to N32 and SEPP in hosting scenarios will be studied in R19 in a separate study. A skeleton for the study is proposed.

**Decision:** The document was **noted**.

**S3-230668 pCR to TR FS\_N32SEPP\_SEC - Shifting KIs and solutions to new TR**

*Type: other For: Approval  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **noted**.

**S3-230669 Removal of KIs and solutions from TR 33.875 due to shift to new study FS\_N32SEPP**

*Type: pCR For: (not specified)  
 33.875 v1.6.0  
 Source: Nokia, Nokia Shanghai Bell*

**Discussion:**

Huawei: strange that we are voiding everything.

MCC commented that it was better to have TRs and studies with a clear scope that is not overlapping. The SIDs should be revised as well so as not to clash in content.

Nokia commented that they had prepared a skeleton for rel-19, and the Chair commented that no work in release 19 would not be started until later. Release 18 items had priority.

Huawei preferred not to move anything until the new Rel-19 study was agreed. So the best way for them would be to keep the content and delete later with a CR.

NTT-Docomo: close this study in Rel-18, and start a new study in Release 19( with a more reduced scope), using the same TR number or a different one.

CableLabs: just delete the content as proposed and minute that the content will be moved to Release 19 whenever we start the work in there.

This was taken offline.

**Decision:** The document was **noted**.

**S3-230670 Presentation of Report TR 33.875 v1.7.0**

*Type: TS or TR cover For: (not specified)  
 33.875 v1.6.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231628**.

**S3-231628 Presentation of Report TR 33.875 v1.7.0**

*Type: TS or TR cover For: -  
 33.875 v1.6.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-230670)

**Decision:** The document was **approved**.

**S3-230762 KI11 Solution 21 EN resolution**

*Type: pCR For: (not specified)  
 33.875 v1.6.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**S3-230763 KI11 Solution 22 EN resolution**

*Type: pCR For: (not specified)  
 33.875 v1.6.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**S3-230770 pCR to TR FS\_N32SEPP\_SEC KI10 solution to enable intermediaries to initiate signalling messages**

*Type: other For: (not specified)  
 33.875 v..  
 Source: Nokia, Nokia Shanghai Bell, NTT Docomo*

**Decision:** The document was **withdrawn**.

**S3-230823 updating solution 26 in TR33.875**

*Type: pCR For: Approval  
 33.875 v1.6.0  
 Source: Mavenir, Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**S3-231082 KI11 analysis and conclusions**

*Type: pCR For: (not specified)  
 33.875 v1.6.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231546**.

**S3-231546 KI11 analysis and conclusions**

*Type: pCR For: -  
 33.875 v1.6.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-231082)

**Decision:** The document was **approved**.

**S3-231114 pCR to FS\_N32SEPP\_SEC - Mapping table**

*Type: other For: Approval  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**S3-231117 New Solution to KI #11 Problem 2**

*Type: pCR For: Approval  
 33.875 v1.6.0  
 Source: Oy LM Ericsson AB*

**Decision:** The document was **not treated**.

**S3-231198 KI4 solution 23 evaluation**

*Type: pCR For: (not specified)  
 33.875 v1.6.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**S3-231629 Draft TR 33.875**

*Type: draft TR For: Approval  
 33.875 v1.7.0  
 Source: Nokia*

**Decision:** The document was **email approval**.

### 5.25 Study on Security Aspects of Satellite Access

**S3-231226 33.700-28: New Solution on AF Authorization based on OAuth Token**

*Type: pCR For: Approval  
 33.700-28 v0.3.0  
 Source: Xiaomi Technology*

**Discussion:**

Ericsson: this solution should be aligned with sA2. They havent decided the details yet.

Qualcomm: no need for this solution, especially the UE involvement. This is not acceptable.

Nokia also had many issues with this document.

Interdigital: we can mention the UE's involvement in the evaluation.

Qualcomm: we don’t agree with having the UE in the key issue.

**Decision:** The document was **noted**.

**S3-231227 33.700-28: New Solution on AF Authorization based on UE Policy**

*Type: pCR For: Approval  
 33.700-28 v0.3.0  
 Source: Xiaomi Technology*

**Discussion:**

Ericsson: SA2 has not concluded on this yet.

Xiaomi: we can add an editor's note about this.

Qualcomm had the same comment here as in 226.

**Decision:** The document was **noted**.

**S3-231228 33.700-28: New Solution on AF Authorization based on UE Profile**

*Type: pCR For: Approval  
 33.700-28 v0.3.0  
 Source: Xiaomi Technology*

**Decision:** The document was **not treated**.

**S3-231229 33.700-28: New Key Issue on Consistent Provision of Coverage Information to the UE and CN**

*Type: pCR For: Approval  
 33.700-28 v0.3.0  
 Source: Xiaomi Technology*

**Decision:** The document was **not treated**.

## 6 New Study/Work item proposals

**S3-230655 SID on Study on security for N32 and SEPP hosted scenarios**

*Type: SID new For: (not specified)  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

As per endorsed S3-230143, submission of the last version of the SID from SA3#109Adhoc as captured in draft\_S3-230144-r1.

**Discussion:**

Vodafone: we want to close the current TR, and move the pending issues to a new TR.

Huawei: we have a TR, we can continue working in that document.

Nokia: we endorsed this in a discussion paper in November.

Qualcomm: abuse of the process. We should continue the key issues in the current TR in Release 18, otherwise bring it back in Release 19.

CableLabs: we agreed to do this in a separate study, but it should go to Release 19.

The Chair commented that it could not be pushed to Release 19 given that this was required by GSMA.

Mavenir: we endorsed this already.

Huawei: we commented in the last meeting that we would not commit to new studies, we didn’t agree with having Studies in Release 19. We support studying the key issues, we only disagree with the process.

Nokia: we don’t remove the issues from the current TR yet then.

Qualcomm didn’t like having discussion papers for endorsement. They didn’t agree with spending time for Release 19.

NTT-Docomo: we only work for requirements coming from GSMA, other things we come up with should be moved to Release 19.

Nokia; let's send it for Release 19.

**Decision:** The document was **revised to S3-231614**.

**S3-231614 SID on Study on security for N32 and SEPP hosted scenarios**

*Type: SID new For: -  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-230655)

**Decision:** The document was **noted**.

**S3-230692 Discussion paper on potential risks in deployment of 256-bit algorithms**

*Type: discussion For: Discussion  
 Source: KDDI Corporation*

**Decision:** The document was **not treated**.

**S3-230693 Study on enabling a cryptographic algorithm transition to 256 bits**

*Type: SID new For: Approval  
 Source: KDDI Corporation*

**Decision:** The document was **revised to S3-230834**.

**S3-230695 New Draft WID: Introduction of 256bit Algorithms**

*Type: WID new For: Agreement  
 Source: VODAFONE Group Plc*

**Abstract:**

Proposes a new draft WID to cover the introduction of AES-256, Snow-256 and ZUC-256 air interface algorithms for integrity and encryption and updated Milenage and TUAK.

**Decision:** The document was **not treated**.

**S3-230696 WID on Security aspects of home network triggered primary authentication**

*Type: WID new For: Approval  
 Source: Nokia, Nokia Shanghai Bell*

**Discussion:**

Vodafone: justification is weak, having a TR is not enough. We haven't even sent the TR for information. This is what we should do as a principle before starting the normative work.Maybe propose normative text in an annex of the TR?

NTT-Docomo: no need to update the WID. New use cases will come up and we can reuse the gneral procedure for the WID.

Huawei: when SA2 finishes the work we can always bring a CR and a linked WID, business as usual.

Nokia agreed that SA3 could do this when SA2's work is done.

**Decision:** The document was **noted**.

**S3-230697 New WID on Security aspects for 5WWC Phase 2**

*Type: WID new For: Agreement  
 Source: Nokia, Nokia Shanghai Bell, CableLabs, Charter Communications, Lenovo, Apple*

**Discussion:**

Qualcomm: add the objectives where we have agreements. If there is any change we can always bring a revised WID together with a CR, this doesn’t take any time.

The Chair asked when to stop the study and start the WID.

Vodafone: finish all SIDs that are followed in WIDs in the next emeeting.

**Decision:** The document was **revised to S3-231561**.

**S3-231561 New WID on Security aspects for 5WWC Phase 2**

*Type: WID new For: Agreement  
 Source: Nokia, Nokia Shanghai Bell, CableLabs, Charter Communications, Lenovo, Apple*

(Replaces S3-230697)

**Decision:** The document was **agreed**.

**S3-230698 Discussion paper for MPS support over WLAN and relationship with HNTRA study**

*Type: discussion For: Endorsement  
 33.741 v..  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **noted**.

**S3-230799 Proposed WID for UAS Phase 2 security**

*Type: WID new For: Agreement  
 Source: Qualcomm Incorporated, Lenovo, Huawei, HiSilicon*

**Discussion:**

Interdigital: timelines are aggressive.

It was decided to extend them.

**Decision:** The document was **revised to S3-231562**.

**S3-231562 Proposed WID for UAS Phase 2 security**

*Type: WID new For: Agreement  
 Source: Qualcomm Incorporated, Lenovo, Huawei, HiSilicon*

(Replaces S3-230799)

**Decision:** The document was **agreed**.

**S3-230824 New WID on Automated certicate management in SBA**

*Type: WID new For: (not specified)  
 Source: Nokia, Nokia Shanghai Bell*

**Discussion:**

Revised to introduce more key issues from the current meeting.

Vodafone: why having this in Release 18?

Nokia: this was needed for a long time.

NTT-Docomo: release independent feature?

Huawei: maybe impact on stage 3.

CableLabs: renmove the NOTE.

**Decision:** The document was **revised to S3-231563**.

**S3-231563 New WID on Automated certicate management in SBA**

*Type: WID new For: -  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-230824)

**Decision:** The document was **agreed**.

**S3-230834 Study on enabling a cryptographic algorithm transition to 256 bits**

*Type: SID new For: Approval  
 Source: KDDI Corporation*

(Replaces S3-230693)

**Decision:** The document was **not treated**.

**S3-230862 New WID on security enhancements for NGRTC**

*Type: WID new For: Approval  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-231564**.

**S3-231564 New WID on security enhancements for NGRTC**

*Type: WID new For: Approval  
 Source: Huawei, HiSilicon*

(Replaces S3-230862)

**Discussion:**

Adding the previous study in section 2.2 as parent work item.

**Decision:** The document was **agreed**.

**S3-230868 New WID on Security Aspects of Enhancement of Support for Edge Computing in 5GC — phase 2**

*Type: WID new For: Approval  
 Source: Huawei, HiSilicon*

**Discussion:**

Vodafone: is the TR finished?

Huawei: one key issue is open.

**Decision:** The document was **revised to S3-231565**.

**S3-231565 New WID on Security Aspects of Enhancement of Support for Edge Computing in 5GC — phase 2**

*Type: WID new For: Approval  
 Source: Huawei, HiSilicon*

(Replaces S3-230868)

**Decision:** The document was **agreed**.

**S3-230962 New WID on UC3S\_Ph2**

*Type: WID new For: Agreement  
 Source: Huawei, HiSilicon, China Mobile, China Telecom, China Unicom, CAICT*

**Discussion:**

Vodafone: why 5G specific user consent mechanisms?

Huawei: just clarification text for TS 33.501.

It was argued whether bringing this as TEIx ,but MCC didn’t like this as new requirements were going to be introduced. This couldn’t be considered as a technical enhancement if it was bringing requirements.

Qualcomm: bring a CR with the WID if there is normative content, bring cat-F if it's more like a correction.

**Decision:** The document was **noted**.

**S3-231038 Discussion paper on security enhancements for 5GC LoCation Services Phase 3**

*Type: discussion For: Information  
 Source: Huawei, HiSilicon*

**Discussion:**

Qualcomm: the WID is not needed. Existing solutions support hop by hop or end to end, the operator can decide which way to go.

**Decision:** The document was **noted**.

**S3-231039 New WID on security enhancements for 5GC LoCation Services Phase 3**

*Type: WID new For: Approval  
 Source: Huawei, HiSilicon*

**Decision:** The document was **noted**.

**S3-231040 New WID on security enhancements for MBS Phase 2**

*Type: WID new For: Approval  
 Source: Huawei, HiSilicon*

**Decision:** The document was **noted**.

**S3-231083 New WID on AKMA phase 2**

*Type: WID new For: Approval  
 Source: China Mobile*

**Discussion:**

Nokia: remove the bulllet "other conclusions from TR 33.737".

**Decision:** The document was **revised to S3-231570**.

**S3-231570 New WID on AKMA phase 2**

*Type: WID new For: Approval  
 Source: China Mobile*

(Replaces S3-231083)

**Decision:** The document was **agreed**.

**S3-231084 New WID on security aspects of MSGin5G Ph2**

*Type: WID new For: Approval  
 Source: China Mobile*

**Discussion:**

The Chair pointed out that TS 33.501 was becoming too big and instead of keep adding annexes it was recommended to create new TS.

Revised to move the SA6 WID to table 2.3, remove guideline text, impact on ME.

It was pointed out that there was an accompanying CR with this to send them as one shot to SA.

**Decision:** The document was **revised to S3-231571**.

**S3-231571 New WID on security aspects of MSGin5G Ph2**

*Type: WID new For: Approval  
 Source: China Mobile*

(Replaces S3-231084)

**Decision:** The document was **agreed**.

**S3-231093 New WID on security aspects of enablers for Network Automation for 5G - phase 3**

*Type: WID new For: Approval  
 Source: China Mobile*

**Discussion:**

Vodafone: don’t copy all supporting companies from the SID, you need their agreement firstly.

**Decision:** The document was **revised to S3-231572**.

**S3-231572 New WID on security aspects of enablers for Network Automation for 5G - phase 3**

*Type: WID new For: Approval  
 Source: China Mobile*

(Replaces S3-231093)

**Decision:** The document was **agreed**.

**S3-231159 New WID on Security aspects of enhanced support of Non-Public Networks phase 2**

*Type: WID new For: Agreement  
 Source: Ericsson*

**Discussion:**

Vodafone: SA2 study goes to 2.3, SA3 Study goes to 2.2.

Qualcomm: objetives are still open,because conclusions from the SID are pending.

**Decision:** The document was **revised to S3-231573**.

**S3-231573 New WID on Security aspects of enhanced support of Non-Public Networks phase 2**

*Type: WID new For: Agreement  
 Source: Ericsson*

(Replaces S3-231159)

**Decision:** The document was **agreed**.

**S3-231187 New WID on 5G Security Assurance Specification (SCAS) for the Policy Control Function (PCF)**

*Type: WID new For: Approval  
 Source: BSI (DE)*

(Replaces S3-230679)

**Abstract:**

The objective is to develop the SCAS for the PCF network product class, with the aims to:

- identify critical assets and threats of the PCF not already identified in TR 33.926

- develop and/or adapt PCF specific security functional requirements and relate

**Discussion:**

Nokia: the PCF is not listed as a product in TR 33.926. We need to analyze first if there are threats.

Vodafone: we need this as an operator.

GSMA: UDR and PCF are in ENISA's list of products with lots of personal data. PCF is optional, but if present there is a lot of user data being accessed.

NTT-Docomo: UDM and UDR can be in the same WID.

Ericsson: TS 33.117 is applied for both UDR and PCF.We don’t have any specific requirements in TS 33.501. We support studying what test cases could be applied here.

Vodafone: study item on how to separate UDR and UDM? We have a document about this already. It's important to have SCAS for UDR.

GSMA: keep UDR and UDM in two separate documents, otherwise if one fails they both fail.

MCC: just use one rapporteur. They also pointed some other editorial issues on the WID template.

NTT-Docomo: can we plan an emeeting for SCAS? We only need to plan it 3 or 4 weeks in advance and it won't take much time of the other SA3 meetings. Let's have a discussion to plan the emeeting.

**Decision:** The document was **revised to S3-231574**.

**S3-231574 New WID on 5G Security Assurance Specification (SCAS) for the Policy Control Function (PCF)**

*Type: WID new For: Approval  
 Source: BSI (DE)*

(Replaces S3-231187)

**Decision:** The document was **agreed**.

**S3-231190 New WID on 5G Security Assurance Specification (SCAS) for the Unified Data Repository (UDR)**

*Type: WID new For: Approval  
 Source: BSI (DE)*

(Replaces S3-230680)

**Decision:** The document was **noted**.

**S3-231204 New WID on Security Aspects of Proximity-based Services in 5GS Phase 2**

*Type: WID new For: Approval  
 Source: CATT, China Unicom*

**Discussion:**

Qualcomm: Remove the last line of the objectives, this appears already in section 5.

Huawei: don’t put as an objective whatever is not concluded, also don’t be so general. We can revise the WID if the TR changes its conclusions.

Motorola solutions: remove the public safety services, it will be done somewhere else.

**Decision:** The document was **revised to S3-231575**.

**S3-231575 New WID on Security Aspects of Proximity-based Services in 5GS Phase 2**

*Type: WID new For: Approval  
 Source: CATT, China Unicom*

(Replaces S3-231204)

**Decision:** The document was **agreed**.

**S3-231225 New WID on Security Aspects of Ranging Based Services and Sidelink Positioning**

*Type: WID new For: Approval  
 Source: Xiaomi Technology*

**Discussion:**

Vodafone: SA3 study should go for section 2.2. SA1 study should go to table in 2.3. Remove last phrase of objectives.

**Decision:** The document was **revised to S3-231576**.

**S3-231576 New WID on Security Aspects of Ranging Based Services and Sidelink Positioning**

*Type: WID new For: Approval  
 Source: Xiaomi Technology*

(Replaces S3-231225)

**Decision:** The document was **agreed**.

**S3-231304 New WID on enhanced security aspects of SEAL for vertical**

*Type: WID new For: Agreement  
 Source: Samsung*

**Discussion:**

Vodafone: swap study and WID in tables 2.2 and 2.3.

MCC: change the acronym to SEAL\_ph2 since this is the same as Rel-16.

Apple: we never studied the possible solutions for SA6's work.It is possible that we may not agree on anything.

**Decision:** The document was **revised to S3-231577**.

**S3-231577 New WID on enhanced security aspects of SEAL for vertical**

*Type: WID new For: Agreement  
 Source: Samsung*

(Replaces S3-231304)

**Discussion:**

Apple: do we need a TR for these key issues?

Chair: if the feature is defined by somebody else we don’t need a study.

**Decision:** The document was **agreed**.

**S3-231331 New SID on QUIC optimization for access traffic steering, switching and splitting support in the 5G system architecture; Phase 3**

*Type: SID new For: Approval  
 Source: Lenovo, BROADCOM CORPORATION, CableLabs, CATT, Charter Communications, Inc, CISCO, Deutsche Telekom, InterDigital, Inc., LG Electronics, Nokia, Tencent, vivo Mobile Communication Co.,, Xiaomi, ZTE Corporation, China Mobile*

**Decision:** The document was **not treated**.

**S3-231362 New WID on application enablement aspects for subscriber-aware northbound API access**

*Type: WID new For: Agreement  
 Source: NTT DOCOMO INC.*

**Discussion:**

Nokia: sceptical about enhancements for SEAL. This was removed.

**Decision:** The document was **revised to S3-231578**.

**S3-231578 New WID on application enablement aspects for subscriber-aware northbound API access**

*Type: WID new For: Agreement  
 Source: NTT DOCOMO INC.*

(Replaces S3-231362)

**Discussion:**

NTT-Docomo: the WID will be updated according to the progress.

**Decision:** The document was **agreed**.

**S3-231367 AIML Security and Privacy WID**

*Type: WID new For: Agreement  
 Source: OPPO*

**Discussion:**

Qualcomm: there is no conclusion that justifies a WID.

Vodafone: wrong template used.

MCC: title reads "study".

Ericsson: there is no conclusion for new normative work.

Vodafone: remove the line "other conclusions requiring..".

**Decision:** The document was **noted**.

**S3-231370 New WID to enable URSP rules to securely identify Applications (USIA)**

*Type: WID new For: Approval  
 Source: Lenovo*

**Decision:** The document was **noted**.

## 7 CVD and research

**S3-230614 Research highlighting potential negated OAuth policy**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: GSMA*

**Discussion:**

GSMA: more a clarification needed than something broken in our specs.

Huawei: this impacts CT and we should wait for a reply from them.

The Chair asked Sander (Huawei) to track the progress in CT until SA3 could reply.

**Decision:** The document was **noted**.

**S3-230615 Research highlighting potential need for granular level checks using ""Additional scope"" under the OAuth2.0 Token Access.**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: GSMA*

**Discussion:**

Huawei was inline with Nokia but had some detailed comments that were taken offline.

**Decision:** The document was **replied to in S3-231581**.

**S3-230719 Reply-LS on the need for granular level checks using "Additional scope" under the OAuth2.0 Token Access**

*Type: LS out For: Approval  
 to GSMA  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-231581**.

**S3-231581 Reply-LS on the need for granular level checks using "Additional scope" under the OAuth2.0 Token Access**

*Type: LS out For: Approval  
 to GSMA, cc CT4  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-230719)

**Decision:** The document was **approved**.

**S3-231332 Discussion summary of CVD paper**

*Type: discussion For: Presentation  
 Source: SA WG3 Vice Chair*

**Discussion:**

The CVD process needed to be discussed further. MCC commented that it was hard to have a process with the electronic meeting limitations, but since f2f were back it would be possible to have offline discussions on CVD in the meeting room and sharing sensitiive information.

The Chair clarified that the paper was already published and the authors had expressed their intention to bring to 3GPP CVD further research. He also clarified that this presentation was submitted for information.

Huawei commented that the panel would filter CVDs and bring those that required a follow up in SA3.

Vodafone: it's normal for GSMA to give public statements replying to CVDs but not in 3GPP.

**Decision:** The document was **noted**.

## 8 Any Other Business

The Chair asked for a show of hands related to the Prose TR:

Based on current study, what is your preferred solution for protecting U2U relay discovery messages?

- One set of security materials: Interdigital, Huawei, OPPO, Xiaomi

- Two sets of security materials: Qualcomm, Philips,CATT, China Unicom, ZTE.

CATT said that one security solution was better than no security solution.

The Chair proposed a working agreement in order to avoid a blocking in SA3 and other working groups.

U2U relay discovery messages: one set of security key materials will be used. Two or not more security key materials will not be used.

Qualcomm stated that this decisions was not based on show of hands but on a opinion. The Chair clarified that the show of hands was almost equal (4 against 5) so the result was not relevant.

Qualcomm: we don’t want a vote in Plenary, ask SA to move the vote to the next SA3 meeting.

NTT-Docomo: ask SA plenary for an exception for the feature. Huwei added that the status of this TR can be presented in Plenary and companies can try to reach an agreement at that level.

Qualcomm: it is unlikely that this will get to a 71% conclusion.

In the end it was concluded to present the situation to SA plenary, so no working agreement did take place.

The Chair also presented some slides regarding the workload in SA3. The use of Time units and breakout sessions was discussed.

NTT-Docomo: e-meetings are good for discussing solutions in studies.

Thales: keep breakout sessions as offline sessions for those companies that have only one delegate.

CableLabs didn't like the concept of TU. The Chair clarified that the need for workload management was coming from Plenary.

Huawei: TU may be for Rel-19, but it requires a lot of planning, like a budget. Other ways like prioritization of documents should be used.

OPPO: emeetings put the Asian delegates in disadvantage.

**S3-230604 SA3 meeting calendar**

*Type: other For: (not specified)  
 Source: SA WG3 Chair*

**Decision:** The document was **noted**.

**S3-231079 SA3 guidelines for delegates**

*Type: other For: Information  
 Source: MCC*

**Decision:** The document was **revised to S3-231385**.

**S3-231385 SA3 guidelines for delegates**

*Type: other For: Information  
 Source: MCC*

(Replaces S3-231079)

**Decision:** The document was **noted**.

## 9 Closing of the meeting

The Chair thanked MCC and the delegates for the hard work. Suresh also thanked the meeting organizers. After this, the meeting was closed.

## Annex A: Contribution documents and status

### A1: List of TDocs

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Document | Title | Source | Decision | Replaces | Replaced by |
| S3-231200 | CR on IPX originated messages in PRINS | NTT DOCOMO INC., Nokia, Nokia Shanghai Bell | not pursued | S3-230782 | - |
| S3-230600 | Agenda | SA WG3 Chair | approved |  |  |
| S3-230601 | Report for SA3#109e ad-Hoc | SA WG3 Chair | approved |  |  |
| S3-230602 | Process for SA3#110 | SA WG3 Chair | noted |  |  |
| S3-230603 | Process and agenda planning for SA3#110 | SA WG3 Chair | noted |  |  |
| S3-230604 | SA3 meeting calendar | SA WG3 Chair | noted |  |  |
| S3-230605 | 5G capabilities exposure for factories of the future - identified gaps | 5G-ACIA | noted |  |  |
| S3-230606 | LS to 3GPP on PRINS middle boxes | GSMA | replied to |  |  |
| S3-230607 | LS on U2N relay direct link setup failure due to RSC mismatch or integrity failure | C1-226908 | replied to |  |  |
| S3-230608 | LS on Authentication Result Removal | C4-224418 | postponed |  |  |
| S3-230609 | Reply LS on PLMN ID used in Roaming Scenarios | C4-224444 | replied to |  |  |
| S3-230610 | LS on Authorization of NF service consumers for data access via DCCF | C4-225161 | postponed |  |  |
| S3-230611 | Reply LS on Response LS on Identifier availability for Lawful Interception during Inter-PLMN handover | C4-225542 | noted |  |  |
| S3-230612 | LS on N32-f addressing information | C4-225571 | replied to |  |  |
| S3-230613 | LS on clarification of coding of hexadecimal digits in SUCI NAI | C6-220715 | postponed |  |  |
| S3-230614 | Research highlighting potential negated OAuth policy | GSMA | noted |  |  |
| S3-230615 | Research highlighting potential need for granular level checks using ""Additional scope"" under the OAuth2.0 Token Access. | GSMA | replied to |  |  |
| S3-230616 | LS reply to 3GPP C4-225571 on N32-f addressing information | GSMA | noted |  |  |
| S3-230617 | Reply LS on authenticity and replay protection of system information | R2-2208985 | noted |  |  |
| S3-230618 | LS on security for selective SCG activation | R2-2213337 | replied to |  |  |
| S3-230619 | Reply LS on the user consent for trace reporting | R3-225250 | replied to |  |  |
| S3-230620 | LS on user consent of Non-public Network | R3-226006 | replied to |  |  |
| S3-230621 | Reply LS on Time Synchronization Status notification towards UE(s) | R3-226774 | noted |  |  |
| S3-230622 | Reply LS On PLMN ID used in Roaming Scenarios | S2-2207391 | replied to |  |  |
| S3-230623 | Reply LS on the impact of MSK update on MBS multicast session update procedure | S2-2209287 | replied to |  |  |
| S3-230624 | LS on impact of URSP rule enforcement report to 5GC | S2-2209327 | noted |  |  |
| S3-230625 | LS on Time Synchronization Status notification towards UE(s) | S2-2209876 | noted |  |  |
| S3-230626 | LS reply on Indication of Network Assisted Positioning method | S2-2211049 | noted |  |  |
| S3-230627 | LS on secured and trusted access to the serving PLMN OAM server by a MBSR | S2-2301465 | replied to |  |  |
| S3-230628 | Reply LS on SL positioning groupcast and broadcast | S2-2301786 | noted |  |  |
| S3-230629 | LS on UE event reporting over a user plane connection to LCS client or AF | S2-2301789 | postponed |  |  |
| S3-230630 | LS on LPP message and supplementary service event report over a user plane connection between UE and LMF | S2-2301857 | postponed |  |  |
| S3-230631 | LS on the use of a non-network defined identifier for UE identification | S2-2302163 | noted |  |  |
| S3-230632 | Reply LS on FS\_eEDGEAPP Solution for Support of NAT deployed within the edge data network | S2-2302164 | noted |  |  |
| S3-230633 | LS on Identifier availability for Lawful Interception during Inter-PLMN handover | S2-2302165 | noted |  |  |
| S3-230634 | LS on NSWO feature | S2-2302168 | noted |  |  |
| S3-230635 | LS on NAI format for 5G NSWO | S2-2302171 | noted |  |  |
| S3-230636 | Reply LS to S5-226028 on Network federation interface for Telco edge consideration and proposals to answer GSMA LSs 5-226016 and S5-226017 from SA | S5-227039 | noted |  |  |
| S3-230637 | Reply LS on user’s consent for EDGEAPP | S6-223339 | noted |  |  |
| S3-230638 | Reply LS on Network federation interface for Telco edge consideration for a consolidated reply | S6-223553 | noted |  |  |
| S3-230639 | LS on the use of a non-network defined identifier for UE identification | S6-223558 | replied to |  |  |
| S3-230640 | CAPIF extensibility | S6-230294 | noted |  |  |
| S3-230641 | LS on user consent for UE location sharing | S6-230351 | postponed |  |  |
| S3-230642 | Specification of the 256-bit air interface algorithms | ETSI SAGE | postponed |  |  |
| S3-230643 | LS on initiation of new work item Y.CCO-req: ""Requirements of orchestration supporting confidential computing for network slices in IMT-2020 networks and beyond"" | ITU-T SG13 | noted |  |  |
| S3-230644 | Reply LS on Network federation interface for Telco edge consideration | SP-221321 | noted |  |  |
| S3-230645 | Discussion on addition of applicability notes in pre-requisites for SCAS | Keysight Technologies UK Ltd | noted |  |  |
| S3-230646 | Discussion on specification of robustness and fuzz testing for SCAS | Keysight Technologies UK Ltd | noted |  |  |
| S3-230647 | Living document for SCAS UPF TS 33.513 | Keysight Technologies UK Ltd | approved |  |  |
| S3-230648 | Update gNB test cases for Release 17 requirements | Keysight Technologies UK Ltd | approved |  |  |
| S3-230649 | lawful interception for EPS Fallback for 5G inbound roamers | GSMA | revised |  | S3-231526 |
| S3-230650 | LS to SA3-LI on Volte roaming lawful interception - limitation to provide caller identify if caller activates OIR | GSMA | revised |  | S3-231524 |
| S3-230651 | Support for multiple lists of root CA certificates | BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell | revised |  | S3-231423 |
| S3-230652 | Support for multiple lists of root CA certificates | BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell | revised |  | S3-231448 |
| S3-230653 | Support for multiple lists of root CA certificates | BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell | revised |  | S3-231449 |
| S3-230654 | TR skeleton FS\_N32SEPP\_SEC - Study on security for N32 and SEPP hosting scenarios | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-230655 | SID on Study on security for N32 and SEPP hosted scenarios | Nokia, Nokia Shanghai Bell | revised |  | S3-231614 |
| S3-230656 | Clarification of hashing | BSI (DE) | revised |  | S3-230682 |
| S3-230657 | Clarification of authorization verification | BSI (DE) | revised |  | S3-230683 |
| S3-230658 | Clarification of brute force mitigation mechanism verification | BSI (DE) | revised |  | S3-230684 |
| S3-230659 | Clarification of privilege escalation methods to check for | BSI (DE) | revised |  | S3-230685 |
| S3-230660 | Clarification of service reachability restriction verification | BSI (DE) | revised |  | S3-230686 |
| S3-230661 | Clarification of auto-launch verification | BSI (DE) | revised |  | S3-230687 |
| S3-230662 | Clarification of SYN Flood attack prevention test | BSI (DE) | revised |  | S3-230688 |
| S3-230663 | Clarification of privilege verification | BSI (DE) | revised |  | S3-230689 |
| S3-230664 | Clarification of CGI/Scripting component directory check | BSI (DE) | revised |  | S3-230690 |
| S3-230665 | Clarification of SSI System Command Excecution test | BSI (DE) | revised |  | S3-230691 |
| S3-230666 | conclusion on KI#1 | vivo | noted |  |  |
| S3-230667 | conclusion on KI#2 | vivo | noted |  |  |
| S3-230668 | pCR to TR FS\_N32SEPP\_SEC - Shifting KIs and solutions to new TR | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-230669 | Removal of KIs and solutions from TR 33.875 due to shift to new study FS\_N32SEPP | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-230670 | Presentation of Report TR 33.875 v1.7.0 | Nokia, Nokia Shanghai Bell | revised |  | S3-231628 |
| S3-230671 | Reply LS on Time Synchronization Status notification towards UE(s) | Nokia Italy | noted |  |  |
| S3-230672 | Referencing GSMA for interdomain N32 certificates | BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell | revised |  | S3-231436 |
| S3-230673 | Referencing GSMA for interdomain N32 certificates | BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell | revised |  | S3-231435 |
| S3-230674 | Reply LS on Security for selective SCG activation | Nokia Italy | revised |  | S3-231397 |
| S3-230675 | Discussion on (R2-2213337) LS on Security for Selective SCG Activation | Nokia Italy | noted |  |  |
| S3-230676 | Discussion on AMF SCAS test for incorrectly encoded security capabilities | BSI (DE) | noted |  |  |
| S3-230677 | Threat reference for incorrectly encoded UE security capabilities on the NG interface | BSI (DE) | revised |  | S3-230715 |
| S3-230678 | New SCAS test on valid UE security capability encoding while AS security establishment | BSI (DE) | revised |  | S3-230716 |
| S3-230679 | New WID on 5G Security Assurance Specification (SCAS) for the Policy Control Function (PCF) | BSI (DE) | revised |  | S3-231187 |
| S3-230680 | New WID on 5G Security Assurance Specification (SCAS) for the Unified Data Repository (UDR) | BSI (DE) | revised |  | S3-231190 |
| S3-230681 | Need for SCAS Improvements | Deutsche Telekom AG | noted |  |  |
| S3-230682 | Clarification of hashing | Federal Office for Information Security (BSI), Deutsche Telekom | revised | S3-230656 | S3-231193 |
| S3-230683 | Clarification of authorization verification | Federal Office for Information Security (BSI), Deutsche Telekom | agreed | S3-230657 |  |
| S3-230684 | Clarification of brute force mitigation mechanism verification | Federal Office for Information Security (BSI), Deutsche Telekom | agreed | S3-230658 |  |
| S3-230685 | Clarification of privilege escalation methods to check for | Federal Office for Information Security (BSI), Deutsche Telekom | revised | S3-230659 | S3-231194 |
| S3-230686 | Clarification of service reachability restriction verification | Federal Office for Information Security (BSI), Deutsche Telekom | agreed | S3-230660 |  |
| S3-230687 | Clarification of auto-launch verification | Federal Office for Information Security (BSI), Deutsche Telekom | agreed | S3-230661 |  |
| S3-230688 | Clarification of SYN Flood attack prevention test | Federal Office for Information Security (BSI), Deutsche Telekom | agreed | S3-230662 |  |
| S3-230689 | Clarification of privilege verification | Federal Office for Information Security (BSI), Deutsche Telekom | not pursued | S3-230663 |  |
| S3-230690 | Clarification of CGI/Scripting component directory check | Federal Office for Information Security (BSI), Deutsche Telekom | agreed | S3-230664 |  |
| S3-230691 | Clarification of SSI System Command Execution test | Federal Office for Information Security (BSI), Deutsche Telekom | revised | S3-230665 | S3-231196 |
| S3-230692 | Discussion paper on potential risks in deployment of 256-bit algorithms | KDDI Corporation | not treated |  |  |
| S3-230693 | Study on enabling a cryptographic algorithm transition to 256 bits | KDDI Corporation | revised |  | S3-230834 |
| S3-230694 | New Informative Annex for TR 33.870 | NCSC | not treated |  |  |
| S3-230695 | New Draft WID: Introduction of 256bit Algorithms | VODAFONE Group Plc | not treated |  |  |
| S3-230696 | WID on Security aspects of home network triggered primary authentication | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-230697 | New WID on Security aspects for 5WWC Phase 2 | Nokia, Nokia Shanghai Bell, CableLabs, Charter Communications, Lenovo, Apple | revised |  | S3-231561 |
| S3-230698 | Discussion paper for MPS support over WLAN and relationship with HNTRA study | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-230699 | updating conclusion for KI1 | Nokia, Nokia Shanghai Bell, CableLabs | approved |  |  |
| S3-230700 | updating the existing solution mapping | Nokia, Nokia Shanghai Bell | not treated |  |  |
| S3-230701 | KI1 conclusion for case 1 and case3 | Nokia, Nokia Shanghai Bell, Xiaomi, Lenovo | noted |  |  |
| S3-230702 | HNTRA procedure for SoR case | Nokia, Nokia Shanghai Bell | not pursued |  |  |
| S3-230703 | HNTRA procedure for UPU wrap around case | Nokia, Nokia Shanghai Bell | not pursued |  |  |
| S3-230704 | Discussion on authorization issue in inter NF mobility | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-230705 | Clarification on authorization for inter NF mobility | Nokia, Nokia Shanghai Bell | revised |  | S3-231320 |
| S3-230706 | Clarification on authorization for inter NF mobility | Nokia, Nokia Shanghai Bell | not pursued |  |  |
| S3-230707 | Discussion paper of UPU implementation gaps | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-230708 | Enhancement in UPU procedure to protect UPU header-sol1 | Nokia, Nokia Shanghai Bell | not pursued |  |  |
| S3-230709 | Enhancement in UPU procedure to protect UPU header-sol1 | Nokia, Nokia Shanghai Bell | not pursued |  |  |
| S3-230710 | Enhancement in UPU procedure to protect UPU header-Sol2 | Nokia, Nokia Shanghai Bell | not pursued |  |  |
| S3-230711 | Enhancement in UPU procedure to protect UPU header-Sol2 | Nokia, Nokia Shanghai Bell | not pursued |  |  |
| S3-230712 | Correction in N5CW device authentication | Nokia, Nokia Shanghai Bell, | not pursued |  |  |
| S3-230713 | Correction in N5CW device authentication | Nokia, Nokia Shanghai Bell, | not pursued |  |  |
| S3-230714 | Correction in N5CW device authentication | Nokia, Nokia Shanghai Bell | not pursued |  |  |
| S3-230715 | Threat reference for incorrectly encoded UE 5G security capabilities on the AMF NG interface | Federal Office for Information Security (BSI), Deutsche Telekom | not pursued | S3-230677 |  |
| S3-230716 | New SCAS test on valid UE security capability encoding while AS security establishment | Federal Office for Information Security (BSI), Deutsche Telekom | not pursued | S3-230678 |  |
| S3-230717 | Alignment of 3GPP’s 5G Security to the fifth NIST Tenet of ZTA | Ericsson | noted |  |  |
| S3-230718 | Alignment of 3GPP’s 5G Security to the sixth NIST Tenet of ZTA | Ericsson | not treated |  |  |
| S3-230719 | Reply-LS on the need for granular level checks using "Additional scope" under the OAuth2.0 Token Access | Nokia, Nokia Shanghai Bell | revised |  | S3-231581 |
| S3-230720 | New KI: Support for Policy Decision Points and Policy Enforcement Points within 5GC SBA | MITRE Corporation | noted |  |  |
| S3-230721 | New KI: Protection of Home Network Identifiers | MITRE Corporation | noted |  |  |
| S3-230722 | Address ENs | InterDigital Communications | revised |  | S3-231455 |
| S3-230723 | Conclusion for solution #26. | InterDigital Communications | noted |  |  |
| S3-230724 | Editorial change | InterDigital Communications | approved |  |  |
| S3-230725 | OAuth for subscribe notify | Nokia, Nokia Shanghai Bell, Mavenir | not pursued |  |  |
| S3-230726 | OAuth for subscribe notify | Nokia, Nokia Shanghai Bell, Mavenir | revised |  | S3-231395 |
| S3-230727 | NF service consumer registration by OAM | Nokia, Nokia Shanghai Bell, Mavenir | not pursued |  |  |
| S3-230728 | NF service consumer registration by OAM | Nokia, Nokia Shanghai Bell, Mavenir | agreed |  |  |
| S3-230729 | TCG progress - report from TCG rapporteur | InterDigital France R&D, SAS | noted |  |  |
| S3-230730 | Privacy Study - Notes from the offline call on 2023-02-08 | InterDigital France R&D, SAS | not treated |  |  |
| S3-230731 | PCR to 33.870 New clause for comparative evaluation of KI#1 solutions | InterDigital France R&D, SAS | not treated |  |  |
| S3-230732 | PCR to 33.870 - Aggregate changes | InterDigital France R&D, SAS | not treated |  |  |
| S3-230733 | PCR to 33.870 - Solution #10 Evaluation | InterDigital France R&D, SAS | noted |  |  |
| S3-230734 | PCR to 33.870 - New clause for mapping solutions and KIs | InterDigital France R&D, SAS | not treated |  |  |
| S3-230735 | PCR to 33.870 Changes to Solution #2 | InterDigital France R&D, SAS | not treated |  |  |
| S3-230736 | PCR to 33.870 - Solution #9 Evaluation | InterDigital France R&D, SAS | noted |  |  |
| S3-230737 | PCR to 33.870 - Solution #8 Evaluation | InterDigital France R&D, SAS | noted |  |  |
| S3-230738 | PCR to 33.870 - Solution #7 Evaluation | InterDigital France R&D, SAS | noted |  |  |
| S3-230739 | PCR to 33.870 - Solution #6 Evaluation | InterDigital France R&D, SAS | noted |  |  |
| S3-230740 | PCR to 33.870 - Solution #5 Evaluation | InterDigital France R&D, SAS | merged |  | S3-231429 |
| S3-230741 | PCR to 33.870 - Solution #4 Evaluation | InterDigital France R&D, SAS | not treated |  |  |
| S3-230742 | PCR to 33.870 - Solution #3 Evaluation | InterDigital France R&D, SAS | not treated |  |  |
| S3-230743 | PCR to 33.870 - Solution #2 Evaluation | InterDigital France R&D, SAS | not treated |  |  |
| S3-230744 | PCR to 33.870 - Solution #1 Evaluation | InterDigital France R&D, SAS | not treated |  |  |
| S3-230745 | [33.180] R16 Clarify protected KmsResponse payloads | Motorola Solutions, Inc | revised |  | S3-231415 |
| S3-230746 | [33.180] R16 Clarify protected KmsResponse payloads (mirror) | Motorola Solutions, Inc | revised |  | S3-231416 |
| S3-230747 | [33.180] R16 Fix XML schema | Motorola Solutions, Inc | agreed |  |  |
| S3-230748 | [33.180] R17 Fix XML schema (mirror) | Motorola Solutions, Inc | agreed |  |  |
| S3-230749 | Living document to TS 33.503 for Prose Secondary Authentication | InterDigital Finland Oy, ChinaTelecom | merged |  | S3-231432 |
| S3-230750 | Discussion on 5G ProSe Relay and support for Regulatory services | InterDigital Finland Oy | noted |  |  |
| S3-230751 | Resolution of Remote UE identity Remote UE Report procedure (UP) | InterDigital Finland Oy | merged |  | S3-231430 |
| S3-230752 | Resolution of Remote UE identity in Remote UE Report procedure (CP) | InterDigital Finland Oy | merged |  | S3-231431 |
| S3-230753 | Evaluation TR 33.740 Sol #1 | InterDigital Finland Oy | noted |  |  |
| S3-230754 | Evaluation TR 33.740 Sol #13 | InterDigital Finland Oy | noted |  |  |
| S3-230755 | Evaluation TR 33.740 Sol #12 | InterDigital Finland Oy | revised |  | S3-231445 |
| S3-230756 | Remove EN to Key Issue #2 | Johns Hopkins University APL, US National Security Agency, InterDigital, Apple, CableLabs | revised |  | S3-231583 |
| S3-230757 | Update to TR 33.740 Conclusion for KI#2 | InterDigital Finland Oy | revised |  | S3-231568 |
| S3-230758 | Evaluation of Solution 5 | Johns Hopkins University APL, US National Security Agency | noted |  | - |
| S3-230759 | Update to TR 33.740 Conclusion for KI#4 | InterDigital Finland Oy | revised |  | S3-231569 |
| S3-230760 | Update to Conclusion to KI #1 | InterDigital Finland Oy | noted |  |  |
| S3-230761 | Reply LS on PLMN ID used in Roaming Scenarios from CT WG4 and SA WG2 | Nokia, Nokia Shanghai Bell | revised |  | S3-231391 |
| S3-230762 | KI11 Solution 21 EN resolution | Nokia, Nokia Shanghai Bell | not treated |  |  |
| S3-230763 | KI11 Solution 22 EN resolution | Nokia, Nokia Shanghai Bell | not treated |  |  |
| S3-230764 | SCP trust assumptions | Nokia, Nokia Shanghai Bell | agreed |  |  |
| S3-230765 | Solution update - user consent authorization function | Nokia UK | approved |  |  |
| S3-230766 | SBA TLS certificate update | Nokia, Nokia Shanghai Bell | not pursued |  |  |
| S3-230767 | SBA TLS certificate update | Nokia, Nokia Shanghai Bell | not pursued |  | - |
| S3-230768 | Including SNPN ID in SBA and N32 related descriptions | Nokia, Nokia Shanghai Bell | revised |  | S3-231604 |
| S3-230769 | Including SNPN ID in SBA and N32 related descriptions | Nokia, Nokia Shanghai Bell | revised |  | S3-231605 |
| S3-230770 | pCR to TR FS\_N32SEPP\_SEC KI10 solution to enable intermediaries to initiate signalling messages | Nokia, Nokia Shanghai Bell, NTT Docomo | withdrawn |  |  |
| S3-230771 | PRINS protocol to provide IPX the tool to fulfil its role | Mavenir | not pursued |  | - |
| S3-230772 | PRINS protocol to provide IPX the tool to fulfil its role | Mavenir | not pursued |  |  |
| S3-230773 | Sol#3 Resolving ENs on scopes and claims | Nokia, Nokia Shanghai Bell | not treated |  |  |
| S3-230774 | Sol#3 Updating Evaluation | Nokia, Nokia Shanghai Bell | not treated |  |  |
| S3-230775 | Sol#1 Adding Evaluation to Sol#1 | Nokia, Nokia Shanghai Bell | not treated |  |  |
| S3-230776 | KI#1 Conclusions | Nokia, Nokia Shanghai Bell | merged |  | S3-231545 |
| S3-230777 | KI#1 New Sol for local PINE authentication | Nokia, Nokia Shanghai Bell | revised |  | S3-231541 |
| S3-230778 | Sol#1 Updating Evaluation | Nokia, Nokia Shanghai Bell | approved |  |  |
| S3-230779 | Sol#3 Removal of EN | Nokia, Nokia Shanghai Bell | revised |  | S3-231596 |
| S3-230780 | KI#1 Conclusions | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-230781 | KI#2 Conclusions | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-230782 | CR on IPX originated messages in PRINS | NTT DOCOMO INC., Nokia, Nokia Shanghai Bell | revised |  | S3-231200 |
| S3-230783 | CR on IPX originated messages in PRINS - R17 | NTT DOCOMO INC., Nokia, Nokia Shanghai Bell | not pursued |  |  |
| S3-230784 | CR on IPX originated messages in PRINS - R18 | NTT DOCOMO INC., Nokia, Nokia Shanghai Bell | not pursued |  |  |
| S3-230785 | draft Reply LS on PRINS middle boxes | NTT DOCOMO INC. | revised |  | S3-231389 |
| S3-230786 | Draft TS 33.523 v0.4.0 | Qualcomm Incorporated | approved |  |  |
| S3-230787 | Draft CR: Introducing split gNBs into TR 33.926 | Qualcomm Incorporated | revised | S3-224169 | S3-231473 |
| S3-230788 | Editorial corrections to draft CR to TR 33.926 | Qualcomm Incoporated | approved |  |  |
| S3-230789 | Adding user plane test cases for the gNB-CU | Qualcomm Incorporated | approved | S3-223347 |  |
| S3-230790 | Adding test cases for the gNB-CU-UP | Qualcomm Incorporated | approved | S3-223351 |  |
| S3-230791 | Adding non-501 test cases for the gNB-CU-CP | Qualcomm Incorporated | revised |  | S3-231470 |
| S3-230792 | Adding non-501 test cases for the gNB-CU-UP | Qualcomm Incorporated | revised |  | S3-231471 |
| S3-230793 | Adding non-501 test cases for the gNB-DU | Qualcomm Incorporated | revised |  | S3-231472 |
| S3-230794 | Editorial changes to draft TS 33.253 | Qualcomm Incorporated | approved |  |  |
| S3-230795 | Discussion on way forward with SCAS for split gNB work | Qualcomm Incorporated | noted |  |  |
| S3-230796 | Coversheet for TS 33.523 | Qualcomm Incorporated | approved |  |  |
| S3-230797 | Draft TR 33.891 v0.5.1 | Qualcomm Incorporated | approved | S3-230441 |  |
| S3-230798 | Coversheet for TR 33.891 | Qualcomm Incorporated | revised |  | S3-231538 |
| S3-230799 | Proposed WID for UAS Phase 2 security | Qualcomm Incorporated, Lenovo, Huawei, HiSilicon | revised |  | S3-231562 |
| S3-230800 | Adding FT details to solution #7 | Qualcomm Incorporated | revised |  | S3-231513 |
| S3-230801 | Adding evaluation to solution #7 | Qualcomm Incorporated | revised |  | S3-231514 |
| S3-230802 | Resolving the EN in solution #22 | Qualcomm Incorporated | approved |  |  |
| S3-230803 | Proposed addition to the conclusions | Qualcomm Incorporated | noted | S3-230291 |  |
| S3-230804 | Clarification to the UPU procedures | Qualcomm Incorporated | not pursued | S3-223331 |  |
| S3-230805 | Discussion on issue with UPU MAC calculation | Qualcomm Incorporated | noted |  |  |
| S3-230806 | Resolving the EN on CAA level ID during UUAA procedures | Qualcomm Incorporated | not pursued | S3-223332 |  |
| S3-230807 | Removing the ENs on passing the CAA-level ID to UE during revocation | Qualcomm Incorporated | not pursued |  | - |
| S3-230808 | A new solution for mitigating privacy attacks exploiting group paging with TMGI | Qualcomm Incorporated | noted |  |  |
| S3-230809 | Conclusion of KI#1 | Qualcomm Incorporated | noted |  |  |
| S3-230810 | Updates on the solution #23 | Qualcomm Incorporated | noted |  |  |
| S3-230811 | Updates on the solution #24 | Qualcomm Incorporated | revised |  | S3-231616 |
| S3-230812 | LS on UE-to-UE relay discovery direct discovery | Qualcomm Incorporated | noted |  |  |
| S3-230813 | Update the evaluation of solution #8 | Qualcomm Incorporated | noted |  |  |
| S3-230814 | Update the evaluation of solution #9 | Qualcomm Incorporated | noted |  |  |
| S3-230815 | Add an evaluation of solution #11 | Qualcomm Incorporated | noted |  |  |
| S3-230816 | Reply LS on U2N relay direct link setup failure due to RSC mismatch or integrity failure | Qualcomm Incorporated | revised |  | S3-231390 |
| S3-230817 | Updates to the Key Issue #5 | Qualcomm Incorporated | revised |  | S3-231522 |
| S3-230818 | A new solution for group communication security for Ranging/SL Positioning services | Qualcomm Incorporated | revised |  | S3-231600 |
| S3-230819 | Resolution of EN#1 in Solution#7 for KI#1 | Qualcomm Incorporated | revised |  | S3-231540 |
| S3-230820 | Resolution of EN#2 in Solution#7 for KI#1 | Qualcomm Incorporated | approved |  |  |
| S3-230821 | Solution Proposed for KI#2, protecting users with high priority | Qualcomm Incorporated | revised |  | S3-231584 |
| S3-230822 | Conclusion for KI #3 | Qualcomm Incorporated | noted | S3-223373 |  |
| S3-230823 | updating solution 26 in TR33.875 | Mavenir, Nokia, Nokia Shanghai Bell | not treated |  |  |
| S3-230824 | New WID on Automated certicate management in SBA | Nokia, Nokia Shanghai Bell | revised |  | S3-231563 |
| S3-230825 | Solution of assurance of unique NF identifiers in certificates | Nokia, Nokia Shanghai Bell | revised |  | S3-231591 |
| S3-230826 | Resolution of EN in solution #12 of FS\_ACM\_SBA | Nokia, Nokia Shanghai Bell | approved |  |  |
| S3-230827 | Enhancement of solution #10 | Nokia, Nokia Shanghai Bell | approved |  |  |
| S3-230828 | Discussion paper on new draft rfc on X.509 certificate EKU for JOSE | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-230829 | Conclusion of KI#9 | Nokia, Nokia Shanghai Bell | revised |  | S3-231586 |
| S3-230830 | Conclusion of KI#7 | Nokia, Nokia Shanghai Bell | revised |  | S3-231488 |
| S3-230831 | Conclusion of KI#6 | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-230832 | Conclusion of KI#5 | Nokia, Nokia Shanghai Bell | revised |  | S3-231487 |
| S3-230833 | Conclusion of KI#2 | Nokia, Nokia Shanghai Bell | revised |  | S3-231482 |
| S3-230834 | Study on enabling a cryptographic algorithm transition to 256 bits | KDDI Corporation | not treated | S3-230693 |  |
| S3-230835 | Resolution of ENs of KI#1 conclusion in eNA\_SEC\_Ph3 | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-230836 | NFc registration in KI#3 conclusion in eNA\_SEC\_Ph3 | Nokia, Nokia Shanghai Bell | merged |  | S3-231496 |
| S3-230837 | Authorization granularity in KI#3 conclusion in eNA\_SEC\_Ph3 | Nokia, Nokia Shanghai Bell | revised |  | S3-231494 |
| S3-230838 | AI\_ML model encryption in KI#3 conclusion in eNA\_SEC\_Ph3 | Nokia, Nokia Shanghai Bell, Intel | revised |  | S3-231495 |
| S3-230839 | Evaluation of solution #6 in eNA\_SEC\_Ph3 | Nokia, Nokia Shanghai Bell | revised |  | S3-231594 |
| S3-230840 | Evaluation of solution #18 in eNA\_SEC\_Ph3 | Nokia, Nokia Shanghai Bell | revised |  | S3-231593 |
| S3-230841 | Conclusion of eNA\_SEC\_Ph3 KI#4 | Nokia, Nokia Shanghai Bell, Lenovo | noted |  |  |
| S3-230842 | Conclusion of eNA\_SEC\_Ph3 KI#2 | Nokia, Nokia Shanghai Bell | merged |  | S3-231497 |
| S3-230843 | Update in solution #23 (EAS discovery procedure protection) | Nokia, Nokia Shanghai Bell, Huawei, HiSilicon | revised |  | S3-231447 |
| S3-230844 | Authorization of NF service consumers for data access via DCCF | Nokia, Nokia Shanghai Bell | not pursued |  |  |
| S3-230845 | Authorization of NF service consumers for data access via DCCF | Nokia, Nokia Shanghai Bell | not pursued |  |  |
| S3-230846 | Reply LS on Authorization of NF service consumers for data access via DCCF | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-230847 | LS on PRINS currently does not fully support the IPX use case | Mavenir | merged |  | S3-231389 |
| S3-230848 | Wayforward discussion for KI#1 | Huawei, HiSilicon | noted |  |  |
| S3-230849 | KI#1 update | Huawei, HiSilicon | revised |  | S3-231506 |
| S3-230850 | Conclusion for KI#1 | Huawei, HiSilicon | revised |  | S3-231507 |
| S3-230851 | Update to KI#3 | Huawei, HiSilicon | noted |  |  |
| S3-230852 | New solution to KI#3 | Huawei, HiSilicon | revised |  | S3-231508 |
| S3-230853 | Clarification on SoR AF | Huawei, HiSilicon | revised |  | S3-231186 |
| S3-230854 | Address EN on S-NSSAI mapping | Huawei, HiSilicon | not pursued |  |  |
| S3-230855 | Address EN on AF Authorization | Huawei, HiSilicon | revised |  | S3-231406 |
| S3-230856 | Address issue in NSSAA procedures for multiple registration | Huawei, HiSilicon | revised |  | S3-231188 |
| S3-230857 | draft LS on issues in NSSAA procedures for multiple registration | Huawei, HiSilicon | noted |  |  |
| S3-230858 | Address ENs in revocation procedures | Huawei, HiSilicon | not pursued |  |  |
| S3-230859 | Adding evaluation to solution#3 | Huawei, HiSilicon | revised |  | S3-231479 |
| S3-230860 | Adding conclusion on KI#1 | Huawei, HiSilicon | noted |  |  |
| S3-230861 | Adding conclusion on KI#2 | Huawei, HiSilicon | merged |  | S3-231536 |
| S3-230862 | New WID on security enhancements for NGRTC | Huawei, HiSilicon | revised |  | S3-231564 |
| S3-230863 | New solution on boot time attestation at 3GPP function level | Huawei, HiSilicon | noted |  |  |
| S3-230864 | add test case to include SNPN snenario in PLMNID verification | Huawei, HiSilicon | revised |  | S3-231609 |
| S3-230865 | add test case to include SNPN snenario in token verification | Huawei, HiSilicon | revised |  | S3-231610 |
| S3-230866 | Mnf-specific Over-Privileged Data Process threat addressing | Huawei, HiSilicon | revised |  | S3-231457 |
| S3-230867 | Mnf-specific Unprotected Management data during transmission threat addressing | Huawei, HiSilicon | revised |  | S3-231458 |
| S3-230868 | New WID on Security Aspects of Enhancement of Support for Edge Computing in 5GC — phase 2 | Huawei, HiSilicon | revised |  | S3-231565 |
| S3-230869 | Resolving EN of conclusion of KI#2.6 | Huawei, HiSilicon | noted |  |  |
| S3-230870 | Resolving EN of conclusion of KI#2.1 | Huawei, HiSilicon | noted |  |  |
| S3-230871 | Resolving EN of conclusion of KI#2.2 | Huawei, HiSilicon, Thales | merged |  | S3-231452 |
| S3-230872 | Resolving EN of conclusion of KI#2.3 | Huawei, HiSilicon | approved |  |  |
| S3-230873 | Resolving EN of conclusion of KI#2.4 | Huawei, HiSilicon | approved |  |  |
| S3-230874 | Clarification on subsribe-notification | Huawei, HiSilicon | merged |  | S3-231395 |
| S3-230875 | Clarification on unused HTTP methods - Rel16 | Huawei, HiSilicon | agreed |  |  |
| S3-230876 | Clarification on unused HTTP methods - Rel17 | Huawei, HiSilicon | agreed |  |  |
| S3-230877 | New Key Issue for protecting 3GPP radio identifiers and privacy sensitive information during remote troubleshooting | Nokia, Nokia Shanghai Bell, Vodafone, Verizon | noted |  |  |
| S3-230878 | Conclusion of KI#3 | Nokia, Nokia Shanghai Bell | merged |  | S3-231485 |
| S3-230879 | Evaluation for Solution#14 | Nokia, Nokia Shanghai Bell | revised |  | S3-231483 |
| S3-230880 | New solution for prevention of detection of priority access | Nokia, Nokia Shanghai Bell, Johns Hopkins University APL | noted |  |  |
| S3-230881 | Reply LS for LS on UE event reporting over a user plane connection to LCS client or AF | Nokia, Nokia Shanghai Bell | merged |  | S3-231401 |
| S3-230882 | Reply LS for LS on LPP message and supplementary service event report over a user plane connection between UE and LMF | Nokia, Nokia Shanghai Bell | merged |  | S3-231401 |
| S3-230883 | Reply LS for LS on secured and trusted access to the serving PLMN OAM server by a MBSR | Nokia, Nokia Shanghai Bell | merged |  | S3-231400 |
| S3-230884 | New Key issue for Monitoring and detecting attacks on ranging devices and services | Nokia, Nokia Shanghai Bell | not treated |  |  |
| S3-230885 | Policy-based C-RNTI and TMSI refresh | Intel | revised |  | S3-231585 |
| S3-230886 | Conclusion for KI#2: Authorization of PIN capabilities | Intel | noted |  |  |
| S3-230887 | Evaluation for Solution#5 | Nokia, Nokia Shanghai Bell | revised |  | S3-231429 |
| S3-230888 | Clarify authorization for non-SBA interfaces | China Telecommunications | noted |  |  |
| S3-230889 | Adding AKMA subscription and AKMA context asynchronization threats to TR 33.926 | ZTE Corporation | noted |  |  |
| S3-230890 | Security Assurance Requirement and Test for AKMA subscription data and AKMA context synchronization | ZTE Corporation | noted |  |  |
| S3-230891 | Add Context\_Remove into table 7.1.1-1 | ZTE Corporation | not pursued |  |  |
| S3-230892 | Change NF to AAnF Service Consumer in 6.6 and 6.7 | ZTE Corporation | not pursued |  |  |
| S3-230893 | General part for AKMA DTLS to TS 33.535 | ZTE Corporation | noted |  |  |
| S3-230894 | General part for GBA DTLS to TS 33.222 | ZTE Corporation | noted |  |  |
| S3-230895 | Living document for AKMA DTLS to TS 33.535 | ZTE Corporation | noted |  |  |
| S3-230896 | Shared key-based mutual authentication between UE and AF to TS 33.535 | ZTE Corporation | noted |  |  |
| S3-230897 | Shared key-based UE authentication with certificate-based NAF authentication to TS 33.535 | ZTE Corporation | noted |  |  |
| S3-230898 | Shared key-based mutual authentication between UE and NAF to TS 33.222 | ZTE Corporation | revised |  | S3-231475 |
| S3-230899 | Shared key-based UE authentication with certificate-based NAF authentication to TS 33.222 | ZTE Corporation | noted |  |  |
| S3-230900 | Living document for GBA DTLS to TS 33.222 | ZTE Corporation | revised |  | S3-231476 |
| S3-230901 | Draft CR to TS 33.501-Comply with error code during interworking | ZTE Corporation | noted |  |  |
| S3-230902 | Draft CR to TS 33.501-Network initiated Primary Authentication | ZTE Corporation | merged |  | S3-231478 |
| S3-230903 | Draft CR to TS 33.535-Kakma refresh | ZTE Corporation | noted |  |  |
| S3-230904 | Conclusion for the KI#6 | ZTE Corporation | merged |  | S3-231444 |
| S3-230905 | Add evaluation to solution 6 | ZTE Corporation | revised |  | S3-231428 |
| S3-230906 | Add EN to the solution 1 and 6 and 14 | ZTE Corporation | noted |  |  |
| S3-230907 | Add EN to the solution 5 | ZTE Corporation | noted |  |  |
| S3-230908 | Conclusion for KI#1 | ZTE Corporation | noted |  |  |
| S3-230909 | Discussion on multi-registration in AKMA roaming | ZTE Corporation | noted |  |  |
| S3-230910 | updates to the solution 3 and 9 | ZTE Corporation | approved |  |  |
| S3-230911 | updates to the solution 15 | ZTE Corporation | noted |  |  |
| S3-230912 | Add conclusion for KI#1 | ZTE Corporation | noted |  |  |
| S3-230913 | Add conclusion for KI#2 | ZTE Corporation | noted |  |  |
| S3-230914 | New solution to KI#1 protecting SoR container from UDM to UE | ZTE Corporation | noted |  |  |
| S3-230915 | Update to KI#1 providing VPLMN slice information to roaming UE | ZTE Corporation | merged |  | S3-231506 |
| S3-230916 | conclusion for KI2 | ZTE Corporation | noted |  |  |
| S3-230917 | Clarify the use of cross-certificates | China Telecommunications | noted |  |  |
| S3-230918 | Updating evaluation of solution#8 in TR33.876 | China Telecommunications | revised |  | S3-231480 |
| S3-230919 | Evaluation for solution#15 in TR33.738 | China Telecommunications | approved |  |  |
| S3-230920 | Evaluation for solution#19 in TR33.738 | China Telecommunications | approved |  |  |
| S3-230921 | EN removal for solution #5 | Nokia, Nokia Shanghai Bell | approved |  |  |
| S3-230922 | Conclusion for KI#2 in TR33.738 | China Telecommunications | merged |  | S3-231497 |
| S3-230923 | Conclusion for KI#5 in TR33.738 | China Telecommunications | revised |  | S3-231597 |
| S3-230924 | Conclusion for KI#3: Removal of EN related to Authorization | Intel | merged |  | S3-231494 |
| S3-230925 | Conclusion for KI#2 | Intel | merged |  | S3-231497 |
| S3-230926 | New key issue on enhancement of user consent for using logged MDT for NG-RAN AI/ML | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-230927 | Correction in 5.2.4.2 | ChinaTelecom | agreed |  |  |
| S3-230928 | Correction in 6.1.1 | ChinaTelecom | agreed |  |  |
| S3-230929 | Correction in 6.1.3.2.2.2 | ChinaTelecom | agreed |  |  |
| S3-230930 | Solution #10 evalution | BUPT, China Mobile | merged |  | S3-231548 |
| S3-230931 | Correction in 6.2.1 and 6.2.2 | ChinaTelecom | agreed |  |  |
| S3-230932 | Correction in 6.3.3.3.2 | ChinaTelecom | agreed |  |  |
| S3-230933 | Evaluation of TR33.740 Solution 11 | China Telecom Corporation Ltd. | noted |  |  |
| S3-230934 | Update to the evaluation of TR33.740 Solution 8 | China Telecom Corporation Ltd. | noted |  |  |
| S3-230935 | Add evaluation in Sol#4 | OPPO | revised |  | S3-231525 |
| S3-230936 | Update to the evaluation of TR33.740 Solution 9 | China Telecom Corporation Ltd. | noted |  |  |
| S3-230937 | Update Sol#5 | OPPO | noted |  |  |
| S3-230938 | Update to the evaluation of TR33.740 Solution 23 | China Telecom Corporation Ltd. | noted |  |  |
| S3-230939 | Update to the evaluation of TR33.740 Solution 24 | China Telecom Corporation Ltd. | noted |  |  |
| S3-230940 | Add evaluation in Sol #6 | OPPO | approved |  |  |
| S3-230941 | Update KI #5 | OPPO | merged |  | S3-231522 |
| S3-230942 | Conclusion for KI #1 in TR 33.740 | China Telecom Corporation Ltd. | noted |  |  |
| S3-230943 | Resolution to editor’s note in solution 1 concerning threat mitigation | Nokia, Nokia Shanghai Bell | revised |  | S3-231544 |
| S3-230944 | Resolution to editor’s note in solution 1 concerning the provisioning of security material | Nokia, Nokia Shanghai Bell | approved |  |  |
| S3-230945 | Resolution of EN – conclusion to KI#1 – Untrusted access | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-230946 | Resolution of EN – conclusion to KI#1 – Trusted access | Nokia, Nokia Shanghai Bell, Lenovo, Intel | noted |  |  |
| S3-230947 | Resolution of EN – conclusion to KI#1 - NSWO | Nokia, Nokia Shanghai Bell | merged |  | S3-231501 |
| S3-230948 | Resolution of EN – conclusion to KI#1 – N5GC device access | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-230949 | Update to the conclusion of KI#2 in TR 33.740 | China Telecom Corporation Ltd. | noted |  |  |
| S3-230950 | pCR to update TR33.740 Solution 11 | China Telecom Corporation Ltd. | noted |  |  |
| S3-230951 | Updates to Solution#2 | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-230952 | Slice specific initial enrolment procedure | Huawei, HiSilicon | revised |  | S3-231592 |
| S3-230953 | Evaluation for solution #15 on certificate update and renewal | Huawei, HiSilicon | revised |  | S3-231484 |
| S3-230954 | Conclusion for key issue #3 | Huawei, HiSilicon | revised |  | S3-231485 |
| S3-230955 | A mitigation solution for key issue #2 based on selective usage of priority-access | Huawei, HiSilicon | merged |  | S3-231584 |
| S3-230956 | New solution on authorization for AI/ML model sharing | Huawei, HiSilicon | noted |  |  |
| S3-230957 | New solution on authorization for AI/ML model sharing | Huawei, HiSilicon | noted |  |  |
| S3-230958 | Update conclusion to KI#3 | Huawei, HiSilicon | noted |  |  |
| S3-230959 | Clean up for TR 33.896 | Huawei, HiSilicon | approved |  |  |
| S3-230960 | Conclusion for key issue #2 User Consent for NTN | Huawei, HiSilicon | revised |  | S3-231530 |
| S3-230961 | Conclusion for key issue #3 Unified Framework | Huawei, HiSilicon | approved |  |  |
| S3-230962 | New WID on UC3S\_Ph2 | Huawei, HiSilicon, China Mobile, China Telecom, China Unicom, CAICT | noted |  |  |
| S3-230963 | Update on solutiion #1 | Huawei, HiSilicon | not treated |  |  |
| S3-230964 | Role mapping from TR 23.700-95 | Huawei, HiSilicon | not treated |  |  |
| S3-230965 | New Solution on OAuth2.0 Token Revocation | Huawei, HiSilicon | not treated |  |  |
| S3-230966 | Conclusion for key issue #2 | Huawei, HiSilicon | merged |  | S3-231545 |
| S3-230967 | Address EN on solutiion #1: username mapping | Huawei, HiSilicon | not treated |  |  |
| S3-230968 | Address EN on solutiion #1: message of scope | Huawei, HiSilicon | not treated |  |  |
| S3-230969 | New solution for authorization on roaming | Huawei, HiSilicon | revised |  | S3-231491 |
| S3-230970 | Contribution | Huawei, HiSilicon | withdrawn |  |  |
| S3-230971 | Evaluation on Solution 5 | Huawei, HiSilicon | noted |  | - |
| S3-230972 | Clarification on SCAS | Huawei, HiSilicon | revised |  | S3-231469 |
| S3-230973 | Reply LS on the User Consent for Trace Reportings | Huawei, HiSilicon | revised |  | S3-231398 |
| S3-230974 | Reply LS on user consent for UE location sharing | Huawei, HiSilicon | revised |  | S3-231403 |
| S3-230975 | Update requirement and add new test case to clause 4.2.3.4.3.1 | Huawei, HiSilicon, Deutsche Telekom,CAICT, China Mobile, China Telecom, China Unicom, Keysight Technologies UK | noted |  |  |
| S3-230976 | Update requirement and add new test case to clause 4.2.3.4.3.2 | Huawei, HiSilicon, Deutsche Telekom,CAICT, China Mobile, China Telecom, China Unicom, Keysight Technologies UK | noted |  |  |
| S3-230977 | Skeleton and new SBI of the HONTRA for normative work | Huawei, HiSilicon | revised |  | S3-231477 |
| S3-230978 | Basic HONTRA procedure | Huawei, HiSilicon | revised |  | S3-231478 |
| S3-230979 | Add Layer-2 description to sol#27 | Huawei, HiSilicon | approved |  |  |
| S3-230980 | Secondary Authentication Procedure without N3IWF | Huawei, HiSilicon | revised |  | S3-231432 |
| S3-230981 | Secondary Authentication Procedure with N3IWF | Huawei, HiSilicon | revised |  | S3-231433 |
| S3-230982 | General clause for Secondary Authentication Procedure | Huawei, HiSilicon | revised |  | S3-231434 |
| S3-230983 | New solution on IDi of trusted non-3GPP access | Huawei, HiSilicon | revised |  | S3-231504 |
| S3-230984 | Update 7.1.2 and 7.1.3 | Huawei, HiSilicon | noted |  |  |
| S3-230985 | Update solution#10 | Huawei, HiSilicon | not treated |  |  |
| S3-230986 | conclusion for KI#4 | Huawei, HiSilicon | revised |  | S3-231510 |
| S3-230987 | Update to sol#11 | Huawei, HiSilicon | approved |  |  |
| S3-230988 | update conclusion for KI#3 | Huawei, HiSilicon | approved |  |  |
| S3-230989 | Add conclusion to KI#1 | Huawei, HiSilicon | noted |  |  |
| S3-230990 | clarification the scope of sol#1 | Huawei, HiSilicon | noted |  |  |
| S3-230991 | Delete Edirot’s Note of sol#7 | Huawei, HiSilicon | approved |  |  |
| S3-230992 | Update evaluation to solution#3 | Huawei, HiSilicon | revised |  | S3-231533 |
| S3-230993 | Add further impacts and evaluations to sol#5 | Huawei, HiSilicon | revised |  | S3-231534 |
| S3-230994 | Address Editor’s Note to sol#6 | Huawei, HiSilicon | revised |  | S3-231535 |
| S3-230995 | Delete Editor’s Note in sol#8 | Huawei, HiSilicon | approved |  |  |
| S3-230996 | Address the EN of Sol #9 | Huawei, HiSilicon | noted |  |  |
| S3-230997 | Address ENs of Sol #1 and add the evaluation | Huawei, HiSilicon | approved |  |  |
| S3-230998 | Conclusion proposal for KI # 2 | Huawei, HiSilicon | merged |  | S3-231482 |
| S3-230999 | Add the conclusion for key issue #6 | Huawei, HiSilicon | noted |  |  |
| S3-231000 | Clarification of PAnF action when CP-PRUK is stale | Huawei, HiSilicon | not pursued |  |  |
| S3-231001 | update solution #5 | Huawei, HiSilicon | not treated |  |  |
| S3-231002 | update solution #6 | Huawei, HiSilicon | not treated |  |  |
| S3-231003 | update solution #8 | Huawei, HiSilicon | not treated |  |  |
| S3-231004 | Evaluation of solution 6 | Huawei, HiSilicon | revised |  | S3-231486 |
| S3-231005 | Living document for MnF SCAS | Huawei, HiSilicon | approved |  |  |
| S3-231006 | Updates to MnF SCAS clause 4.3 | Huawei, HiSilicon | approved |  |  |
| S3-231007 | Editorial updates to MnF SCAS | Huawei, HiSilicon | revised |  | S3-231459 |
| S3-231008 | Cocnlusion for key issue 1 | Huawei, HiSilicon | noted |  |  |
| S3-231009 | Clean up of the TR | Huawei, HiSilicon | revised |  | S3-231548 |
| S3-231010 | living doc to TR33.926 | Huawei, HiSilicon | approved |  |  |
| S3-231011 | living doc to TR33.216 | Huawei, HiSilicon | approved |  |  |
| S3-231012 | living doc to TS33.117 | Huawei, HiSilicon | approved |  |  |
| S3-231013 | Security on selection SCG activation | Huawei, HiSilicon | noted |  |  |
| S3-231014 | Reply LS on selective SCG activation | Huawei, HiSilicon | merged |  | S3-231397 |
| S3-231015 | updates to evaluation of solution2 | Huawei, HiSilicon | revised |  | S3-231542 |
| S3-231016 | Addressing the EN in solution#23 | Huawei, HiSilicon | merged |  | S3-231447 |
| S3-231017 | Conclusion for Key issue#1.2 | Huawei, HiSilicon | revised |  | S3-231587 |
| S3-231018 | Correction to ProSe Authentication Vector obtaining process | Huawei, HiSilicon | revised |  | S3-231424 |
| S3-231019 | Correction on SUPI in Nudm\_UEAuthentication\_GetProseAv service | Huawei, HiSilicon | agreed |  |  |
| S3-231020 | Resolving editor notes in Solution #10 | Ericsson | revised |  | S3-231521 |
| S3-231021 | Network assisted SL positioning discovery | Ericsson | noted |  |  |
| S3-231022 | Network assisted SL positioning security material provisioning | Ericsson | noted |  |  |
| S3-231023 | Clarify about the ProSe authentication | Huawei, HiSilicon | merged |  | S3-231559 |
| S3-231024 | Discussion paper about theserving network check during EAP-AKA' | Huawei, HiSilicon | noted |  |  |
| S3-231025 | Add conclusion to KI#2 | Huawei, HiSilicon | revised |  | S3-231438 |
| S3-231026 | Add conclusion to KI#3 | Huawei, HiSilicon | merged |  | S3-231580 |
| S3-231027 | Add conclusion to KI#5 | Huawei, HiSilicon | noted |  |  |
| S3-231028 | Address EN and add evaluation for Sol #26 | Huawei, HiSilicon | revised |  | S3-231582 |
| S3-231029 | New solution for protecting direct communnication | Huawei, HiSilicon | revised |  | S3-231516 |
| S3-231030 | Conclude to KI#4 about Ranging unicast direct communicaiton | Huawei, HiSilicon | noted |  |  |
| S3-231031 | CR on control-plane procedure in MBS | Huawei, HiSilicon | revised |  | S3-231408 |
| S3-231032 | Reply LS on the impact of MSK update on MBS multicast session update procedure | Huawei, HiSilicon | revised |  | S3-231410 |
| S3-231033 | Reply LS on secured and trusted access to the serving PLMN OAM server by a MBSR | Huawei, HiSilicon | revised |  | S3-231400 |
| S3-231034 | Reply LS on user plane connection between UE and LCS client, AF or LMF | Huawei, HiSilicon | merged |  | S3-231401 |
| S3-231035 | Evaluation for Solution #5 | LG Electronics | approved |  |  |
| S3-231036 | Evaluation for Solution #12 | LG Electronics | approved |  |  |
| S3-231037 | New solution to KI#3 | LG Electronics | merged |  | S3-231508 |
| S3-231038 | Discussion paper on security enhancements for 5GC LoCation Services Phase 3 | Huawei, HiSilicon | noted |  |  |
| S3-231039 | New WID on security enhancements for 5GC LoCation Services Phase 3 | Huawei, HiSilicon | noted |  |  |
| S3-231040 | New WID on security enhancements for MBS Phase 2 | Huawei, HiSilicon | noted |  |  |
| S3-231041 | A new solution to address the privacy issue with TMGI | Huawei, HiSilicon | noted |  |  |
| S3-231042 | conclusion on key issue 2 | Huawei, HiSilicon | noted |  |  |
| S3-231043 | Addressing the editor's note in solution 3 | Huawei, HiSilicon | noted |  |  |
| S3-231044 | conclusion on key issue 1 | Huawei, HiSilicon | noted |  |  |
| S3-231045 | update to solution 1 | Huawei, HiSilicon | not treated |  |  |
| S3-231046 | conclusion on key issue 1 | Huawei, HiSilicon | not treated |  |  |
| S3-231047 | conclusion on key issue 2 | Huawei, HiSilicon | revised |  | S3-231626 |
| S3-231048 | Clarification on NEF’s authorization to AF | Huawei, HiSilicon | agreed |  |  |
| S3-231049 | LS on Proposal for common TMGI, MSK and MTK identifiers for MOCN | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-231050 | SCAS release dependency proposal | Huawei, HiSilicon | noted |  |  |
| S3-231051 | Conclusion for KI#3: Removal of EN related to Registration | Intel | revised |  | S3-231496 |
| S3-231052 | [Draft] Reply LS on security for selective SCG activation | OPPO | merged |  | S3-231397 |
| S3-231053 | Add ADRF storage details | Intel | revised |  | S3-231493 |
| S3-231054 | Discussion about LS on SCG Activation | Intel | noted |  |  |
| S3-231055 | Protection of RRC Resume Request message | Huawei, HiSilicon | noted |  |  |
| S3-231056 | draft\_ Reply LS R2-2213337 LS on security for selective SCG activation | Intel | merged |  | S3-231397 |
| S3-231057 | Resolving ENs in solution #6 | Ericsson | not treated |  |  |
| S3-231058 | Clarification on user consent in EC | Ericsson | not pursued |  |  |
| S3-231059 | Further conclusion for KI# 2.1 | Ericsson | revised |  | S3-231529 |
| S3-231060 | Conclusion update for KI#2.1 to address the GPSI spoofing attack | Ericsson | revised |  | S3-231450 |
| S3-231061 | A new key issue on user consent for data sharing via North-Bound APIs | Ericsson | noted |  |  |
| S3-231062 | Further conclusion for KI#2.2 | Ericsson | merged |  | S3-231451 |
| S3-231063 | A new solution for KI#2.6 | Ericsson | revised |  | S3-231456 |
| S3-231064 | CR to TS 33.501 - Addition of Operator Roaming Hub definition in R17 | VODAFONE Group Plc | revised |  | S3-231317 |
| S3-231065 | pCR to 33876 - Addition of solution for private cert keys in transit and at rest | VODAFONE Group Plc | noted |  |  |
| S3-231066 | Nudm service operation correction | Ericsson | merged |  | S3-231424 |
| S3-231067 | KDF input parameter for generating AV of ProSe authentication | Ericsson | merged |  | S3-231559 |
| S3-231068 | Clarify Kausf\_p generation | Ericsson | revised |  | S3-231425 |
| S3-231069 | Reply LS on U2N relay direct link setup failure due to RSC mismatch or integrity failure | Ericsson | merged |  | S3-231390 |
| S3-231070 | U2N relay direct link setup failure due to RSC mismatch or integrity failure | Ericsson | not pursued |  |  |
| S3-231071 | Remote UE Report in UP based solution for 5G ProSe UE-to-Network Relay | Ericsson | revised |  | S3-231430 |
| S3-231072 | Remote UE Report in CP based solution for 5G ProSe UE-to-Network Relay | Ericsson | revised |  | S3-231431 |
| S3-231073 | Resolve EN in solution #4 | Ericsson | noted |  |  |
| S3-231074 | [Draft] LS on ProSe Secondary Authentication | Ericsson | noted |  |  |
| S3-231075 | Conclusion for KI#6 | Ericsson, Nokia, Nokia Shanghai Bell | revised |  | S3-231444 |
| S3-231076 | Conclusion for KI#2 | Ericsson | approved |  |  |
| S3-231077 | Conclusion for KI#3 | Ericsson | revised |  | S3-231580 |
| S3-231078 | Clarification on user consent Rel-17 | Ericsson | not pursued |  |  |
| S3-231079 | SA3 guidelines for delegates | MCC | revised |  | S3-231385 |
| S3-231080 | Clarification on user consent Rel-18 | Ericsson | not pursued |  |  |
| S3-231081 | Discussion about Reply LS on Specification of the 256-bit air algorithms | THALES, Idemia | noted |  |  |
| S3-231082 | KI11 analysis and conclusions | Nokia, Nokia Shanghai Bell | revised |  | S3-231546 |
| S3-231083 | New WID on AKMA phase 2 | China Mobile | revised |  | S3-231570 |
| S3-231084 | New WID on security aspects of MSGin5G Ph2 | China Mobile | revised |  | S3-231571 |
| S3-231085 | Security aspects of MSGin5G Service in rel-18 | China Mobile | revised |  | S3-231547 |
| S3-231086 | Addtion to 4.2.3 | China Mobile | approved |  |  |
| S3-231087 | AAnF sending GPSI to internal AKMA AF | China Mobile | revised |  | S3-231422 |
| S3-231088 | Presentation of TS33.537 to TSG for approval | China Mobile | approved |  | - |
| S3-231089 | Remove EN and Provide Evaluation for Solution #4 | China Mobile | not treated |  |  |
| S3-231090 | Presentation of TR33.738 to TSG for information | China Mobile | revised |  | S3-231490 |
| S3-231091 | Reply LS on Authorization of NF service consumers for data access via DCCF | China Mobile | revised |  | S3-231392 |
| S3-231092 | Conclusion for key issue #1 | China Mobile | noted |  |  |
| S3-231093 | New WID on security aspects of enablers for Network Automation for 5G - phase 3 | China Mobile | revised |  | S3-231572 |
| S3-231094 | Update to solution #8 | China Mobile | revised |  | S3-231492 |
| S3-231095 | Update to security aspects of eNA in 33.501 for Rel-17 | China Mobile | not pursued |  |  |
| S3-231096 | Update to security aspects of eNA in 33.501 for Rel-18 | China Mobile | not pursued |  |  |
| S3-231097 | Presentation of TR33.927 to TSG for information and approval | China Mobile | approved |  |  |
| S3-231098 | Adding description about dispute resolution to clause and 6.5 in TR33.936 | China Mobile | approved |  |  |
| S3-231099 | Presentation of TR33.936 to TSG for information and approval | China Mobile | approved |  |  |
| S3-231100 | Proposal to add 4.1 in TS33.527 | China Mobile | approved |  |  |
| S3-231101 | Adding description about introduction for security functional requirements and related test cases into clause 4.2 | China Mobile | approved |  |  |
| S3-231102 | adding description about security functional requirements deriving from 3GPP specifications and related test cases into clause 4.2 | China Mobile | approved |  |  |
| S3-231103 | adding description about technical baseline into clause 4.2 | China Mobile | revised |  | S3-231462 |
| S3-231104 | adding description about security requirements of operating systems, web servers and network devices to clause 4.2 | China Mobile | approved |  |  |
| S3-231105 | adding description about security functional requirements on GVNP lifecycle management and related test cases to clause 4.2 | China Mobile | revised |  | S3-231463 |
| S3-231106 | adding description about security functional requirements on executive environment provision and related test cases to clause 4.2 | China Mobile | revised |  | S3-231464 |
| S3-231107 | adding description about instantiating VNF from trusted VNF image and related test cases to clause 4.2 | China Mobile | revised |  | S3-231465 |
| S3-231108 | adding description about introduction to clause 4.3 | China Mobile | approved |  |  |
| S3-231109 | adding description about technical baseline into clause 4.3 | China Mobile | approved |  |  |
| S3-231110 | adding description about security requirements of operating systems and web servers to clause 4.3 | China Mobile | approved |  |  |
| S3-231111 | adding description about security requirements of operating systems and web servers to clause 4.3 | China Mobile | noted |  |  |
| S3-231112 | adding description about security requirements of separation of inter-VNF and intra-VNF traffic to clause 4.3 | China Mobile | noted |  |  |
| S3-231113 | adding description about basic vulnerability testing requirements for GVNP to clause 4.4 | China Mobile | revised |  | S3-231599 |
| S3-231114 | pCR to FS\_N32SEPP\_SEC - Mapping table | Nokia, Nokia Shanghai Bell | not treated |  |  |
| S3-231115 | Draft Reply LS on Specification of the 256-bit air algorithms | THALES, Idemia | noted |  |  |
| S3-231116 | draft LS reply to TSG SA on LS S3-223147 on 5G capabilities exposure for factories of the future – identified gaps from 5G ACIA | Nokia, Nokia Shanghai Bell | revised |  | S3-231387 |
| S3-231117 | New Solution to KI #11 Problem 2 | Oy LM Ericsson AB | not treated |  |  |
| S3-231118 | Modified f5\* function for Milenage - Rel-17 | THALES, Idemia | not pursued |  |  |
| S3-231119 | Add restriction for multi registrations in two PLMNs | Nokia, Nokia Shanghai Bell | not pursued |  |  |
| S3-231120 | Discussin paper on control on NSSAA procedures for multi registrations in two PLMNs | Nokia, Nokia Shanghai Bell | withdrawn |  |  |
| S3-231121 | control on NSSAA procedures for multi registrations in two PLMNs | Nokia, Nokia Shanghai Bell | revised |  | S3-231407 |
| S3-231122 | update to KI#2 temporary network slice | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-231123 | solution for KI#2 temporary network slice for NSSAA | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-231124 | conclusion for KI#2 temporary network slice for NSSAA | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-231125 | solution for KI#3 network slice admission control | Nokia, Nokia Shanghai Bell | revised |  | S3-231509 |
| S3-231126 | conclusion for KI#3 network slice admission control | Nokia, Nokia Shanghai Bell | revised |  | S3-231560 |
| S3-231127 | Discussion on Serving Network Name used in ProSe | Nokia, Nokia Shanghai Bell | withdrawn |  |  |
| S3-231128 | Use relay UE SNN to generate AV for ProSe authentication | Nokia, Nokia Shanghai Bell | revised |  | S3-231559 |
| S3-231129 | Use remote UE SNN to generate AV for ProSe authentication | Nokia, Nokia Shanghai Bell | not pursued |  |  |
| S3-231130 | Clarify RID for PAnF discover | Nokia, Nokia Shanghai Bell | merged |  | S3-231424 |
| S3-231131 | LS to CT4 to update RID usage in PAnF | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-231132 | Discussion on U2N discovery security procedure | Nokia, Nokia Shanghai Bell | withdrawn |  |  |
| S3-231133 | Locate target DDNMF in U2N discovery security procdure | Nokia, Nokia Shanghai Bell | not pursued |  |  |
| S3-231134 | Update discovery key response of U2N discovery security procdure | Nokia, Nokia Shanghai Bell | not pursued |  |  |
| S3-231135 | Discussion on separation of U2N discovery security procedure | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-231136 | clarify protocol layer for discovery message protection | Nokia, Nokia Shanghai Bell | agreed |  |  |
| S3-231137 | Modified f5\* function for Milenage - Rel-18 | THALES, Idemia | not pursued |  |  |
| S3-231138 | Modified f5\* function for Tuak - Rel-17 | THALES, Idemia | not pursued |  |  |
| S3-231139 | Modified f5\* function for Tuak - Rel-18 | THALES, Idemia | not pursued |  |  |
| S3-231140 | Reply LS on Authorization of NF service consumers for data access via DCCF | Ericsson | noted |  |  |
| S3-231141 | Remove keyEncipherment KeyUsage from SBA certificates | Ericsson | agreed |  |  |
| S3-231142 | Remove keyEncipherment KeyUsage from SBA certificates | Ericsson | agreed |  |  |
| S3-231143 | X.509 Certificate Extension for 5G Network Function Types | Ericsson | agreed |  |  |
| S3-231144 | X.509 Certificate Extension for 5G Network Function Types | Ericsson | agreed |  |  |
| S3-231145 | Aligning DNS and ICMP security for non-3GPP access with 3GPP access | Ericsson | revised |  | S3-231412 |
| S3-231146 | Adding recommendation to use one-to-one relation between SNPN and CH AAA | Ericsson | not pursued |  |  |
| S3-231147 | Adding recommendation to use one-to-one relation between SNPN and CH AAA | Ericsson | not pursued |  |  |
| S3-231148 | SEPP to include and verify the source PLMN-ID | Ericsson [was: Ericsson, Mavenir, Nokia, Nokia Shanghai Bell, Huawei, HiSilicon] | revised |  | S3-231606 |
| S3-231149 | SEPP to include and verify the source PLMN-ID | Ericsson [was: Ericsson, Mavenir, Nokia, Nokia Shanghai Bell, Huawei, HiSilicon] | revised |  | S3-231607 |
| S3-231150 | Clarification on access token requests for NF Producers of a specific NF type and token-based authorization for indirect communication with delegated discovery | Ericsson | not pursued |  |  |
| S3-231151 | Conclusions to KI#2 "Authorization of selection of participant NWDAF instances in the Federated Learning group" | Ericsson | revised |  | S3-231497 |
| S3-231152 | Updates to conclusions to KI#3 "Security for AI/ML model storage and sharing" | Ericsson | merged |  | S3-231494 |
| S3-231153 | TNAP mobility using modified ERP | Ericsson | revised |  | S3-231512 |
| S3-231154 | Updates to Solution #14 | Ericsson | noted |  |  |
| S3-231155 | Discussion for removal of Editor's note in conclusion for trusted N3GPP | Ericsson | noted |  |  |
| S3-231156 | Updated conclusion for KI#1 regarding trusted access | Ericsson | noted |  |  |
| S3-231157 | Updated conclusions for KI#1 regarding NSWO | Ericsson | revised |  | S3-231501 |
| S3-231158 | Updated conclusion of KI#2 Authentication for UE access to hosting network | Ericsson | revised |  | S3-231502 |
| S3-231159 | New WID on Security aspects of enhanced support of Non-Public Networks phase 2 | Ericsson | revised |  | S3-231573 |
| S3-231160 | Reply LS to S3-230639/S6-223558 on the use of a non-network defined identifier for UE identification | Apple | revised |  | S3-231402 |
| S3-231161 | Reply LS on user consent for UE location sharing (S3-230641/S6-230351) | Apple | merged |  | S3-231403 |
| S3-231162 | Reply LS to S3-230618/R2-2213337 on security for selective SCG activation | Apple | merged |  | S3-231397 |
| S3-231163 | Reply LS on authenticity and replay protection of system information | Apple | revised |  | S3-231396 |
| S3-231164 | Reply LS on the user consent for trace reporting (S3-230619) | Apple | merged |  | S3-231398 |
| S3-231165 | SERP-Draft LS on SERP.docx | Apple | noted |  |  |
| S3-231166 | CR to TS 33.501 on the Protection of the RRC Resume Request message | Apple | not pursued |  |  |
| S3-231167 | 5GFBS-UE behaviors on signature verification | Apple | noted |  |  |
| S3-231168 | MEC-Addressing the EN#1 in solution#7 | Apple | approved |  |  |
| S3-231169 | MEC-Addressing the EN#2 in solution#7 | Apple | revised |  | S3-231454 |
| S3-231170 | PINE authentication | Apple | noted |  |  |
| S3-231171 | CR on 33203-AES-GCM/GMAC in IMS SIP security | Apple | withdrawn |  |  |
| S3-231172 | Updating Solution #9: Concealing length of SUPIs in SUCIs by padding the SUPIs | Oy LM Ericsson AB | revised |  | S3-231441 |
| S3-231173 | KI #1 Conclusion | Oy LM Ericsson AB | not treated |  |  |
| S3-231174 | Information on ZUC-256 | CATT | noted |  |  |
| S3-231175 | SCP requirements update related to source PLMN-ID | Nokia, Nokia Shanghai Bell | revised |  | S3-231417 |
| S3-231176 | SCP requirements update related to source PLMN-ID | Nokia, Nokia Shanghai Bell | revised |  | S3-231418 |
| S3-231177 | ProSe - Conclusion on KI#2 | Philips International B.V. | revised |  | S3-231579 |
| S3-231178 | ProSe - Conclusion on KI#3 | Philips International B.V. | noted |  |  |
| S3-231179 | ProSe - Evaluation Solution #10 | Philips International B.V. | revised |  | S3-231611 |
| S3-231180 | ProSe - Solution #27 update | Philips International B.V. | approved |  |  |
| S3-231181 | PIN - Evaluation Solution #4 | Philips International B.V. | revised |  | S3-231539 |
| S3-231182 | FBS - Way forward for KI#2 | Philips International B.V., Apple, Deutsche Telekom | noted |  |  |
| S3-231183 | FBS - Additions in solution #25 | Philips International B.V. | noted |  |  |
| S3-231184 | Ranging - New solution KI#1, #2, #3 | Philips International B.V. | not treated |  |  |
| S3-231185 | Ranging - Update Key Issue #1- privacy risks of exposing positioning reference signals | Philips International B.V. | not treated |  |  |
| S3-231186 | Clarification on SoR-AF | Huawei, HiSilicon | revised | S3-230853 | S3-231426 |
| S3-231187 | New WID on 5G Security Assurance Specification (SCAS) for the Policy Control Function (PCF) | BSI (DE) | revised | S3-230679 | S3-231574 |
| S3-231188 | Address issues in NSSAA procedures for multiple registration | Huawei, HiSilicon | not pursued | S3-230856 |  |
| S3-231189 | LS on Latest Information about ZUC-256 | CATT | noted |  |  |
| S3-231190 | New WID on 5G Security Assurance Specification (SCAS) for the Unified Data Repository (UDR) | BSI (DE) | noted | S3-230680 |  |
| S3-231191 | pCR to Living CR S3-231148\_SEPP to include and verify the source PLMN-ID | Nokia, Nokia Shanghai Bell | revised |  | S3-231394 |
| S3-231192 | LS on PRINS middle boxes | BSI (DE), Nokia, Nokia Shanghai Bell | revised |  | S3-231388 |
| S3-231193 | Clarification of hashing | Federal Office for Information Security (BSI), Deutsche Telekom | not pursued | S3-230682 |  |
| S3-231194 | Clarification of privilege escalation methods to check for | Federal Office for Information Security (BSI), Deutsche Telekom | not pursued | S3-230685 |  |
| S3-231195 | CR on IPX originated messages in PRINS | NTT DOCOMO INC., Nokia, Nokia Shanghai Bell | withdrawn | - |  |
| S3-231196 | Clarification of SSI System Command Execution test | Federal Office for Information Security (BSI), Deutsche Telekom | agreed | S3-230691 |  |
| S3-231197 | CR to TR33.503 Editorial changes | CATT | agreed |  |  |
| S3-231198 | KI4 solution 23 evaluation | Nokia, Nokia Shanghai Bell | not treated |  |  |
| S3-231199 | draft CR: OSCORE as GBA Ua | THALES | merged |  | S3-231474 |
| S3-231200 | CR on IPX originated messages in PRINS | NTT DOCOMO INC., Nokia, Nokia Shanghai Bell | not pursued | S3-230782 |  |
| S3-231201 | Conclusion for Key Issue #1 | THALES | noted |  |  |
| S3-231202 | Resolution of EN in solution #8 | THALES, Qualcomm Incorporated | approved |  |  |
| S3-231203 | Conclusion for Key Issue #1 | THALES | noted |  |  |
| S3-231204 | New WID on Security Aspects of Proximity-based Services in 5GS Phase 2 | CATT, China Unicom | revised |  | S3-231575 |
| S3-231205 | pCR to TR33.740 Update Solution16 and its evaluation | CATT | revised |  | S3-231552 |
| S3-231206 | DDNFM Selection during U2N Relay Discovery Security Procedure | Xiaomi Technology | not pursued |  |  |
| S3-231207 | A Note for Protection of DCR in U2N Communication | Xiaomi Technology | not pursued |  |  |
| S3-231208 | 33.893: Update to the Key Issue #2 | Xiaomi Technology | revised |  | S3-231625 |
| S3-231209 | 33.893: Potential Requirements for KI #5 | Xiaomi Technology | merged |  | S3-231522 |
| S3-231210 | 33.893: Additional Evaluation for Solution #1 | Xiaomi Technology | not treated |  |  |
| S3-231211 | 33.893: Update to the Evaluation of Solution #2 | Xiaomi Technology | noted |  |  |
| S3-231212 | 33.893: Resolve the Editor’s Notes in Solution #4 | Xiaomi Technology | revised |  | S3-231520 |
| S3-231213 | 33.893: Resolve the Editor’s Notes in Solution #7 | Xiaomi Technology | revised |  | S3-231515 |
| S3-231214 | 33.893: Resolve the Editor’s Note in Solution #8 | Xiaomi Technology | not treated |  |  |
| S3-231215 | 33.893: Add Evaluation to Solution #11 | Xiaomi Technology | approved |  |  |
| S3-231216 | 33.893: New Solution on Token Provision for UE Role Authorization | Xiaomi Technology | noted |  |  |
| S3-231217 | 33.893: New Solution on Role Verification during Discovery based on Discovery Keys | Xiaomi Technology | noted |  |  |
| S3-231218 | 33.893: New Solution on Client UE Authorization for Service Exposure through the Network | Xiaomi Technology | noted |  |  |
| S3-231219 | 33.893: New Solution on Discovery Security for Ranging/SL Positioning Service | Xiaomi Technology | revised |  | S3-231624 |
| S3-231220 | 33.893: New Solution on Direct Communication Security for Ranging-based Services | Xiaomi Technology | revised |  | S3-231517 |
| S3-231221 | 33.893: Conclusion on Key Issue #1 | Xiaomi Technology | not treated |  |  |
| S3-231222 | 33.893: Conclusion on Key Issue #2 | Xiaomi Technology | noted |  |  |
| S3-231223 | 33.893: Conclusion on Key Issue #3 | Xiaomi Technology | revised |  | S3-231518 |
| S3-231224 | 33.893: Conclusion on Key Issue #4 | Xiaomi Technology | noted |  |  |
| S3-231225 | New WID on Security Aspects of Ranging Based Services and Sidelink Positioning | Xiaomi Technology | revised |  | S3-231576 |
| S3-231226 | 33.700-28: New Solution on AF Authorization based on OAuth Token | Xiaomi Technology | noted |  |  |
| S3-231227 | 33.700-28: New Solution on AF Authorization based on UE Policy | Xiaomi Technology | noted |  |  |
| S3-231228 | 33.700-28: New Solution on AF Authorization based on UE Profile | Xiaomi Technology | not treated |  |  |
| S3-231229 | 33.700-28: New Key Issue on Consistent Provision of Coverage Information to the UE and CN | Xiaomi Technology | not treated |  |  |
| S3-231230 | Add evaluation to Sol #9 of TR 33.884 | Xiaomi communications | not treated |  |  |
| S3-231231 | Add evaluation to Sol #10 of TR 33.884 | Xiaomi communications | not treated |  |  |
| S3-231232 | KI#1 and KI#2, New Sol on resource owner policies based authorization mechanism | Xiaomi communications | not treated |  |  |
| S3-231233 | KI#2, New Sol on User authorization revocation for API invocation procedure | Xiaomi communications | not treated |  |  |
| S3-231234 | Resolve EN for Sol #9 of TR 33.884 | Xiaomi communications | not treated |  |  |
| S3-231235 | Add conclusion to KI#2 of TR 33.882 | Xiaomi communications | noted |  |  |
| S3-231236 | Enable IETF DTLS in Ua protocol | Xiaomi communications | withdrawn |  |  |
| S3-231237 | Enable IETF DTLS in Ua star protocol | Xiaomi communications | withdrawn |  |  |
| S3-231238 | Enable OSCORE in Ua protocol | Xiaomi communications | withdrawn |  |  |
| S3-231239 | Enable OSCORE in Ua star protocol | Xiaomi communications | withdrawn |  |  |
| S3-231240 | Update Conclusion for KI 2.1 | Xiaomi communications | revised |  | S3-231598 |
| S3-231241 | R18 Update I.2.2.2.1 for limitations of AAA server (mirror) | Xiaomi communications | not pursued |  |  |
| S3-231242 | R17 Update I.2.2.2.1 for limitations of AAA server | Xiaomi communications | not pursued |  |  |
| S3-231243 | R17 Update Subscription and unsubscription procedure of NSACF notification service | Xiaomi communications | merged |  | S3-231406 |
| S3-231244 | R18 Update Subscription and unsubscription procedure of NSACF notification service (mirror) | Xiaomi communications | not pursued |  |  |
| S3-231245 | Add evaluation to Sol #2 of TR 33.898 | Xiaomi communications | noted |  |  |
| S3-231246 | New Sol on OAuth 2.0 based 5GC assistance information exposure | Xiaomi communications | noted |  |  |
| S3-231247 | Correction to privacy protection of UP-PRUKID/CP-PRUKID and RSC in DCR | Beijing Xiaomi Mobile Software | not pursued |  |  |
| S3-231248 | Update to solution #7 in TR 33.740 | Beijing Xiaomi Mobile Software | noted |  |  |
| S3-231249 | Update to solution #8 in TR 33.740 | Beijing Xiaomi Mobile Software | revised |  | S3-231630 |
| S3-231250 | Update to solution #9 in TR 33.740 | Beijing Xiaomi Mobile Software | revised |  | S3-231631 |
| S3-231251 | Remove the Editor's Note and evaluate the solution #7 in TR 33.740 | Beijing Xiaomi Mobile Software | noted |  |  |
| S3-231252 | Evaluation of solution #21 in TR 33.740 | Beijing Xiaomi Mobile Software | approved |  |  |
| S3-231253 | Update the evaluation of solution #30 in TR 33.740 | Beijing Xiaomi Mobile Software | approved |  |  |
| S3-231254 | Update the evaluation of solution #23 in TR 33.740 | Beijing Xiaomi Mobile Software | noted |  |  |
| S3-231255 | Update the evaluation of solution #24 in TR 33.740 | Beijing Xiaomi Mobile Software | noted |  |  |
| S3-231256 | Update the evaluation of solution #31 in TR 33.740 | Beijing Xiaomi Mobile Software | revised |  | S3-231554 |
| S3-231257 | Conclusion on Key Issue #1 in TR 33.740 | Beijing Xiaomi Mobile Software | noted |  |  |
| S3-231258 | Conclusion on Key Issue #2 in TR 33.740 | Beijing Xiaomi Mobile Software | revised |  | S3-231440 |
| S3-231259 | Update to evaluation of solution #3 in TR 33.893 | Beijing Xiaomi Mobile Software | approved |  |  |
| S3-231260 | Update to solution #5 in TR 33.893 | Beijing Xiaomi Mobile Software | approved |  |  |
| S3-231261 | Update and evaluate to solution #9 in TR 33.893 | Beijing Xiaomi Mobile Software | revised |  | S3-231623 |
| S3-231262 | Update to solution #4 in TR 33.876 | Beijing Xiaomi Mobile Software | revised |  | S3-231589 |
| S3-231263 | Update to solution #5 in TR 33.876 | Beijing Xiaomi Mobile Software | revised |  | S3-231590 |
| S3-231264 | Add HONTRA procedure in the TS 33.501 | Beijing Xiaomi Mobile Software | not pursued |  | - |
| S3-231265 | pCR to TR33.740 Update Solution17's evaluation | CATT | approved |  |  |
| S3-231266 | pCR to TR33.740 Update Solution28 | CATT | noted |  |  |
| S3-231267 | KI#1 Sol#2 EN resolution and evaluation | Ericsson-LG Co., LTD | revised |  | S3-231588 |
| S3-231268 | KI#2 Sol#13 EN resolution and evaluation | Ericsson-LG Co., LTD | revised |  | S3-231481 |
| S3-231269 | pCR to TR33.740 New Solution for discovery integrated into unicast establishment procedure | CATT | revised |  | S3-231446 |
| S3-231270 | KI#6 Sol#7 EN resolution and evaluation | Ericsson-LG Co., LTD | noted |  |  |
| S3-231271 | pCR to TR33.740 Conclusion of key issue #1 | CATT | noted |  |  |
| S3-231272 | pCR to TR33.740 Conclusion of key issue #2 | CATT | merged |  | S3-231438 |
| S3-231273 | New Solution to KI #2 | Ericsson-LG Co., LTD | noted |  |  |
| S3-231274 | pCR to TR33.740 Conclusion of key issue #3 | CATT | revised |  | S3-231443 |
| S3-231275 | pCR to TR33.893 Update Key issue#5 | CATT | merged |  | S3-231522 |
| S3-231276 | pCR to TR33.893 New solution for protecting groupcast and broadcast data in coverage | CATT | revised |  | S3-231601 |
| S3-231277 | pCR to TR33.893 New solution for protecting groupcast and broadcast data out of coverage | CATT | revised |  | S3-231602 |
| S3-231278 | Reply LS on LPP message and supplementary service event report over a user plane connection between UE and LMF | Ericsson | merged |  | S3-231401 |
| S3-231279 | Reply LS on Authentication Result Removal | Ericsson | noted |  |  |
| S3-231280 | Reply LS on Time Synchronization Status notification towards UE(s) | Ericsson | noted |  |  |
| S3-231281 | Living document for AKMA\_GBA\_OSCORE: draftCR to TS 33.535, IETF OSCORE as AKMA Ua\* protocol | Ericsson | noted |  | - |
| S3-231282 | Living document for AKMA\_GBA\_OSCORE: draftCR to TS 33.220, IETF OSCORE as GBA Ua protocol | Ericsson | revised |  | S3-231474 |
| S3-231283 | Draft CR for the Home Network Triggered Primary Authentication | Ericsson | merged |  | S3-231478 |
| S3-231284 | KAF lifetime and Ua\* protocol recommendations | Ericsson | revised |  | S3-231421 |
| S3-231285 | Rel17 Clarification on AF authorization for the NSACF notification procedure | Ericsson | merged |  | S3-231406 |
| S3-231286 | Rel17 Alignment of NSACF notification procedure with existing procedures | Ericsson | not pursued |  |  |
| S3-231287 | Rel18 Clarification on AF authorization for the NSACF notification procedure | Ericsson | not pursued |  |  |
| S3-231288 | Rel18 Alignment of NSACF notification procedure with existing procedures | Ericsson | not pursued |  |  |
| S3-231289 | Living document for SERP: draftCR to TS 33.501 on the Protection of the RRC Resume Request message | Ericsson | noted |  |  |
| S3-231290 | KI2 conclusion | Ericsson | noted |  |  |
| S3-231291 | Conclusion for key issue #1 | Ericsson | noted |  |  |
| S3-231292 | Conclusion for key issue #2 | Ericsson | revised |  | S3-231536 |
| S3-231293 | Update Solution#1 | Ericsson | approved |  |  |
| S3-231294 | Reply LS on authenticity and replay protection of system information | Samsung, Apple, CableLabs | noted |  |  |
| S3-231295 | Discussion on Resumecause protection | Samsung | noted |  |  |
| S3-231296 | Solution for Resumecause protection | Samsung | noted |  |  |
| S3-231297 | Living document for SERP: draftCR to TS 33.501 on the Protection of the RRC Resume Request message | Samsung | noted |  |  |
| S3-231298 | Resolving EN of solution#7 (TR 33.809) | Samsung | noted |  |  |
| S3-231299 | Network Initiated Primary Authentication | Samsung | not pursued |  |  |
| S3-231300 | Update to conclusion#2.1 | Samsung | revised |  | S3-231451 |
| S3-231301 | Update to conclusion#2.2 | Samsung | revised |  | S3-231452 |
| S3-231302 | Evaluation for solution#22 | Samsung | noted |  |  |
| S3-231303 | Discussion on security for selective SCG activation | Samsung | noted |  |  |
| S3-231304 | New WID on enhanced security aspects of SEAL for vertical | Samsung | revised |  | S3-231577 |
| S3-231305 | [IAB][Rel-17] IAB inter-CU topology adaptation procedure | Samsung, Huawei, HiSilicon | not pursued |  |  |
| S3-231306 | [IAB][Rel-18] IAB inter-CU topology adaptation procedure | Samsung, Huawei, HiSilicon | not pursued |  |  |
| S3-231307 | [MBS] Conclusion for Key Issue#1 | Samsung | noted |  |  |
| S3-231308 | [MBS] Resolving ENs in solution#1 | Samsung | approved |  |  |
| S3-231309 | Resolving EN on Sol#11 | Samsung | not treated |  |  |
| S3-231310 | Update on Sol#11 | Samsung | not treated |  |  |
| S3-231311 | Update on Sol#12 | Samsung | not treated |  |  |
| S3-231312 | Conclusion on KI#2 | Samsung | merged |  | S3-231545 |
| S3-231313 | EN Resolution of Sol #19 | Samsung | approved |  |  |
| S3-231314 | EN Resolution of Sol #29 | Samsung | approved |  |  |
| S3-231315 | New Solution with evaluation for KI #5 | Samsung | revised |  | S3-231566 |
| S3-231316 | Conclusion on KI #5 | Samsung | revised |  | S3-231567 |
| S3-231317 | Addition of Operator Roaming Hub definition in R17 | Vodafone | revised | S3-231064 | S3-231413 |
| S3-231318 | CR on control-plane procedure in MBS | Ericsson | merged |  | S3-231408 |
| S3-231319 | Authentication of AUN3 devices behind RG | CableLabs, Nokia, Nokia Shanghai Bell, Rogers Communications, Thales, Charter Communications | not pursued |  |  |
| S3-231320 | Clarification on authorization for inter NF mobility | Nokia, Nokia Shanghai Bell | revised | S3-230705 | S3-231420 |
| S3-231321 | Authentication for UE behind 5G-RG and FN-RG using NSWO | CableLabs, Rogers Communications, Charter Communications | not pursued |  |  |
| S3-231322 | Discussin paper on control on NSSAA procedures for multi registrations in two PLMNs | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-231323 | Discussion on Serving Network Name used in ProSe | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-231324 | Discussion on U2N discovery security procedure | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-231325 | Authentication for UE behind 5G-RG and FN-RG using NSWO | CableLabs, Rogers Communications, Charter Communications | revised |  | S3-231405 |
| S3-231326 | CR on control-plane procedure in MBS | Ericsson | merged |  | S3-231409 |
| S3-231327 | [MBS] Evaluation for solution#3 | Samsung | noted |  |  |
| S3-231328 | Conclusions for KI#5 in 5WWC | CableLabs, Rogers Communications, Charter Communications | approved |  |  |
| S3-231329 | Key issue on indirect authentication of AUN3 devices behind | CableLabs, Rogers Communications | not treated |  |  |
| S3-231330 | Solution for indirect authentication of AUN3 devices behind RG | CableLabs, Rogers Communications | noted |  |  |
| S3-231331 | New SID on QUIC optimization for access traffic steering, switching and splitting support in the 5G system architecture; Phase 3 | Lenovo, BROADCOM CORPORATION, CableLabs, CATT, Charter Communications, Inc, CISCO, Deutsche Telekom, InterDigital, Inc., LG Electronics, Nokia, Tencent, vivo Mobile Communication Co.,, Xiaomi, ZTE Corporation, China Mobile | not treated |  |  |
| S3-231332 | Discussion summary of CVD paper | SA WG3 Vice Chair | noted |  |  |
| S3-231333 | Evaluation Update of Solution #2 | Lenovo | revised |  | S3-231543 |
| S3-231334 | Conclusions for KI#Y in 5WWC | CableLabs, Rogers Communications | noted |  |  |
| S3-231335 | Conclusion for KI#1 | Lenovo | noted |  |  |
| S3-231336 | Addressing the editor’s note in 6.27.2.1.1 of Sol#27 | CableLabs, Deutsche Telekom, Philips International B.V. | noted | S3-223883 |  |
| S3-231337 | New solution addressing KI#6 | Lenovo, Nokia | noted |  |  |
| S3-231338 | Solution to Key Issue-1 | Lenovo, Charter Communications, US National Security Agency | revised |  | S3-231612 |
| S3-231339 | Addressing EN on NR Repeater in 6.27.2.2.4 of Sol#27 | CableLabs, Deutsche Telekom, Philips International B.V. | noted | S3-223885 |  |
| S3-231340 | Solution to KI#1 | Lenovo, Charter Communications, US National Security Agency | revised |  | S3-231613 |
| S3-231341 | Protection of broadcast communication | Lenovo | not treated |  |  |
| S3-231342 | Addressing the editor’s note in 6.27.2.2.1of Sol#27 | CableLabs, Deutsche Telekom, Philips International B.V. | noted | S3-223886 |  |
| S3-231343 | Update to Tenet #5 | Lenovo, US National Security Agency, Charter Communications | noted |  |  |
| S3-231344 | Update to Tenet #6 | Lenovo, US National Security Agency, Charter Communications | not treated |  |  |
| S3-231345 | Solution for KI#2 | Lenovo | approved |  |  |
| S3-231346 | Cleanup of Tenet #7 | Lenovo, US National Security Agency | not treated |  |  |
| S3-231347 | Update of Key Issue #1 | Lenovo, US National Security Agency, Charter Communications | revised |  | S3-231527 |
| S3-231348 | Update to Solution #2 UAS | Lenovo | revised |  | S3-231537 |
| S3-231349 | Solution to Key Issue #2 UCS NTN | Lenovo | noted |  |  |
| S3-231350 | New Key Issue for robustness of RAN AI/ML framework against resource exhaustion attacks | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-231351 | Clarifications to Solution #8 5WWC | Lenovo | not treated |  |  |
| S3-231352 | Reply LS on the impact of MSK update on MBS multicast session update procedure | Ericsson | merged |  | S3-231410 |
| S3-231353 | Correction to Clause 7A.2.1 | Lenovo | agreed |  | - |
| S3-231354 | Add conclusion to KI#1 of TR 33.882 | Xiaomi Communications | noted |  |  |
| S3-231355 | HONTRA Updates | Lenovo | not pursued |  |  |
| S3-231356 | Update to Solution #9 in eNA | Lenovo | revised |  | S3-231595 |
| S3-231357 | Update to Solution #20 in eNA | Lenovo | noted |  |  |
| S3-231358 | Proposal Solution #XX ACME use in 3GPP | Google Inc., CableLabs, Charter Communications, Telefonica, Deutsche Telekom | revised |  | S3-231489 |
| S3-231359 | Update to Solution #4 in Snaappy | Lenovo | not treated |  |  |
| S3-231360 | Update to Solution #5 in Snaappy | Lenovo | not treated |  |  |
| S3-231361 | Conclusion to KI#4 | Lenovo | noted |  |  |
| S3-231362 | New WID on application enablement aspects for subscriber-aware northbound API access | NTT DOCOMO INC. | revised |  | S3-231578 |
| S3-231363 | Update to Solution #16 NPN | Lenovo | noted |  |  |
| S3-231364 | Update to Solution #1 in ID Privacy | Lenovo | not treated |  |  |
| S3-231365 | Conclusion for KI#1 | OPPO | revised |  | S3-231523 |
| S3-231366 | Conclusions for KI#4 in 5WWC | CableLabs | noted |  |  |
| S3-231367 | AIML Security and Privacy WID | OPPO | noted |  |  |
| S3-231368 | Resolving EN for Solution 22 | OPPO | revised |  | S3-231553 |
| S3-231369 | Conclusion for KI#5 | OPPO | noted |  |  |
| S3-231370 | New WID to enable URSP rules to securely identify Applications (USIA) | Lenovo | noted |  |  |
| S3-231371 | Enable IETF DTLS in Ua protocol | Xiaomi communications | merged |  | S3-231475 |
| S3-231372 | Enable IETF DTLS in Ua star protocol | Xiaomi communications | noted |  |  |
| S3-231373 | Enable OSCORE in Ua protocol | Xiaomi communications | merged |  | S3-231474 |
| S3-231374 | Enable OSCORE in Ua star protocol | Xiaomi communications | noted |  | - |
| S3-231375 | new solution: authorization revocation for persistent changes | NTT DOCOMO INC. | not treated |  |  |
| S3-231376 | Security vulnerability fix for use of AES-GCM and AES-GMAC in 33.203 | Apple Computer Trading Co. Ltd | revised |  | S3-231378 |
| S3-231377 | LS to GSMA for PRINS profiling | Nokia, Nokia Shanghai Bell | revised |  | S3-231532 |
| S3-231378 | Security vulnerability fix for use of AES-GCM and AES-GMAC in 33.203 | Apple | not pursued | S3-231376 |  |
| S3-231379 | User consent check by DCCF | Nokia, Nokia Shanghai Bell | revised |  | S3-231383 |
| S3-231380 | User consent check by DCCF | Nokia, Nokia Shanghai Bell | revised |  | S3-231382 |
| S3-231381 | Editorials for 33.884 | NTT DOCOMO INC. | approved |  |  |
| S3-231382 | User consent check information by DCCF | Nokia, Nokia Shanghai Bell | not pursued | S3-231380 |  |
| S3-231383 | User consent check information by DCCF | Nokia, Nokia Shanghai Bell | not pursued | S3-231379 |  |
| S3-231384 | pCR to 33.884 on architectural assumptions | NTT DOCOMO INC. | not treated |  |  |
| S3-231385 | SA3 guidelines for delegates | MCC | noted | S3-231079 | - |
| S3-231386 | Report from SA3#109 | MCC | email approval | - | - |
| S3-231387 | LS reply to TSG SA on LS S3-223147 on 5G capabilities exposure for factories of the future – identified gaps from 5G ACIA | Nokia, Nokia Shanghai Bell | approved | S3-231116 | - |
| S3-231388 | LS on certificate and key management automation and N32 purpose | BSI (DE), Nokia, Nokia Shanghai Bell | approved | S3-231192 | - |
| S3-231389 | Reply LS on PRINS middle boxes | NTT DOCOMO INC. | approved | S3-230785 | - |
| S3-231390 | Reply LS on U2N relay direct link setup failure due to RSC mismatch or integrity failure | Qualcomm Incorporated | approved | S3-230816 | - |
| S3-231391 | Reply LS on PLMN ID used in Roaming Scenarios from CT WG4 and SA WG2 | Nokia, Nokia Shanghai Bell | approved | S3-230761 | - |
| S3-231392 | Reply LS on Authorization of NF service consumers for data access via DCCF | China Mobile | noted | S3-231091 | - |
| S3-231393 | Reply to: LS on N32-f addressing information | Nokia | approved | - | - |
| S3-231394 | pCR to Living CR S3-231148\_SEPP to include and verify the source PLMN-ID | Nokia, Nokia Shanghai Bell | approved | S3-231191 | - |
| S3-231395 | OAuth for subscribe notify | Nokia, Nokia Shanghai Bell, Mavenir | agreed | S3-230726 | - |
| S3-231396 | Reply LS on authenticity and replay protection of system information | Apple | noted | S3-231163 | - |
| S3-231397 | Reply LS on Security for selective SCG activation | Nokia Italy | approved | S3-230674 | - |
| S3-231398 | Reply LS on the User Consent for Trace Reportings | Huawei, HiSilicon | approved | S3-230973 | - |
| S3-231399 | Reply to: LS on user consent of Non-public Network | Vodafone | approved | - | - |
| S3-231400 | Reply LS on secured and trusted access to the serving PLMN OAM server by a MBSR | Huawei, HiSilicon | approved | S3-231033 | - |
| S3-231401 | Reply to: LS on UE event reporting over a user plane connection to LCS client or AF | Vodafone | noted | - | - |
| S3-231402 | Reply LS to S3-230639/S6-223558 on the use of a non-network defined identifier for UE identification | Apple | approved | S3-231160 | - |
| S3-231403 | Reply LS on user consent for UE location sharing | Huawei, HiSilicon | noted | S3-230974 | - |
| S3-231404 | EU 5G Scheme phase 2 | ENISA | noted | - | - |
| S3-231405 | Authentication for UE behind 5G-RG and FN-RG using NSWO | CableLabs, Rogers Communications, Charter Communications | agreed | S3-231325 | - |
| S3-231406 | Address EN on AF Authorization | Huawei, HiSilicon | not pursued | S3-230855 | - |
| S3-231407 | control on NSSAA procedures for multi registrations in two PLMNs | Nokia, Nokia Shanghai Bell | not pursued | S3-231121 | - |
| S3-231408 | CR on control-plane procedure in MBS | Huawei, HiSilicon | agreed | S3-231031 | - |
| S3-231409 | CR on control-plane procedure in MBS | Huawei | agreed | - | - |
| S3-231410 | Reply LS on the impact of MSK update on MBS multicast session update procedure | Huawei, HiSilicon | approved | S3-231032 | - |
| S3-231411 | LS on modified f5\* algorithms | Thales | approved | - | - |
| S3-231412 | Aligning DNS and ICMP security for non-3GPP access with 3GPP access | Ericsson | agreed | S3-231145 | - |
| S3-231413 | Addition of Operator Roaming Hub definition in R17 | Vodafone | agreed | S3-231317 | - |
| S3-231414 | Addition of Operator Roaming Hub definition in R18 | Vodafone | agreed | - | - |
| S3-231415 | [33.180] R16 Clarify protected KmsResponse payloads | Motorola Solutions, Inc | agreed | S3-230745 | - |
| S3-231416 | [33.180] R16 Clarify protected KmsResponse payloads (mirror) | Motorola Solutions, Inc | agreed | S3-230746 | - |
| S3-231417 | SCP requirements update related to source PLMN-ID | Nokia, Nokia Shanghai Bell | agreed | S3-231175 | - |
| S3-231418 | SCP requirements update related to source PLMN-ID | Nokia, Nokia Shanghai Bell | agreed | S3-231176 | - |
| S3-231419 | PRINS protocol to provide IPX the tool to fulfil its role | Mavenir | noted | - | - |
| S3-231420 | Clarification on authorization for inter NF mobility | Nokia, Nokia Shanghai Bell | agreed | S3-231320 | - |
| S3-231421 | KAF lifetime and Ua\* protocol recommendations | Ericsson | agreed | S3-231284 | - |
| S3-231422 | AAnF sending GPSI to internal AKMA AF | China Mobile | agreed | S3-231087 | - |
| S3-231423 | Support for multiple lists of root CA certificates | BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell | agreed | S3-230651 | - |
| S3-231424 | Correction to ProSe Authentication Vector obtaining process | Huawei, HiSilicon | agreed | S3-231018 | - |
| S3-231425 | Clarify Kausf\_p generation | Ericsson | agreed | S3-231068 | - |
| S3-231426 | Clarification on SoR-AF | Huawei, HiSilicon | agreed | S3-231186 | - |
| S3-231427 | Draft TR 33.870 | Interdigital | email approval | - | - |
| S3-231428 | Add evaluation to solution 6 | ZTE Corporation | approved | S3-230905 | - |
| S3-231429 | Evaluation for Solution#5 | Nokia, Nokia Shanghai Bell | approved | S3-230887 | - |
| S3-231430 | Remote UE Report in UP based solution for 5G ProSe UE-to-Network Relay | Ericsson | agreed | S3-231071 | - |
| S3-231431 | Remote UE Report in CP based solution for 5G ProSe UE-to-Network Relay | Ericsson | agreed | S3-231072 | - |
| S3-231432 | Secondary Authentication Procedure without N3IWF | Huawei, HiSilicon | noted | S3-230980 | - |
| S3-231433 | Secondary Authentication Procedure with N3IWF | Huawei, HiSilicon | approved | S3-230981 | - |
| S3-231434 | General clause for Secondary Authentication Procedure | Huawei, HiSilicon | noted | S3-230982 | - |
| S3-231435 | Referencing GSMA for interdomain N32 certificates | BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell | agreed | S3-230673 | - |
| S3-231436 | Referencing GSMA for interdomain N32 certificates | BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell | agreed | S3-230672 | - |
| S3-231437 | Evaluation of Solution 5 | Johns Hopkins University APL, US National Security Agency | withdrawn | - | - |
| S3-231438 | Add conclusion to KI#2 | Huawei, HiSilicon | approved | S3-231025 | - |
| S3-231439 | Draft TR 33.740 | CATT | email approval | - | - |
| S3-231440 | Conclusion on Key Issue #2 in TR 33.740 | Beijing Xiaomi Mobile Software | noted | S3-231258 | - |
| S3-231441 | Updating Solution #9: Concealing length of SUPIs in SUCIs by padding the SUPIs | Oy LM Ericsson AB | approved | S3-231172 | - |
| S3-231442 | Add conclusion to KI#3 | Huawei, HiSilicon | withdrawn | - | - |
| S3-231443 | pCR to TR33.740 Conclusion of key issue #3 | CATT | approved | S3-231274 | - |
| S3-231444 | Conclusion for KI#6 | Ericsson, Nokia, Nokia Shanghai Bell | approved | S3-231075 | - |
| S3-231445 | Evaluation TR 33.740 Sol #12 | InterDigital Finland Oy | approved | S3-230755 | - |
| S3-231446 | pCR to TR33.740 New Solution for discovery integrated into unicast establishment procedure | CATT | approved | S3-231269 | - |
| S3-231447 | Update in solution #23 (EAS discovery procedure protection) | Nokia, Nokia Shanghai Bell, Huawei, HiSilicon | approved | S3-230843 | - |
| S3-231448 | Support for multiple lists of root CA certificates | BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell | agreed | S3-230652 | - |
| S3-231449 | Support for multiple lists of root CA certificates | BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell | agreed | S3-230653 | - |
| S3-231450 | Conclusion update for KI#2.1 to address the GPSI spoofing attack | Ericsson | approved | S3-231060 | - |
| S3-231451 | Update to conclusion#2.1 | Samsung | approved | S3-231300 | - |
| S3-231452 | Update to conclusion#2.2 | Samsung | noted | S3-231301 | - |
| S3-231453 | Draft TR 33.739 | Huawei | email approval | - | - |
| S3-231454 | MEC-Addressing the EN#2 in solution#7 | Apple | approved | S3-231169 | - |
| S3-231455 | Address ENs | InterDigital Communications | approved | S3-230722 | - |
| S3-231456 | A new solution for KI#2.6 | Ericsson | approved | S3-231063 | - |
| S3-231457 | Mnf-specific Over-Privileged Data Process threat addressing | Huawei, HiSilicon | approved | S3-230866 | - |
| S3-231458 | Mnf-specific Unprotected Management data during transmission threat addressing | Huawei, HiSilicon | approved | S3-230867 | - |
| S3-231459 | Editorial updates to MnF SCAS | Huawei, HiSilicon | approved | S3-231007 | - |
| S3-231460 | Draft TS 33.526 | Huawei | email approval | - | - |
| S3-231461 | Cover sheet TS 33.526 information | Huawei | approved | - | - |
| S3-231462 | adding description about technical baseline into clause 4.2 | China Mobile | approved | S3-231103 | - |
| S3-231463 | adding description about security functional requirements on GVNP lifecycle management and related test cases to clause 4.2 | China Mobile | approved | S3-231105 | - |
| S3-231464 | adding description about security functional requirements on executive environment provision and related test cases to clause 4.2 | China Mobile | approved | S3-231106 | - |
| S3-231465 | adding description about instantiating VNF from trusted VNF image and related test cases to clause 4.2 | China Mobile | approved | S3-231107 | - |
| S3-231466 | Draft TR 33.936 | China Mobile | approved | - | - |
| S3-231467 | Draft TS 33.527 | China Mobile | email approval | - | - |
| S3-231468 | Draft TS 33.537 | China Mobile | approved | - | - |
| S3-231469 | Clarification on SCAS | Huawei, HiSilicon | approved | S3-230972 | - |
| S3-231470 | Adding non-501 test cases for the gNB-CU-CP | Qualcomm Incorporated | approved | S3-230791 | - |
| S3-231471 | Adding non-501 test cases for the gNB-CU-UP | Qualcomm Incorporated | approved | S3-230792 | - |
| S3-231472 | Adding non-501 test cases for the gNB-DU | Qualcomm Incorporated | approved | S3-230793 | - |
| S3-231473 | Draft CR: Introducing split gNBs into TR 33.926 | Qualcomm Incorporated | revised | S3-230787 | - |
| S3-231474 | Living document for AKMA\_GBA\_OSCORE: draftCR to TS 33.220, IETF OSCORE as GBA Ua protocol | Ericsson | approved | S3-231282 | - |
| S3-231475 | Shared key-based mutual authentication between UE and NAF to TS 33.222 | ZTE Corporation | noted | S3-230898 | - |
| S3-231476 | Living document for GBA DTLS to TS 33.222 | ZTE Corporation | approved | S3-230900 | - |
| S3-231477 | Skeleton and new SBI of the HONTRA for normative work | Huawei, HiSilicon | approved | S3-230977 | - |
| S3-231478 | Basic HONTRA procedure | Huawei, HiSilicon | approved | S3-230978 | - |
| S3-231479 | Adding evaluation to solution#3 | Huawei, HiSilicon | approved | S3-230859 | - |
| S3-231480 | Updating evaluation of solution#8 in TR33.876 | China Telecommunications | approved | S3-230918 | - |
| S3-231481 | KI#2 Sol#13 EN resolution and evaluation | Ericsson-LG Co., LTD | approved | S3-231268 | - |
| S3-231482 | Conclusion of KI#2 | Nokia, Nokia Shanghai Bell | approved | S3-230833 | - |
| S3-231483 | Evaluation for Solution#14 | Nokia, Nokia Shanghai Bell | approved | S3-230879 | - |
| S3-231484 | Evaluation for solution #15 on certificate update and renewal | Huawei, HiSilicon | approved | S3-230953 | - |
| S3-231485 | Conclusion for key issue #3 | Huawei, HiSilicon | approved | S3-230954 | - |
| S3-231486 | Evaluation of solution 6 | Huawei, HiSilicon | approved | S3-231004 | - |
| S3-231487 | Conclusion of KI#5 | Nokia, Nokia Shanghai Bell | approved | S3-230832 | - |
| S3-231488 | Conclusion of KI#7 | Nokia, Nokia Shanghai Bell | approved | S3-230830 | - |
| S3-231489 | Proposal Solution #XX ACME use in 3GPP | Google Inc., CableLabs, Charter Communications, Telefonica, Deutsche Telekom | approved | S3-231358 | - |
| S3-231490 | Presentation of TR33.738 to TSG for information | China Mobile | approved | S3-231090 | - |
| S3-231491 | New solution for authorization on roaming | Huawei, HiSilicon | approved | S3-230969 | - |
| S3-231492 | Update to solution #8 | China Mobile | approved | S3-231094 | - |
| S3-231493 | Add ADRF storage details | Intel | approved | S3-231053 | - |
| S3-231494 | Authorization granularity in KI#3 conclusion in eNA\_SEC\_Ph3 | Nokia, Nokia Shanghai Bell | approved | S3-230837 | - |
| S3-231495 | AI\_ML model encryption in KI#3 conclusion in eNA\_SEC\_Ph3 | Nokia, Nokia Shanghai Bell, Intel | noted | S3-230838 | - |
| S3-231496 | Conclusion for KI#3: Removal of EN related to Registration | Intel | approved | S3-231051 | - |
| S3-231497 | Conclusions to KI#2 "Authorization of selection of participant NWDAF instances in the Federated Learning group" | Ericsson | approved | S3-231151 | - |
| S3-231498 | Draft TS 33.523 | Qualcomm | email approval | - | - |
| S3-231499 | Draft TR 33.876 | Nokia | email approval | - | - |
| S3-231500 | Draft TR 33.738 | China Mobile | email approval | - | - |
| S3-231501 | Updated conclusions for KI#1 regarding NSWO | Ericsson | approved | S3-231157 | - |
| S3-231502 | Updated conclusion of KI#2 Authentication for UE access to hosting network | Ericsson | approved | S3-231158 | - |
| S3-231503 | Draft TR 33.858 | Ericsson | email approval | - | - |
| S3-231504 | New solution on IDi of trusted non-3GPP access | Huawei, HiSilicon | approved | S3-230983 | - |
| S3-231505 | Draft TR 33.737 | China Mobile | email approval | - | - |
| S3-231506 | KI#1 update | Huawei, HiSilicon | noted | S3-230849 | - |
| S3-231507 | Conclusion for KI#1 | Huawei, HiSilicon | approved | S3-230850 | - |
| S3-231508 | New solution to KI#3 | Huawei, HiSilicon | approved | S3-230852 | - |
| S3-231509 | solution for KI#3 network slice admission control | Nokia, Nokia Shanghai Bell | approved | S3-231125 | - |
| S3-231510 | conclusion for KI#4 | Huawei, HiSilicon | noted | S3-230986 | - |
| S3-231511 | Draft TR 33.887 | Nokia | email approval | - | - |
| S3-231512 | TNAP mobility using modified ERP | Ericsson | approved | S3-231153 | - |
| S3-231513 | Adding FT details to solution #7 | Qualcomm Incorporated | approved | S3-230800 | - |
| S3-231514 | Adding evaluation to solution #7 | Qualcomm Incorporated | approved | S3-230801 | - |
| S3-231515 | 33.893: Resolve the Editor’s Notes in Solution #7 | Xiaomi Technology | approved | S3-231213 | - |
| S3-231516 | New solution for protecting direct communnication | Huawei, HiSilicon | approved | S3-231029 | - |
| S3-231517 | 33.893: New Solution on Direct Communication Security for Ranging-based Services | Xiaomi Technology | approved | S3-231220 | - |
| S3-231518 | 33.893: Conclusion on Key Issue #3 | Xiaomi Technology | approved | S3-231223 | - |
| S3-231519 | Draft TR 33.893 | Xiaomi Technology | email approval | - | - |
| S3-231520 | 33.893: Resolve the Editor’s Notes in Solution #4 | Xiaomi Technology | approved | S3-231212 | - |
| S3-231521 | Resolving editor notes in Solution #10 | Ericsson | approved | S3-231020 | - |
| S3-231522 | Updates to the Key Issue #5 | Qualcomm Incorporated | approved | S3-230817 | - |
| S3-231523 | Conclusion for KI#1 | OPPO | approved | S3-231365 | - |
| S3-231524 | LS to SA3-LI on Volte roaming lawful interception - limitation to provide caller identify if caller activates OIR | GSMA | postponed | S3-230650 | - |
| S3-231525 | Add evaluation in Sol#4 | OPPO | approved | S3-230935 | - |
| S3-231526 | lawful interception for EPS Fallback for 5G inbound roamers | GSMA | noted | S3-230649 | - |
| S3-231527 | Update of Key Issue #1 | Lenovo, US National Security Agency, Charter Communications | approved | S3-231347 | - |
| S3-231528 | Draft TR 33.894 | Motorola Mobility | email approval | - | - |
| S3-231529 | Further conclusion for KI# 2.1 | Ericsson | approved | S3-231059 | - |
| S3-231530 | Conclusion for key issue #2 User Consent for NTN | Huawei, HiSilicon | approved | S3-230960 | - |
| S3-231531 | Draft TR 33.896 | Huawei | email approval | - | - |
| S3-231532 | LS to GSMA for PRINS profiling | Nokia, Nokia Shanghai Bell | approved | S3-231377 | - |
| S3-231533 | Update evaluation to solution#3 | Huawei, HiSilicon | approved | S3-230992 | - |
| S3-231534 | Add further impacts and evaluations to sol#5 | Huawei, HiSilicon | approved | S3-230993 | - |
| S3-231535 | Address Editor’s Note to sol#6 | Huawei, HiSilicon | approved | S3-230994 | - |
| S3-231536 | Conclusion for key issue #2 | Ericsson | approved | S3-231292 | - |
| S3-231537 | Update to Solution #2 UAS | Lenovo | approved | S3-231348 | - |
| S3-231538 | Coversheet for TR 33.891 | Qualcomm Incorporated | approved | S3-230798 | - |
| S3-231539 | PIN - Evaluation Solution #4 | Philips International B.V. | approved | S3-231181 | - |
| S3-231540 | Resolution of EN#1 in Solution#7 for KI#1 | Qualcomm Incorporated | approved | S3-230819 | - |
| S3-231541 | KI#1 New Sol for local PINE authentication | Nokia, Nokia Shanghai Bell | approved | S3-230777 | - |
| S3-231542 | updates to evaluation of solution2 | Huawei, HiSilicon | approved | S3-231015 | - |
| S3-231543 | Evaluation Update of Solution #2 | Lenovo | approved | S3-231333 | - |
| S3-231544 | Resolution to editor’s note in solution 1 concerning threat mitigation | Nokia, Nokia Shanghai Bell | approved | S3-230943 | - |
| S3-231545 | SNAAPPY conclusions | NTT-Docomo | approved | - | - |
| S3-231546 | KI11 analysis and conclusions | Nokia, Nokia Shanghai Bell | approved | S3-231082 | - |
| S3-231547 | Security aspects of MSGin5G Service in rel-18 | China Mobile | agreed | S3-231085 | - |
| S3-231548 | Clean up of the TR | Huawei, HiSilicon | approved | S3-231009 | - |
| S3-231549 | TR 33.741 cover sheet | Huawei | approved | - | - |
| S3-231550 | Draft TR 33.741 | Huawei | email approval | - | - |
| S3-231551 | SBA TLS certificate update | Nokia, Nokia Shanghai Bell | agreed | - | - |
| S3-231552 | pCR to TR33.740 Update Solution16 and its evaluation | CATT | approved | S3-231205 | - |
| S3-231553 | Resolving EN for Solution 22 | OPPO | approved | S3-231368 | - |
| S3-231554 | Update the evaluation of solution #31 in TR 33.740 | Beijing Xiaomi Mobile Software | approved | S3-231256 | - |
| S3-231555 | Draft TR 33.883 | Huawei | email approval | - | - |
| S3-231556 | Draft TR 33.892 | Lenovo | email approval | - | - |
| S3-231557 | Draft TR 33.882 | Vivo | email approval | - | - |
| S3-231558 | Draft TR 33.890 | Huawei | email approval | - | - |
| S3-231559 | Use relay UE SNN to generate AV for ProSe authentication | Nokia, Nokia Shanghai Bell | agreed | S3-231128 | - |
| S3-231560 | conclusion for KI#3 network slice admission control | Nokia, Nokia Shanghai Bell | noted | S3-231126 | - |
| S3-231561 | New WID on Security aspects for 5WWC Phase 2 | Nokia, Nokia Shanghai Bell, CableLabs, Charter Communications, Lenovo, Apple | agreed | S3-230697 | - |
| S3-231562 | Proposed WID for UAS Phase 2 security | Qualcomm Incorporated, Lenovo, Huawei, HiSilicon | agreed | S3-230799 | - |
| S3-231563 | New WID on Automated certicate management in SBA | Nokia, Nokia Shanghai Bell | agreed | S3-230824 | - |
| S3-231564 | New WID on security enhancements for NGRTC | Huawei, HiSilicon | agreed | S3-230862 | - |
| S3-231565 | New WID on Security Aspects of Enhancement of Support for Edge Computing in 5GC — phase 2 | Huawei, HiSilicon | agreed | S3-230868 | - |
| S3-231566 | New Solution with evaluation for KI #5 | Samsung | approved | S3-231315 | - |
| S3-231567 | Conclusion on KI #5 | Samsung | noted | S3-231316 | - |
| S3-231568 | Update to TR 33.740 Conclusion for KI#2 | InterDigital Finland Oy | noted | S3-230757 | - |
| S3-231569 | Update to TR 33.740 Conclusion for KI#4 | InterDigital Finland Oy | noted | S3-230759 | - |
| S3-231570 | New WID on AKMA phase 2 | China Mobile | agreed | S3-231083 | - |
| S3-231571 | New WID on security aspects of MSGin5G Ph2 | China Mobile | agreed | S3-231084 | - |
| S3-231572 | New WID on security aspects of enablers for Network Automation for 5G - phase 3 | China Mobile | agreed | S3-231093 | - |
| S3-231573 | New WID on Security aspects of enhanced support of Non-Public Networks phase 2 | Ericsson | agreed | S3-231159 | - |
| S3-231574 | New WID on 5G Security Assurance Specification (SCAS) for the Policy Control Function (PCF) | BSI (DE) | agreed | S3-231187 | - |
| S3-231575 | New WID on Security Aspects of Proximity-based Services in 5GS Phase 2 | CATT, China Unicom | agreed | S3-231204 | - |
| S3-231576 | New WID on Security Aspects of Ranging Based Services and Sidelink Positioning | Xiaomi Technology | agreed | S3-231225 | - |
| S3-231577 | New WID on enhanced security aspects of SEAL for vertical | Samsung | agreed | S3-231304 | - |
| S3-231578 | New WID on application enablement aspects for subscriber-aware northbound API access | NTT DOCOMO INC. | agreed | S3-231362 | - |
| S3-231579 | ProSe - Conclusion on KI#2 | Philips International B.V. | approved | S3-231177 | - |
| S3-231580 | Conclusion for KI#3 | Ericsson | approved | S3-231077 | - |
| S3-231581 | Reply-LS on the need for granular level checks using "Additional scope" under the OAuth2.0 Token Access | Nokia, Nokia Shanghai Bell | approved | S3-230719 | - |
| S3-231582 | Address EN and add evaluation for Sol #26 | Huawei, HiSilicon | approved | S3-231028 | - |
| S3-231583 | Remove EN to Key Issue #2 | Johns Hopkins University APL, US National Security Agency, InterDigital, Apple, CableLabs | approved | S3-230756 | - |
| S3-231584 | Solution Proposed for KI#2, protecting users with high priority | Qualcomm Incorporated | approved | S3-230821 | - |
| S3-231585 | Policy-based C-RNTI and TMSI refresh | Intel | approved | S3-230885 | - |
| S3-231586 | Conclusion of KI#9 | Nokia, Nokia Shanghai Bell | approved | S3-230829 | - |
| S3-231587 | Conclusion for Key issue#1.2 | Huawei, HiSilicon | approved | S3-231017 | - |
| S3-231588 | KI#1 Sol#2 EN resolution and evaluation | Ericsson-LG Co., LTD | approved | S3-231267 | - |
| S3-231589 | Update to solution #4 in TR 33.876 | Beijing Xiaomi Mobile Software | approved | S3-231262 | - |
| S3-231590 | Update to solution #5 in TR 33.876 | Beijing Xiaomi Mobile Software | approved | S3-231263 | - |
| S3-231591 | Solution of assurance of unique NF identifiers in certificates | Nokia, Nokia Shanghai Bell | approved | S3-230825 | - |
| S3-231592 | Slice specific initial enrolment procedure | Huawei, HiSilicon | approved | S3-230952 | - |
| S3-231593 | Evaluation of solution #18 in eNA\_SEC\_Ph3 | Nokia, Nokia Shanghai Bell | approved | S3-230840 | - |
| S3-231594 | Evaluation of solution #6 in eNA\_SEC\_Ph3 | Nokia, Nokia Shanghai Bell | approved | S3-230839 | - |
| S3-231595 | Update to Solution #9 in eNA | Lenovo | approved | S3-231356 | - |
| S3-231596 | Sol#3 Removal of EN | Nokia, Nokia Shanghai Bell | approved | S3-230779 | - |
| S3-231597 | Conclusion for KI#5 in TR33.738 | China Telecommunications | approved | S3-230923 | - |
| S3-231598 | Update Conclusion for KI 2.1 | Xiaomi communications | noted | S3-231240 | - |
| S3-231599 | adding description about basic vulnerability testing requirements for GVNP to clause 4.4 | China Mobile | approved | S3-231113 | - |
| S3-231600 | A new solution for group communication security for Ranging/SL Positioning services | Qualcomm Incorporated | approved | S3-230818 | - |
| S3-231601 | pCR to TR33.893 New solution for protecting groupcast and broadcast data in coverage | CATT | noted | S3-231276 | - |
| S3-231602 | pCR to TR33.893 New solution for protecting groupcast and broadcast data out of coverage | CATT | noted | S3-231277 | - |
| S3-231603 | LS on Mapping of F1-C IP addresses in the IAB inter-CU topology adaptation and backhaul RLF recovery procedures | Qualcomm | approved | - | - |
| S3-231604 | Including SNPN ID in SBA and N32 related descriptions | Nokia, Nokia Shanghai Bell | agreed | S3-230768 | - |
| S3-231605 | Including SNPN ID in SBA and N32 related descriptions | Nokia, Nokia Shanghai Bell | agreed | S3-230769 | - |
| S3-231606 | SEPP to include and verify the source PLMN-ID | Ericsson, Mavenir, Nokia, Nokia Shanghai Bell, Huawei, HiSilicon | agreed | S3-231148 | - |
| S3-231607 | SEPP to include and verify the source PLMN-ID | Ericsson, Mavenir, Nokia, Nokia Shanghai Bell, Huawei, HiSilicon | agreed | S3-231149 | - |
| S3-231608 | Draft TR 33.884 | NTT-Docomo | email approval | - | - |
| S3-231609 | add test case to include SNPN snenario in PLMNID verification | Huawei, HiSilicon | noted | S3-230864 | - |
| S3-231610 | add test case to include SNPN snenario in token verification | Huawei, HiSilicon | approved | S3-230865 | - |
| S3-231611 | ProSe - Evaluation Solution #10 | Philips International B.V. | approved | S3-231179 | - |
| S3-231612 | Solution to Key Issue-1 | Lenovo, Charter Communications, US National Security Agency | noted | S3-231338 | - |
| S3-231613 | Solution to KI#1 | Lenovo, Charter Communications, US National Security Agency | noted | S3-231340 | - |
| S3-231614 | SID on Study on security for N32 and SEPP hosted scenarios | Nokia, Nokia Shanghai Bell | noted | S3-230655 | - |
| S3-231615 | Introducing split gNBs into TR 33.926 | Qualcomm Incorporated | endorsed | - | - |
| S3-231616 | Updates on the solution #24 | Qualcomm Incorporated | approved | S3-230811 | - |
| S3-231617 | TR 33.884 cover sheet | NTT-Docomo | approved | - | - |
| S3-231618 | Draft TR 33.891 | Qualcomm | email approval | - | - |
| S3-231619 | Draft TR 33.886 | Huawei | email approval | - | - |
| S3-231620 | Living document to TS 33.503 for Prose Secondary Authentication | Interidigital | email approval | - | - |
| S3-231621 | Cover sheet TR 33.858 | Ericsson | approved | - | - |
| S3-231622 | Cover sheet TR 33.892 | Motorola Mobility | approved | - | - |
| S3-231623 | Update and evaluate to solution #9 in TR 33.893 | Beijing Xiaomi Mobile Software | approved | S3-231261 | - |
| S3-231624 | 33.893: New Solution on Discovery Security for Ranging/SL Positioning Service | Xiaomi Technology | approved | S3-231219 | - |
| S3-231625 | 33.893: Update to the Key Issue #2 | Xiaomi Technology | approved | S3-231208 | - |
| S3-231626 | conclusion on key issue 2 | Huawei, HiSilicon | approved | S3-231047 | - |
| S3-231627 | Draft TR 33.898 | OPPO | email approval | - | - |
| S3-231628 | Presentation of Report TR 33.875 v1.7.0 | Nokia, Nokia Shanghai Bell | approved | S3-230670 | - |
| S3-231629 | Draft TR 33.875 | Nokia | email approval | - | - |
| S3-231630 | Update to solution #8 in TR 33.740 | Beijing Xiaomi Mobile Software | approved | S3-231249 | - |
| S3-231631 | Update to solution #9 in TR 33.740 | Beijing Xiaomi Mobile Software | approved | S3-231250 | - |

### A2: Tdoc decision timing

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| --- | --- | --- |
| Document | Date/time UTC | Decision |
| S3-231200 | 20/02/2023 16:27:49 | reserved |
| S3-230600 | 20/02/2023 07:27:19 | approved |
| S3-230601 | 20/02/2023 07:27:20 | approved |
| S3-230602 | 23/02/2023 15:24:51 | noted |
| S3-230603 | 23/02/2023 15:24:53 | noted |
| S3-230604 | 24/02/2023 13:19:01 | noted |
| S3-230605 | 24/02/2023 12:47:46 | noted |
| S3-230606 | 23/02/2023 09:33:19 | available |
| S3-230607 | 23/02/2023 09:38:19 | available |
| S3-230608 | 24/02/2023 10:27:34 | postponed |
| S3-230609 | 22/02/2023 14:29:41 | available |
| S3-230610 | 24/02/2023 10:30:46 | postponed |
| S3-230611 | 24/02/2023 10:38:59 | noted |
| S3-230612 | 20/02/2023 08:29:16 | replied to |
| S3-230613 | 24/02/2023 10:40:07 | postponed |
| S3-230614 | 23/02/2023 09:12:39 | noted |
| S3-230615 | 23/02/2023 09:16:38 | available |
| S3-230616 | 24/02/2023 10:34:17 | noted |
| S3-230617 | 24/02/2023 10:32:43 | noted |
| S3-230618 | 20/02/2023 09:17:25 | available |
| S3-230619 | 20/02/2023 09:24:07 | available |
| S3-230620 | 20/02/2023 09:32:17 | replied to |
| S3-230621 | 20/02/2023 10:27:46 | noted |
| S3-230622 | 22/02/2023 14:30:20 | available |
| S3-230623 | 24/02/2023 12:51:30 | available |
| S3-230624 | 24/02/2023 10:35:53 | noted |
| S3-230625 | 20/02/2023 09:40:20 | noted |
| S3-230626 | 20/02/2023 09:40:57 | noted |
| S3-230627 | 20/02/2023 09:45:27 | available |
| S3-230628 | 20/02/2023 10:28:50 | noted |
| S3-230629 | 20/02/2023 09:56:55 | replied to |
| S3-230629 | 23/02/2023 10:00:55 | postponed |
| S3-230630 | 20/02/2023 09:59:19 | available |
| S3-230630 | 23/02/2023 10:02:32 | postponed |
| S3-230631 | 20/02/2023 10:00:55 | noted |
| S3-230632 | 20/02/2023 10:29:09 | noted |
| S3-230633 | 20/02/2023 10:29:23 | noted |
| S3-230634 | 20/02/2023 10:29:38 | noted |
| S3-230635 | 20/02/2023 10:29:51 | noted |
| S3-230636 | 20/02/2023 10:28:26 | noted |
| S3-230637 | 20/02/2023 10:28:05 | noted |
| S3-230638 | 20/02/2023 10:28:24 | noted |
| S3-230639 | 20/02/2023 10:05:12 | available |
| S3-230640 | 20/02/2023 10:10:10 | noted |
| S3-230641 | 20/02/2023 10:14:42 | available |
| S3-230641 | 23/02/2023 10:03:44 | postponed |
| S3-230642 | 20/02/2023 10:23:16 | postponed |
| S3-230643 | 20/02/2023 10:24:33 | noted |
| S3-230644 | 20/02/2023 10:30:05 | noted |
| S3-230645 | 21/02/2023 16:57:26 | noted |
| S3-230646 | 21/02/2023 16:57:29 | noted |
| S3-230647 | 21/02/2023 16:57:37 | approved |
| S3-230648 | 24/02/2023 06:19:45 | approved |
| S3-230649 | 20/02/2023 10:30:36 | noted |
| S3-230649 | 22/02/2023 12:36:25 | revised |
| S3-230650 | 20/02/2023 10:30:36 | noted |
| S3-230650 | 22/02/2023 12:33:39 | revised |
| S3-230651 | 20/02/2023 17:28:34 | revised |
| S3-230652 | 21/02/2023 14:37:42 | revised |
| S3-230653 | 21/02/2023 14:37:53 | revised |
| S3-230654 | 24/02/2023 09:37:07 | noted |
| S3-230655 | 23/02/2023 08:40:38 | noted |
| S3-230655 | 24/02/2023 06:27:58 | revised |
| S3-230666 | 22/02/2023 14:50:22 | noted |
| S3-230667 | 22/02/2023 14:50:37 | noted |
| S3-230668 | 24/02/2023 09:37:10 | noted |
| S3-230669 | 24/02/2023 09:37:13 | noted |
| S3-230670 | 24/02/2023 09:37:48 | revised |
| S3-230671 | 20/02/2023 09:40:21 | noted |
| S3-230672 | 21/02/2023 09:33:43 | revised |
| S3-230673 | 21/02/2023 09:33:17 | revised |
| S3-230674 | 20/02/2023 09:17:02 | revised |
| S3-230675 | 20/02/2023 09:17:39 | noted |
| S3-230676 | 23/02/2023 16:57:07 | noted |
| S3-230681 | 20/02/2023 12:36:07 | noted |
| S3-230683 | 23/02/2023 16:53:30 | agreed |
| S3-230684 | 23/02/2023 16:53:44 | agreed |
| S3-230686 | 23/02/2023 16:54:02 | agreed |
| S3-230687 | 23/02/2023 16:54:16 | agreed |
| S3-230688 | 23/02/2023 16:54:21 | agreed |
| S3-230689 | 23/02/2023 16:54:45 | available |
| S3-230690 | 23/02/2023 16:54:52 | agreed |
| S3-230692 | 24/02/2023 12:46:18 | available |
| S3-230694 | 24/02/2023 07:28:07 | available |
| S3-230695 | 24/02/2023 12:46:21 | available |
| S3-230696 | 23/02/2023 06:23:00 | noted |
| S3-230697 | 23/02/2023 06:36:01 | revised |
| S3-230698 | 23/02/2023 06:23:07 | noted |
| S3-230699 | 22/02/2023 08:17:28 | approved |
| S3-230700 | 24/02/2023 08:22:45 | available |
| S3-230701 | 24/02/2023 07:44:14 | noted |
| S3-230702 | 21/02/2023 17:14:48 | available |
| S3-230703 | 21/02/2023 17:15:32 | available |
| S3-230704 | 20/02/2023 16:40:00 | noted |
| S3-230706 | 23/02/2023 16:41:39 | available |
| S3-230707 | 20/02/2023 12:50:36 | noted |
| S3-230708 | 20/02/2023 12:58:45 | available |
| S3-230709 | 20/02/2023 12:58:47 | available |
| S3-230710 | 20/02/2023 12:57:41 | available |
| S3-230711 | 20/02/2023 12:57:44 | available |
| S3-230712 | 20/02/2023 13:05:31 | available |
| S3-230713 | 20/02/2023 13:05:34 | available |
| S3-230714 | 20/02/2023 13:05:37 | available |
| S3-230715 | 23/02/2023 16:55:18 | available |
| S3-230716 | 23/02/2023 16:55:30 | available |
| S3-230717 | 24/02/2023 09:34:55 | noted |
| S3-230718 | 24/02/2023 09:35:14 | available |
| S3-230719 | 23/02/2023 09:16:32 | revised |
| S3-230720 | 22/02/2023 12:46:22 | noted |
| S3-230721 | 23/02/2023 12:33:05 | noted |
| S3-230722 | 21/02/2023 15:27:31 | revised |
| S3-230723 | 21/02/2023 15:28:02 | noted |
| S3-230724 | 23/02/2023 15:05:24 | approved |
| S3-230725 | 22/02/2023 15:28:46 | available |
| S3-230726 | 20/02/2023 08:35:00 | revised |
| S3-230727 | 22/02/2023 15:35:27 | available |
| S3-230728 | 22/02/2023 15:37:12 | agreed |
| S3-230729 | 20/02/2023 10:31:39 | noted |
| S3-230730 | 24/02/2023 07:28:54 | available |
| S3-230731 | 24/02/2023 07:28:50 | available |
| S3-230732 | 24/02/2023 07:28:53 | available |
| S3-230733 | 24/02/2023 07:26:06 | noted |
| S3-230734 | 24/02/2023 07:28:51 | available |
| S3-230735 | 24/02/2023 07:27:54 | available |
| S3-230736 | 21/02/2023 07:52:31 | noted |
| S3-230737 | 24/02/2023 07:26:47 | noted |
| S3-230738 | 24/02/2023 07:26:51 | noted |
| S3-230739 | 21/02/2023 08:26:19 | noted |
| S3-230740 | 21/02/2023 08:36:10 | available |
| S3-230741 | 24/02/2023 07:27:48 | available |
| S3-230742 | 24/02/2023 07:27:51 | available |
| S3-230743 | 24/02/2023 07:27:56 | available |
| S3-230744 | 24/02/2023 07:28:00 | available |
| S3-230745 | 20/02/2023 16:04:01 | revised |
| S3-230746 | 20/02/2023 16:04:05 | revised |
| S3-230747 | 20/02/2023 13:16:12 | agreed |
| S3-230748 | 20/02/2023 13:16:13 | agreed |
| S3-230749 | 23/02/2023 16:59:05 | available |
| S3-230750 | 21/02/2023 09:09:46 | noted |
| S3-230751 | 21/02/2023 09:10:55 | available |
| S3-230752 | 21/02/2023 09:11:11 | available |
| S3-230753 | 24/02/2023 07:08:25 | noted |
| S3-230754 | 24/02/2023 07:08:29 | noted |
| S3-230755 | 21/02/2023 12:48:04 | revised |
| S3-230756 | 23/02/2023 12:08:31 | revised |
| S3-230757 | 23/02/2023 07:21:49 | revised |
| S3-230758 | 21/02/2023 09:38:42 | revised |
| S3-230758 | 23/02/2023 13:14:49 | noted |
| S3-230759 | 23/02/2023 07:21:57 | revised |
| S3-230760 | 24/02/2023 06:48:52 | noted |
| S3-230761 | 20/02/2023 08:17:58 | revised |
| S3-230762 | 24/02/2023 09:39:37 | available |
| S3-230763 | 24/02/2023 09:39:49 | available |
| S3-230764 | 22/02/2023 16:10:26 | agreed |
| S3-230765 | 22/02/2023 13:19:16 | approved |
| S3-230766 | 22/02/2023 16:10:58 | available |
| S3-230767 | 22/02/2023 16:12:20 | revised |
| S3-230768 | 23/02/2023 16:20:53 | revised |
| S3-230769 | 23/02/2023 16:21:13 | revised |
| S3-230771 | 20/02/2023 16:26:47 | revised |
| S3-230772 | 20/02/2023 16:26:41 | available |
| S3-230773 | 23/02/2023 15:22:19 | available |
| S3-230774 | 23/02/2023 15:23:13 | available |
| S3-230775 | 23/02/2023 15:23:11 | available |
| S3-230776 | 22/02/2023 14:58:08 | available |
| S3-230777 | 22/02/2023 14:51:39 | revised |
| S3-230778 | 22/02/2023 14:50:59 | approved |
| S3-230779 | 23/02/2023 14:07:33 | revised |
| S3-230780 | 22/02/2023 14:50:23 | noted |
| S3-230781 | 22/02/2023 14:50:40 | noted |
| S3-230782 | 20/02/2023 16:27:46 | revised |
| S3-230783 | 23/02/2023 16:44:47 | available |
| S3-230784 | 23/02/2023 16:44:52 | available |
| S3-230785 | 20/02/2023 07:50:34 | revised |
| S3-230786 | 21/02/2023 16:58:39 | approved |
| S3-230787 | 21/02/2023 17:03:18 | revised |
| S3-230788 | 21/02/2023 16:58:50 | approved |
| S3-230789 | 21/02/2023 16:58:51 | approved |
| S3-230790 | 21/02/2023 16:58:54 | approved |
| S3-230791 | 21/02/2023 17:01:21 | revised |
| S3-230792 | 21/02/2023 17:01:25 | revised |
| S3-230793 | 21/02/2023 17:01:34 | revised |
| S3-230794 | 21/02/2023 17:01:43 | approved |
| S3-230795 | 21/02/2023 17:02:05 | noted |
| S3-230796 | 21/02/2023 17:02:16 | approved |
| S3-230797 | 22/02/2023 14:49:20 | approved |
| S3-230798 | 22/02/2023 14:49:36 | revised |
| S3-230799 | 23/02/2023 06:50:00 | revised |
| S3-230800 | 22/02/2023 08:27:15 | revised |
| S3-230801 | 22/02/2023 08:31:04 | revised |
| S3-230802 | 21/02/2023 15:15:32 | approved |
| S3-230803 | 22/02/2023 15:57:49 | noted |
| S3-230804 | 20/02/2023 13:02:56 | available |
| S3-230805 | 20/02/2023 12:59:55 | noted |
| S3-230806 | 20/02/2023 13:20:25 | available |
| S3-230807 | 20/02/2023 13:23:18 | revised |
| S3-230808 | 24/02/2023 09:36:36 | noted |
| S3-230809 | 24/02/2023 06:50:00 | noted |
| S3-230810 | 24/02/2023 07:09:34 | noted |
| S3-230811 | 24/02/2023 07:00:13 | revised |
| S3-230812 | 24/02/2023 06:48:49 | noted |
| S3-230813 | 24/02/2023 07:05:36 | noted |
| S3-230814 | 21/02/2023 13:28:05 | noted |
| S3-230815 | 24/02/2023 07:06:30 | noted |
| S3-230816 | 20/02/2023 08:01:22 | revised |
| S3-230817 | 22/02/2023 10:30:05 | revised |
| S3-230818 | 23/02/2023 15:28:21 | revised |
| S3-230819 | 22/02/2023 14:51:27 | revised |
| S3-230820 | 22/02/2023 14:51:34 | approved |
| S3-230821 | 23/02/2023 12:14:53 | revised |
| S3-230822 | 21/02/2023 14:18:52 | noted |
| S3-230823 | 24/02/2023 09:39:59 | available |
| S3-230824 | 23/02/2023 06:53:38 | revised |
| S3-230825 | 23/02/2023 13:00:37 | revised |
| S3-230826 | 23/02/2023 12:43:51 | approved |
| S3-230827 | 21/02/2023 17:23:20 | approved |
| S3-230828 | 21/02/2023 17:23:07 | noted |
| S3-230829 | 23/02/2023 12:47:38 | revised |
| S3-230830 | 21/02/2023 17:23:33 | revised |
| S3-230831 | 21/02/2023 17:22:57 | noted |
| S3-230832 | 21/02/2023 17:21:14 | revised |
| S3-230833 | 21/02/2023 17:18:40 | revised |
| S3-230834 | 24/02/2023 12:21:19 | available |
| S3-230835 | 24/02/2023 07:48:08 | noted |
| S3-230836 | 21/02/2023 17:31:39 | available |
| S3-230837 | 21/02/2023 17:30:50 | revised |
| S3-230838 | 21/02/2023 17:30:57 | revised |
| S3-230839 | 23/02/2023 13:21:40 | revised |
| S3-230840 | 23/02/2023 13:16:58 | revised |
| S3-230841 | 24/02/2023 07:54:48 | noted |
| S3-230842 | 21/02/2023 17:32:52 | available |
| S3-230843 | 21/02/2023 14:26:19 | revised |
| S3-230844 | 23/02/2023 16:21:55 | available |
| S3-230845 | 23/02/2023 16:21:57 | available |
| S3-230846 | 24/02/2023 10:30:42 | noted |
| S3-230847 | 20/02/2023 07:52:24 | available |
| S3-230848 | 22/02/2023 07:37:00 | noted |
| S3-230849 | 22/02/2023 07:38:57 | revised |
| S3-230850 | 22/02/2023 07:42:14 | revised |
| S3-230851 | 24/02/2023 08:13:40 | noted |
| S3-230852 | 22/02/2023 07:51:23 | revised |
| S3-230854 | 23/02/2023 16:22:39 | available |
| S3-230855 | 20/02/2023 14:23:22 | revised |
| S3-230857 | 20/02/2023 14:39:09 | noted |
| S3-230858 | 20/02/2023 13:25:37 | available |
| S3-230859 | 21/02/2023 17:17:44 | revised |
| S3-230860 | 24/02/2023 08:25:11 | noted |
| S3-230861 | 22/02/2023 14:48:27 | available |
| S3-230862 | 23/02/2023 07:00:44 | revised |
| S3-230863 | 21/02/2023 09:48:27 | noted |
| S3-230864 | 23/02/2023 16:34:15 | revised |
| S3-230865 | 23/02/2023 16:34:18 | revised |
| S3-230866 | 21/02/2023 16:47:28 | revised |
| S3-230867 | 21/02/2023 16:47:39 | revised |
| S3-230868 | 23/02/2023 07:03:21 | revised |
| S3-230869 | 21/02/2023 15:28:59 | noted |
| S3-230870 | 21/02/2023 14:58:50 | noted |
| S3-230871 | 23/02/2023 14:58:11 | available |
| S3-230872 | 21/02/2023 15:19:08 | approved |
| S3-230873 | 21/02/2023 15:19:57 | approved |
| S3-230874 | 22/02/2023 15:34:47 | available |
| S3-230875 | 21/02/2023 16:43:41 | agreed |
| S3-230876 | 21/02/2023 16:43:42 | agreed |
| S3-230877 | 23/02/2023 12:40:55 | noted |
| S3-230878 | 21/02/2023 17:19:56 | available |
| S3-230879 | 21/02/2023 17:19:19 | revised |
| S3-230880 | 23/02/2023 12:18:00 | noted |
| S3-230881 | 20/02/2023 09:57:21 | available |
| S3-230882 | 20/02/2023 09:59:11 | available |
| S3-230883 | 20/02/2023 09:45:21 | available |
| S3-230884 | 24/02/2023 09:25:05 | available |
| S3-230885 | 23/02/2023 12:21:07 | revised |
| S3-230886 | 22/02/2023 14:50:44 | noted |
| S3-230887 | 21/02/2023 08:36:05 | revised |
| S3-230888 | 22/02/2023 13:04:18 | noted |
| S3-230889 | 24/02/2023 06:24:38 | noted |
| S3-230890 | 24/02/2023 06:24:40 | noted |
| S3-230891 | 23/02/2023 16:23:03 | available |
| S3-230892 | 23/02/2023 16:23:06 | available |
| S3-230893 | 21/02/2023 17:11:38 | noted |
| S3-230894 | 24/02/2023 12:05:42 | noted |
| S3-230895 | 21/02/2023 17:11:52 | noted |
| S3-230896 | 21/02/2023 17:11:39 | noted |
| S3-230897 | 21/02/2023 17:11:47 | noted |
| S3-230898 | 21/02/2023 17:09:37 | revised |
| S3-230899 | 21/02/2023 17:10:02 | noted |
| S3-230900 | 21/02/2023 17:10:12 | revised |
| S3-230901 | 21/02/2023 17:14:59 | noted |
| S3-230902 | 21/02/2023 17:15:23 | available |
| S3-230903 | 21/02/2023 17:15:36 | noted |
| S3-230904 | 24/02/2023 06:58:36 | available |
| S3-230905 | 21/02/2023 08:27:15 | revised |
| S3-230906 | 22/02/2023 07:23:46 | noted |
| S3-230907 | 22/02/2023 07:24:08 | noted |
| S3-230908 | 24/02/2023 07:44:16 | noted |
| S3-230909 | 22/02/2023 07:20:32 | noted |
| S3-230910 | 22/02/2023 07:24:10 | noted |
| S3-230910 | 22/02/2023 07:27:24 | approved |
| S3-230911 | 22/02/2023 07:24:36 | noted |
| S3-230912 | 22/02/2023 14:50:25 | noted |
| S3-230913 | 22/02/2023 14:50:47 | noted |
| S3-230914 | 22/02/2023 07:40:51 | noted |
| S3-230915 | 22/02/2023 07:39:06 | available |
| S3-230916 | 22/02/2023 06:35:05 | noted |
| S3-230917 | 23/02/2023 13:11:26 | noted |
| S3-230918 | 21/02/2023 17:17:54 | revised |
| S3-230919 | 23/02/2023 13:17:58 | approved |
| S3-230920 | 23/02/2023 14:50:47 | approved |
| S3-230921 | 21/02/2023 08:30:18 | approved |
| S3-230922 | 21/02/2023 17:32:45 | available |
| S3-230923 | 23/02/2023 14:52:28 | revised |
| S3-230924 | 21/02/2023 17:31:12 | available |
| S3-230925 | 21/02/2023 17:32:40 | available |
| S3-230926 | 24/02/2023 09:36:00 | noted |
| S3-230927 | 21/02/2023 06:17:45 | agreed |
| S3-230928 | 21/02/2023 06:55:38 | agreed |
| S3-230929 | 21/02/2023 06:18:41 | agreed |
| S3-230930 | 22/02/2023 16:02:47 | available |
| S3-230931 | 21/02/2023 06:19:23 | agreed |
| S3-230932 | 21/02/2023 06:19:44 | agreed |
| S3-230933 | 24/02/2023 07:02:59 | noted |
| S3-230934 | 24/02/2023 07:05:52 | noted |
| S3-230935 | 22/02/2023 12:34:39 | revised |
| S3-230936 | 24/02/2023 07:06:24 | noted |
| S3-230937 | 22/02/2023 12:36:49 | noted |
| S3-230938 | 24/02/2023 07:06:42 | noted |
| S3-230939 | 24/02/2023 07:06:03 | noted |
| S3-230940 | 22/02/2023 16:52:27 | approved |
| S3-230941 | 22/02/2023 10:30:16 | available |
| S3-230942 | 24/02/2023 06:50:01 | noted |
| S3-230943 | 22/02/2023 14:53:54 | revised |
| S3-230944 | 22/02/2023 14:53:59 | approved |
| S3-230945 | 24/02/2023 09:08:09 | noted |
| S3-230946 | 24/02/2023 09:06:34 | noted |
| S3-230947 | 22/02/2023 06:27:43 | available |
| S3-230948 | 24/02/2023 09:08:18 | noted |
| S3-230949 | 24/02/2023 06:50:05 | noted |
| S3-230950 | 24/02/2023 07:10:02 | available |
| S3-230950 | 24/02/2023 07:10:04 | noted |
| S3-230951 | 22/02/2023 15:01:40 | noted |
| S3-230952 | 23/02/2023 13:02:37 | revised |
| S3-230953 | 21/02/2023 17:19:37 | revised |
| S3-230954 | 21/02/2023 17:19:50 | revised |
| S3-230955 | 23/02/2023 12:14:58 | available |
| S3-230956 | 21/02/2023 17:27:46 | noted |
| S3-230957 | 21/02/2023 17:27:50 | noted |
| S3-230958 | 21/02/2023 17:31:57 | noted |
| S3-230959 | 22/02/2023 13:24:54 | approved |
| S3-230960 | 22/02/2023 13:15:35 | revised |
| S3-230961 | 22/02/2023 13:17:02 | approved |
| S3-230962 | 23/02/2023 07:24:32 | agreed |
| S3-230962 | 23/02/2023 07:30:28 | noted |
| S3-230963 | 23/02/2023 15:22:11 | available |
| S3-230964 | 23/02/2023 15:22:40 | available |
| S3-230965 | 23/02/2023 15:22:29 | available |
| S3-230966 | 22/02/2023 14:58:46 | available |
| S3-230967 | 23/02/2023 15:22:17 | available |
| S3-230968 | 23/02/2023 15:22:18 | available |
| S3-230969 | 21/02/2023 17:26:21 | revised |
| S3-230971 | 21/02/2023 09:39:10 | available |
| S3-230971 | 23/02/2023 13:15:24 | noted |
| S3-230972 | 21/02/2023 16:57:59 | revised |
| S3-230973 | 20/02/2023 09:23:49 | revised |
| S3-230974 | 20/02/2023 10:14:21 | revised |
| S3-230975 | 24/02/2023 06:22:31 | noted |
| S3-230976 | 24/02/2023 06:22:32 | noted |
| S3-230977 | 21/02/2023 17:12:33 | revised |
| S3-230978 | 21/02/2023 17:12:47 | revised |
| S3-230979 | 22/02/2023 16:33:21 | approved |
| S3-230980 | 21/02/2023 09:23:51 | revised |
| S3-230981 | 21/02/2023 09:25:20 | revised |
| S3-230982 | 21/02/2023 09:29:14 | revised |
| S3-230983 | 22/02/2023 06:45:57 | revised |
| S3-230984 | 24/02/2023 09:06:35 | noted |
| S3-230985 | 24/02/2023 08:22:24 | available |
| S3-230986 | 22/02/2023 08:08:36 | revised |
| S3-230987 | 22/02/2023 08:32:10 | approved |
| S3-230988 | 22/02/2023 08:32:39 | approved |
| S3-230989 | 22/02/2023 14:50:29 | noted |
| S3-230990 | 24/02/2023 09:09:58 | noted |
| S3-230991 | 24/02/2023 09:10:25 | approved |
| S3-230992 | 22/02/2023 14:36:35 | revised |
| S3-230993 | 22/02/2023 14:36:37 | revised |
| S3-230994 | 22/02/2023 14:36:40 | revised |
| S3-230995 | 24/02/2023 09:09:45 | approved |
| S3-230996 | 21/02/2023 17:22:39 | available |
| S3-230996 | 24/02/2023 07:35:22 | noted |
| S3-230997 | 23/02/2023 12:49:47 | approved |
| S3-230998 | 21/02/2023 17:19:09 | available |
| S3-230999 | 21/02/2023 17:23:02 | noted |
| S3-231000 | 21/02/2023 06:57:56 | available |
| S3-231001 | 24/02/2023 08:22:28 | available |
| S3-231002 | 24/02/2023 08:22:32 | available |
| S3-231003 | 24/02/2023 08:22:35 | available |
| S3-231004 | 21/02/2023 17:20:22 | revised |
| S3-231005 | 21/02/2023 16:49:05 | approved |
| S3-231006 | 21/02/2023 16:48:35 | approved |
| S3-231007 | 21/02/2023 16:48:44 | revised |
| S3-231008 | 24/02/2023 07:44:22 | noted |
| S3-231009 | 22/02/2023 16:06:39 | revised |
| S3-231010 | 24/02/2023 06:22:49 | approved |
| S3-231011 | 21/02/2023 16:58:21 | approved |
| S3-231012 | 24/02/2023 06:22:58 | approved |
| S3-231013 | 20/02/2023 09:18:30 | noted |
| S3-231014 | 20/02/2023 09:18:17 | available |
| S3-231015 | 22/02/2023 14:53:44 | revised |
| S3-231016 | 21/02/2023 14:26:24 | available |
| S3-231017 | 23/02/2023 12:51:38 | revised |
| S3-231018 | 21/02/2023 06:25:07 | revised |
| S3-231019 | 21/02/2023 06:27:30 | agreed |
| S3-231020 | 22/02/2023 10:08:19 | revised |
| S3-231021 | 22/02/2023 09:32:52 | noted |
| S3-231022 | 22/02/2023 09:35:29 | noted |
| S3-231023 | 23/02/2023 06:27:56 | available |
| S3-231024 | 21/02/2023 06:40:24 | noted |
| S3-231025 | 21/02/2023 10:23:08 | revised |
| S3-231026 | 21/02/2023 12:10:09 | agreed |
| S3-231026 | 21/02/2023 12:10:15 | revised |
| S3-231027 | 21/02/2023 12:31:51 | noted |
| S3-231028 | 23/02/2023 09:48:55 | revised |
| S3-231029 | 22/02/2023 09:14:30 | revised |
| S3-231030 | 22/02/2023 09:21:35 | noted |
| S3-231031 | 20/02/2023 14:43:45 | revised |
| S3-231032 | 20/02/2023 14:48:03 | revised |
| S3-231033 | 20/02/2023 09:45:09 | revised |
| S3-231034 | 20/02/2023 09:57:24 | available |
| S3-231035 | 22/02/2023 07:25:36 | approved |
| S3-231036 | 22/02/2023 07:26:04 | approved |
| S3-231037 | 22/02/2023 07:51:35 | available |
| S3-231038 | 23/02/2023 07:33:29 | noted |
| S3-231039 | 23/02/2023 07:33:30 | noted |
| S3-231040 | 23/02/2023 07:34:07 | noted |
| S3-231041 | 24/02/2023 09:36:37 | noted |
| S3-231042 | 24/02/2023 09:36:38 | noted |
| S3-231043 | 22/02/2023 15:00:00 | noted |
| S3-231044 | 22/02/2023 14:59:30 | noted |
| S3-231045 | 24/02/2023 09:24:50 | available |
| S3-231046 | 24/02/2023 09:25:00 | available |
| S3-231047 | 22/02/2023 10:19:56 | revised |
| S3-231048 | 20/02/2023 14:50:02 | agreed |
| S3-231049 | 22/02/2023 15:01:41 | noted |
| S3-231050 | 22/02/2023 15:09:18 | noted |
| S3-231051 | 21/02/2023 17:31:32 | revised |
| S3-231052 | 20/02/2023 09:18:20 | available |
| S3-231053 | 21/02/2023 17:27:56 | revised |
| S3-231054 | 20/02/2023 09:18:33 | noted |
| S3-231055 | 23/02/2023 16:23:27 | noted |
| S3-231056 | 20/02/2023 09:18:38 | available |
| S3-231057 | 23/02/2023 15:22:23 | available |
| S3-231058 | 20/02/2023 17:19:34 | available |
| S3-231059 | 22/02/2023 12:56:58 | revised |
| S3-231060 | 21/02/2023 14:44:03 | revised |
| S3-231061 | 23/02/2023 15:04:37 | noted |
| S3-231062 | 21/02/2023 15:14:49 | available |
| S3-231063 | 21/02/2023 15:32:04 | revised |
| S3-231065 | 23/02/2023 13:07:54 | noted |
| S3-231066 | 21/02/2023 06:25:22 | available |
| S3-231067 | 23/02/2023 06:28:04 | available |
| S3-231068 | 21/02/2023 06:30:03 | revised |
| S3-231069 | 20/02/2023 08:01:30 | available |
| S3-231070 | 23/02/2023 16:47:24 | available |
| S3-231071 | 21/02/2023 09:10:40 | revised |
| S3-231072 | 21/02/2023 09:11:03 | revised |
| S3-231073 | 24/02/2023 07:10:13 | noted |
| S3-231074 | 23/02/2023 16:58:39 | noted |
| S3-231075 | 21/02/2023 12:43:12 | revised |
| S3-231076 | 21/02/2023 10:25:15 | approved |
| S3-231077 | 23/02/2023 09:06:26 | revised |
| S3-231078 | 23/02/2023 16:24:01 | available |
| S3-231079 | 14/02/2023 08:56:18 | revised |
| S3-231080 | 23/02/2023 16:24:04 | available |
| S3-231081 | 20/02/2023 10:23:18 | noted |
| S3-231082 | 22/02/2023 15:00:17 | revised |
| S3-231083 | 23/02/2023 07:36:55 | revised |
| S3-231084 | 23/02/2023 07:40:19 | revised |
| S3-231085 | 22/02/2023 15:15:14 | revised |
| S3-231086 | 21/02/2023 17:35:18 | approved |
| S3-231087 | 20/02/2023 16:57:59 | revised |
| S3-231088 | 21/02/2023 16:56:56 | revised |
| S3-231088 | 23/02/2023 16:45:23 | approved |
| S3-231089 | 24/02/2023 07:27:38 | available |
| S3-231090 | 21/02/2023 17:26:07 | revised |
| S3-231091 | 20/02/2023 08:24:36 | revised |
| S3-231092 | 24/02/2023 07:48:00 | noted |
| S3-231093 | 23/02/2023 07:44:23 | revised |
| S3-231094 | 21/02/2023 17:27:15 | revised |
| S3-231095 | 23/02/2023 16:24:18 | available |
| S3-231096 | 23/02/2023 16:24:21 | available |
| S3-231097 | 21/02/2023 16:50:40 | approved |
| S3-231098 | 21/02/2023 16:50:51 | approved |
| S3-231099 | 21/02/2023 16:51:03 | approved |
| S3-231100 | 21/02/2023 16:51:22 | approved |
| S3-231101 | 21/02/2023 16:51:37 | approved |
| S3-231102 | 21/02/2023 16:51:49 | approved |
| S3-231103 | 21/02/2023 16:51:58 | revised |
| S3-231104 | 21/02/2023 16:52:17 | approved |
| S3-231105 | 21/02/2023 16:52:26 | revised |
| S3-231106 | 21/02/2023 16:52:41 | revised |
| S3-231107 | 21/02/2023 16:52:52 | revised |
| S3-231108 | 21/02/2023 16:53:05 | approved |
| S3-231109 | 21/02/2023 16:53:14 | approved |
| S3-231110 | 21/02/2023 16:53:18 | approved |
| S3-231111 | 24/02/2023 06:16:58 | noted |
| S3-231112 | 24/02/2023 06:17:01 | noted |
| S3-231113 | 23/02/2023 15:20:10 | revised |
| S3-231114 | 24/02/2023 09:40:55 | available |
| S3-231115 | 20/02/2023 10:23:19 | noted |
| S3-231116 | 20/02/2023 07:36:21 | revised |
| S3-231117 | 24/02/2023 09:40:59 | available |
| S3-231118 | 20/02/2023 15:12:56 | available |
| S3-231119 | 22/02/2023 15:22:32 | available |
| S3-231121 | 20/02/2023 14:33:32 | revised |
| S3-231122 | 24/02/2023 08:19:45 | noted |
| S3-231123 | 24/02/2023 08:19:46 | noted |
| S3-231124 | 24/02/2023 08:19:47 | noted |
| S3-231125 | 22/02/2023 07:54:46 | revised |
| S3-231126 | 23/02/2023 06:27:41 | revised |
| S3-231128 | 23/02/2023 06:27:29 | revised |
| S3-231129 | 23/02/2023 16:46:28 | available |
| S3-231130 | 21/02/2023 06:25:40 | available |
| S3-231131 | 21/02/2023 06:32:19 | noted |
| S3-231133 | 23/02/2023 16:47:08 | available |
| S3-231134 | 23/02/2023 16:47:11 | available |
| S3-231135 | 21/02/2023 07:13:05 | noted |
| S3-231136 | 21/02/2023 07:13:18 | agreed |
| S3-231137 | 20/02/2023 15:14:18 | available |
| S3-231138 | 20/02/2023 15:14:22 | available |
| S3-231139 | 20/02/2023 15:14:24 | available |
| S3-231140 | 24/02/2023 10:30:40 | noted |
| S3-231141 | 20/02/2023 16:29:13 | agreed |
| S3-231142 | 20/02/2023 16:29:28 | agreed |
| S3-231143 | 20/02/2023 16:32:21 | agreed |
| S3-231144 | 20/02/2023 16:32:22 | agreed |
| S3-231145 | 20/02/2023 15:19:20 | revised |
| S3-231146 | 20/02/2023 15:22:34 | available |
| S3-231147 | 20/02/2023 15:22:36 | available |
| S3-231148 | 23/02/2023 16:25:54 | revised |
| S3-231149 | 23/02/2023 16:26:00 | revised |
| S3-231150 | 22/02/2023 16:15:07 | available |
| S3-231151 | 21/02/2023 17:32:31 | revised |
| S3-231152 | 21/02/2023 17:32:09 | available |
| S3-231153 | 22/02/2023 08:24:05 | revised |
| S3-231154 | 22/02/2023 06:51:54 | noted |
| S3-231155 | 22/02/2023 06:14:15 | noted |
| S3-231156 | 24/02/2023 09:06:36 | noted |
| S3-231157 | 22/02/2023 06:27:38 | revised |
| S3-231158 | 22/02/2023 06:35:11 | revised |
| S3-231159 | 23/02/2023 07:50:18 | revised |
| S3-231160 | 20/02/2023 10:02:58 | revised |
| S3-231161 | 20/02/2023 10:12:26 | revised |
| S3-231162 | 20/02/2023 09:18:44 | available |
| S3-231163 | 20/02/2023 09:07:32 | revised |
| S3-231164 | 20/02/2023 09:23:55 | available |
| S3-231165 | 20/02/2023 15:31:59 | noted |
| S3-231166 | 23/02/2023 16:28:13 | available |
| S3-231167 | 21/02/2023 14:18:48 | noted |
| S3-231168 | 21/02/2023 15:16:30 | approved |
| S3-231169 | 21/02/2023 15:17:30 | revised |
| S3-231170 | 23/02/2023 15:07:57 | noted |
| S3-231172 | 21/02/2023 12:06:45 | revised |
| S3-231173 | 24/02/2023 07:28:04 | available |
| S3-231174 | 20/02/2023 10:23:20 | noted |
| S3-231175 | 20/02/2023 16:07:20 | revised |
| S3-231176 | 20/02/2023 16:09:02 | revised |
| S3-231177 | 21/02/2023 10:28:44 | noted |
| S3-231177 | 23/02/2023 08:43:54 | revised |
| S3-231178 | 24/02/2023 06:56:05 | noted |
| S3-231179 | 23/02/2023 16:48:17 | revised |
| S3-231180 | 22/02/2023 16:37:43 | approved |
| S3-231181 | 22/02/2023 14:51:22 | revised |
| S3-231182 | 21/02/2023 14:08:59 | noted |
| S3-231183 | 21/02/2023 14:18:54 | noted |
| S3-231184 | 24/02/2023 09:24:58 | available |
| S3-231185 | 24/02/2023 09:24:56 | available |
| S3-231186 | 20/02/2023 14:10:11 | revised |
| S3-231187 | 23/02/2023 08:03:34 | revised |
| S3-231188 | 20/02/2023 14:32:25 | available |
| S3-231189 | 20/02/2023 10:23:22 | noted |
| S3-231190 | 24/02/2023 12:30:44 | noted |
| S3-231191 | 20/02/2023 08:34:39 | revised |
| S3-231192 | 20/02/2023 07:44:31 | revised |
| S3-231193 | 23/02/2023 16:56:15 | available |
| S3-231194 | 23/02/2023 16:56:17 | available |
| S3-231196 | 23/02/2023 16:56:31 | agreed |
| S3-231197 | 21/02/2023 06:17:42 | agreed |
| S3-231198 | 24/02/2023 09:41:01 | available |
| S3-231199 | 21/02/2023 17:04:53 | available |
| S3-231200 | 20/02/2023 16:26:35 | available |
| S3-231201 | 22/02/2023 14:50:31 | noted |
| S3-231202 | 21/02/2023 07:53:59 | approved |
| S3-231203 | 22/02/2023 07:19:17 | noted |
| S3-231204 | 23/02/2023 08:11:12 | revised |
| S3-231205 | 22/02/2023 16:31:40 | revised |
| S3-231206 | 23/02/2023 16:47:14 | available |
| S3-231207 | 23/02/2023 16:47:59 | available |
| S3-231208 | 24/02/2023 09:17:28 | revised |
| S3-231209 | 22/02/2023 10:30:29 | available |
| S3-231210 | 24/02/2023 09:24:52 | available |
| S3-231211 | 24/02/2023 09:17:40 | noted |
| S3-231212 | 22/02/2023 09:59:24 | revised |
| S3-231213 | 22/02/2023 09:08:08 | revised |
| S3-231214 | 24/02/2023 09:24:53 | available |
| S3-231215 | 22/02/2023 10:14:54 | approved |
| S3-231216 | 22/02/2023 10:13:31 | noted |
| S3-231217 | 22/02/2023 10:04:29 | noted |
| S3-231218 | 24/02/2023 09:18:39 | noted |
| S3-231219 | 24/02/2023 09:16:25 | revised |
| S3-231220 | 22/02/2023 09:14:48 | revised |
| S3-231221 | 24/02/2023 09:25:02 | available |
| S3-231222 | 22/02/2023 10:25:46 | noted |
| S3-231223 | 22/02/2023 09:43:28 | revised |
| S3-231224 | 22/02/2023 09:24:22 | noted |
| S3-231225 | 23/02/2023 08:16:01 | revised |
| S3-231226 | 24/02/2023 09:41:55 | noted |
| S3-231227 | 24/02/2023 09:41:56 | noted |
| S3-231228 | 24/02/2023 09:42:01 | available |
| S3-231229 | 24/02/2023 09:42:04 | available |
| S3-231230 | 23/02/2023 15:23:17 | available |
| S3-231231 | 23/02/2023 15:23:18 | available |
| S3-231232 | 23/02/2023 15:22:31 | available |
| S3-231233 | 23/02/2023 15:22:33 | available |
| S3-231234 | 23/02/2023 15:22:25 | available |
| S3-231235 | 22/02/2023 14:50:50 | noted |
| S3-231240 | 23/02/2023 14:57:34 | revised |
| S3-231241 | 20/02/2023 15:22:28 | available |
| S3-231242 | 20/02/2023 15:22:16 | available |
| S3-231243 | 20/02/2023 14:24:19 | available |
| S3-231244 | 23/02/2023 16:29:06 | available |
| S3-231245 | 22/02/2023 12:20:59 | noted |
| S3-231246 | 22/02/2023 12:20:34 | noted |
| S3-231247 | 23/02/2023 16:48:01 | available |
| S3-231248 | 22/02/2023 16:56:10 | noted |
| S3-231249 | 24/02/2023 07:10:32 | approved |
| S3-231249 | 24/02/2023 12:55:06 | revised |
| S3-231250 | 24/02/2023 07:10:35 | approved |
| S3-231250 | 24/02/2023 12:56:00 | revised |
| S3-231251 | 24/02/2023 07:08:20 | noted |
| S3-231252 | 22/02/2023 16:38:41 | approved |
| S3-231253 | 21/02/2023 13:04:29 | approved |
| S3-231254 | 24/02/2023 07:06:57 | noted |
| S3-231255 | 24/02/2023 07:07:00 | noted |
| S3-231256 | 22/02/2023 16:42:17 | revised |
| S3-231257 | 24/02/2023 06:50:02 | noted |
| S3-231258 | 21/02/2023 10:33:41 | revised |
| S3-231259 | 22/02/2023 09:56:46 | approved |
| S3-231260 | 22/02/2023 10:05:21 | approved |
| S3-231261 | 24/02/2023 09:15:53 | revised |
| S3-231262 | 23/02/2023 12:54:20 | revised |
| S3-231263 | 23/02/2023 12:55:03 | revised |
| S3-231264 | 21/02/2023 17:14:10 | available |
| S3-231265 | 22/02/2023 16:44:00 | approved |
| S3-231266 | 24/02/2023 07:05:16 | noted |
| S3-231267 | 23/02/2023 12:52:00 | revised |
| S3-231268 | 21/02/2023 17:18:06 | revised |
| S3-231269 | 21/02/2023 13:07:53 | revised |
| S3-231270 | 21/02/2023 17:21:27 | noted |
| S3-231271 | 24/02/2023 06:49:59 | noted |
| S3-231272 | 21/02/2023 10:31:11 | available |
| S3-231273 | 23/02/2023 12:24:56 | noted |
| S3-231274 | 21/02/2023 12:24:11 | revised |
| S3-231275 | 22/02/2023 10:30:20 | available |
| S3-231276 | 23/02/2023 15:32:50 | revised |
| S3-231277 | 23/02/2023 15:34:26 | revised |
| S3-231278 | 20/02/2023 09:59:15 | available |
| S3-231279 | 24/02/2023 10:27:32 | noted |
| S3-231280 | 20/02/2023 09:40:21 | noted |
| S3-231281 | 21/02/2023 17:06:21 | revised |
| S3-231281 | 21/02/2023 17:08:16 | noted |
| S3-231282 | 21/02/2023 17:04:48 | revised |
| S3-231283 | 21/02/2023 17:14:24 | available |
| S3-231284 | 20/02/2023 16:55:17 | revised |
| S3-231285 | 20/02/2023 14:24:31 | available |
| S3-231286 | 23/02/2023 16:29:18 | available |
| S3-231287 | 23/02/2023 16:29:23 | available |
| S3-231288 | 23/02/2023 16:29:44 | available |
| S3-231289 | 23/02/2023 16:30:05 | noted |
| S3-231290 | 24/02/2023 08:24:24 | noted |
| S3-231291 | 24/02/2023 08:25:12 | noted |
| S3-231292 | 22/02/2023 14:48:21 | revised |
| S3-231293 | 22/02/2023 14:48:35 | approved |
| S3-231294 | 24/02/2023 10:32:45 | noted |
| S3-231295 | 20/02/2023 15:24:14 | noted |
| S3-231296 | 21/02/2023 14:18:57 | noted |
| S3-231297 | 23/02/2023 16:30:12 | noted |
| S3-231298 | 21/02/2023 14:18:51 | noted |
| S3-231299 | 21/02/2023 17:15:11 | available |
| S3-231300 | 21/02/2023 14:54:54 | revised |
| S3-231301 | 21/02/2023 15:08:19 | revised |
| S3-231302 | 24/02/2023 08:04:28 | noted |
| S3-231303 | 20/02/2023 09:19:45 | noted |
| S3-231304 | 23/02/2023 08:21:02 | revised |
| S3-231305 | 23/02/2023 16:30:22 | available |
| S3-231306 | 23/02/2023 16:30:25 | available |
| S3-231307 | 22/02/2023 14:59:35 | noted |
| S3-231308 | 22/02/2023 14:59:39 | approved |
| S3-231309 | 23/02/2023 15:22:27 | available |
| S3-231310 | 23/02/2023 15:23:21 | available |
| S3-231311 | 23/02/2023 15:23:23 | available |
| S3-231312 | 22/02/2023 14:58:53 | available |
| S3-231313 | 22/02/2023 16:59:44 | approved |
| S3-231314 | 22/02/2023 17:00:04 | approved |
| S3-231315 | 23/02/2023 07:05:52 | revised |
| S3-231316 | 23/02/2023 07:06:05 | revised |
| S3-231317 | 20/02/2023 15:55:32 | revised |
| S3-231318 | 20/02/2023 14:43:57 | available |
| S3-231319 | 20/02/2023 13:07:28 | available |
| S3-231320 | 20/02/2023 16:43:23 | revised |
| S3-231321 | 20/02/2023 13:10:56 | available |
| S3-231322 | 20/02/2023 14:25:46 | noted |
| S3-231323 | 21/02/2023 06:40:30 | noted |
| S3-231324 | 21/02/2023 06:54:09 | noted |
| S3-231325 | 20/02/2023 13:12:22 | revised |
| S3-231326 | 20/02/2023 14:46:18 | available |
| S3-231327 | 22/02/2023 14:59:59 | noted |
| S3-231328 | 22/02/2023 08:14:45 | approved |
| S3-231329 | 24/02/2023 08:22:38 | available |
| S3-231330 | 24/02/2023 08:22:39 | available |
| S3-231330 | 24/02/2023 08:22:57 | noted |
| S3-231331 | 23/02/2023 08:40:47 | available |
| S3-231332 | 23/02/2023 09:19:41 | noted |
| S3-231333 | 22/02/2023 14:53:50 | revised |
| S3-231334 | 24/02/2023 08:22:43 | available |
| S3-231334 | 24/02/2023 08:22:59 | noted |
| S3-231335 | 24/02/2023 09:12:00 | noted |
| S3-231336 | 21/02/2023 14:18:44 | noted |
| S3-231337 | 23/02/2023 14:55:32 | noted |
| S3-231338 | 23/02/2023 17:15:59 | revised |
| S3-231339 | 21/02/2023 14:18:45 | noted |
| S3-231340 | 23/02/2023 17:16:03 | revised |
| S3-231341 | 24/02/2023 09:24:46 | available |
| S3-231342 | 21/02/2023 14:18:46 | noted |
| S3-231343 | 24/02/2023 09:35:04 | noted |
| S3-231344 | 24/02/2023 09:35:07 | noted |
| S3-231345 | 22/02/2023 14:51:45 | approved |
| S3-231346 | 24/02/2023 09:35:17 | available |
| S3-231347 | 22/02/2023 12:50:55 | revised |
| S3-231348 | 22/02/2023 14:49:29 | revised |
| S3-231349 | 22/02/2023 13:18:34 | noted |
| S3-231350 | 22/02/2023 14:48:10 | noted |
| S3-231351 | 24/02/2023 08:22:37 | available |
| S3-231352 | 20/02/2023 14:48:15 | available |
| S3-231353 | 20/02/2023 17:05:50 | revised |
| S3-231353 | 20/02/2023 17:08:59 | agreed |
| S3-231354 | 22/02/2023 14:50:34 | noted |
| S3-231355 | 21/02/2023 17:14:31 | available |
| S3-231356 | 23/02/2023 13:28:40 | revised |
| S3-231357 | 23/02/2023 14:56:51 | noted |
| S3-231358 | 21/02/2023 17:23:53 | revised |
| S3-231359 | 23/02/2023 15:23:15 | available |
| S3-231360 | 23/02/2023 15:22:21 | available |
| S3-231361 | 22/02/2023 08:14:05 | noted |
| S3-231362 | 23/02/2023 08:25:26 | revised |
| S3-231363 | 22/02/2023 06:54:46 | noted |
| S3-231364 | 24/02/2023 07:27:57 | available |
| S3-231365 | 22/02/2023 12:12:59 | revised |
| S3-231366 | 22/02/2023 08:14:02 | noted |
| S3-231367 | 24/02/2023 12:42:59 | noted |
| S3-231368 | 22/02/2023 17:01:08 | revised |
| S3-231369 | 21/02/2023 12:38:14 | noted |
| S3-231370 | 23/02/2023 08:29:57 | noted |
| S3-231371 | 21/02/2023 17:09:47 | available |
| S3-231372 | 21/02/2023 17:11:43 | noted |
| S3-231373 | 21/02/2023 17:05:40 | available |
| S3-231374 | 21/02/2023 17:06:28 | available |
| S3-231374 | 21/02/2023 17:08:23 | noted |
| S3-231375 | 23/02/2023 15:22:38 | available |
| S3-231377 | 22/02/2023 14:21:23 | revised |
| S3-231378 | 23/02/2023 16:30:36 | available |
| S3-231381 | 23/02/2023 15:22:42 | available |
| S3-231381 | 24/02/2023 08:10:27 | approved |
| S3-231382 | 20/02/2023 15:04:01 | available |
| S3-231383 | 20/02/2023 15:04:05 | available |
| S3-231384 | 23/02/2023 15:22:46 | available |
| S3-231385 | 23/02/2023 09:19:50 | noted |
| S3-231386 | 24/02/2023 13:04:00 | reserved |
| S3-231387 | 23/02/2023 09:32:32 | approved |
| S3-231388 | 24/02/2023 10:20:50 | approved |
| S3-231389 | 23/02/2023 09:37:42 | approved |
| S3-231390 | 23/02/2023 09:38:29 | approved |
| S3-231391 | 23/02/2023 09:39:53 | approved |
| S3-231392 | 24/02/2023 10:30:36 | noted |
| S3-231393 | 23/02/2023 09:42:38 | approved |
| S3-231394 | 23/02/2023 16:13:03 | approved |
| S3-231395 | 23/02/2023 17:07:53 | agreed |
| S3-231396 | 22/02/2023 14:33:02 | noted |
| S3-231397 | 23/02/2023 09:43:31 | approved |
| S3-231398 | 23/02/2023 09:57:22 | approved |
| S3-231399 | 23/02/2023 09:58:13 | approved |
| S3-231400 | 23/02/2023 09:58:56 | approved |
| S3-231401 | 23/02/2023 10:00:35 | noted |
| S3-231402 | 23/02/2023 10:02:13 | approved |
| S3-231403 | 23/02/2023 10:03:26 | noted |
| S3-231404 | 20/02/2023 12:27:19 | noted |
| S3-231405 | 20/02/2023 13:12:56 | agreed |
| S3-231406 | 23/02/2023 16:07:02 | reserved |
| S3-231407 | 23/02/2023 16:09:52 | reserved |
| S3-231408 | 23/02/2023 10:07:55 | agreed |
| S3-231409 | 23/02/2023 10:09:08 | agreed |
| S3-231410 | 23/02/2023 10:08:08 | approved |
| S3-231411 | 23/02/2023 10:11:11 | approved |
| S3-231412 | 20/02/2023 15:19:21 | agreed |
| S3-231413 | 23/02/2023 16:14:29 | agreed |
| S3-231414 | 23/02/2023 16:15:19 | agreed |
| S3-231415 | 23/02/2023 16:04:38 | agreed |
| S3-231416 | 23/02/2023 16:04:39 | agreed |
| S3-231417 | 23/02/2023 16:11:04 | agreed |
| S3-231418 | 23/02/2023 16:11:06 | agreed |
| S3-231419 | 23/02/2023 16:44:24 | noted |
| S3-231420 | 23/02/2023 16:41:05 | agreed |
| S3-231421 | 23/02/2023 16:13:43 | agreed |
| S3-231422 | 20/02/2023 16:58:01 | agreed |
| S3-231423 | 23/02/2023 16:00:43 | agreed |
| S3-231424 | 23/02/2023 16:49:14 | agreed |
| S3-231425 | 21/02/2023 06:30:22 | agreed |
| S3-231426 | 23/02/2023 16:11:46 | agreed |
| S3-231427 | 24/02/2023 13:15:34 | reserved |
| S3-231428 | 21/02/2023 08:27:16 | approved |
| S3-231429 | 24/02/2023 07:27:24 | approved |
| S3-231430 | 23/02/2023 16:50:44 | agreed |
| S3-231431 | 23/02/2023 16:50:55 | agreed |
| S3-231432 | 24/02/2023 12:04:32 | noted |
| S3-231433 | 21/02/2023 09:25:26 | approved |
| S3-231434 | 24/02/2023 12:05:06 | noted |
| S3-231435 | 24/02/2023 12:52:14 | agreed |
| S3-231436 | 23/02/2023 16:38:01 | agreed |
| S3-231437 | 23/02/2023 13:14:48 | withdrawn |
| S3-231438 | 24/02/2023 06:53:14 | approved |
| S3-231439 | 24/02/2023 13:15:33 | reserved |
| S3-231440 | 24/02/2023 06:54:12 | noted |
| S3-231441 | 24/02/2023 07:26:36 | approved |
| S3-231442 | 24/02/2023 06:55:26 | withdrawn |
| S3-231443 | 21/02/2023 12:25:08 | approved |
| S3-231444 | 21/02/2023 12:44:19 | approved |
| S3-231445 | 21/02/2023 12:48:12 | approved |
| S3-231446 | 21/02/2023 13:09:55 | approved |
| S3-231447 | 24/02/2023 07:57:36 | approved |
| S3-231448 | 23/02/2023 16:00:47 | agreed |
| S3-231449 | 23/02/2023 16:00:52 | agreed |
| S3-231450 | 24/02/2023 07:58:58 | noted |
| S3-231450 | 24/02/2023 09:51:48 | approved |
| S3-231451 | 24/02/2023 09:52:34 | approved |
| S3-231452 | 24/02/2023 10:05:22 | noted |
| S3-231453 | 24/02/2023 13:15:43 | reserved |
| S3-231454 | 21/02/2023 15:17:45 | approved |
| S3-231455 | 24/02/2023 08:06:08 | approved |
| S3-231456 | 24/02/2023 08:06:28 | approved |
| S3-231457 | 24/02/2023 06:12:08 | approved |
| S3-231458 | 24/02/2023 06:12:53 | approved |
| S3-231459 | 24/02/2023 06:13:23 | approved |
| S3-231460 | 24/02/2023 13:15:21 | reserved |
| S3-231461 | 24/02/2023 06:14:02 | approved |
| S3-231462 | 24/02/2023 06:15:26 | approved |
| S3-231463 | 24/02/2023 06:15:41 | approved |
| S3-231464 | 24/02/2023 06:15:43 | approved |
| S3-231465 | 24/02/2023 06:16:39 | approved |
| S3-231466 | 24/02/2023 06:18:55 | approved |
| S3-231467 | 24/02/2023 13:15:27 | reserved |
| S3-231468 | 24/02/2023 06:25:41 | approved |
| S3-231469 | 24/02/2023 06:22:15 | approved |
| S3-231470 | 24/02/2023 06:31:16 | approved |
| S3-231471 | 24/02/2023 06:31:35 | approved |
| S3-231472 | 24/02/2023 06:32:17 | approved |
| S3-231473 | 24/02/2023 06:27:18 | approved |
| S3-231473 | 24/02/2023 06:28:12 | revised |
| S3-231474 | 24/02/2023 12:44:35 | approved |
| S3-231475 | 24/02/2023 12:05:50 | noted |
| S3-231476 | 24/02/2023 12:06:17 | approved |
| S3-231477 | 24/02/2023 12:08:15 | approved |
| S3-231478 | 24/02/2023 12:08:16 | approved |
| S3-231479 | 24/02/2023 07:32:25 | approved |
| S3-231480 | 24/02/2023 07:32:50 | approved |
| S3-231481 | 24/02/2023 07:33:41 | approved |
| S3-231482 | 21/02/2023 17:18:48 | approved |
| S3-231483 | 21/02/2023 17:19:20 | approved |
| S3-231484 | 21/02/2023 17:19:38 | approved |
| S3-231485 | 24/02/2023 07:34:10 | approved |
| S3-231486 | 21/02/2023 17:20:24 | approved |
| S3-231487 | 24/02/2023 07:34:38 | approved |
| S3-231488 | 24/02/2023 07:35:45 | approved |
| S3-231489 | 24/02/2023 07:39:50 | approved |
| S3-231490 | 24/02/2023 12:58:00 | approved |
| S3-231491 | 21/02/2023 17:26:32 | approved |
| S3-231492 | 24/02/2023 07:47:45 | approved |
| S3-231493 | 21/02/2023 17:27:57 | approved |
| S3-231494 | 24/02/2023 07:49:50 | approved |
| S3-231495 | 24/02/2023 07:50:27 | noted |
| S3-231496 | 24/02/2023 07:52:25 | approved |
| S3-231497 | 24/02/2023 07:55:15 | approved |
| S3-231498 | 24/02/2023 13:15:31 | reserved |
| S3-231499 | 24/02/2023 13:15:36 | reserved |
| S3-231500 | 24/02/2023 13:15:41 | reserved |
| S3-231501 | 24/02/2023 09:07:34 | approved |
| S3-231502 | 22/02/2023 06:35:24 | approved |
| S3-231503 | 24/02/2023 13:15:53 | reserved |
| S3-231504 | 24/02/2023 09:09:29 | approved |
| S3-231505 | 24/02/2023 13:15:37 | reserved |
| S3-231506 | 24/02/2023 08:12:14 | noted |
| S3-231507 | 24/02/2023 08:12:47 | approved |
| S3-231508 | 24/02/2023 08:14:13 | noted |
| S3-231508 | 24/02/2023 10:14:49 | approved |
| S3-231509 | 24/02/2023 10:14:51 | approved |
| S3-231510 | 24/02/2023 08:20:50 | noted |
| S3-231511 | 24/02/2023 13:15:49 | reserved |
| S3-231512 | 24/02/2023 08:21:16 | approved |
| S3-231513 | 24/02/2023 08:21:36 | approved |
| S3-231514 | 24/02/2023 08:21:51 | approved |
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| S3-231516 | 24/02/2023 09:14:45 | approved |
| S3-231517 | 24/02/2023 09:15:03 | approved |
| S3-231518 | 24/02/2023 09:16:58 | approved |
| S3-231519 | 24/02/2023 13:16:00 | reserved |
| S3-231520 | 24/02/2023 09:18:10 | approved |
| S3-231521 | 24/02/2023 09:18:29 | approved |
| S3-231522 | 24/02/2023 10:16:44 | approved |
| S3-231523 | 24/02/2023 09:32:04 | approved |
| S3-231524 | 22/02/2023 12:43:46 | noted |
| S3-231524 | 24/02/2023 10:40:41 | postponed |
| S3-231525 | 24/02/2023 09:33:06 | approved |
| S3-231526 | 22/02/2023 14:43:28 | noted |
| S3-231527 | 22/02/2023 12:51:05 | approved |
| S3-231528 | 24/02/2023 13:16:11 | reserved |
| S3-231529 | 24/02/2023 07:58:21 | approved |
| S3-231530 | 22/02/2023 13:16:19 | approved |
| S3-231531 | 24/02/2023 13:16:12 | reserved |
| S3-231532 | 23/02/2023 10:05:53 | approved |
| S3-231533 | 24/02/2023 09:08:47 | approved |
| S3-231534 | 24/02/2023 09:09:03 | approved |
| S3-231535 | 24/02/2023 09:09:12 | approved |
| S3-231536 | 24/02/2023 08:26:01 | approved |
| S3-231537 | 24/02/2023 08:28:05 | approved |
| S3-231538 | 22/02/2023 14:49:37 | approved |
| S3-231539 | 24/02/2023 08:07:56 | approved |
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| S3-231541 | 24/02/2023 08:08:52 | approved |
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| S3-231547 | 23/02/2023 16:08:02 | agreed |
| S3-231548 | 24/02/2023 07:45:13 | approved |
| S3-231549 | 24/02/2023 07:45:58 | approved |
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| S3-231556 | 24/02/2023 13:15:58 | reserved |
| S3-231557 | 24/02/2023 13:15:44 | reserved |
| S3-231558 | 24/02/2023 13:15:51 | reserved |
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| S3-231561 | 24/02/2023 12:10:47 | agreed |
| S3-231562 | 24/02/2023 12:11:34 | agreed |
| S3-231563 | 24/02/2023 12:21:00 | agreed |
| S3-231564 | 24/02/2023 12:22:52 | agreed |
| S3-231565 | 24/02/2023 12:23:18 | agreed |
| S3-231566 | 24/02/2023 07:04:19 | approved |
| S3-231567 | 24/02/2023 06:57:58 | noted |
| S3-231568 | 24/02/2023 06:52:23 | noted |
| S3-231569 | 24/02/2023 06:56:26 | noted |
| S3-231570 | 24/02/2023 12:24:44 | agreed |
| S3-231571 | 24/02/2023 12:25:36 | agreed |
| S3-231572 | 24/02/2023 12:26:43 | agreed |
| S3-231573 | 24/02/2023 12:27:42 | agreed |
| S3-231574 | 24/02/2023 12:30:10 | agreed |
| S3-231575 | 24/02/2023 12:32:21 | agreed |
| S3-231576 | 24/02/2023 12:35:24 | agreed |
| S3-231577 | 24/02/2023 12:40:04 | agreed |
| S3-231578 | 24/02/2023 12:42:49 | agreed |
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| S3-231583 | 24/02/2023 07:30:04 | approved |
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| S3-231586 | 24/02/2023 07:36:09 | approved |
| S3-231587 | 24/02/2023 07:58:02 | approved |
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| S3-231589 | 24/02/2023 07:37:00 | approved |
| S3-231590 | 24/02/2023 07:38:09 | approved |
| S3-231591 | 24/02/2023 07:40:27 | approved |
| S3-231592 | 24/02/2023 09:46:17 | approved |
| S3-231593 | 24/02/2023 09:47:47 | approved |
| S3-231594 | 24/02/2023 09:48:22 | approved |
| S3-231595 | 24/02/2023 09:49:05 | approved |
| S3-231596 | 24/02/2023 08:07:41 | approved |
| S3-231597 | 23/02/2023 14:52:40 | approved |
| S3-231598 | 24/02/2023 07:59:50 | noted |
| S3-231599 | 24/02/2023 06:17:49 | approved |
| S3-231600 | 24/02/2023 10:17:09 | approved |
| S3-231601 | 24/02/2023 09:24:06 | noted |
| S3-231602 | 24/02/2023 09:24:08 | noted |
| S3-231603 | 24/02/2023 12:03:48 | approved |
| S3-231604 | 24/02/2023 12:53:06 | agreed |
| S3-231605 | 24/02/2023 12:53:07 | agreed |
| S3-231606 | 23/02/2023 16:28:07 | agreed |
| S3-231607 | 23/02/2023 16:28:08 | agreed |
| S3-231608 | 24/02/2023 13:15:46 | reserved |
| S3-231609 | 24/02/2023 06:20:03 | noted |
| S3-231610 | 24/02/2023 06:20:57 | approved |
| S3-231611 | 24/02/2023 07:03:53 | approved |
| S3-231612 | 24/02/2023 09:34:33 | noted |
| S3-231613 | 24/02/2023 09:34:35 | noted |
| S3-231614 | 24/02/2023 06:27:59 | noted |
| S3-231615 | 24/02/2023 12:49:48 | reserved |
| S3-231616 | 24/02/2023 07:00:27 | approved |
| S3-231617 | 24/02/2023 13:02:02 | approved |
| S3-231618 | 24/02/2023 13:15:57 | reserved |
| S3-231619 | 24/02/2023 13:15:48 | reserved |
| S3-231620 | 24/02/2023 12:53:53 | reserved |
| S3-231621 | 24/02/2023 12:58:59 | approved |
| S3-231622 | 24/02/2023 12:59:25 | approved |
| S3-231623 | 24/02/2023 09:15:55 | approved |
| S3-231624 | 24/02/2023 09:16:26 | approved |
| S3-231625 | 24/02/2023 09:17:29 | approved |
| S3-231626 | 24/02/2023 09:19:15 | approved |
| S3-231627 | 24/02/2023 13:16:09 | reserved |
| S3-231628 | 24/02/2023 09:37:49 | approved |
| S3-231629 | 24/02/2023 13:16:16 | reserved |
| S3-231630 | 24/02/2023 12:55:08 | approved |
| S3-231631 | 24/02/2023 12:56:01 | approved |

## Annex B: List of change requests

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Document | Title | Source | Spec | CR | Rev | Rel | Cat | WI | Decision |
| S3-230656 | Clarification of hashing | BSI (DE) | 33.117 | 0097 | - | Rel-17 | F | SCAS | revised |
| S3-230682 | Clarification of hashing | Federal Office for Information Security (BSI), Deutsche Telekom | 33.117 | 0097 | 1 | Rel-17 | F | eSCAS\_5G | revised |
| S3-231193 | Clarification of hashing | Federal Office for Information Security (BSI), Deutsche Telekom | 33.117 | 0097 | 2 | Rel-17 | F | eSCAS\_5G | not pursued |
| S3-230657 | Clarification of authorization verification | BSI (DE) | 33.117 | 0098 | - | Rel-17 | F | SCAS | revised |
| S3-230683 | Clarification of authorization verification | Federal Office for Information Security (BSI), Deutsche Telekom | 33.117 | 0098 | 1 | Rel-17 | F | eSCAS\_5G | agreed |
| S3-230658 | Clarification of brute force mitigation mechanism verification | BSI (DE) | 33.117 | 0099 | - | Rel-17 | F | SCAS | revised |
| S3-230684 | Clarification of brute force mitigation mechanism verification | Federal Office for Information Security (BSI), Deutsche Telekom | 33.117 | 0099 | 1 | Rel-17 | F | eSCAS\_5G | agreed |
| S3-230659 | Clarification of privilege escalation methods to check for | BSI (DE) | 33.117 | 0100 | - | Rel-17 | F | SCAS | revised |
| S3-230685 | Clarification of privilege escalation methods to check for | Federal Office for Information Security (BSI), Deutsche Telekom | 33.117 | 0100 | 1 | Rel-17 | F | eSCAS\_5G | revised |
| S3-231194 | Clarification of privilege escalation methods to check for | Federal Office for Information Security (BSI), Deutsche Telekom | 33.117 | 0100 | 2 | Rel-17 | F | eSCAS\_5G | not pursued |
| S3-230660 | Clarification of service reachability restriction verification | BSI (DE) | 33.117 | 0101 | - | Rel-17 | F | SCAS | revised |
| S3-230686 | Clarification of service reachability restriction verification | Federal Office for Information Security (BSI), Deutsche Telekom | 33.117 | 0101 | 1 | Rel-17 | F | eSCAS\_5G | agreed |
| S3-230661 | Clarification of auto-launch verification | BSI (DE) | 33.117 | 0102 | - | Rel-17 | F | SCAS | revised |
| S3-230687 | Clarification of auto-launch verification | Federal Office for Information Security (BSI), Deutsche Telekom | 33.117 | 0102 | 1 | Rel-17 | F | eSCAS\_5G | agreed |
| S3-230662 | Clarification of SYN Flood attack prevention test | BSI (DE) | 33.117 | 0103 | - | Rel-17 | F | SCAS | revised |
| S3-230688 | Clarification of SYN Flood attack prevention test | Federal Office for Information Security (BSI), Deutsche Telekom | 33.117 | 0103 | 1 | Rel-17 | F | eSCAS\_5G | agreed |
| S3-230663 | Clarification of privilege verification | BSI (DE) | 33.117 | 0104 | - | Rel-17 | F | SCAS | revised |
| S3-230689 | Clarification of privilege verification | Federal Office for Information Security (BSI), Deutsche Telekom | 33.117 | 0104 | 1 | Rel-17 | F | eSCAS\_5G | not pursued |
| S3-230664 | Clarification of CGI/Scripting component directory check | BSI (DE) | 33.117 | 0105 | - | Rel-17 | F | SCAS | revised |
| S3-230690 | Clarification of CGI/Scripting component directory check | Federal Office for Information Security (BSI), Deutsche Telekom | 33.117 | 0105 | 1 | Rel-17 | F | eSCAS\_5G | agreed |
| S3-230665 | Clarification of SSI System Command Excecution test | BSI (DE) | 33.117 | 0106 | - | Rel-17 | F | SCAS | revised |
| S3-230691 | Clarification of SSI System Command Execution test | Federal Office for Information Security (BSI), Deutsche Telekom | 33.117 | 0106 | 1 | Rel-17 | F | eSCAS\_5G | revised |
| S3-231196 | Clarification of SSI System Command Execution test | Federal Office for Information Security (BSI), Deutsche Telekom | 33.117 | 0106 | 2 | Rel-17 | F | eSCAS\_5G | agreed |
| S3-230875 | Clarification on unused HTTP methods - Rel16 | Huawei, HiSilicon | 33.117 | 0107 | - | Rel-16 | F | SCAS\_5G | agreed |
| S3-230876 | Clarification on unused HTTP methods - Rel17 | Huawei, HiSilicon | 33.117 | 0108 | - | Rel-17 | A | SCAS\_5G | agreed |
| S3-230745 | [33.180] R16 Clarify protected KmsResponse payloads | Motorola Solutions, Inc | 33.180 | 0205 | - | Rel-16 | F | MCXSec | revised |
| S3-231415 | [33.180] R16 Clarify protected KmsResponse payloads | Motorola Solutions, Inc | 33.180 | 0205 | 1 | Rel-16 | F | MCXSec | agreed |
| S3-230746 | [33.180] R16 Clarify protected KmsResponse payloads (mirror) | Motorola Solutions, Inc | 33.180 | 0206 | - | Rel-17 | A | MCXSec | revised |
| S3-231416 | [33.180] R16 Clarify protected KmsResponse payloads (mirror) | Motorola Solutions, Inc | 33.180 | 0206 | 1 | Rel-17 | A | MCXSec | agreed |
| S3-230747 | [33.180] R16 Fix XML schema | Motorola Solutions, Inc | 33.180 | 0207 | - | Rel-16 | F | MCXSec | agreed |
| S3-230748 | [33.180] R17 Fix XML schema (mirror) | Motorola Solutions, Inc | 33.180 | 0208 | - | Rel-17 | A | MCXSec | agreed |
| S3-231171 | CR on 33203-AES-GCM/GMAC in IMS SIP security | Apple | 33.203 | 0267 | - | Rel-18 | C | eCryptPr | withdrawn |
| S3-231376 | Security vulnerability fix for use of AES-GCM and AES-GMAC in 33.203 | Apple Computer Trading Co. Ltd | 33.203 | 0268 | - | Rel-18 | F | eCryptPr | revised |
| S3-231378 | Security vulnerability fix for use of AES-GCM and AES-GMAC in 33.203 | Apple | 33.203 | 0268 | 1 | Rel-17 | F | eCryptPr | not pursued |
| S3-231236 | Enable IETF DTLS in Ua protocol | Xiaomi communications | 33.222 | 0058 | - | Rel-18 | B | AKMA\_GBA\_DTLS | withdrawn |
| S3-231238 | Enable OSCORE in Ua protocol | Xiaomi communications | 33.222 | 0059 | - | Rel-18 | B | AKMA\_GBA\_OSCORE | withdrawn |
| S3-230806 | Resolving the EN on CAA level ID during UUAA procedures | Qualcomm Incorporated | 33.256 | 0009 | 4 | Rel-17 | F | ID\_UAS | not pursued |
| S3-230807 | Removing the ENs on passing the CAA-level ID to UE during revocation | Qualcomm Incorporated | 33.256 | 0020 | - | Rel-17 | F | ID\_UAS | not pursued |
| S3-230858 | Address ENs in revocation procedures | Huawei, HiSilicon | 33.256 | 0021 | - | Rel-17 | F | ID\_UAS | not pursued |
| S3-230672 | Referencing GSMA for interdomain N32 certificates | BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell | 33.310 | 0145 | - | Rel-16 | F | TEI16 | revised |
| S3-231436 | Referencing GSMA for interdomain N32 certificates | BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell | 33.310 | 0145 | 1 | Rel-16 | F | TEI16 | agreed |
| S3-230673 | Referencing GSMA for interdomain N32 certificates | BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell | 33.310 | 0146 | - | Rel-17 | F | TEI17 | revised |
| S3-231435 | Referencing GSMA for interdomain N32 certificates | BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell | 33.310 | 0146 | 1 | Rel-17 | F | TEI17 | agreed |
| S3-231141 | Remove keyEncipherment KeyUsage from SBA certificates | Ericsson | 33.310 | 0147 | - | Rel-16 | F | 5G\_eSBA | agreed |
| S3-231142 | Remove keyEncipherment KeyUsage from SBA certificates | Ericsson | 33.310 | 0148 | - | Rel-17 | A | 5G\_eSBA | agreed |
| S3-231143 | X.509 Certificate Extension for 5G Network Function Types | Ericsson | 33.310 | 0149 | - | Rel-16 | F | 5G\_eSBA | agreed |
| S3-231144 | X.509 Certificate Extension for 5G Network Function Types | Ericsson | 33.310 | 0150 | - | Rel-17 | A | 5G\_eSBA | agreed |
| S3-231551 | SBA TLS certificate update | Nokia, Nokia Shanghai Bell | 33.310 | 0151 | - | Rel-18 | F | 5G\_eSBA\_Ph2 | agreed |
| S3-231145 | Aligning DNS and ICMP security for non-3GPP access with 3GPP access | Ericsson | 33.402 | 0148 | - | Rel-18 | F | TEI18 | revised |
| S3-231412 | Aligning DNS and ICMP security for non-3GPP access with 3GPP access | Ericsson | 33.402 | 0148 | 1 | Rel-18 | F | TEI18 | agreed |
| S3-230804 | Clarification to the UPU procedures | Qualcomm Incorporated | 33.501 | 1488 | 1 | Rel-17 | F | TEI17, 5GS\_Ph1-SEC | not pursued |
| S3-230651 | Support for multiple lists of root CA certificates | BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell | 33.501 | 1526 | - | Rel-16 | F | TEI16 | revised |
| S3-231423 | Support for multiple lists of root CA certificates | BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell | 33.501 | 1526 | 1 | Rel-16 | F | TEI16 | agreed |
| S3-230652 | Support for multiple lists of root CA certificates | BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell | 33.501 | 1527 | - | Rel-17 | A | TEI16 | revised |
| S3-231448 | Support for multiple lists of root CA certificates | BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell | 33.501 | 1527 | 1 | Rel-17 | A | TEI16 | agreed |
| S3-230653 | Support for multiple lists of root CA certificates | BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell | 33.501 | 1528 | - | Rel-18 | A | TEI16 | revised |
| S3-231449 | Support for multiple lists of root CA certificates | BSI (DE), Deutsche Telekom, Nokia, Nokia Shanghai Bell | 33.501 | 1528 | 1 | Rel-18 | A | TEI16 | agreed |
| S3-230702 | HNTRA procedure for SoR case | Nokia, Nokia Shanghai Bell | 33.501 | 1529 | - | Rel-18 | B | HN\_Auth | not pursued |
| S3-230703 | HNTRA procedure for UPU wrap around case | Nokia, Nokia Shanghai Bell | 33.501 | 1530 | - | Rel-18 | B | HN\_Auth | not pursued |
| S3-230705 | Clarification on authorization for inter NF mobility | Nokia, Nokia Shanghai Bell | 33.501 | 1531 | - | Rel-17 | F | TEI17 | revised |
| S3-231320 | Clarification on authorization for inter NF mobility | Nokia, Nokia Shanghai Bell | 33.501 | 1531 | 1 | Rel-17 | F | TEI17 | revised |
| S3-231420 | Clarification on authorization for inter NF mobility | Nokia, Nokia Shanghai Bell | 33.501 | 1531 | 2 | Rel-18 | F | TEI18 | agreed |
| S3-230706 | Clarification on authorization for inter NF mobility | Nokia, Nokia Shanghai Bell | 33.501 | 1532 | - | Rel-18 | A | TEI17 | not pursued |
| S3-230708 | Enhancement in UPU procedure to protect UPU header-sol1 | Nokia, Nokia Shanghai Bell | 33.501 | 1533 | - | Rel-17 | F | TEI17 | not pursued |
| S3-230709 | Enhancement in UPU procedure to protect UPU header-sol1 | Nokia, Nokia Shanghai Bell | 33.501 | 1534 | - | Rel-18 | A | TEI17 | not pursued |
| S3-230710 | Enhancement in UPU procedure to protect UPU header-Sol2 | Nokia, Nokia Shanghai Bell | 33.501 | 1535 | - | Rel-17 | F | TEI17 | not pursued |
| S3-230711 | Enhancement in UPU procedure to protect UPU header-Sol2 | Nokia, Nokia Shanghai Bell | 33.501 | 1536 | - | Rel-18 | A | TEI17 | not pursued |
| S3-230712 | Correction in N5CW device authentication | Nokia, Nokia Shanghai Bell, | 33.501 | 1537 | - | Rel-16 | F | TEI16 | not pursued |
| S3-230713 | Correction in N5CW device authentication | Nokia, Nokia Shanghai Bell, | 33.501 | 1538 | - | Rel-17 | A | TEI16 | not pursued |
| S3-230714 | Correction in N5CW device authentication | Nokia, Nokia Shanghai Bell | 33.501 | 1539 | - | Rel-18 | A | TEI16 | not pursued |
| S3-230725 | OAuth for subscribe notify | Nokia, Nokia Shanghai Bell, Mavenir | 33.501 | 1540 | - | Rel-17 | F | 5G\_eSBA\_Ph2 | not pursued |
| S3-230726 | OAuth for subscribe notify | Nokia, Nokia Shanghai Bell, Mavenir | 33.501 | 1541 | - | Rel-18 | A | 5G\_eSBA\_Ph2 | revised |
| S3-231395 | OAuth for subscribe notify | Nokia, Nokia Shanghai Bell, Mavenir | 33.501 | 1541 | 1 | Rel-18 | F | 5G\_eSBA\_Ph2 | agreed |
| S3-230727 | NF service consumer registration by OAM | Nokia, Nokia Shanghai Bell, Mavenir | 33.501 | 1542 | - | Rel-17 | F | 5G\_eSBA\_Ph2 | not pursued |
| S3-230728 | NF service consumer registration by OAM | Nokia, Nokia Shanghai Bell, Mavenir | 33.501 | 1543 | - | Rel-18 | F | 5G\_eSBA\_Ph2 | agreed |
| S3-230764 | SCP trust assumptions | Nokia, Nokia Shanghai Bell | 33.501 | 1544 | - | Rel-18 | F | 5G\_eSBA\_Ph2 | agreed |
| S3-230766 | SBA TLS certificate update | Nokia, Nokia Shanghai Bell | 33.501 | 1545 | - | Rel-17 | F | 5G\_eSBA\_Ph2 | not pursued |
| S3-230767 | SBA TLS certificate update | Nokia, Nokia Shanghai Bell | 33.501 | 1546 | - | Rel-18 | F | 5G\_eSBA\_Ph2 | not pursued |
| S3-230768 | Including SNPN ID in SBA and N32 related descriptions | Nokia, Nokia Shanghai Bell | 33.501 | 1547 | - | Rel-17 | F | 5G\_eSBA\_Ph2 | revised |
| S3-231604 | Including SNPN ID in SBA and N32 related descriptions | Nokia, Nokia Shanghai Bell | 33.501 | 1547 | 1 | Rel-17 | F | 5G\_eSBA\_Ph2 | agreed |
| S3-230769 | Including SNPN ID in SBA and N32 related descriptions | Nokia, Nokia Shanghai Bell | 33.501 | 1548 | - | Rel-18 | A | 5G\_eSBA\_Ph2 | revised |
| S3-231605 | Including SNPN ID in SBA and N32 related descriptions | Nokia, Nokia Shanghai Bell | 33.501 | 1548 | 1 | Rel-18 | A | 5G\_eSBA\_Ph2 | agreed |
| S3-230771 | PRINS protocol to provide IPX the tool to fulfil its role | Mavenir | 33.501 | 1549 | - | Rel-16 | F | 5G\_eSBA | not pursued |
| S3-230772 | PRINS protocol to provide IPX the tool to fulfil its role | Mavenir | 33.501 | 1550 | - | Rel-17 | A | 5G\_eSBA | not pursued |
| S3-230782 | CR on IPX originated messages in PRINS | NTT DOCOMO INC., Nokia, Nokia Shanghai Bell | 33.501 | 1551 | - | Rel-16 | A | TEI16, 5G\_eSBA | revised |
| S3-231200 | CR on IPX originated messages in PRINS | NTT DOCOMO INC., Nokia, Nokia Shanghai Bell | 33.501 | 1551 | 1 | Rel-16 | A | TEI16, 5G\_eSBA | not pursued |
| S3-231195 | CR on IPX originated messages in PRINS | NTT DOCOMO INC., Nokia, Nokia Shanghai Bell | 33.501 | 1551 | 1 | Rel-16 | A | TEI16, 5G\_eSBA | withdrawn |
| S3-231200 | CR on IPX originated messages in PRINS | NTT DOCOMO INC., Nokia, Nokia Shanghai Bell | 33.501 | 1551 | 2 | Rel-16 | F | TEI16, 5G\_eSBA | not pursued |
| S3-230783 | CR on IPX originated messages in PRINS - R17 | NTT DOCOMO INC., Nokia, Nokia Shanghai Bell | 33.501 | 1552 | -o | Rel-17 | A | 5G\_eSBA, TEI17 | not pursued |
| S3-230784 | CR on IPX originated messages in PRINS - R18 | NTT DOCOMO INC., Nokia, Nokia Shanghai Bell | 33.501 | 1553 | - | Rel-18 | A | 5G\_eSBA, TEI18 | not pursued |
| S3-230844 | Authorization of NF service consumers for data access via DCCF | Nokia, Nokia Shanghai Bell | 33.501 | 1554 | - | Rel-17 | F | eNA\_Ph2 | not pursued |
| S3-230845 | Authorization of NF service consumers for data access via DCCF | Nokia, Nokia Shanghai Bell | 33.501 | 1555 | - | Rel-18 | A | eNA\_Ph2 | not pursued |
| S3-230853 | Clarification on SoR AF | Huawei, HiSilicon | 33.501 | 1556 | - | Rel-18 | F | TEI18 | revised |
| S3-231186 | Clarification on SoR-AF | Huawei, HiSilicon | 33.501 | 1556 | 1 | Rel-18 | F | TEI18 | revised |
| S3-231426 | Clarification on SoR-AF | Huawei, HiSilicon | 33.501 | 1556 | 2 | Rel-18 | F | TEI18 | agreed |
| S3-230854 | Address EN on S-NSSAI mapping | Huawei, HiSilicon | 33.501 | 1557 | - | Rel-17 | F | TEI17 | not pursued |
| S3-230855 | Address EN on AF Authorization | Huawei, HiSilicon | 33.501 | 1558 | - | Rel-17 | F | TEI17 | revised |
| S3-231406 | Address EN on AF Authorization | Huawei, HiSilicon | 33.501 | 1558 | 1 | Rel-17 | F | TEI17 | not pursued |
| S3-230856 | Address issue in NSSAA procedures for multiple registration | Huawei, HiSilicon | 33.501 | 1559 | - | Rel-17 | F | TEI17 | revised |
| S3-231188 | Address issues in NSSAA procedures for multiple registration | Huawei, HiSilicon | 33.501 | 1559 | 1 | Rel-17 | F | TEI17 | not pursued |
| S3-230970 | Contribution | Huawei, HiSilicon | 33.501 | 1560 | - | Rel-18 | F | SERP | withdrawn |
| S3-231031 | CR on control-plane procedure in MBS | Huawei, HiSilicon | 33.501 | 1561 | - | Rel-17 | F | TEI17 | revised |
| S3-231408 | CR on control-plane procedure in MBS | Huawei, HiSilicon | 33.501 | 1561 | 1 | Rel-17 | F | TEI17 | agreed |
| S3-231064 | CR to TS 33.501 - Addition of Operator Roaming Hub definition in R17 | VODAFONE Group Plc | 33.501 | 1562 | - | Rel-17 | B | TEI17 | revised |
| S3-231317 | Addition of Operator Roaming Hub definition in R17 | Vodafone | 33.501 | 1562 | 1 | Rel-17 | F | TEI17 | revised |
| S3-231413 | Addition of Operator Roaming Hub definition in R17 | Vodafone | 33.501 | 1562 | 2 | Rel-17 | F | TEI17 | agreed |
| S3-231078 | Clarification on user consent Rel-17 | Ericsson | 33.501 | 1563 | - | Rel-17 | F | UC3S\_SEC | not pursued |
| S3-231080 | Clarification on user consent Rel-18 | Ericsson | 33.501 | 1564 | - | Rel-18 | A | UC3S\_SEC | not pursued |
| S3-231085 | Security aspects of MSGin5G Service in rel-18 | China Mobile | 33.501 | 1565 | - | Rel-18 | B | DUMMY | revised |
| S3-231547 | Security aspects of MSGin5G Service in rel-18 | China Mobile | 33.501 | 1565 | 1 | Rel-18 | B | DUMMY | agreed |
| S3-231095 | Update to security aspects of eNA in 33.501 for Rel-17 | China Mobile | 33.501 | 1566 | - | Rel-17 | F | eNA\_Ph2 | not pursued |
| S3-231096 | Update to security aspects of eNA in 33.501 for Rel-18 | China Mobile | 33.501 | 1567 | - | Rel-18 | A | eNA\_Ph2 | not pursued |
| S3-231119 | Add restriction for multi registrations in two PLMNs | Nokia, Nokia Shanghai Bell | 33.501 | 1568 | - | Rel-17 | F | TEI17 | not pursued |
| S3-231121 | control on NSSAA procedures for multi registrations in two PLMNs | Nokia, Nokia Shanghai Bell | 33.501 | 1569 | - | Rel-17 | F | TEI17 | revised |
| S3-231407 | control on NSSAA procedures for multi registrations in two PLMNs | Nokia, Nokia Shanghai Bell | 33.501 | 1569 | 1 | Rel-17 | F | TEI17 | not pursued |
| S3-231146 | Adding recommendation to use one-to-one relation between SNPN and CH AAA | Ericsson | 33.501 | 1570 | - | Rel-17 | F | eNPN | not pursued |
| S3-231147 | Adding recommendation to use one-to-one relation between SNPN and CH AAA | Ericsson | 33.501 | 1571 | - | Rel-18 | A | eNPN | not pursued |
| S3-231148 | SEPP to include and verify the source PLMN-ID | Ericsson [was: Ericsson, Mavenir, Nokia, Nokia Shanghai Bell, Huawei, HiSilicon] | 33.501 | 1572 | - | Rel-17 | F | TEI17 | revised |
| S3-231606 | SEPP to include and verify the source PLMN-ID | Ericsson, Mavenir, Nokia, Nokia Shanghai Bell, Huawei, HiSilicon | 33.501 | 1572 | 1 | Rel-17 | F | TEI17 | agreed |
| S3-231149 | SEPP to include and verify the source PLMN-ID | Ericsson [was: Ericsson, Mavenir, Nokia, Nokia Shanghai Bell, Huawei, HiSilicon] | 33.501 | 1573 | - | Rel-18 | A | TEI17 | revised |
| S3-231607 | SEPP to include and verify the source PLMN-ID | Ericsson, Mavenir, Nokia, Nokia Shanghai Bell, Huawei, HiSilicon | 33.501 | 1573 | 1 | Rel-18 | A | TEI17 | agreed |
| S3-231150 | Clarification on access token requests for NF Producers of a specific NF type and token-based authorization for indirect communication with delegated discovery | Ericsson | 33.501 | 1574 | - | Rel-18 | B | 5G\_eSBA\_Ph2 | not pursued |
| S3-231166 | CR to TS 33.501 on the Protection of the RRC Resume Request message | Apple | 33.501 | 1575 | - | Rel-18 | C | SERP | not pursued |
| S3-231175 | SCP requirements update related to source PLMN-ID | Nokia, Nokia Shanghai Bell | 33.501 | 1576 | - | Rel-17 | F | TEI17 | revised |
| S3-231417 | SCP requirements update related to source PLMN-ID | Nokia, Nokia Shanghai Bell | 33.501 | 1576 | 1 | Rel-17 | F | TEI17 | agreed |
| S3-231176 | SCP requirements update related to source PLMN-ID | Nokia, Nokia Shanghai Bell | 33.501 | 1577 | - | Rel-18 | A | TEI17 | revised |
| S3-231418 | SCP requirements update related to source PLMN-ID | Nokia, Nokia Shanghai Bell | 33.501 | 1577 | 1 | Rel-18 | A | TEI17 | agreed |
| S3-231241 | R18 Update I.2.2.2.1 for limitations of AAA server (mirror) | Xiaomi communications | 33.501 | 1578 | - | Rel-18 | A | eNPN | not pursued |
| S3-231242 | R17 Update I.2.2.2.1 for limitations of AAA server | Xiaomi communications | 33.501 | 1579 | - | Rel-17 | F | eNPN | not pursued |
| S3-231243 | R17 Update Subscription and unsubscription procedure of NSACF notification service | Xiaomi communications | 33.501 | 1580 | - | Rel-17 | F | TEI17 | merged |
| S3-231244 | R18 Update Subscription and unsubscription procedure of NSACF notification service (mirror) | Xiaomi communications | 33.501 | 1581 | - | Rel-18 | A | TEI18 | not pursued |
| S3-231264 | Add HONTRA procedure in the TS 33.501 | Beijing Xiaomi Mobile Software | 33.501 | 1582 | - | Rel-18 | B | HN\_Auth | not pursued |
| S3-231285 | Rel17 Clarification on AF authorization for the NSACF notification procedure | Ericsson | 33.501 | 1583 | - | Rel-17 | F | eNS2\_SEC | merged |
| S3-231286 | Rel17 Alignment of NSACF notification procedure with existing procedures | Ericsson | 33.501 | 1584 | - | Rel-17 | F | eNS2\_SEC | not pursued |
| S3-231287 | Rel18 Clarification on AF authorization for the NSACF notification procedure | Ericsson | 33.501 | 1585 | - | Rel-18 | A | eNS2\_SEC | not pursued |
| S3-231288 | Rel18 Alignment of NSACF notification procedure with existing procedures | Ericsson | 33.501 | 1586 | - | Rel-18 | A | eNS2\_SEC | not pursued |
| S3-231299 | Network Initiated Primary Authentication | Samsung | 33.501 | 1587 | - | Rel-18 | B | HN\_Auth | not pursued |
| S3-231305 | [IAB][Rel-17] IAB inter-CU topology adaptation procedure | Samsung, Huawei, HiSilicon | 33.501 | 1588 | - | Rel-17 | F | TEI17 | not pursued |
| S3-231306 | [IAB][Rel-18] IAB inter-CU topology adaptation procedure | Samsung, Huawei, HiSilicon | 33.501 | 1589 | - | Rel-18 | A | TEI17 | not pursued |
| S3-231318 | CR on control-plane procedure in MBS | Ericsson | 33.501 | 1590 | - | Rel-17 | F | 5MBS | merged |
| S3-231319 | Authentication of AUN3 devices behind RG | CableLabs, Nokia, Nokia Shanghai Bell, Rogers Communications, Thales, Charter Communications | 33.501 | 1591 | - | Rel-18 | B | DUMMY | not pursued |
| S3-231321 | Authentication for UE behind 5G-RG and FN-RG using NSWO | CableLabs, Rogers Communications, Charter Communications | 33.501 | 1592 | - | Rel-17 | F | NSWO\_5G | not pursued |
| S3-231325 | Authentication for UE behind 5G-RG and FN-RG using NSWO | CableLabs, Rogers Communications, Charter Communications | 33.501 | 1593 | - | Rel-18 | A | NSWO\_5G | revised |
| S3-231405 | Authentication for UE behind 5G-RG and FN-RG using NSWO | CableLabs, Rogers Communications, Charter Communications | 33.501 | 1593 | 1 | Rel-18 | B | TEI18 | agreed |
| S3-231326 | CR on control-plane procedure in MBS | Ericsson | 33.501 | 1594 | - | Rel-18 | A | 5MBS | merged |
| S3-231353 | Correction to Clause 7A.2.1 | Lenovo | 33.501 | 1595 | - | Rel-18 | D | TEI17, TEI18 | agreed |
| S3-231355 | HONTRA Updates | Lenovo | 33.501 | 1596 | - | Rel-18 | B | FS\_HN\_Auth, HN\_Auth | not pursued |
| S3-231379 | User consent check by DCCF | Nokia, Nokia Shanghai Bell | 33.501 | 1597 | - | Rel-18 | A | UC3S\_SEC | revised |
| S3-231383 | User consent check information by DCCF | Nokia, Nokia Shanghai Bell | 33.501 | 1597 | 1 | Rel-18 | A | UC3S\_SEC | not pursued |
| S3-231380 | User consent check by DCCF | Nokia, Nokia Shanghai Bell | 33.501 | 1598 | - | Rel-17 | F | UC3S\_SEC | revised |
| S3-231382 | User consent check information by DCCF | Nokia, Nokia Shanghai Bell | 33.501 | 1598 | 1 | Rel-17 | F | UC3S\_SEC | not pursued |
| S3-231409 | CR on control-plane procedure in MBS | Huawei | 33.501 | 1599 | - | Rel-18 | A | TEI17 | agreed |
| S3-231414 | Addition of Operator Roaming Hub definition in R18 | Vodafone | 33.501 | 1600 | - | Rel-18 | A | TEI17 | agreed |
| S3-230927 | Correction in 5.2.4.2 | ChinaTelecom | 33.503 | 0072 | - | Rel-17 | F | 5G\_ProSe | agreed |
| S3-230928 | Correction in 6.1.1 | ChinaTelecom | 33.503 | 0073 | - | Rel-17 | F | 5G\_ProSe | agreed |
| S3-230929 | Correction in 6.1.3.2.2.2 | ChinaTelecom | 33.503 | 0074 | - | Rel-17 | F | 5G\_ProSe | agreed |
| S3-230931 | Correction in 6.2.1 and 6.2.2 | ChinaTelecom | 33.503 | 0075 | - | Rel-17 | F | 5G\_ProSe | agreed |
| S3-230932 | Correction in 6.3.3.3.2 | ChinaTelecom | 33.503 | 0076 | - | Rel-17 | F | 5G\_ProSe | agreed |
| S3-231000 | Clarification of PAnF action when CP-PRUK is stale | Huawei, HiSilicon | 33.503 | 0077 | - | Rel-17 | F | 5G\_ProSe | not pursued |
| S3-231018 | Correction to ProSe Authentication Vector obtaining process | Huawei, HiSilicon | 33.503 | 0078 | - | Rel-17 | F | 5G\_ProSe | revised |
| S3-231424 | Correction to ProSe Authentication Vector obtaining process | Huawei, HiSilicon | 33.503 | 0078 | 1 | Rel-17 | F | 5G\_ProSe | agreed |
| S3-231019 | Correction on SUPI in Nudm\_UEAuthentication\_GetProseAv service | Huawei, HiSilicon | 33.503 | 0079 | - | Rel-17 | F | 5G\_ProSe | agreed |
| S3-231023 | Clarify about the ProSe authentication | Huawei, HiSilicon | 33.503 | 0080 | - | Rel-17 | F | 5G\_ProSe | merged |
| S3-231066 | Nudm service operation correction | Ericsson | 33.503 | 0081 | - | Rel-17 | F | 5G\_ProSe | merged |
| S3-231067 | KDF input parameter for generating AV of ProSe authentication | Ericsson | 33.503 | 0082 | - | Rel-17 | F | 5G\_ProSe | merged |
| S3-231068 | Clarify Kausf\_p generation | Ericsson | 33.503 | 0083 | - | Rel-17 | F | 5G\_ProSe | revised |
| S3-231425 | Clarify Kausf\_p generation | Ericsson | 33.503 | 0083 | 1 | Rel-17 | F | 5G\_ProSe | agreed |
| S3-231070 | U2N relay direct link setup failure due to RSC mismatch or integrity failure | Ericsson | 33.503 | 0084 | - | Rel-17 | F | 5G\_ProSe | not pursued |
| S3-231071 | Remote UE Report in UP based solution for 5G ProSe UE-to-Network Relay | Ericsson | 33.503 | 0085 | - | Rel-17 | F | 5G\_ProSe | revised |
| S3-231430 | Remote UE Report in UP based solution for 5G ProSe UE-to-Network Relay | Ericsson | 33.503 | 0085 | 1 | Rel-17 | F | 5G\_ProSe | agreed |
| S3-231072 | Remote UE Report in CP based solution for 5G ProSe UE-to-Network Relay | Ericsson | 33.503 | 0086 | - | Rel-17 | F | 5G\_ProSe | revised |
| S3-231431 | Remote UE Report in CP based solution for 5G ProSe UE-to-Network Relay | Ericsson | 33.503 | 0086 | 1 | Rel-17 | F | 5G\_ProSe | agreed |
| S3-231128 | Use relay UE SNN to generate AV for ProSe authentication | Nokia, Nokia Shanghai Bell | 33.503 | 0087 | - | Rel-17 | F | TEI17 | revised |
| S3-231559 | Use relay UE SNN to generate AV for ProSe authentication | Nokia, Nokia Shanghai Bell | 33.503 | 0087 | 1 | Rel-17 | F | TEI17 | agreed |
| S3-231129 | Use remote UE SNN to generate AV for ProSe authentication | Nokia, Nokia Shanghai Bell | 33.503 | 0088 | - | Rel-17 | F | TEI17 | not pursued |
| S3-231130 | Clarify RID for PAnF discover | Nokia, Nokia Shanghai Bell | 33.503 | 0089 | - | Rel-17 | F | TEI17 | merged |
| S3-231133 | Locate target DDNMF in U2N discovery security procdure | Nokia, Nokia Shanghai Bell | 33.503 | 0090 | - | Rel-17 | F | TEI17 | not pursued |
| S3-231134 | Update discovery key response of U2N discovery security procdure | Nokia, Nokia Shanghai Bell | 33.503 | 0091 | - | Rel-17 | F | TEI17 | not pursued |
| S3-231136 | clarify protocol layer for discovery message protection | Nokia, Nokia Shanghai Bell | 33.503 | 0092 | - | Rel-17 | F | TEI17 | agreed |
| S3-231197 | CR to TR33.503 Editorial changes | CATT | 33.503 | 0093 | - | Rel-17 | F | 5G\_ProSe | agreed |
| S3-231206 | DDNFM Selection during U2N Relay Discovery Security Procedure | Xiaomi Technology | 33.503 | 0094 | - | Rel-17 | F | 5G\_ProSe | not pursued |
| S3-231207 | A Note for Protection of DCR in U2N Communication | Xiaomi Technology | 33.503 | 0095 | - | Rel-17 | F | 5G\_ProSe | not pursued |
| S3-231247 | Correction to privacy protection of UP-PRUKID/CP-PRUKID and RSC in DCR | Beijing Xiaomi Mobile Software | 33.503 | 0096 | - | Rel-17 | F | 5G\_ProSe | not pursued |
| S3-230678 | New SCAS test on valid UE security capability encoding while AS security establishment | BSI (DE) | 33.512 | 0023 | - | Rel-17 | B | SCAS, SCAS\_5G | revised |
| S3-230716 | New SCAS test on valid UE security capability encoding while AS security establishment | Federal Office for Information Security (BSI), Deutsche Telekom | 33.512 | 0023 | 1 | Rel-17 | B | eSCAS\_5G | not pursued |
| S3-230891 | Add Context\_Remove into table 7.1.1-1 | ZTE Corporation | 33.535 | 0145 | - | Rel-17 | F | AKMA | not pursued |
| S3-230892 | Change NF to AAnF Service Consumer in 6.6 and 6.7 | ZTE Corporation | 33.535 | 0146 | - | Rel-17 | F | AKMA | not pursued |
| S3-231048 | Clarification on NEF’s authorization to AF | Huawei, HiSilicon | 33.535 | 0147 | - | Rel-17 | F | AKMA | agreed |
| S3-231087 | AAnF sending GPSI to internal AKMA AF | China Mobile | 33.535 | 0148 | - | Rel-17 | F | AKMA | revised |
| S3-231422 | AAnF sending GPSI to internal AKMA AF | China Mobile | 33.535 | 0148 | 1 | Rel-17 | F | AKMA | agreed |
| S3-231237 | Enable IETF DTLS in Ua star protocol | Xiaomi communications | 33.535 | 0149 | - | Rel-18 | B | AKMA\_GBA\_DTLS | withdrawn |
| S3-231239 | Enable OSCORE in Ua star protocol | Xiaomi communications | 33.535 | 0150 | - | Rel-18 | B | AKMA\_GBA\_OSCORE | withdrawn |
| S3-231284 | KAF lifetime and Ua\* protocol recommendations | Ericsson | 33.535 | 0151 | - | Rel-17 | F | AKMA | revised |
| S3-231421 | KAF lifetime and Ua\* protocol recommendations | Ericsson | 33.535 | 0151 | 1 | Rel-17 | F | AKMA | agreed |
| S3-231058 | Clarification on user consent in EC | Ericsson | 33.558 | 0010 | - | Rel-17 | F | eEDGE\_5GC | not pursued |
| S3-230677 | Threat reference for incorrectly encoded UE security capabilities on the NG interface | BSI (DE) | 33.926 | 0065 | - | Rel-17 | B | SCAS, SCAS\_5G | revised |
| S3-230715 | Threat reference for incorrectly encoded UE 5G security capabilities on the AMF NG interface | Federal Office for Information Security (BSI), Deutsche Telekom | 33.926 | 0065 | 1 | Rel-17 | B | eSCAS\_5G | not pursued |
| S3-231615 | Introducing split gNBs into TR 33.926 | Qualcomm Incorporated | 33.926 | 0066 | - | Rel-18 | B | SCAS\_5G\_split\_gNB | endorsed |
| S3-231118 | Modified f5\* function for Milenage - Rel-17 | THALES, Idemia | 35.206 | 0002 | - | Rel-17 | F | TEI17 | not pursued |
| S3-231137 | Modified f5\* function for Milenage - Rel-18 | THALES, Idemia | 35.206 | 0003 | - | Rel-18 | A | TEI18 | not pursued |
| S3-231138 | Modified f5\* function for Tuak - Rel-17 | THALES, Idemia | 35.231 | 0006 | - | Rel-17 | F | TEI17 | not pursued |
| S3-231139 | Modified f5\* function for Tuak - Rel-18 | THALES, Idemia | 35.231 | 0007 | - | Rel-18 | A | TEI18 | not pursued |

## Annex C: Lists of liaisons

### C1: Incoming liaison statements

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Document | Original | Title | From | Decision | Reply TDoc |
| S3-230605 |  | 5G capabilities exposure for factories of the future - identified gaps | 5G-ACIA | noted | (none) |
| S3-230606 |  | LS to 3GPP on PRINS middle boxes | GSMA | replied to | S3-231388 |
| S3-230607 |  | LS on U2N relay direct link setup failure due to RSC mismatch or integrity failure | C1-226908 | replied to | S3-231390 |
| S3-230608 |  | LS on Authentication Result Removal | C4-224418 | postponed | (none) |
| S3-230609 |  | Reply LS on PLMN ID used in Roaming Scenarios | C4-224444 | replied to | S3-231391 |
| S3-230610 |  | LS on Authorization of NF service consumers for data access via DCCF | C4-225161 | postponed | ???? |
| S3-230611 |  | Reply LS on Response LS on Identifier availability for Lawful Interception during Inter-PLMN handover | C4-225542 | noted | (none) |
| S3-230612 |  | LS on N32-f addressing information | C4-225571 | replied to | S3-231393 |
| S3-230613 |  | LS on clarification of coding of hexadecimal digits in SUCI NAI | C6-220715 | postponed | (none) |
| S3-230614 |  | Research highlighting potential negated OAuth policy | GSMA | noted | (none) |
| S3-230615 |  | Research highlighting potential need for granular level checks using ""Additional scope"" under the OAuth2.0 Token Access. | GSMA | replied to | S3-231581 |
| S3-230616 |  | LS reply to 3GPP C4-225571 on N32-f addressing information | GSMA | noted | (none) |
| S3-230617 |  | Reply LS on authenticity and replay protection of system information | R2-2208985 | noted | S3-231294 |
| S3-230618 |  | LS on security for selective SCG activation | R2-2213337 | replied to | S3-231397 |
| S3-230619 |  | Reply LS on the user consent for trace reporting | R3-225250 | replied to | S3-231398 |
| S3-230620 |  | LS on user consent of Non-public Network | R3-226006 | replied to | S3-231399 |
| S3-230621 |  | Reply LS on Time Synchronization Status notification towards UE(s) | R3-226774 | noted | (none) |
| S3-230622 |  | Reply LS On PLMN ID used in Roaming Scenarios | S2-2207391 | replied to | S3-231391 |
| S3-230623 |  | Reply LS on the impact of MSK update on MBS multicast session update procedure | S2-2209287 | replied to | S3-231410 |
| S3-230624 |  | LS on impact of URSP rule enforcement report to 5GC | S2-2209327 | noted | (none) |
| S3-230625 |  | LS on Time Synchronization Status notification towards UE(s) | S2-2209876 | noted | (none) |
| S3-230626 |  | LS reply on Indication of Network Assisted Positioning method | S2-2211049 | noted | (none) |
| S3-230627 |  | LS on secured and trusted access to the serving PLMN OAM server by a MBSR | S2-2301465 | replied to | S3-231400 |
| S3-230628 |  | Reply LS on SL positioning groupcast and broadcast | S2-2301786 | noted | (none) |
| S3-230629 |  | LS on UE event reporting over a user plane connection to LCS client or AF | S2-2301789 | postponed | ???? |
| S3-230630 |  | LS on LPP message and supplementary service event report over a user plane connection between UE and LMF | S2-2301857 | postponed | ???? |
| S3-230631 |  | LS on the use of a non-network defined identifier for UE identification | S2-2302163 | noted | (none) |
| S3-230632 |  | Reply LS on FS\_eEDGEAPP Solution for Support of NAT deployed within the edge data network | S2-2302164 | noted | (none) |
| S3-230633 |  | LS on Identifier availability for Lawful Interception during Inter-PLMN handover | S2-2302165 | noted | (none) |
| S3-230634 |  | LS on NSWO feature | S2-2302168 | noted | (none) |
| S3-230635 |  | LS on NAI format for 5G NSWO | S2-2302171 | noted | (none) |
| S3-230636 |  | Reply LS to S5-226028 on Network federation interface for Telco edge consideration and proposals to answer GSMA LSs 5-226016 and S5-226017 from SA | S5-227039 | noted | (none) |
| S3-230637 |  | Reply LS on user’s consent for EDGEAPP | S6-223339 | noted | (none) |
| S3-230638 |  | Reply LS on Network federation interface for Telco edge consideration for a consolidated reply | S6-223553 | noted | (none) |
| S3-230639 |  | LS on the use of a non-network defined identifier for UE identification | S6-223558 | replied to | S3-231402 |
| S3-230640 |  | CAPIF extensibility | S6-230294 | noted | (none) |
| S3-230641 |  | LS on user consent for UE location sharing | S6-230351 | postponed | ???? |
| S3-230642 |  | Specification of the 256-bit air interface algorithms | ETSI SAGE | postponed | (none) |
| S3-230643 |  | LS on initiation of new work item Y.CCO-req: ""Requirements of orchestration supporting confidential computing for network slices in IMT-2020 networks and beyond"" | ITU-T SG13 | noted | (none) |
| S3-230644 |  | Reply LS on Network federation interface for Telco edge consideration | SP-221321 | noted | (none) |
| S3-230649 |  | lawful interception for EPS Fallback for 5G inbound roamers | GSMA | revised | (none) |
| S3-230650 |  | LS to SA3-LI on Volte roaming lawful interception - limitation to provide caller identify if caller activates OIR | GSMA | revised | (none) |
| S3-231524 |  | LS to SA3-LI on Volte roaming lawful interception - limitation to provide caller identify if caller activates OIR | GSMA | postponed | ???? |
| S3-231526 |  | lawful interception for EPS Fallback for 5G inbound roamers | GSMA | noted | ???? |

### C2: Outgoing liaison statements

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Document | Title | To | Cc | reply to i/c LS |
| S3-231387 | LS reply to TSG SA on LS S3-223147 on 5G capabilities exposure for factories of the future – identified gaps from 5G ACIA | TSG SA | TSG SA WG1, 3GPP TSG SA WG2, 3GPP TSG SA WG5, 3GPP TSG SA WG6, TSG CT | S3-223147 |
| S3-231388 | LS on certificate and key management automation and N32 purpose | GSMA 5GMRR | GSMA DESS | S3-230606 |
| S3-231389 | Reply LS on PRINS middle boxes | GSMA 5GMRR, 3GPP SA2,CT4 | GSMA DESS | S3-230606 |
| S3-231390 | Reply LS on U2N relay direct link setup failure due to RSC mismatch or integrity failure | CT1 | - | S3-230607 |
| S3-231391 | Reply LS on PLMN ID used in Roaming Scenarios from CT WG4 and SA WG2 | CT4, SA2 | GSMA 5GMRR | S3-230609,S3-230622 |
| S3-231393 | Reply to: LS on N32-f addressing information | CT4,GSMA NG | - | S3-230612 |
| S3-231397 | Reply LS on Security for selective SCG activation | 3GPP RAN WG2 | - | S3-230618 |
| S3-231398 | Reply LS on the User Consent for Trace Reportings | RAN3 | RAN2, SA5, SA1, RAN | S3-230619 |
| S3-231399 | Reply to: LS on user consent of Non-public Network | RAN3 | RAN2,SA5 | S3-230620 |
| S3-231400 | Reply LS on secured and trusted access to the serving PLMN OAM server by a MBSR | SA2,SA5 | RAN3 | S3-230627 |
| S3-231402 | Reply LS to S3-230639/S6-223558 on the use of a non-network defined identifier for UE identification | SA6 | SA2 | S3-230639 |
| S3-231410 | Reply LS on the impact of MSK update on MBS multicast session update procedure | SA2 | SA4, CT1, CT4 | S3-230623 |
| S3-231411 | LS on modified f5\* algorithms | ETSI SAGE | - |  |
| S3-231532 | LS to GSMA for PRINS profiling | GSMA NG, GSMA 5GMRR,GSMA FASG | - | - |
| S3-231581 | Reply-LS on the need for granular level checks using "Additional scope" under the OAuth2.0 Token Access | GSMA | CT4 | S3-230615 |
| S3-231603 | LS on Mapping of F1-C IP addresses in the IAB inter-CU topology adaptation and backhaul RLF recovery procedures | RAN3 | RAN2 |  |

## Annex D: List of agreed/approved new and revised Work Items

|  |  |  |  |
| --- | --- | --- | --- |
| Document | Title | Source | new/revised |
| S3-231561 | New WID on Security aspects for 5WWC Phase 2 | Nokia, Nokia Shanghai Bell, CableLabs, Charter Communications, Lenovo, Apple | WID new |
| S3-231562 | Proposed WID for UAS Phase 2 security | Qualcomm Incorporated, Lenovo, Huawei, HiSilicon | WID new |
| S3-231563 | New WID on Automated certicate management in SBA | Nokia, Nokia Shanghai Bell | WID new |
| S3-231564 | New WID on security enhancements for NGRTC | Huawei, HiSilicon | WID new |
| S3-231565 | New WID on Security Aspects of Enhancement of Support for Edge Computing in 5GC — phase 2 | Huawei, HiSilicon | WID new |
| S3-231570 | New WID on AKMA phase 2 | China Mobile | WID new |
| S3-231571 | New WID on security aspects of MSGin5G Ph2 | China Mobile | WID new |
| S3-231572 | New WID on security aspects of enablers for Network Automation for 5G - phase 3 | China Mobile | WID new |
| S3-231573 | New WID on Security aspects of enhanced support of Non-Public Networks phase 2 | Ericsson | WID new |
| S3-231574 | New WID on 5G Security Assurance Specification (SCAS) for the Policy Control Function (PCF) | BSI (DE) | WID new |
| S3-231575 | New WID on Security Aspects of Proximity-based Services in 5GS Phase 2 | CATT, China Unicom | WID new |
| S3-231576 | New WID on Security Aspects of Ranging Based Services and Sidelink Positioning | Xiaomi Technology | WID new |
| S3-231577 | New WID on enhanced security aspects of SEAL for vertical | Samsung | WID new |
| S3-231578 | New WID on application enablement aspects for subscriber-aware northbound API access | NTT DOCOMO INC. | WID new |

## Annex E: List of draft Technical Specifications and Reports

|  |  |  |  |
| --- | --- | --- | --- |
| Document | Spec | vers | Doc title |
| S3-230786 | 33.523 | 0.4.0 | Draft TS 33.523 v0.4.0 |
| S3-230797 | 33.891 | 0.5.1 | Draft TR 33.891 v0.5.1 |
| S3-231427 | 33.870 | 0.6.0 | Draft TR 33.870 |
| S3-231439 | 33.740 | 0.6.0 | Draft TR 33.740 |
| S3-231453 | 33.739 | 0.6.0 | Draft TR 33.739 |
| S3-231460 | 33.526 | .. | Draft TS 33.526 |
| S3-231466 | 33.936 | 0.5.0 | Draft TR 33.936 |
| S3-231467 | 33.527 | 0.2.0 | Draft TS 33.527 |
| S3-231468 | 33.537 | 0.4.0 | Draft TS 33.537 |
| S3-231498 | 33.523 | 0.5.0 | Draft TS 33.523 |
| S3-231499 | 33.876 | 0.6.0 | Draft TR 33.876 |
| S3-231500 | 33.738 | 0.6.0 | Draft TR 33.738 |
| S3-231503 | 33.858 | 0.5.0 | Draft TR 33.858 |
| S3-231505 | 33.737 | 0.6.0 | Draft TR 33.737 |
| S3-231511 | 33.887 | 0.6.0 | Draft TR 33.887 |
| S3-231519 | 33.893 | 0.6.0 | Draft TR 33.893 |
| S3-231528 | 33.894 | 0.5.0 | Draft TR 33.894 |
| S3-231531 | 33.896 | 0.6.0 | Draft TR 33.896 |
| S3-231550 | 33.741 | 0.6.0 | Draft TR 33.741 |
| S3-231555 | 33.883 | 0.6.0 | Draft TR 33.883 |
| S3-231556 | 33.892 | 0.5.0 | Draft TR 33.892 |
| S3-231557 | 33.882 | 0.6.0 | Draft TR 33.882 |
| S3-231558 | 33.890 | 0.6.0 | Draft TR 33.890 |
| S3-231608 | 33.884 | 0.5.0 | Draft TR 33.884 |
| S3-231618 | 33.891 | 0.6.0 | Draft TR 33.891 |
| S3-231619 | 33.886 | 0.4.0 | Draft TR 33.886 |
| S3-231627 | 33.898 | 0.5.0 | Draft TR 33.898 |
| S3-231629 | 33.875 | 1.7.0 | Draft TR 33.875 |

## Annex F: List of participants

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TITLE | Family Name | Given Name | Employer Organization | Organization Represented |
| Mr. | Baek | Youngkyo | Samsung R&D Institute UK | Samsung Nanjing |
| Dr. | Bari | Farooq | AT&T | AT&T GNS Belgium SPRL |
| Dr. | Baskaran | Sheeba Backia Mary | Motorola Mobility Germany GmbH | Motorola Mobility Germany GmbH |
| Dr. | Belling | Thomas | Nokia Germany | Nokia Shanghai Bell |
| Dr. | Ben Henda | Noamen | Huawei Technologies Sweden AB | Huawei Technologies Sweden AB |
| Mr. | Bhatt | Rakshesh P. | Nokia Japan | Nokia Japan |
| Mr. | Bilca | Michael | OTD\_US | OTD\_US |
| Mr. | Bjerrum | Bo Holm | Nokia Corporation | Nokia Denmark |
| Dr. | Bouazizi | Imed | Qualcomm Incorporated | Qualcomm Korea |
| Mr. | Brusilovsky | Alec | InterDigital, Inc. | InterDigital France R&D, SAS |
| Mr. | Cano Soveri | Mirko | ETSI | ETSI |
| Ms. | Carducci | Candace | Johns Hopkins University APL | Johns Hopkins University APL |
| Mr. | Casati | Alessio | Nokia UK | Nokia Austria |
| Dr. | Cetinkaya | Egemen | Verizon UK Ltd | Verizon Denmark |
| Ms. | Chandramouli | Devaki | Nokia Germany | Nokia Netherlands |
| Mr. | Chen | Jingran | OPPO Beijing | Shenzhen Heytap |
| Mr. | Cheng | Hong | Qualcomm Incorporated | QUALCOMM Europe Inc. - Spain |
| Mr. | Chitturi | Suresh | Samsung Electronics Co., Ltd | Samsung Suzhou |
| Ms. | Cho | Min Kyoung | Deloitte Tohmatsu Cyber LLC | KDDI Corporation |
| Mr. | Choi | Hongjin | Samsung R&D Institute UK | Samsung Electronics Polska |
| Miss | chong | vivian | VIVO TECH GmbH | vivo Mobile Communication Co., |
| Mr. | Chuangxin | Jiang | ZTE Corporation | ShenZhen Zhongxing Shitong |
| Mr. | Cichonski | Jeffrey | NIST | NIST |
| Mr. | Cong | Shi | Guangdong OPPO Mobile Telecom. | Chongqing Angying |
| Dr. | Corbett | Cherita | Johns Hopkins University APL | Johns Hopkins University APL |
| Mr. | Doerr | Johannes | BMWK | BMWK |
| Dr. | Dong | Hao | ZTE Corporation | Sanechips |
| Mr. | Doubrava | Michael | BSI (DE) | BSI (DE) |
| Mr. | Eckel | Charles | Cisco Systems Belgium | Cisco Systems Belgium |
| Mr. | Edwards | Robert | MATRIXX Software | MATRIXX Software |
| Dr. | Ekdahl | Patrik | Ericsson LM | Ericsson France S.A.S |
| Dr. | Engström | Alexander | NDRE | NDRE |
| Dr. | Escott | Adrian | Qualcomm CDMA Technologies | Qualcomm CDMA Technologies |
| Mr. | Evans | Tim P. | VODAFONE Group Plc | VODAFONE Group Plc |
| Mr. | Ferdi | Samir | InterDigital, Inc. | InterDigital Finland Oy |
| Miss | Flygare | Helena | Ericsson LM | Nanjing Ericsson Panda Com Ltd |
| Mr. | Gabay | David | MITRE Corporation | MITRE Corporation |
| Mr. | Gamishev | Todor | Orange | Orange Spain |
| Dr. | Garcia-Morchon | Oscar | Philips International B.V. | Philips International B.V. |
| Ms. | Gauthier | Sandrine | Airbus | Airbus |
| Dr. | Giust | Fabio | Nokia Germany | Nokia Corporation |
| Dr. | Gogou | Vassiliki | ENISA | ENISA |
| Mr. | Goldberg | Martin | U.S. National Security Agency | U.S. National Security Agency |
| Ms. | Gong | Ruby | Beijing Xiaomi Mobile Software | Beijing Xiaomi Electronics |
| Mr. | Guo | Boren | OPPO Beijing | OTECH |
| Ms. | Guo | Ivy | Apple Computer Trading Co. Ltd | Apple Computer Trading Co. Ltd |
| Mr. | Guo | Longhua | HUAWEI TECH. GmbH | HuaWei Technologies Co., Ltd |
| Mr. | Gupta | Naman | Samsung Electronics Czech | Samsung Electronics Czech |
| Mr. | Hanhisalo | Markus | Ericsson LM | Ericsson LM |
| Mr. | Hasselquist | David | Sectra Communications AB | Sectra Communications AB |
| Mr. | Hedman | Peter | Ericsson LM | Ericsson India Private Limited |
| Mr. | Hoffpauir | Dusty | Charter Communications, Inc | Charter Communications, Inc |
| Mr. | Inoue | Yoshihiro | NTT | NTT Advanced Technology Corpor |
| Miss | Jerichow | Anja | Nokia Germany | Nokia UK |
| Dr. | Jiang | Tianji | China Mobile Com. Corporation | China Mobile International Ltd |
| Dr. | Jost | Christine | Ericsson LM | Ericsson Hungary Ltd |
| Mr. | Kakinada | Achari | Charter Communications, Inc | Charter Communications, Inc |
| Ms. | Kang | Yanchao | vivo Mobile Communication Co., | vivo Communication Technology |
| Dr. | Karakoc | Ferhat | Ericsson LM | Ericsson GmbH, Eurolab |
| Miss | ke | xiaowan | vivo Mobile Communication Co., | vivo Mobile Com. (Chongqing) |
| Miss | Kedalagudde | Meghashree D | Intel Deutschland GmbH | Intel Corporation SAS |
| Dr. | Keesmaat | Iko | TNO | KPN N.V. |
| Dr. | Khan | Mohsin | Ericsson LM | Oy LM Ericsson AB |
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| Dr. | Kim | Hongil | Qualcomm Incorporated | Qualcomm Tech. Netherlands B.V |
| Dr. | Kim | Hyunsook | LG Electronics Inc. | LG Electronics Inc. |
| Mr. | Kim | Jaewoo | LG Electronics France | LG Electronics France |
| Dr. | Kim | Laeyoung | LG Electronics France | LG Electronics UK |
| Mr. | Kiss | Krisztian | Apple (UK) Limited | Apple EPE |
| Mr. | Kolekar | Abhijeet | Intel Corporation (UK) Ltd | Intel |
| Ms. | Koser | Elizabeth | U.S. National Security Agency | U.S. National Security Agency |
| Dr. | Koza | Yvette | ZTE Wistron Telecom AB | ZONSON |
| Mr. | Kumar | Lalith | Samsung R&D Institute India | Samsung Electronics Iberia SA |
| Dr. | Kunz | Andreas | Motorola Mobility Germany GmbH | Lenovo (Beijing) Ltd |
| Dr. | Kweon | Kisuk | Samsung Electronics Co., Ltd | Samsung Electronics Nordic AB |
| Mr. | Lachmund | Sven | Deutsche Telekom AG | Deutsche Telekom AG |
| Mr. | Lair | Yannick | Nokia France | Nokia France |
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| Mr. | Leadbeater | Alex | GSM Association | GSM Association |
| Dr. | Lee | Duckey | Samsung R&D Institute UK | Samsung Electronics Benelux BV |
| Dr. | Lee | Hakju Ryan | Samsung R&D Institute UK | Samsung R&D Institute UK |
| Mr. | Lee | Jicheol | Samsung R&D Institute UK | Samsung Electronics Austria |
| Mr. | Lee | Xiaoyang | CISA ECD | CISA ECD |
| Dr. | Lei | Ao | HUAWEI TECHNOLOGIES Co. Ltd. | Huawei Technologies Japan K.K. |
| Dr. | Lei | Zander (Zhongding) | HuaWei Technologies Co., Ltd | Huawei Tech.(UK) Co.. Ltd |
| Mr. | Leung | Nikolai | Qualcomm CDMA Technologies | Qualcomm Incorporated |
| Mr. | Li | Aihua | China Mobile Com. Corporation | China Mobile E-Commerce Co. |
| Ms. | Li | Chenyi | China Unicom | Unicompay |
| Mr. | Li | He | HUAWEI TECHNOLOGIES Co. Ltd. | HUAWEI TECHNOLOGIES Co. Ltd. |
| Miss | Li | Mengzhen | ZTE Corporation | Jetflow |
| Miss | LI | QIUTING | ZTE Corporation | CALTTA |
| Dr. | Li | Ruyue Yu-Ngok | ZTE Corporation. | ZTE FRANCE SASU |
| Mr. | Li | Zhendong | Nubia Technology Co.,Ltd | Nubia Technology Co.,Ltd |
| Ms. | Liang | Huarui | Apple GmbH | Apple Inc |
| Mr. | Libunao | Gerardo | Verizon UK Ltd | Verizon UK Ltd |
| Mr. | Liebhart | Rainer | Nokia Germany | Nokia Germany |
| Mr. | Liu | Chang | China Mobile Com. Corporation | China Mobile (Hangzhou) Inf. |
| Mr. | LIU | Jianning(Carry) | Beijing Xiaomi Software Tech | Beijing Xiaomi Software Tech |
| Miss | Liu | Peilin | ZTE Corporation | ZTE Corporation |
| Mr. | Liu | Yuze | ZTE Corporation | ZTE Wistron Telecom AB |
| Mr. | Lorenz | Ben | BSI (DE) | BSI (DE) |
| Mr. | Loushine | Mike | AT&T | AT&T |
| Mr. | Lu | Fei | Guangdong OPPO Mobile Telecom. | Chengdu OPPO Telecommunication |
| Ms. | Lu | Wei | Xiaomi Technology | Xiaomi Technology |
| Mr. | Ly | Quang | Convida Wireless | Convida Wireless |
| Mr. | Lyu | Huazhang | vivo Mobile Communication Co., | iQoo |
| Mr. | M Vamanan | Sudeep | Apple AB | Apple AB Denmark |
| Mr. | Ma | Ruitao | China Unicom | CU Digital Technology |
| Mr. | Magnabosco | Philippe | ENISA | ENISA |
| Mr. | Manganahalli Jayaprakash | Sandesh | TNO | KPN N.V. |
| Mr. | MAO | Yuxin | Beijing Xiaomi Mobile Software | Xiaomi Communications |
| Mr. | Markman | Alexander | Rogers Communications Canada | Rogers Communications Canada |
| Mr. | Minokuchi | Atsushi | NTT DOCOMO INC. | DOCOMO Beijing Labs |
| Dr. | Muhanna | Ahmad | Mavenir | Mavenir |
| Dr. | Mustapha | Mona | Apple France | Apple France |
| Mr. | Nair | Suresh | Nokia Germany | Nokia |
| Mr. | NAKAMURA | Kazuo | NICT | NICT |
| Dr. | Nakano | Yuto | KDDI Corporation | KDDI Corporation |
| Mr. | Naslund | Mats | NDRE | NDRE |
| Mr. | Nayak | Ashok Kumar | Samsung R&D Institute India | Samsung Electronics GmbH |
| Dr. | Ni | Hui | HUAWEI TECHNOLOGIES Co. Ltd. | Huawei Telecommunication India |
| Dr. | Nuggehalli | Pavan | Google Inc. | Google Inc. |
| Mr. | O'Driscoll | James | NCSC | NCSC |
| Mr. | Olsson | Magnus | Ericsson LM | L.M. Ericsson Limited |
| Mr. | Orkopoulos | Stawros | Nokia Germany | Nokia Italy |
| Mr. | Palanigounder | Anand | Qualcomm Technologies Int | Qualcomm Austria RFFE GmbH |
| Mr. | Pan | Xueming | vivo Communication Technology | VIVO TECH GmbH |
| Ms. | Parambath Sasi | NIvedya | Samsung R&D Institute India | Samsung R&D Institute India |
| Dr. | Park | Jungshin | Samsung Electronics Co., Ltd | Samsung Guangzhou Mobile R&D |
| Dr. | Park | Junhyun | Samsung R&D Institute UK | Harman GmbH |
| Mr. | Parsel | Mike | T-Mobile USA | T-Mobile USA Inc. |
| Dr. | Pashalidis | Andreas | BSI (DE) | BSI (DE) |
| Mr. | Pätzold | Thomas | Deutsche Telekom AG | Telekom Deutschland GmbH |
| Mrs. | Pauliac | Mireille | THALES | THALES |
| Mr. | Peinado | German | Nokia Germany | Nokia Poland |
| Mr. | peng | junan | China Mobile Com. Corporation | CMDI |
| Miss | Ping | Jing | Nokia Germany | Nokia Korea |
| Mr. | Pudney | Chris | VODAFONE Group Plc | Vodafone Ireland Plc |
| Mr. | Qi | Minpeng | China Mobile Research Inst. | China Mobile Com. Corporation |
| Mr. | Rajadurai | Rajavelsamy | Samsung R&D Institute UK | Samsung Electronics Co., Ltd |
| Ms. | Rajendran | Rohini | Samsung R&D Institute India | Samsung Electronics Romania |
| Mr. | Rathod | Niraj | Ericsson LM | Ericsson-LG Co., LTD |
| Mr. | Ren | Chi | China Unicom | CITC |
| Dr. | Rommer | Stefan | Ericsson LM | Ericsson Japan K.K. |
| Mrs. | Rong | Wu | HUAWEI TECHNOLOGIES Co. Ltd. | HiSilicon Technologies Co. Ltd |
| Mr. | Sabah | Noureddine | Philips International B.V. | Philips International B.V. |
| Ing. | Sachdeva | Prachi | TNO | TNO |
| Mr. | Sällberg | Krister | Ericsson LM | Ericsson Telecomunicazioni SpA |
| Ing. | Sánchez | Antonio | Keysight Technologies UK Ltd | Keysight Technologies UK Ltd |
| Mr. | Schumacher | Gregory | Peraton Labs | Peraton Labs |
| Mr. | Shan | Changhong | Intel Corporation (UK) Ltd | Intel China Ltd. |
| Miss | shang | zhengyi | Beijing Xiaomi Mobile Software | Beijing Xiaomi Mobile Software |
| Ms. | Shi | Xiaonan | China Mobile Com. Corporation | China Mobile (Suzhou) Software |
| Mr. | Shi | Xiaoyan | Intel | Intel Ireland |
| Mr. | shimada | kazuki | NTT | NTT |
| Ms. | So | Tricci | OPPO | Guangdong OPPO Mobile Telecom. |
| Dr. | Speicher | Sebastian | Qualcomm CDMA Technologies | Qualcomm Technologies Int |
| Mr. | Srinivasan | Suresh | Intel | Intel Belgium SA/NV |
| Mr. | Sriram | Sundar | CableLabs | CableLabs |
| Dr. | Staufer | Markus | Nokia Germany | Nokia Hungary |
| Mr. | Stefano | Faccin | QUALCOMM Europe Inc. - Italy | QUALCOMM Europe Inc. - Italy |
| Dr. | Stockhammer | Thomas | Qualcomm CDMA Technologies | Qualcomm Israel Ltd. |
| Mr. | Stojanovski | Saso | Intel Deutschland GmbH | Intel Finland Oy |
| Dr. | Suh | Dongeun | Samsung R&D Institute UK | Samsung Shenzhen |
| Miss | Sultana | Shabnam | Ericsson LM | L.M. Ericsson Limited |
| Mr. | Sumita | Masa | HUAWEI Technologies Japan K.K. | Huawei Technologies Japan K.K. |
| Mr. | Sun | Haiyang | HuaWei Technologies Co., Ltd | Huawei Device Co., Ltd |
| Dr. | Sun | Tao | China Mobile M2M Company Ltd. | China Mobile M2M Company Ltd. |
| Ms. | Sun | Xiaowen | vivo Mobile Communication Co., | vivo Mobile Communication (H) |
| Mr. | Suzuki | Hajime | CSIRO | CSIRO |
| Dr. | Tan | Peng | Hangzhou Douku | Hangzhou Douku |
| Mr. | Thiebaut | Laurent | Nokia France | Nokia Belgium |
| Dr. | Tian | Li | ZTE Corporation. | ZXNE |
| Dr. | Tonesi | Dario Serafino | Qualcomm CDMA Technologies | Qualcomm Finland RFFE Oy |
| Mr. | Trygar | Tobey | Peraton Labs | Peraton Labs |
| Dr. | Tsiatsis | Vlasios | Ericsson LM | Ericsson España S.A. |
| Mr. | Varga | Imre | Qualcomm CDMA Technologies | QUALCOMM JAPAN LLC. |
| Mr. | Velev | Genadi | Motorola Mobility Germany GmbH | Lenovo Future Communications |
| Mr. | Vujcic | Dragan | IDEMIA | IDEMIA |
| Dr. | Wan | Tao | CableLabs | CableLabs |
| Ms. | Wang | Dan | China Mobile Com. Corporation | China Mobile Group Device Co. |
| Dr. | Wang | Hucheng | CATT | Datang Mobile Com. Equipment |
| Mr. | Wang | Wen | vivo Mobile Communication Co., | GUANGDONG GENIUS TECHNOLOGY CO |
| Mr. | Wang | Yuan | HuaWei Technologies Co., Ltd | Huawei Technologies R&D UK |
| Dr. | Wang | Zhaoning | China Unicom | CUG |
| Ms. | Warren | Denisha | U.S. National Security Agency | U.S. National Security Agency |
| Ms. | WEI | QUN | China Unicom | BTPDI |
| Mr. | Whorlow | Colin | NCSC | HOME OFFICE |
| Ms. | Wifvesson | Monica | Ericsson LM | Ericsson Limited |
| Mr. | Wong | Marcus | OPPO | Hangzhou Mengyuxiang |
| Mr. | Woodward | Tim | Motorola Solutions Danmark A/S | Motorola Solutions Danmark A/S |
| Ms. | WU | Jinhua | Beijing Xiaomi Mobile Software | Beijing Xiaomi Mobile Software |
| Mr. | Wu | Xiaobo | vivo Communication Technology | Nanjing Weibo |
| Mr. | Xie | Zhenhua | vivo Mobile Communication Co., | vivo Mobile Communication (S) |
| Mr. | Xie | Zhonghuai | China Unicom | China Unicom |
| Dr. | Xin | Tingyu | Samsung R&D Institute UK | SAMSUNG R&D INSTITUTE JAPAN |
| Mr. | Xing | TianQi | China Unicom | China Unicom |
| Mr. | Xiong | Chunshan | CICT | Datang Linktester Technology |
| Miss | Xiong | Lihui | Guangdong OPPO Mobile Telecom. | Guangdong OPPO Mobile Telecom. |
| Miss | Xu | Hui | CATT | CATT |
| Mr. | Xu | Weijie | Shenzhen Heytap | OPPO Beijing |
| Mr. | Xu | Yang | Guangdong OPPO Mobile Telecom. | OPPO (chongqing) Intelligence |
| Ms. | Xu | Yishan | Huawei Technologies R&D UK | HUAWEI TECH. GmbH |
| Miss | Yan | Chen | Pengcheng laboratory | Pengcheng laboratory |
| Dr. | Yang | Hyun-Koo | Samsung Electronics Co., Ltd | Samsung Electronics France SA |
| Dr. | Yao | Ge | China Unicom | VSENS |
| Ms. | Yi | Haofan | BJTU | BJTU |
| Mr. | Yip | Eric | Samsung Electronics Co., Ltd | Samsung Research America |
| Mr. | You | Shilin | ZTE Corporation. | ZTE Photonics |
| Mr. | Youn | Myungjune | LG Electronics France | LG Electronics Finland |
| Dr. | Zhang | Amy | vivo Japan KK | vivo Japan KK |
| Dr. | Zhang | Bo | HUAWEI TECHNOLOGIES Co. Ltd. | Huawei Technologies France |
| Miss | Zhang | Juan | Qualcomm Korea | Qualcomm Europe Inc. Sweden |
| Mr. | ZHANG | Kefeng | Qualcomm Incorporated | Qualcomm Europe Inc. Sweden |
| Miss | ZHAO | HUAN | China Unicom | Unicom Broadband Online |
| Dr. | Zhao | Shuai | Intel | Intel Sweden AB |
| Mr. | Zhou | Runze | Huawei Technologies France | Huawei Technologies (Korea) |
| Mr. | Zhou | Wei | CATT | Fiberhome Technologies Group |
| Mr. | Zhu | Chunhui | Beijing Xiaomi Mobile Software | Xiaomi EV Technology |
| Mr. | Zhu | Jinguo | ZTE Corporation. | ZTE Korea Limited |
| Mrs. | Zhu | Wenruo | HuaWei Technologies Co., Ltd | HUAWEI Technologies Japan K.K. |
| Dr. | Zia | Waqar | Apple Marketing Iberia | Apple AB Finland |
| Mr. | Zisimopoulos | Haris | Qualcomm Technologies Int | Qualcomm France |
| Dr. | Zugenmaier | Alf | NTT DOCOMO INC. | NTT DOCOMO INC. |

## Annex G: List of future meetings

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Title | Start date | End date (OP) | Town | Country | Reference |
| SA3#110-bis - CANCELLED | 2023-04-17 | 2023-04-21 | TBD | US | S3-110 |
| SA3#110-bis-e | 2023-04-17 | 2023-04-21 | Online |  | S3-110 |
| SA3#89-LI | 2023-04-24 | 2023-04-28 | Washington DC | US | S3-89-LI |
| SA3#111 | 2023-05-22 | 2023-05-26 | EU | EU | S3-111 |
| SA3#90-LI | 2023-06-26 | 2023-06-30 | EU | EU | S3-90-LI |
| SA3#112 | 2023-08-14 | 2023-08-18 | EU | EU | S3-112 |
| SA3#113 | 2023-11-06 | 2023-11-10 | Chicago | US | S3-113 |
| SA3#114 | 2024-01-22 | 2024-01-26 | TBD |  | S3-114 |
| SA3#115 | 2024-02-26 | 2024-03-01 | EU | EU | S3-115 |
| SA3#116-(option 1) | 2024-05-13 | 2024-05-17 | Korea | KR | S3-116 |
| SA3#116-(option 2) | 2024-05-20 | 2024-05-24 | TBD |  | S3-116 |
| SA3#117 | 2024-08-26 | 2024-08-30 | EU | EU | S3-117 |
| SA3#118 | 2024-10-07 | 2024-10-11 | India | IN | S3-118 |
| SA3#119 | 2024-11-11 | 2024-11-15 | US TBC | US | S3-119 |