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

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

**Online, electronic meeting, 12/10/2020 to 16/10/2020**

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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.*

**S3-202300 Agenda**

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

**Decision:** The document was **revised to S3-202352**.

**S3-202301 Process for SA3#100Bis-e meeting**

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

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

**S3-202352 Agenda**

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

(Replaces S3-202300)

**Decision:** The document was **revised to S3-202397**.

**S3-202397 Agenda**

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

(Replaces S3-202352)

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

**S3-202670 Process and agenda for SA3#100bis-e**

*Type: other For: Information  
 Source: SA WG3 Chair*

**Decision:** The document was **withdrawn**.

## 2 Rel-17 Study areas

### 2.1 Study on 5G security enhancement against false base stations

**S3-202337 System Information Protection using SNPN Credentials**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: Huawei, Hisilicon*

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

**S3-202373 Reply LS to SA3 on FBS detection**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: R2-1914224*

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

**S3-202383 Reply LS to RAN2 on FBS detection**

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

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

**S3-202448 5GFBS-RRCResumeRequest message protection**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: Apple, CableLabs*

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

**S3-202449 5GFBS-Add a NOTE in the key issue#7 on the MitM attack**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: Apple*

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

**S3-202464 Updates to solution #20 (6.20.2.1)**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: CableLabs, Philips International B.V, Apple, Deutsche Telekom AG, InterDigital Communications, Charter Communications*

**Decision:** The document was **revised to S3-202718**.

**S3-202466 Updates to solution #20 (6.20.2.4)**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: CableLabs, Philips International B.V, Apple, Deutsche Telekom AG, InterDigital Communications, Charter Communications*

**Decision:** The document was **revised to S3-202719**.

**S3-202467 Updates to solution #20 (6.20.2.5.1)**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: CableLabs, Philips International B.V, Apple, Deutsche Telekom AG, InterDigital Communications, Charter Communications*

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

**S3-202468 Updates to solution #20 (adding Assessment using Annex A.3)**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: CableLabs, Philips International B.V, Apple, Deutsche Telekom AG, InterDigital Communications, Charter Communications*

**Decision:** The document was **revised to S3-202720**.

**S3-202531 New solution for KI#3**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: Philips International B.V., CableLabs*

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

**S3-202532 Clarification Key Issue #7**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: Philips International B.V., CableLabs*

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

**S3-202540 5GFBS: Accuracy of Loaction Estimate for Solution#22**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202541 5GFBS: FBS pretending to be in a different PLMN for Solution#22**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-202699**.

**S3-202542 5GFBS: FBS Detection in Network Sharing Scenario for Solution#22**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202543 5GFBS: Support of Multiple FBS Detection for Solution#22**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202556 Clarification Solution #23**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: Philips International B.V.*

**Decision:** The document was **revised to S3-202738**.

**S3-202557 Updates to solution #20 (6.20.2.2.2)**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: Philips International B.V., CableLabs, Apple*

**Decision:** The document was **revised to S3-202737**.

**S3-202558 Updates to solution #20 (6.20.2.5.1 (verification))**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: Philips International B.V., CableLabs, Apple*

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

**S3-202602 pCR: Conclusion of Key issue#5**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: Lenovo, Motorola Mobility, Huawei*

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

**S3-202603 Update of Solution#15**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: Lenovo, Motorola Mobility*

**Decision:** The document was **revised to S3-202782**.

**S3-202624 Evaluation for Solution#13**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: Samsung*

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

**S3-202625 Evaluation for Solution#17**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: Samsung*

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

**S3-202626 Solution for Resumecause protection**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: Samsung*

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

**S3-202630 Certificate based solution for Protecting System Information Messages with Digital Signature in an NPN**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: MITRE Corporation, AT&T, InterDigital, DoD, NTIA, CISA/ECD, Charter Communications*

**Decision:** The document was **revised to S3-202717**.

**S3-202662 pCR to 33.809 Enhanced Description of Key Issue #7**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-202691**.

**S3-202691 pCR to 33.809 Enhanced Description of Key Issue #7**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-202662)

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

**S3-202699 5GFBS: FBS pretending to be in a different PLMN for Solution#22**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-202541)

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

**S3-202717 Certificate based solution for Protecting System Information Messages with Digital Signature in an NPN**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: MITRE Corporation, AT&T, InterDigital, DoD, NTIA, CISA/ECD, Charter Communications, SoftHandover Consulting, Apple*

(Replaces S3-202630)

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

**S3-202718 Updates to solution #20 (6.20.2.1)**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: CableLabs, Philips International B.V, Apple, Deutsche Telekom AG, InterDigital Communications, Charter Communications*

(Replaces S3-202464)

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

**S3-202719 Updates to solution #20 (6.20.2.4)**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: CableLabs, Philips International B.V, Apple, Deutsche Telekom AG, InterDigital Communications, Charter Communications*

(Replaces S3-202466)

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

**S3-202720 Updates to solution #20 (adding Assessment using Annex A.3)**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: CableLabs, Philips International B.V, Apple, Deutsche Telekom AG, InterDigital Communications, Charter Communications*

(Replaces S3-202468)

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

**S3-202737 Update\_solution\_20\_sec\_6.20.2.2.2**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: Philips International B.V., CableLabsCableLabs, Philips International B.V, Apple, Deutsche Telekom AG*

(Replaces S3-202557)

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

**S3-202738 Clarification Solution #23**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: Philips International B.V.*

(Replaces S3-202556)

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

**S3-202740 Draft TR 33.809-5GFBS**

*Type: draft TR For: Approval  
 33.809 v0.11.0  
 Source: Apple Computer Trading Co. Ltd*

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

**S3-202782 Update of Solution#15**

*Type: pCR For: Approval  
 33.809 v0.10.0  
 Source: Lenovo, Motorola Mobility*

(Replaces S3-202603)

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

### 2.2 Study on SECAM and SCAS for 3GPP virtualized network products

**S3-202371 Re LS on Accreditation for Virtualised Network Products (VNPs)**

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

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

**S3-202544 SCAS VNP: DoS Attack via Changing Virtualized Resource**

*Type: pCR For: Approval  
 33.818 v0.7.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202545 SCAS VNP: Secure Execution Environment**

*Type: pCR For: Approval  
 33.818 v0.7.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202546 SCAS VNP: Software Tampering**

*Type: pCR For: Approval  
 33.818 v0.7.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-202696**.

**S3-202547 SCAS VNP: Threats on VNF-VNFM Interface**

*Type: pCR For: Approval  
 33.818 v0.7.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202548 SCAS VNP: VM Escape and Hypervisor Escape**

*Type: pCR For: Approval  
 33.818 v0.7.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202549 SCAS VNP: Security requirements on the interface between VNF and VNFM**

*Type: pCR For: Approval  
 33.818 v0.7.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202559 Clarifying summary of threats for GVNP**

*Type: pCR For: Approval  
 33.818 v0.7.0  
 Source: China Mobile*

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

**S3-202560 Security functional requirements derived from 3GPP specifications – general SBA/SBI aspects**

*Type: pCR For: Approval  
 33.818 v0.7.0  
 Source: China Mobile*

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

**S3-202561 Adding hardening requirements for GVNP of type 1**

*Type: pCR For: Approval  
 33.818 v0.7.0  
 Source: China Mobile*

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

**S3-202562 Adding hardening requirements for GVNP of type 2**

*Type: pCR For: Approval  
 33.818 v0.7.0  
 Source: China Mobile*

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

**S3-202563 Adding hardening requirements for GVNP of type 3**

*Type: pCR For: Approval  
 33.818 v0.7.0  
 Source: China Mobile*

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

**S3-202564 Adding basic vulnerability testing requirements for GVNP**

*Type: pCR For: Approval  
 33.818 v0.7.0  
 Source: China Mobile*

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

**S3-202565 Adding vendor development and product lifecycle processes and test laboratory accreditation into Clause 6**

*Type: pCR For: Approval  
 33.818 v0.7.0  
 Source: China Mobile*

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

**S3-202566 Adding evaluation and SCAS instantiation into clause 7**

*Type: pCR For: Approval  
 33.818 v0.7.0  
 Source: China Mobile*

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

**S3-202567 Adding test case into clause 5.2.5.5.8.5.1**

*Type: pCR For: Approval  
 33.818 v0.7.0  
 Source: China Mobile*

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

**S3-202568 Adding test case into clause 5.2.5.6.6.1**

*Type: pCR For: Approval  
 33.818 v0.7.0  
 Source: China Mobile*

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

**S3-202569 Adding conclusion into clause 8**

*Type: pCR For: Approval  
 33.818 v0.7.0  
 Source: China Mobile*

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

**S3-202679 TR 33.818 v0.8.0**

*Type: draft TR For: (not specified)  
 33.818 v0.8.0  
 Source: China Mobile Com. Corporation*

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

**S3-202696 SCAS VNP: Software Tampering**

*Type: pCR For: Approval  
 33.818 v0.7.0  
 Source: Nokia, Nokia Shanghai Bell, China Mobile*

(Replaces S3-202546)

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

### 2.3 Study on User Plane Integrity Protection

**S3-202344 Clarification for Solution 11**

*Type: pCR For: Approval  
 33.853 v1.1.0  
 Source: Huawei, Hisilicon*

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

**S3-202354 LS on mandatory support of full rate user plane integrity protection for 5G**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: C1-205392*

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

**S3-202357 Response LS to TSG SA on mandatory support of full rate user plane integrity protection for 5G**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: R2-2008643*

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

**S3-202359 Reply LS on mandatory support of full rate user plane integrity protection for 5G**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: R3-205653*

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

**S3-202365 Reply LS on Updated User Plane Integrity Protection advice**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2006180*

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

**S3-202366 LS on mandatory support of full rate user plane integrity protection for 5G**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2006181*

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

**S3-202509 Discussion on SA2 LS and CR in S3-202366**

*Type: discussion For: Endorsement  
 Source: Futurewei*

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

**S3-202536 Summary of editors notes and way forwards for UPIP - TR33.853**

*Type: discussion For: Discussion  
 33.853 v..  
 Source: VODAFONE Group Plc*

**Abstract:**

A discussion on open issues (Editor's notes) in TR33.853 - with a view to completing and publishing this TR.

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

**S3-202578 UPIP: Update to solution #11**

*Type: pCR For: Approval  
 33.853 v1.1.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-202727**.

**S3-202579 UPIP: Conclusion on <UE connects to EPC via eUTRA>**

*Type: pCR For: Approval  
 33.853 v1.1.0  
 Source: Ericsson*

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

**S3-202580 UPIP: New solution to resolve KI#1 for Option (eUTRA with EPC)**

*Type: pCR For: Approval  
 33.853 v1.1.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-202728**.

**S3-202599 pCR to TR33.853 - Conclusions for Option 1 and 3**

*Type: pCR For: Approval  
 33.853 v1.1.0  
 Source: VODAFONE Group Plc*

**Abstract:**

Adds conclusions for Options 1 and 3

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

**S3-202608 DRAFT LS to RAN3 on UPIP solutions for LE**

*Type: LS out For: Agreement  
 to RAN3  
 Source: VODAFONE Group Plc*

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

**S3-202634 pCR to TR33.853 - Updates to Solution#15**

*Type: pCR For: Agreement  
 33.853 v1.1.0  
 Source: VODAFONE Group Plc*

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

**S3-202639 Restricting handovers to RAN nodes that don’t support UP IP**

*Type: pCR For: Approval  
 33.853 v1.1.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **revised to S3-202707**.

**S3-202640 pCR: Solution for UP IP for EPC connected RAN options**

*Type: pCR For: Approval  
 33.853 v1.1.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **revised to S3-202723**.

**S3-202656 pCR to TR33.853 - Updates to solution #14**

*Type: pCR For: Agreement  
 33.853 v1.1.0  
 Source: VODAFONE Group Plc*

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

**S3-202659 pCR to TR33.853 - Updates to solution #14**

*Type: pCR For: Agreement  
 33.853 v1.1.0  
 Source: VODAFONE Group Plc*

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

**S3-202707 Restricting handovers to RAN nodes that don’t support UP IP**

*Type: pCR For: Approval  
 33.853 v1.1.0  
 Source: Qualcomm Incorporated*

(Replaces S3-202639)

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

**S3-202723 pCR: Solution for UP IP for EPC connected RAN options**

*Type: pCR For: Approval  
 33.853 v1.1.0  
 Source: Qualcomm Incorporated*

(Replaces S3-202640)

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

**S3-202727 UPIP: Update to solution #11**

*Type: pCR For: Approval  
 33.853 v1.1.0  
 Source: Ericsson*

(Replaces S3-202578)

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

**S3-202728 UPIP: New solution to resolve KI#1 for Option (eUTRA with EPC)**

*Type: pCR For: Approval  
 33.853 v1.1.0  
 Source: Ericsson*

(Replaces S3-202580)

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

### 2.4 Study on Security Impacts of Virtualisation

### 2.5 Study on authentication enhancements in 5GS

**S3-202313 evaluation of solution 2.1**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: ZTE Corporation*

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

**S3-202314 Security requirement of SUCI replay**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: ZTE Corporation*

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

**S3-202315 update solution 4.3**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: ZTE Corporation*

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

**S3-202316 update solution 4.4**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: ZTE Corporation*

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

**S3-202317 Solution of Mitigation against the SUPI replay attack**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: ZTE Corporation*

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

**S3-202374 Reply to LS on Resynchronisations**

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

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

**S3-202437 Discussion on editor notes in SQNms concealment solution**

*Type: pCR For: Discussion  
 33.846 v0.7.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202438 Ed.note resolution on SQNms protection by concealment when 5G-GUTI is received**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202439 Ed.note resolution on backward compatibility in solution SQNms protection by concealment**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202440 Discussion\_paper\_on\_editor\_notes\_SQN protection during re-synchronisation**

*Type: pCR For: Discussion  
 33.846 v0.7.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202441 Ed.note resolution in solution summary of sol.4.4**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-202788**.

**S3-202442 Ed.note resolution on backward compatibility in evaluation of sol.4.4**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202443 KI update on SUCI replay**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202444 Solution for avoiding linkability by SUCI replay and SUPI guessing attack**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202445 Editorial updates of solution titles**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-202786**.

**S3-202446 Comparison of different solutions for Key issue#4.1**

*Type: pCR For: Endorsement  
 33.846 v0.7.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202447 Conclusion to key issue 4.1**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202494 pCR: 33.846: Updates on key issue #2.1**

*Type: pCR For: Approval  
 33.846 v0.3.0  
 Source: Huawei, Hisilicon*

**Decision:** The document was **revised to S3-202747**.

**S3-202495 pCR: 33.846: Conclusion on key issue #3.1**

*Type: pCR For: Approval  
 33.846 v0.3.0  
 Source: Huawei, Hisilicon*

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

**S3-202571 Complementary to key issue to mitigate the SUPI guessing attacks**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: China Mobile*

**Decision:** The document was **revised to S3-202710**.

**S3-202572 Discussion on a unified solution needs to the key issue #2.1 and key issue #4.1**

*Type: discussion For: Endorsement  
 33.846 v..  
 Source: China Mobile*

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

**S3-202573 Propose a conclusion for the key issue #2.1 and key issue #4.1**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: China Mobile*

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

**S3-202636 Conclusion for Key Issue #2.1**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: THALES*

**Abstract:**

Conclusion for Key Issue #2.1

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

**S3-202637 Conclusion for Key Issue #4.1**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: THALES*

**Abstract:**

Conclusion for Key Issue #4.1

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

**S3-202643 Some evaluation of solution#2.1 in TR 33.846**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: Qualcomm Incorporated*

(Replaces S3-201930)

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

**S3-202644 Some evaluation of solution #2.2 in TR 33.846**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: Qualcomm Incorporated*

(Replaces S3-201931)

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

**S3-202645 Some evaluation of solution #2.3 in TR 33.846**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: Qualcomm Incorporated*

(Replaces S3-201932)

**Decision:** The document was **revised to S3-202711**.

**S3-202646 Some evaluation of solution #2.5 in TR 33.846**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: Qualcomm Incorporated*

(Replaces S3-201933)

**Decision:** The document was **revised to S3-202712**.

**S3-202647 Proposing a conclusion for key issue #4.1**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: Qualcomm Incorporated*

(Replaces S3-201935)

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

**S3-202710 Complementary to key issue to mitigate the SUPI guessing attacks**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: China Mobile*

(Replaces S3-202571)

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

**S3-202711 Some evaluation of solution #2.3 in TR 33.846**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: Qualcomm Incorporated*

(Replaces S3-202645)

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

**S3-202712 Some evaluation of solution #2.5 in TR 33.846**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: Qualcomm Incorporated*

(Replaces S3-202646)

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

**S3-202735 Draft TR 33.846 v0.8.0 Study on authentication enhancements in the 5G System (5GS)**

*Type: draft TR For: Approval  
 33.846 v0.8.0  
 Source: Ericsson Hungary Ltd*

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

**S3-202747 pCR: 33.846: Updates on key issue #2.1**

*Type: pCR For: Approval  
 33.846 v0.3.0  
 Source: Huawei, Hisilicon*

(Replaces S3-202494)

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

**S3-202786 Editorial updates of solution titles**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-202445)

**Abstract:**

2445r1 approved in SA3#100bis-2

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

**S3-202788 Ed.note resolution in solution summary of sol.4.4**

*Type: pCR For: Approval  
 33.846 v0.7.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-202441)

**Abstract:**

S3-202441-r4 approved from SA3#100bis-e

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

### 2.6 Study on storage and transport of the security parameters in a 5GC, that are used by the ARPF for Authentication

**S3-202305 Evaluation of Solution 2**

*Type: pCR For: (not specified)  
 33.845 v0.4.0  
 Source: NCSC*

**Decision:** The document was **revised to S3-202675**.

**S3-202306 Evaluation of Solution 3**

*Type: pCR For: (not specified)  
 33.845 v0.4.0  
 Source: NCSC*

**Decision:** The document was **revised to S3-202676**.

**S3-202307 Evaluation of Solution 4**

*Type: pCR For: (not specified)  
 33.845 v0.4.0  
 Source: NCSC*

**Decision:** The document was **revised to S3-202677**.

**S3-202308 New solution for KI2: Storage of LTK in UDR**

*Type: pCR For: (not specified)  
 33.845 v0.4.0  
 Source: NCSC*

**Decision:** The document was **revised to S3-202680**.

**S3-202311 New Solution for KI3: Transfer of LTK between UDR and UDM/ARPF**

*Type: pCR For: (not specified)  
 33.845 v0.4.0  
 Source: NCSC*

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

**S3-202404 New solution for KI4 - Encrypted storage of OPc in UDR**

*Type: pCR For: Approval  
 33.845 v0.4.0  
 Source: KPN N.V.*

**Decision:** The document was **revised to S3-202671**.

**S3-202405 New solution for KI5 - Encrypted transfer of OPc out of UDR**

*Type: pCR For: Approval  
 33.845 v0.4.0  
 Source: KPN N.V.*

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

**S3-202406 New solution for KI6 - Encrypted storage of OP in UDR**

*Type: pCR For: Approval  
 33.845 v0.4.0  
 Source: KPN N.V.*

**Decision:** The document was **revised to S3-202672**.

**S3-202407 New solution for KI7 - Encrypted transfer of OP out of UDR**

*Type: pCR For: Approval  
 33.845 v0.4.0  
 Source: KPN N.V.*

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

**S3-202671 New solution for KI4 - Encrypted storage of OPc in UDR**

*Type: pCR For: Approval  
 33.845 v0.4.0  
 Source: KPN N.V.*

(Replaces S3-202404)

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

**S3-202672 New solution for KI6 - Encrypted storage of OP in UDR**

*Type: pCR For: Approval  
 33.845 v0.4.0  
 Source: KPN N.V.*

(Replaces S3-202406)

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

**S3-202675 Evaluation of Solution 2**

*Type: pCR For: (not specified)  
 33.845 v0.4.0  
 Source: NCSC*

(Replaces S3-202305)

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

**S3-202676 Evaluation of Solution 3**

*Type: pCR For: (not specified)  
 33.845 v0.4.0  
 Source: NCSC*

(Replaces S3-202306)

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

**S3-202677 Evaluation of Solution 4**

*Type: pCR For: (not specified)  
 33.845 v0.4.0  
 Source: NCSC*

(Replaces S3-202307)

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

**S3-202680 New solution for KI2: Storage of LTK in UDR**

*Type: pCR For: (not specified)  
 33.845 v0.4.0  
 Source: NCSC*

(Replaces S3-202308)

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

### 2.7 Study on security aspects of Unmanned Aerial Systems

**S3-202345 Update ot KI#6**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: Huawei, Hisilicon*

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

**S3-202386 A solution to UAV/UAV-C pairing authorization**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: Huawei, HiSilicon, InterDigital*

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

**S3-202387 A solution to TPAE authentication and authorization**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: Huawei, HiSilicon*

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

**S3-202388 A solution to C2 communication security**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: Huawei, HiSilicon*

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

**S3-202389 A solution to RID information protection**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: Huawei, HiSilicon*

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

**S3-202390 A solution to UAS ID privacy protection**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: Huawei, HiSilicon*

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

**S3-202391 Addressing EN in Sol1 on UAS registration IE**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: Huawei, HiSilicon*

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

**S3-202392 Addressing EN in Sol1 on UAS registration Accept**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-202692**.

**S3-202415 Solution for UAV A&A during registration**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: InterDigital, Europe, Ltd.*

**Abstract:**

a new solution to address KI#1 "UAS Authentication and Authorization".

**Decision:** The document was **revised to S3-202702**.

**S3-202416 Solution for UAV A&A using EAP-based PDU Secondary authentication**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: InterDigital, Europe, Ltd.*

**Abstract:**

a new solution to address KI#1 "UAS Authentication and Authorization". EAP-based PDU Secondary A&A

**Decision:** The document was **revised to S3-202703**.

**S3-202417 Solution for UAV A&A using API-based PDU Secondary authentication**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: InterDigital, Europe, Ltd.*

**Abstract:**

a new solution to address KI#1 "UAS Authentication and Authorization". API-based PDU secondary A&A

**Decision:** The document was **revised to S3-202704**.

**S3-202418 Update for KI#5 Privacy protection of UAS identities**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: InterDigital, Europe, Ltd.*

**Abstract:**

add a potential requirement for KI#5 for privacy protection of UAV identities during broadcast transmissions

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

**S3-202479 New solution to verify the location information**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-202772**.

**S3-202600 Broadcast privacy**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: Lenovo, Motorola Mobility*

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

**S3-202607 Solution on UAS Authentication and Authorization**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: Lenovo, Motorola Mobility*

**Abstract:**

This pCR proposes a Solution on ‘UAS Authentication, Authorization and Security Aspects’ to address KI#1 in TR 33.854

**Decision:** The document was **revised to S3-202722**.

**S3-202609 Solution on UAS Security Aspects**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: Lenovo, Motorola Mobility*

**Abstract:**

This pCR proposes a Solution on ‘UAS Security Aspects’ to address KI#6 and KI#7 in TR 33.854

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

**S3-202610 [UAS] Update to KI#6**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: Samsung*

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

**S3-202628 Solution on UAV and UAV-C Pairing Authorization and Security Aspects**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: Lenovo, Motorola Mobility*

**Abstract:**

This pCR proposes a Solution on ‘UAV and UAV-C Pairing Authorization and Security Aspects’ to address KI#2 in TR 33.854

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

**S3-202635 A new solution for UAS authentication and authorization**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-202690**.

**S3-202641 Authentication and authorisation of UAVs**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: Qualcomm Incorporated*

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

**S3-202642 Obtaining UAV location information from the PLMN**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **revised to S3-202709**.

**S3-202690 A new solution for UAS authentication and authorization**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: Ericsson*

(Replaces S3-202635)

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

**S3-202692 Addressing EN in Sol1 on UAS registration Accept**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: Huawei, HiSilicon, Lenovo, Motorola Mobility*

(Replaces S3-202392)

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

**S3-202702 Solution for UAV A&A during registration**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: InterDigital, Europe, Ltd.*

(Replaces S3-202415)

**Abstract:**

a new solution to address KI#1 "UAS Authentication and Authorization".

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

**S3-202703 Solution for UAV A&A using EAP-based PDU Secondary authentication**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: InterDigital, Europe, Ltd.*

(Replaces S3-202416)

**Abstract:**

a new solution to address KI#1 "UAS Authentication and Authorization". EAP-based PDU Secondary A&A

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

**S3-202704 Solution for UAV A&A using API-based PDU Secondary authentication**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: InterDigital, Europe, Ltd.*

(Replaces S3-202417)

**Abstract:**

a new solution to address KI#1 "UAS Authentication and Authorization". API-based PDU secondary A&A

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

**S3-202709 Obtaining UAV location information from the PLMN**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: Qualcomm Incorporated, Interdigital*

(Replaces S3-202642)

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

**S3-202722 Solution on UAS Authentication and Authorization**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: Lenovo, Motorola Mobility*

(Replaces S3-202607)

**Abstract:**

This pCR proposes a Solution on ‘UAS Authentication, Authorization and Security Aspects’ to address KI#1 in TR 33.854

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

**S3-202772 New solution to verify the location information**

*Type: pCR For: Approval  
 33.854 v0.1.0  
 Source: Huawei, HiSilicon*

(Replaces S3-202479)

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

**S3-202787 TR 33.854 v0.2.0**

*Type: draft TR For: Approval  
 33.854 v0.2.0  
 Source: Qualcomm Incorporated*

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

### 2.8 Study on Security Aspects of Enhancement of Support for Edge Computing in 5GC

**S3-202318 NEF discovers AUSF in solution 2 of TR33.839**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: ZTE Corporation*

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

**S3-202319 Derivation of Kedge ID in UE**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: ZTE Corporation*

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

**S3-202320 Add some references and abbrevations**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: ZTE Corporation*

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

**S3-202321 Clean up**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: ZTE Corporation*

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

**S3-202322 New solution for key issue 6 Edge3 protection**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: ZTE Corporation*

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

**S3-202323 New solution for key issue 6 type B interface protection**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: ZTE Corporation*

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

**S3-202343 Reply LS for IP address to GPSI translation**

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

**Decision:** The document was **revised to S3-202753**.

**S3-202348 New solution on Authentication between EEC and EES**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Huawei, Hisilicon*

**Decision:** The document was **revised to S3-202756**.

**S3-202349 New solution on Authentication between EEC and ECS**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Huawei, Hisilicon*

**Decision:** The document was **revised to S3-202757**.

**S3-202350 update to KI#10 User's consent for exposure of information to Edge Applications**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Huawei, Hisilicon*

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

**S3-202351 New solution on Security of Network Information Provisioning to Local Applications**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Huawei, Hisilicon*

**Decision:** The document was **revised to S3-202759**.

**S3-202364 LS on checking security issue for Solution 22 in TR 23.748**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2006033*

**Decision:** The document was **replied to in S3-202570**.

**S3-202370 LS on IP address to GPSI translation**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S6-200947*

**Decision:** The document was **replied to in S3-202753**.

**S3-202450 MEC-Reply LS to SA6 (S6-200947) on the protection of user’s consent**

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

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

**S3-202463 Key issue on the binding relationship for the UE IDs**

*Type: pCR For: (not specified)  
 33.839 v0.1.0  
 Source: CATT*

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

**S3-202465 Key issue on the binding relationship for the UE IDs**

*Type: pCR For: (not specified)  
 33.839 v0.1.0  
 Source: CATT*

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

**S3-202483 EC: New solution on authentication and authorization between EEC and ECS**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Huawei, Hisilicon*

**Decision:** The document was **revised to S3-202742**.

**S3-202484 EC: New Key issue on authorization during Edge Data Network change**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Huawei, Hisilicon*

**Decision:** The document was **revised to S3-202743**.

**S3-202485 EC: New solution on transport security for EDGE-1-9 interfaces**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Huawei, Hisilicon*

**Decision:** The document was **revised to S3-202744**.

**S3-202500 Solution on Authentication and Authorization between the Edge Enabler Client and the Edge Configuration Server**

*Type: pCR For: (not specified)  
 33.839 v0.1.0  
 Source: CATT*

**Decision:** The document was **revised to S3-202776**.

**S3-202501 Solution on Authentication and Authorization between the EEC and the EES when the ECS is deployed by the ECSP**

*Type: pCR For: (not specified)  
 33.839 v0.1.0  
 Source: CATT*

**Decision:** The document was **revised to S3-202777**.

**S3-202502 Solution on Authentication and Authorization between the EEC and the EES when the ECS is deployed by the MNO**

*Type: pCR For: (not specified)  
 33.839 v0.1.0  
 Source: CATT*

**Decision:** The document was **revised to S3-202778**.

**S3-202503 Solution on the service capability exposure to the EAS**

*Type: pCR For: (not specified)  
 33.839 v0.1.0  
 Source: CATT*

**Decision:** The document was **revised to S3-202779**.

**S3-202510 Discussion on SA2 LS on EC Solution #22**

*Type: discussion For: Endorsement  
 Source: Futurewei*

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

**S3-202516 Onboarding and authentication/authorization framework for Edge Enabler Server with Edge Configuration Server**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Intel Corporation (UK) Ltd*

**Decision:** The document was **revised to S3-202731**.

**S3-202521 Updates to Solution 3**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Intel Corporation (UK) Ltd*

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

**S3-202524 Reply LS on checking Security issue for Solution 22 in TR 23.748**

*Type: LS out For: (not specified)  
 to SA2  
 Source: Intel Corporation (UK) Ltd*

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

**S3-202525 Discussion on LS on checking security issue for Solution 22 in TR 23.748**

*Type: discussion For: Endorsement  
 Source: Intel Corporation (UK) Ltd*

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

**S3-202527 Updates to Key Issue 3 and 6**

*Type: pCR For: (not specified)  
 33.839 v0.1.0  
 Source: Intel Corporation (UK) Ltd*

**Decision:** The document was **revised to S3-202733**.

**S3-202528 New solution for key issue 1,2, 4,6**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Intel Corporation (UK) Ltd*

**Decision:** The document was **revised to S3-202729**.

**S3-202570 reply LS on security analysis for Solution 22 in TR 23.748**

*Type: LS out For: Approval  
 to SA2  
 Source: China Mobile*

**Decision:** The document was **revised to S3-202678**.

**S3-202598 update to KI#10 User's consent for exposure of information to Edge Applications**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Huawei, Hiliscon*

**Decision:** The document was **revised to S3-202758**.

**S3-202605 Authentication and Authorization with the Edge Data Network**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Lenovo, Motorola Mobility*

**Decision:** The document was **revised to S3-202781**.

**S3-202618 Corrections to Key issue #6**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Samsung*

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

**S3-202619 Moving Key issue #10 to FS\_UC3S**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Samsung*

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

**S3-202620 Resolving editor’s note on AKMA key derivation**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Samsung*

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

**S3-202621 Resolving editor’s note on MAC-I calculation**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Samsung*

**Decision:** The document was **revised to S3-202697**.

**S3-202678 reply LS on security analysis for Solution 22 in TR 23.748**

*Type: LS out For: Approval  
 to SA2  
 Source: China Mobile*

(Replaces S3-202570)

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

**S3-202697 Resolving editor’s note on MAC-I calculation**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Samsung*

(Replaces S3-202621)

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

**S3-202729 New solution for key issue 1,2, 4,6**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Intel Corporation (UK) Ltd*

(Replaces S3-202528)

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

**S3-202731 Onboarding and authentication/authorization framework for Edge Enabler Server with Edge Configuration Server**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Intel Corporation (UK) Ltd*

(Replaces S3-202516)

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

**S3-202733 Updates to Key Issue 3 and 6**

*Type: pCR For: (not specified)  
 33.839 v0.1.0  
 Source: Intel Corporation (UK) Ltd*

(Replaces S3-202527)

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

**S3-202741 EC: New solution on authentication and authorization between EEC and ECS**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Huawei, Hisilicon*

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

**S3-202742 EC: New solution on authentication and authorization between EEC and ECS**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Huawei, Hisilicon*

(Replaces S3-202483)

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

**S3-202743 EC: New Key issue on authorization during Edge Data Network change**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Huawei, Hisilicon*

(Replaces S3-202484)

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

**S3-202744 EC: New solution on transport security for EDGE-1-9 interfaces**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Huawei, Hisilicon, ZTE*

(Replaces S3-202485)

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

**S3-202753 Reply LS for IP address to GPSI translation**

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

(Replaces S3-202343)

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

**S3-202756 New solution on Authentication between EEC and EES**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Huawei, Hisilicon*

(Replaces S3-202348)

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

**S3-202757 New solution on Authentication between EEC and ECS**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Huawei, Hisilicon*

(Replaces S3-202349)

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

**S3-202758 update to KI#10 User's consent for exposure of information to Edge Applications**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Huawei, Hisilicon, Samsung*

(Replaces S3-202598)

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

**S3-202759 New solution on Security of Network Information Provisioning to Local Applications**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Huawei, Hisilicon*

(Replaces S3-202351)

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

**S3-202764 Draft TR 33.839 - FS\_eEDGE\_SEC**

*Type: draft TR For: Approval  
 33.839 v0.2.0  
 Source: Huawei, Hisilicon*

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

**S3-202776 Solution on Authentication and Authorization between the Edge Enabler Client and the Edge Configuration Server**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: CATT*

(Replaces S3-202500)

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

**S3-202777 Solution on Authentication and Authorization between the EEC and the EES when the ECS is deployed by the ECSP**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: CATT*

(Replaces S3-202501)

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

**S3-202778 Solution on Authentication and Authorization between the EEC and the EES when the ECS is deployed by the MNO**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: CATT*

(Replaces S3-202502)

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

**S3-202779 Solution on the service capability exposure to the EAS**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: CATT*

(Replaces S3-202503)

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

**S3-202781 Authentication and Authorization with the Edge Data Network**

*Type: pCR For: Approval  
 33.839 v0.1.0  
 Source: Lenovo, Motorola Mobility, Samsung*

(Replaces S3-202605)

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

### 2.9 Study on Security Aspects of Enhancement for Proximity Based Services in 5GS

**S3-202312 New KI for TR 33.847 – privacy of identities for UE2N path switch**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: InterDigital Communications, CableLabs*

**Abstract:**

This contribution proposes a new KI for TR 33.847.

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

**S3-202346 New key issue on security of one-to-one communication over PC5**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: Huawei, Hisilicon*

**Decision:** The document was **revised to S3-202754**.

**S3-202347 New solution on security establishment of one-to-one PC5 communication**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: Huawei, Hisilicon*

**Decision:** The document was **revised to S3-202755**.

**S3-202368 LS on security issues for 5G ProSe**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2006589*

**Decision:** The document was **replied to in S3-202689**.

**S3-202375 Solution for authorization and security with UE-to-Network relay using Remote**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: InterDigital Communications*

**Abstract:**

This PCR proposes new solution in TR 33.847.

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

**S3-202376 New KI for TR 33.847 – privacy of identities for UE2UE Relay path switch**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: InterDigital Communications, CableLabs*

**Abstract:**

This contribution proposes a new KI for TR 33.847.

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

**S3-202377 New KI for TR 33.847 – security for UE2N path switch**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: InterDigital Communications, CableLabs*

**Abstract:**

This contribution proposes a new KI for TR 33.847.

**Decision:** The document was **revised to S3-202705**.

**S3-202378 New KI for TR 33.847 – security for UE2UE Relay path switch**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: InterDigital Communications, CableLabs*

**Abstract:**

This contribution proposes a new KI for TR 33.847.

**Decision:** The document was **revised to S3-202706**.

**S3-202379 TR 33.847 - New key issue on security protection misalignment in L3 UE2NW relay**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: LG Electronics Inc.*

**Abstract:**

This input proposes a new KI in TR 33.847

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

**S3-202380 TR 33.847 - Solution for handling security policy misalignment over ProSe L3 UE2NW relay**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: LG Electronics Inc.*

**Abstract:**

This input proposes a solution in TR 33.847.

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

**S3-202381 TR 33.847 - KI on authorization for UE2NW relay**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: LG Electronics Inc.*

**Abstract:**

This input proposes to add some text in KI#4.

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

**S3-202393 New key issue on groupcast security**

*Type: pCR For: Approval  
 33.847 v0.2.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-202763**.

**S3-202395 New KI - Operator control of ProSe direct communication**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: KPN*

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

**S3-202403 New KI - UE identity protection during ProSe discovery**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: KPN N.V.*

**Decision:** The document was **revised to S3-202673**.

**S3-202408 Draft LS reply to SA WG2 LS on security issues for 5G ProSe**

*Type: LS out For: Approval  
 to SA2  
 Source: CATT*

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

**S3-202409 pCR to TR33.847- Reuse LTE security mechanism for 5G ProSe open discovery**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: CATT*

**Decision:** The document was **revised to S3-202773**.

**S3-202410 pCR to TR33.847- Reuse LTE security mechanism for 5G ProSe restricted discovery**

*Type: pCR For: (not specified)  
 33.847 v0.1.1  
 Source: CATT*

**Decision:** The document was **revised to S3-202774**.

**S3-202411 pCR to TR33.847- Key Issue on security of one-to-many communications**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: CATT*

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

**S3-202412 pCR to TR33.847- Group communication for commercial services**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: CATT*

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

**S3-202413 New KI for TR 33.847 – security for support of Non-IP traffic**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: InterDigital Communications*

**Abstract:**

This contribution proposes a new KI for TR 33.847.

**Decision:** The document was **revised to S3-202708**.

**S3-202414 New KI for TR 33.847 – privacy of ProSe entities while supporting Non-IP traffic**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: InterDigital Communications*

**Abstract:**

This contribution proposes a new KI for TR 33.847.

**Decision:** The document was **revised to S3-202713**.

**S3-202433 Discussion on S2-2006589 on PRoSe L2 and L3 solutions in SA2 TR**

*Type: discussion For: Endorsement  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202434 Reply LS to S2-2006589 on Security issues for 5G PRoSe**

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

**Decision:** The document was **revised to S3-202689**.

**S3-202451 ProSe- New solution on security of UE-to-UE relay**

*Type: pCR For: Approval  
 33.847 v0.1.0  
 Source: Apple*

**Decision:** The document was **revised to S3-202780**.

**S3-202469 New solution on Key management in discovery procedure**

*Type: pCR For: Approval  
 33.847 v0.1.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-202769**.

**S3-202470 New solution on discovery protection**

*Type: pCR For: Approval  
 33.847 v0.1.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-202771**.

**S3-202471 Update key issue #1**

*Type: pCR For: Approval  
 33.847 v0.1.0  
 Source: Huawei, HiSilicon*

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

**S3-202472 Update key issue #2**

*Type: pCR For: Approval  
 33.840 v0.1.0  
 Source: Huawei, HiSilicon*

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

**S3-202486 5G ProSe: New key issue on UE-to-UE Relay or UE-to-Network Relay selection**

*Type: pCR For: Approval  
 33.847 v0.1.0  
 Source: Huawei, Hisilicon*

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

**S3-202487 5G ProSe: New solution on e2e authentication between two UE2 in the UE-to-UE relay scenario**

*Type: pCR For: Approval  
 33.847 v0.1.0  
 Source: Huawei, Hisilicon*

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

**S3-202537 LS on Security Requirements for Sidelink/PC5 Relays**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2004750*

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

**S3-202582 ProSe: Protection of the PC3 interface**

*Type: pCR For: Approval  
 33.847 v0.1.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-202700**.

**S3-202583 ProSe: key management for UE-to-Network Relay and Remote UE**

*Type: pCR For: Approval  
 33.847 v0.1.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-202701**.

**S3-202611 [5G\_ProSe] Updates to solution#1**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: Samsung*

**Decision:** The document was **revised to S3-202683**.

**S3-202612 [5G\_ProSe] Updates to solution#2**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: Samsung*

**Decision:** The document was **revised to S3-202684**.

**S3-202613 New KI for security policy handling in ProSe relay communication**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: Samsung*

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

**S3-202614 Solution for security policy handling in ProSe relay communication**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: Samsung*

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

**S3-202632 New Key Issue on privacy of PDU session parameters**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: Philips International B.V.*

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

**S3-202648 Solution for secure PC5 link establishment for UE-to-network relay**

*Type: pCR For: Approval  
 33.847 v0.1.0  
 Source: Qualcomm Incorporated*

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

**S3-202649 Solution to establish end-to-end security for the L3 UE-to-network relay**

*Type: pCR For: Approval  
 33.847 v0.1.0  
 Source: Qualcomm Incorporated*

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

**S3-202650 Solution for secure PC5 link establishment for UE-to-UE relay**

*Type: pCR For: Approval  
 33.847 v0.1.0  
 Source: Qualcomm Incorporated*

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

**S3-202664 Solution for authorization and security with UE-to-Network relay using Remote**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: InterDigital Communications*

**Abstract:**

This PCR proposes a new solution for authorization and security with UE-to-Network relay using Remote. It is a slight modification of the previously submitted and subsequently withdrawn S3-202375.

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

**S3-202665 Solution for authorization and security with UE-to-Network relay using Remote UE network primary authentication**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: InterDigital Communications*

**Abstract:**

This PCR proposes a new solution for authorization and security with UE-to-Network relay using Remote. It is a slight modification of the previously submitted and subsequently withdrawn S3-202375.

**Decision:** The document was **revised to S3-202714**.

**S3-202666 Architectural model corrections**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: Philips International B.V.*

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

**S3-202673 New KI - UE identity protection during ProSe discovery**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: KPN N.V.*

(Replaces S3-202403)

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

**S3-202683 [5G\_ProSe] Updates to solution#1**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: Samsung*

(Replaces S3-202611)

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

**S3-202684 [5G\_ProSe] Updates to solution#2**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: Samsung*

(Replaces S3-202612)

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

**S3-202689 Reply LS to S2-2006589 on Security issues for 5G PRoSe**

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

(Replaces S3-202434)

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

**S3-202700 ProSe: Protection of the PC3 interface**

*Type: pCR For: Approval  
 33.847 v0.1.0  
 Source: Ericsson*

(Replaces S3-202582)

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

**S3-202701 ProSe: key management for UE-to-Network Relay and Remote UE**

*Type: pCR For: Approval  
 33.847 v0.1.0  
 Source: Ericsson*

(Replaces S3-202583)

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

**S3-202705 KI for TR 33.847 – adding security for UE2N path switch in KI#3**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: InterDigital Communications, CableLabs*

(Replaces S3-202377)

**Abstract:**

This contribution proposes a modification of the KI for TR 33.847.

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

**S3-202706 Modification of KI for TR 33.847 – security for UE2UE Relay path switch**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: InterDigital Communications, CableLabs*

(Replaces S3-202378)

**Abstract:**

This contribution proposes to modify the existing KI for TR 33.847.

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

**S3-202708 New KI for TR 33.847 – security for support of Non-IP traffic**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: InterDigital Communications*

(Replaces S3-202413)

**Abstract:**

This contribution proposes a new KI for TR 33.847.

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

**S3-202713 New KI for TR 33.847 – privacy of ProSe entities while supporting Non-IP traffic**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: InterDigital Communications*

(Replaces S3-202414)

**Abstract:**

This contribution proposes a new KI for TR 33.847.

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

**S3-202714 Solution for authorization and security with UE-to-Network relay using Remote UE network primary authentication**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: InterDigital Communications*

(Replaces S3-202665)

**Abstract:**

This PCR proposes a new solution for authorization and security with UE-to-Network relay using Remote UE network primary authentication.

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

**S3-202736 New Key issue on groupcast security**

*Type: pCR For: (not specified)  
 33.847 v0.1.1  
 Source: Huawei Device Co., Ltd*

**Abstract:**

This contribution proposes a new key issue on groupcast security and privacy

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

**S3-202754 New key issue on security of one-to-one communication over PC5**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: Huawei, Hisilicon*

(Replaces S3-202346)

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

**S3-202755 New solution on security establishment of one-to-one PC5 communication**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: Huawei, Hisilicon*

(Replaces S3-202347)

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

**S3-202763 New key issue on groupcast security**

*Type: pCR For: Approval  
 33.847 v0.2.0  
 Source: Huawei, HiSilicon, CATT, Lenovo, Motorola Mobility*

(Replaces S3-202393)

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

**S3-202769 New solution on Key management in discovery procedure**

*Type: pCR For: Approval  
 33.847 v0.1.0  
 Source: Huawei, HiSilicon*

(Replaces S3-202469)

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

**S3-202770 Update key issue #2**

*Type: pCR For: Approval  
 33.840 v0.1.0  
 Source: Huawei, HiSilicon*

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

**S3-202771 New solution on discovery protection**

*Type: pCR For: Approval  
 33.847 v0.1.0  
 Source: Huawei, HiSilicon*

(Replaces S3-202470)

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

**S3-202773 pCR to TR33.847- Reuse LTE security mechanism for 5G ProSe open discovery**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: CATT*

(Replaces S3-202409)

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

**S3-202774 pCR to TR33.847- Reuse LTE security mechanism for 5G ProSe restricted discovery**

*Type: pCR For: Approval  
 33.847 v0.1.1  
 Source: CATT*

(Replaces S3-202410)

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

**S3-202775 Draft TR 33.847 v0.2.0 Study on Security Aspects of Enhancement for Proximity Based Services in 5GS**

*Type: draft TR For: Approval  
 33.847 v0.2.0  
 Source: CATT*

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

**S3-202780 ProSe- New solution on security of UE-to-UE relay**

*Type: pCR For: Approval  
 33.847 v0.1.0  
 Source: Apple*

(Replaces S3-202451)

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

### 2.10 Study on security for enhanced support of Industrial IoT

**S3-202324 New solution for key issue #1**

*Type: pCR For: Approval  
 33.851 v0.1.1  
 Source: ZTE Corporation*

**Decision:** The document was **revised to S3-202739**.

**S3-202453 KI on boundary 5GS TSN user plane interfaces**

*Type: pCR For: Approval  
 33.851 v17.1.1  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202454 Requirements for KI on boundary 5GS TSN user plane interfaces**

*Type: pCR For: Approval  
 33.851 v17.1.1  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202455 KI details update on time synchronization messages**

*Type: pCR For: Approval  
 33.851 v17.1.1  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202456 Requirements for KI on time synchronization messages**

*Type: pCR For: Approval  
 33.851 v17.1.1  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202457 KI details update on multiple working domains**

*Type: pCR For: Approval  
 33.851 v17.1.1  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202458 Requirements for KI on multiple working domains**

*Type: pCR For: Approval  
 33.851 v17.1.1  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202459 Solution - Authentication of TSN nodes sending time synchronization messages**

*Type: pCR For: Approval  
 33.851 v17.1.1  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202460 Solution - Authorization of incoming time synchronization messages based on policies**

*Type: pCR For: Approval  
 33.851 v17.1.1  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202575 IIOT: New key issue for protection of AF-NEF interface**

*Type: pCR For: Approval  
 33.851 v0.1.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-202694**.

**S3-202576 IIOT: New solution for protection of AF-NEF interface**

*Type: pCR For: Approval  
 33.851 v0.1.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-202698**.

**S3-202577 IIOT: Update to solution #2**

*Type: pCR For: Approval  
 33.851 v0.1.0  
 Source: Ericsson*

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

**S3-202694 IIOT: New key issue for protection of AF-NEF interface**

*Type: pCR For: Approval  
 33.851 v0.1.0  
 Source: Ericsson,Nokia, Nokia Shanghai Bell*

(Replaces S3-202575)

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

**S3-202698 IIOT: New solution for protection of AF-NEF interface**

*Type: pCR For: Approval  
 33.851 v0.1.0  
 Source: Ericsson,Nokia, Nokia Shanghai Bell*

(Replaces S3-202576)

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

**S3-202739 New solution for key issue #1**

*Type: pCR For: Approval  
 33.851 v0.1.1  
 Source: ZTE Corporation, Nokia,Nokia Shanghai Bell*

(Replaces S3-202324)

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

**S3-202791 TR\_33.851\_IIoT\_Sec**

*Type: draft TR For: (not specified)  
 33.851 v0.2.0  
 Source: Nokia Germany*

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

### 2.11 Study on Security Aspects of Enhancements for 5G Multicast-Broadcast Services

**S3-202452 5MBS-New key issue for PTP mode**

*Type: pCR For: Approval  
 33.850 v0.1.0  
 Source: Apple*

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

**S3-202475 Abbreviation**

*Type: pCR For: Approval  
 33.850 v0.1.0  
 Source: Huawei, HiSilicon*

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

**S3-202476 Editorial change to key issue 2**

*Type: pCR For: Approval  
 33.850 v0.1.0  
 Source: Huawei, HiSilicon*

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

**S3-202477 New solution to protect MBS traffic in transport layer**

*Type: pCR For: Approval  
 33.850 v0.1.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-202761**.

**S3-202478 New solution to protect MBS traffic in service layer**

*Type: pCR For: Approval  
 33.850 v0.1.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-202762**.

**S3-202491 pCR: New solution to 5G MBS authentication and authorization**

*Type: pCR For: Approval  
 33.850 v0.1.0  
 Source: Huawei, Hisilicon*

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

**S3-202492 pCR: Revocation of authorization of MBS communication service**

*Type: pCR For: Approval  
 33.850 v0.1.0  
 Source: Huawei, Hisilicon*

**Decision:** The document was **revised to S3-202745**.

**S3-202493 pCR: New solution to MBS traffic protection**

*Type: pCR For: Approval  
 33.850 v0.1.0  
 Source: Huawei, Hisilicon*

**Decision:** The document was **revised to S3-202746**.

**S3-202651 AS security for MBS traffic protection**

*Type: pCR For: Approval  
 33.850 v0.1.0  
 Source: Qualcomm Incorporated*

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

**S3-202745 pCR: Revocation of authorization of MBS communication service**

*Type: pCR For: Approval  
 33.850 v0.1.0  
 Source: Huawei, Hisilicon*

(Replaces S3-202492)

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

**S3-202746 pCR: New solution to MBS traffic protection**

*Type: pCR For: Approval  
 33.850 v0.1.0  
 Source: Huawei, Hisilicon*

(Replaces S3-202493)

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

**S3-202760 Draft TR 33.850**

*Type: draft TR For: Approval  
 33.850 v0.2.0  
 Source: Huawei, Hisilicon*

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

**S3-202761 New solution to protect MBS traffic in transport layer**

*Type: pCR For: Approval  
 33.850 v0.1.0  
 Source: Huawei, Hisilicon, Qualcomm*

(Replaces S3-202477)

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

**S3-202762 New solution to protect MBS traffic in service layer**

*Type: pCR For: Approval  
 33.850 v0.1.0  
 Source: Huawei, Hisilicon*

(Replaces S3-202478)

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

### 2.12 Study on enhanced security support for Non-Public Networks

**S3-202325 Updates to key issue #1 Credentials owned by an external entity**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: ZTE Corporation*

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

**S3-202326 Reply LS on architectures for access to SNPNs using credentials owned by an entity separate from the SNPN**

*Type: LS out For: Approval  
 to SA2  
 Source: ZTE Corporation*

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

**S3-202327 New key issue on UE onboarding for SNPN**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: ZTE Corporation*

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

**S3-202328 Reply LS on on-boarding and remote provisioning**

*Type: LS out For: Approval  
 to SA2  
 Source: ZTE Corporation*

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

**S3-202332 New Key Issue on Provisioning of PNI-NPN credentials**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Huawei, Hisilicon, Ericsson*

**Decision:** The document was **revised to S3-202748**.

**S3-202333 Clarification on Key Issue #2**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Huawei, Hisilicon, Ericsson*

**Decision:** The document was **revised to S3-202749**.

**S3-202334 New Solution for Network Access Authentication with Credentials owned by an AAA external to the SNPN**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Huawei, Hisilicon*

**Decision:** The document was **revised to S3-202750**.

**S3-202335 New Key Issue on Secure Connection Establishment for UE Onboarding for SNPN**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Huawei, Hisilicon*

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

**S3-202336 Reply LS on security issue for on-boarding and remote provisioning**

*Type: LS out For: Approval  
 to SA2  
 Source: Huawei, Hisilicon*

**Decision:** The document was **revised to S3-202751**.

**S3-202360 LS on architectures for access to SNPNs using credentials owned by an entity separate from the SNPN**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2004385*

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

**S3-202363 LS on security issue for on-boarding and remote provisioning**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2005949*

**Decision:** The document was **replied to in S3-202751**.

**S3-202394 New key issue on authentication and authorization**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Huawei, HiSilicon*

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

**S3-202482 New KI on service authorization between SNPNs**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Huawei, Hisilicon*

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

**S3-202508 New solution for Key Issue #1**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: CableLabs*

**Decision:** The document was **revised to S3-202721**.

**S3-202512 New key issue on UE accessing most preferred serving NPN**

*Type: pCR For: (not specified)  
 33.857 v0.1.0  
 Source: Futurewei*

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

**S3-202513 Add Provisioning Server Term**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Intel Corporation (UK) Ltd*

**Decision:** The document was **revised to S3-202732**.

**S3-202514 Add terms related to Onboarding**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Intel Corporation (UK) Ltd*

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

**S3-202515 Add Terms Default Credentials and DCS**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Intel Corporation (UK) Ltd*

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

**S3-202522 Key issue for UE onboarding for provisioning**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Intel Corporation (UK) Ltd*

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

**S3-202526 Solution to UE onboarding for non-public networks**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Intel Corporation (UK) Ltd*

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

**S3-202535 Key issue on remote provisioning of non-3GPP credentials for PNI-NPN**

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

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

**S3-202538 New solution to KI#1: Primary authentication between an SNPN and third-party AAA server using EAP**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-202681**.

**S3-202539 New solution to KI#1: Primary authentication between an SNPN and third-party AAA server using EAP-TTLS**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-202682**.

**S3-202550 Update of key issue on provisioning of credentials**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202552 Update of KI#3 (Security impacts from supporting IMS voice and IMS services in SNPNs)**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Ericsson*

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

**S3-202553 New Solution to KI#3: Authentication to IMS Core using SNPN credentials**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Ericsson*

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

**S3-202554 New Solution to KI#3: Authentication to IMS Core using credentials generated with AKMA**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Ericsson*

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

**S3-202555 New Solution to KI#3: Authentication to IMS Core using credentials generated from the KAUSF**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Ericsson*

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

**S3-202585 Securing initial access for UE onboarding between UE and SNPN**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Ericsson, Huawei, Hisilicon, Qualcomm Incorporated, Lenovo, Motorola Mobility, InterDigital*

**Abstract:**

Key Issue on initial access

**Decision:** The document was **revised to S3-202715**.

**S3-202586 Definition of Provisioning Server**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Ericsson, Huawei, Hisilicon, InterDigital, Lenovo, Motorola Mobility, China Mobile*

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

**S3-202588 Discussion on provisioning server**

*Type: discussion For: Endorsement  
 33.857 v..  
 Source: Ericsson, Huawei, Hisilicon, InterDigital, Lenovo, Motorola Mobility, China Mobile*

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

**S3-202606 Network access authentication with credentials owned by an entity separate from the SNPN**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Lenovo, Motorola Mobility*

**Decision:** The document was **revised to S3-202783**.

**S3-202631 [DRAFT] Reply-LS on AAA based solutions for credentials owned by an entity separate from the SNPN**

*Type: LS out For: Approval  
 to SA2  
 Source: Ericsson*

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

**S3-202633 [DRAFT] reply LS on security issues for on-boarding and remote provisioning**

*Type: LS out For: Approval  
 to SA2  
 Source: Ericsson*

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

**S3-202652 Reply LS on architectures for access to SNPNs using credentials owned by an entity separate from the SNPN**

*Type: LS out For: Approval  
 to SA2  
 Source: Qualcomm Incorporated*

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

**S3-202653 pCR: Solution for KI#1 in TR 33.857**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **revised to S3-202724**.

**S3-202654 eNPN scope**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: THALES, Orange, Idemia*

**Abstract:**

eNPN scope

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

**S3-202658 Proposed TR Assumptions on credentials**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Ericsson*

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

**S3-202663 Scope of TR 33.857**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Philips International B.V.*

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

**S3-202681 New solution to KI#1: Primary authentication between an SNPN and third-party AAA server using EAP**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Ericsson*

(Replaces S3-202538)

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

**S3-202682 New solution to KI#1: Primary authentication between an SNPN and third-party AAA server using EAP-TTLS**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Ericsson*

(Replaces S3-202539)

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

**S3-202715 Securing initial access for UE onboarding between UE and SNPN**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Ericsson, Huawei, Hisilicon, Qualcomm Incorporated, Lenovo, Motorola Mobility, InterDigital, ZTE Corporation, Intel, Nokia, Nokia Shanghai Bell*

(Replaces S3-202585)

**Abstract:**

Key Issue on initial access

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

**S3-202716 Draft TR 33857 v020 Study on enhanced security support for Non-Public Networks (NPN)**

*Type: draft TR For: Approval  
 33.857 v0.2.0  
 Source: Ericsson*

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

**S3-202721 New solution for Key Issue #1**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: CableLabs*

(Replaces S3-202508)

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

**S3-202724 pCR: Solution for KI#1 in TR 33.857**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Qualcomm Incorporated*

(Replaces S3-202653)

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

**S3-202732 Add Provisioning Server Term**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Intel Corporation (UK) Ltd*

(Replaces S3-202513)

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

**S3-202748 New Key Issue on Provisioning of PNI-NPN credentials**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Huawei, Hisilicon, Ericsson, China Mobile*

(Replaces S3-202332)

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

**S3-202749 Clarification on Key Issue #2**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Huawei, Hisilicon, Ericsson*

(Replaces S3-202333)

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

**S3-202750 New Solution for Network Access Authentication with Credentials owned by an AAA external to the SNPN**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Huawei, Hisilicon*

(Replaces S3-202334)

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

**S3-202751 Reply LS on security issue for on-boarding and remote provisioning**

*Type: LS out For: Approval  
 to SA2  
 Source: Huawei, Hisilicon*

(Replaces S3-202336)

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

**S3-202783 Network access authentication with credentials owned by an entity separate from the SNPN**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: Lenovo, Motorola Mobility*

(Replaces S3-202606)

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

### 2.13 Study on security aspects of the Disaggregated gNB Architecture

**S3-202330 Scope for TR 33.840**

*Type: pCR For: Endorsement  
 33.840 v0.0.3  
 Source: China Telecom, Huawei, HiSilicon, CATT, Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-202660**.

**S3-202331 key issue on security configuration differentiation in CU-UPs**

*Type: pCR For: Endorsement  
 33.840 v0.0.3  
 Source: China Telecom*

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

**S3-202473 Add content to clause 4**

*Type: pCR For: Approval  
 33.840 v0.1.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-202768**.

**S3-202474 New key issue on security enhancement**

*Type: pCR For: Approval  
 33.850 v0.1.0  
 Source: Huawei, HiSilicon;China Telecom*

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

**S3-202480 Key issue on the protection of multi-CU-UPs connectivity**

*Type: pCR For: (not specified)  
 33.840 v0.0.3  
 Source: CATT*

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

**S3-202481 Key issue on the protection of multi-CU-UPs connectivity**

*Type: pCR For: (not specified)  
 33.840 v0.0.3  
 Source: CATT*

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

**S3-202511 New key issue hosting third-party CU-UP**

*Type: pCR For: Approval  
 33.840 v0.0.3  
 Source: Futurewei*

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

**S3-202590 Not ruling out impact on UE/RAN/CN**

*Type: pCR For: Approval  
 33.840 v0.0.3  
 Source: Ericsson*

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

**S3-202591 Separate UP-keys per CU-UP instance**

*Type: pCR For: Approval  
 33.840 v0.0.3  
 Source: Ericsson*

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

**S3-202592 CU-UPs supported by DC**

*Type: pCR For: Approval  
 33.840 v0.0.3  
 Source: Ericsson*

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

**S3-202604 Key Issue on Impact of Simultaneous CU-UP applying common UP security**

*Type: pCR For: Approval  
 33.840 v0.0.3  
 Source: Lenovo, Motorola Mobility, Nokia, Nokia Shanghai Bell, Deutsche Telekom, Samsung, Altiostar*

**Abstract:**

This pCR proposes a Key Issue to TR 33.840 on Impact of Simultaneous CU-UP applying common UP security for a UE’s UP security

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

**S3-202660 Scope for TR 33.840**

*Type: pCR For: Endorsement  
 33.840 v0.0.3  
 Source: China Telecom, Huawei, HiSilicon, CATT, Nokia, Nokia Shanghai Bell, Lenovo, Motorola Mobility*

(Replaces S3-202330)

**Decision:** The document was **revised to S3-202792**.

**S3-202768 Add content to clause 4**

*Type: pCR For: Approval  
 33.840 v0.1.0  
 Source: Huawei, HiSilicon*

(Replaces S3-202473)

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

**S3-202792 Scope for TR 33.840**

*Type: pCR For: Approval  
 33.840 v0.0.3  
 Source: China Telecom, Huawei, HiSilicon, CATT, Nokia, Nokia Shanghai Bell, Lenovo, Motorola Mobility, Deutsche Telekom*

(Replaces S3-202660)

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

**S3-202793 TR33.840 v0.1.0**

*Type: draft TR For: Endorsement  
 33.840 v0.1.0  
 Source: China Telecommunications*

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

### 2.14 Study on User Consent for 3GPP services

**S3-202302 Skeleton of TR 33.866**

*Type: pCR For: Approval  
 33.866 v0.0.0  
 Source: China Mobile*

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

**S3-202338 Skeleton of User Consent for 3GPP services**

*Type: pCR For: Approval  
 33.867 v0.0.0  
 Source: Huawei, Hisilicon*

**Decision:** The document was **revised to S3-202752**.

**S3-202339 Scope of User Consent for 3GPP Services**

*Type: pCR For: Approval  
 33.867 v0.0.0  
 Source: Huawei, Hisilicon*

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

**S3-202340 Comparison with TR 33.849**

*Type: pCR For: Approval  
 33.867 v0.0.0  
 Source: Huawei, Hisilicon*

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

**S3-202341 New Key Issue on Enabling User Consent for NF service consumption**

*Type: pCR For: Approval  
 33.867 v0.0.0  
 Source: Huawei, Hisilicon*

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

**S3-202342 New Key Issue on Enabling User Consent for NF capability exposure**

*Type: pCR For: Approval  
 33.867 v0.0.0  
 Source: Huawei, Hisilicon*

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

**S3-202358 LS on propagation of user consent related information during Xn inter-PLMN handover**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: R3-204378*

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

**S3-202369 Reply LS on the user consent for trace reporting**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S5-204542*

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

**S3-202435 Key Issue on Generic User consent**

*Type: pCR For: Approval  
 33.867 v0.0.1  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202587 Reply LS on propagation of user consent related information during Xn inter-PLMN handover**

*Type: LS out For: Approval  
 to RAN3, cc RAN2, SA5  
 Source: Ericsson*

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

**S3-202589 Discussion on user consent study**

*Type: pCR For: Approval  
 33.867 v0.0.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-202693**.

**S3-202622 Transfer of Key issue #10 from FS\_eEDGE\_SEC**

*Type: pCR For: Approval  
 33.867 v0.0.0  
 Source: Samsung*

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

**S3-202623 Potential Requirement on user's consent for exposure of information to Edge Applications**

*Type: pCR For: Approval  
 33.867 v0.0.0  
 Source: Samsung*

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

**S3-202693 Discussion on user consent study**

*Type: pCR For: Approval  
 33.867 v0.0.0  
 Source: Ericsson, Nokia*

(Replaces S3-202589)

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

**S3-202752 Skeleton of User Consent for 3GPP services**

*Type: pCR For: Approval  
 33.867 v0.0.0  
 Source: Huawei, Hisilicon*

(Replaces S3-202338)

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

**S3-202784 draft TR 33.867**

*Type: pCR For: Approval  
 33.867 v0.0.0  
 Source: Huawei, Hisilicon*

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

**S3-202785 draft TR 33.867**

*Type: draft TR For: Approval  
 33.867 v0.1.0  
 Source: Huawei Technologies Sweden AB*

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

### 2.15 New SID on security aspects of the MSGin5G Service

**S3-202304 Skeleton for TR 33.862**

*Type: draft TR For: Approval  
 33.862 v0.0.0  
 Source: China Mobile*

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

**S3-202533 Scope for TR 33.862**

*Type: pCR For: Approval  
 33.862 v0.0.0  
 Source: China Mobile*

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

**S3-202615 Key issue: Transport security for the MSGin5G interfaces**

*Type: pCR For: Approval  
 33.862 v0.0.0  
 Source: Samsung*

**Decision:** The document was **revised to S3-202685**.

**S3-202616 Key issue: Authentication and authorization between 5GMSGS client and MSGin5G server**

*Type: pCR For: Approval  
 33.862 v0.0.0  
 Source: Samsung*

**Decision:** The document was **revised to S3-202686**.

**S3-202617 Key issue: Authentication and authorization between Application Server and MSGin5G server**

*Type: pCR For: Approval  
 33.862 v0.0.0  
 Source: Samsung*

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

**S3-202685 Key issue: Transport security for the MSGin5G interfaces**

*Type: pCR For: Approval  
 33.862 v0.0.0  
 Source: Samsung*

(Replaces S3-202615)

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

**S3-202686 Key issue: Authentication and authorization between 5GMSGS client and MSGin5G server**

*Type: pCR For: Approval  
 33.862 v0.0.0  
 Source: Samsung*

(Replaces S3-202616)

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

**S3-202765 draftTR 33.862**

*Type: draft TR For: Approval  
 33.862 v0.1.0  
 Source: China Mobile*

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

### 2.16 Study on security aspects of enablers for Network Automation (eNA) for the 5G system (5GS) Phase 2

**S3-202303 Scope for TR 33.866**

*Type: pCR For: Approval  
 33.866 v0.0.0  
 Source: China Mobile*

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

**S3-202309 Skeleton for TR 33.866**

*Type: draft TR For: Approval  
 33.866 v0.0.0  
 Source: China Mobile*

**Decision:** The document was **revised to S3-202674**.

**S3-202361 LS on user consent requirements for analytics**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2004560*

**Decision:** The document was **replied to in S3-202789**.

**S3-202367 LS on method for collection of data from the UE**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2006292*

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

**S3-202382 TR 33.866 - new KI on user consent for NWDAF**

*Type: pCR For: Approval  
 33.866 v0.0.0  
 Source: LG Electronics Inc.*

**Abstract:**

This input proposes a new KI for TR 33.866.

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

**S3-202396 Reply LS on user consent requirements for analytics**

*Type: LS out For: (not specified)  
 to SA WG2  
 Source: Nokia*

**Decision:** The document was **revised to S3-202789**.

**S3-202419 Structuring key issues per SID objectives**

*Type: pCR For: Approval  
 33.866 v17.0.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202420 KI on UE data collection protection**

*Type: pCR For: Approval  
 33.866 v17.0.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202421 KI on NF data collection protection**

*Type: pCR For: Approval  
 33.866 v17.0.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202422 KI on Abnormal UE behavior detection by NWDAF**

*Type: pCR For: Approval  
 33.866 v17.0.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202423 KI on Abnormal NF behavior detection by NWDAF**

*Type: pCR For: Approval  
 33.866 v17.0.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202424 KI on Protection of data in transit between multiple NWDAF instances**

*Type: pCR For: Approval  
 33.866 v17.0.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202425 KI on Privacy preservation for transmitted data between multiple NWDAF instances**

*Type: pCR For: Approval  
 33.866 v17.0.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-202790**.

**S3-202426 KI on user consent and authorization for inter-NWDAF data transfer**

*Type: pCR For: Approval  
 33.866 v17.0.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202517 New Key Issue on NWDAF assisting in Detecting DoS Attack on Network Entities**

*Type: pCR For: Approval  
 33.866 v0.0.0  
 Source: Huawei, Hisilicon*

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

**S3-202518 Scope of eNA Security**

*Type: pCR For: Approval  
 33.866 v0.0.0  
 Source: Huawei, Hisilicon*

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

**S3-202519 New Key Issue on Avoiding using Misleading or Untrusted Information for Data Analysis**

*Type: pCR For: Approval  
 33.866 v0.0.0  
 Source: Huawei, Hisilicon*

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

**S3-202520 Reply LS on User consent requirements for analytics**

*Type: LS out For: Approval  
 to SA2  
 Source: Huawei, Hisilicon*

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

**S3-202530 A new key issue on security of data collection from UE**

*Type: pCR For: Approval  
 33.866 v0.0.0  
 Source: Ericsson*

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

**S3-202534 Key issue on cyber-attacks detection supported by NWDAF**

*Type: pCR For: Approval  
 33.866 v0.0.0  
 Source: China Mobile*

**Decision:** The document was **revised to S3-202766**.

**S3-202574 New Key issue on reporting of base station involved in cyber attack**

*Type: discussion For: Approval  
 Source: NEC Europe Ltd*

**Decision:** The document was **revised to S3-202584**.

**S3-202584 New Key issue on reporting of base station involved in cyber attack**

*Type: pCR For: Approval  
 33.866 v0.0.0  
 Source: NEC Europe Ltd*

(Replaces S3-202574)

**Decision:** The document was **revised to S3-202668**.

**S3-202601 Key Issue on detection of MitM attacks**

*Type: pCR For: Approval  
 33.866 v0.0.0  
 Source: Lenovo, Motorola Mobility*

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

**S3-202661 [DRAFT] Reply LS on securing data collection from UE**

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

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

**S3-202668 New Key issue on reporting of base station involved in cyber attack**

*Type: pCR For: Approval  
 33.866 v0.0.0  
 Source: NEC Europe Ltd*

(Replaces S3-202584)

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

**S3-202674 Skeleton for TR 33.866**

*Type: draft TR For: Approval  
 33.866 v0.0.0  
 Source: China Mobile,Nokia, Nokia Shanghai Bell*

(Replaces S3-202309)

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

**S3-202766 Key issue on cyber-attacks detection supported by NWDAF**

*Type: pCR For: Approval  
 33.866 v0.0.0  
 Source: China Mobile, Lenovo, Motorola Mobility, Huawei, Hisilicon, Nokia, Nokia Shanghai Bell*

(Replaces S3-202534)

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

**S3-202767 draftTR 33.866**

*Type: draft TR For: Approval  
 33.866 v0.1.0  
 Source: China Mobile*

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

**S3-202789 Reply LS on user consent requirements for analytics**

*Type: LS out For: (not specified)  
 to SA WG2  
 Source: Nokia*

(Replaces S3-202396)

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

**S3-202790 KI on Privacy preservation for transmitted data between multiple NWDAF instances**

*Type: pCR For: Approval  
 33.866 v17.0.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-202425)

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

### 2.17 Study on the security of AMF re-allocation

**S3-202310 Skeleton of TR 33.864 Study on the security of Access and Mobility Management Function (AMF) re-allocation**

*Type: draft TR For: Approval  
 33.864 v0.0.0  
 Source: Ericsson Hungary Ltd*

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

**S3-202329 Security requirements on AMF re-allocation**

*Type: pCR For: Approval  
 33.864 v0.0.0  
 Source: ZTE Corporation*

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

**S3-202496 pCR: New key issue on solving registration failure in NAS reroute via RAN**

*Type: pCR For: Approval  
 33.864 v0.0.0  
 Source: Huawei, Hisilicon,China Mobile*

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

**S3-202497 pCR: New solution for solving registration failure in AMF re-allocation**

*Type: pCR For: Approval  
 33.864 v0.0.0  
 Source: Huawei, Hisilicon*

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

**S3-202498 pCR: Description of AMF re-allocation procedure**

*Type: pCR For: Approval  
 33.864 v0.0.0  
 Source: Huawei, Hisilicon*

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

**S3-202581 New solution for AMF reallocation procedure when 5G NAS security context is rerouted via RAN**

*Type: pCR For: Approval  
 33.864 v0.0.0  
 Source: Ericsson*

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

**S3-202593 New key issue for the security of the AMF re-allocation procedures**

*Type: pCR For: Approval  
 33.864 v0.0.0  
 Source: Ericsson*

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

**S3-202594 Introduction for the AMF re-allocation security study**

*Type: pCR For: Approval  
 33.864 v0.0.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-202725**.

**S3-202595 Scope for the AMF re-allocation security study**

*Type: pCR For: Approval  
 33.864 v0.0.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-202726**.

**S3-202596 Assumptions for the AMF re-allocation security study**

*Type: pCR For: Approval  
 33.864 v0.0.0  
 Source: Ericsson*

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

**S3-202597 New solution for NAS re-route via RAN and the use of a well-connected network function**

*Type: pCR For: Approval  
 33.864 v0.0.0  
 Source: Ericsson*

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

**S3-202629 Key Issue on Security Context handling issues with AMF re-allocation**

*Type: pCR For: Approval  
 33.864 v0.0.0  
 Source: Lenovo, Motorola Mobility*

**Abstract:**

This pCR proposes a Key Issue on ‘Security Context handling issues with AMF re-allocation’ to TR 33.864

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

**S3-202667 LS to CT1 on Clarifications on NAS message processing**

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

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

**S3-202669 Minutes of the meeting for the offline teleconference on the AMF re-allocation**

*Type: report For: Information  
 Source: Ericsson Hungary Ltd*

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

**S3-202725 Introduction for the AMF re-allocation security study**

*Type: pCR For: Approval  
 33.864 v0.0.0  
 Source: Ericsson*

(Replaces S3-202594)

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

**S3-202726 Scope for the AMF re-allocation security study**

*Type: pCR For: Approval  
 33.864 v0.0.0  
 Source: Ericsson*

(Replaces S3-202595)

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

**S3-202734 Draft TR 33.864 v0.1.0 Study on the security of Access and Mobility Management Function (AMF) re-allocation**

*Type: draft TR For: Approval  
 33.864 v0.1.0  
 Source: Ericsson Hungary Ltd*

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

### 2.18 Incoming Lses

**S3-202398 LS on the stage 2 aspects of MINT**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: C1-205332*

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

**S3-202399 LS on System support for Multi-USIM devices**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2006011*

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

**S3-202400 LS on System support for Multi-USIM devices**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2006037*

**Decision:** The document was **replied to in S3-202687**.

**S3-202401 LS on ATSSS Phase 2 Requirements to IETF QUIC Working Group**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2006331*

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

**S3-202402 LS on study items for security on management aspect**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S5-204407*

**Decision:** The document was **replied to in S3-202688**.

**S3-202427 Discussion on LS S2-2006037 MUSIM busy indication**

*Type: discussion For: Endorsement  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202428 Discussion on LS S2-2006011 on MUSIM**

*Type: discussion For: Endorsement  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202429 Reply LS to S2-2006037 MUSIM busy indication**

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

**Decision:** The document was **revised to S3-202687**.

**S3-202430 Reply LS to S2-2006011 on MUSIM**

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

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

**S3-202431 Discussion on S5-204407 Study items on management aspects**

*Type: discussion For: Endorsement  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202432 Reply LS to SA5 LS on study items for security management aspect**

*Type: LS out For: Approval  
 to SA5  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-202688**.

**S3-202529 Discussion on LS new SID Security Study on system enablers for devices having multiple USIMS**

*Type: discussion For: Endorsement  
 Source: Intel Corporation (UK) Ltd*

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

**S3-202687 Reply LS to S2-2006037 MUSIM busy indication**

*Type: LS out For: Approval  
 to SA2, RAN2, RAN3  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-202429)

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

**S3-202688 Reply LS to SA5 LS on study items for security management aspect**

*Type: LS out For: Approval  
 to SA5  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-202432)

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

## 3 New work and study item proposals

**S3-202384 Discussion paper for Rel17 SID on network slicing security**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon, Lenovo, Motorola Mobility, CableLab, CATT, CAICT, China Unicom, China Mobile*

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

**S3-202385 Rel17 SID on network slice security**

*Type: SID new For: Approval  
 Source: Huawei, HiSilicon, Lenovo, Motorola Mobility, CableLab, CATT, CAICT, China Unicom, China Mobile*

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

**S3-202436 FS\_eSBA\_SEC**

*Type: SID new For: Agreement  
 Source: Nokia*

(Replaces S3-202107)

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

**S3-202461 Revised SID on IIoT Security - discussion paper**

*Type: pCR For: Endorsement  
 33.851 v17.1.1  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-202462 Revised SID on Industrial IoT Security**

*Type: SID revised For: Agreement  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces SP-200355)

**Abstract:**

Objective: Study security enhancements to 5G System that would enable enhanced support of Time Sensitive Communication and deterministic applications. The following aspects are in scope of the study: 1. Security for time synchronization a) Support for upl

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

**S3-202499 New SID on Study on Security Enhancement of UPF deployed in the customer side**

*Type: SID new For: Approval  
 Source: Huawei, Hisilicon*

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

**S3-202523 New SID on the security of the system enablers for devices having multiple Universal Subscriber Identity Modules (USIM)**

*Type: SID new For: (not specified)  
 Source: Intel Corporation (UK) Ltd*

**Decision:** The document was **revised to S3-202730**.

**S3-202627 Revised SID: Study on Security for NR Integrated Access and Backhaul**

*Type: SID revised For: Approval  
 Source: Samsung*

**Decision:** The document was **revised to S3-202695**.

**S3-202638 eNPN SID: discussion**

*Type: discussion For: Discussion  
 33.857 v..  
 Source: THALES, Orange, Idemia*

**Abstract:**

eNPN SID: discussion

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

**S3-202655 eNPN security assumptions**

*Type: pCR For: Approval  
 33.857 v0.1.0  
 Source: THALES, Orange, Idemia*

**Abstract:**

eNPN security assumptions

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

**S3-202657 eNPN SID revision**

*Type: SID revised For: Agreement  
 Source: THALES, Orange, Idemia*

**Abstract:**

eNPN SID revision

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

**S3-202695 Revised SID: Study on Security for NR Integrated Access and Backhaul**

*Type: SID revised For: Approval  
 Source: Samsung*

(Replaces S3-202627)

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

**S3-202730 New SID on the security of the system enablers for devices having multiple Universal Subscriber Identity Modules (USIM)**

*Type: SID new For: (not specified)  
 Source: Intel Corporation (UK) Ltd*

(Replaces S3-202523)

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

## 4 Urgent incoming Lses

**S3-202353 LS on ETSI Plugtest reports**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: C1-204693*

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

**S3-202355 Reply LS on N32-f Error Responses – Mapping**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: C4-204391*

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

**S3-202356 Reply LS on N32-f Protection Policy IE Data-Type Mapping**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: C4-204392*

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

**S3-202362 Reply LS on AS rekeying handling**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2005909*

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

**S3-202372 LS on Misalignments on HTTP message format over N32-f**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: C4-204409*

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

**S3-202488 Reply LS on Misalignments on HTTP message format over N32-f**

*Type: LS out For: Approval  
 to CT4  
 Source: Huawei, Hisilicon*

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

**S3-202489 JSON object modification**

*Type: draftCR For: Approval  
 33.501 v15.10.0  
 Source: Huawei, Hisilicon*

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

**S3-202490 JSON object modification**

*Type: draftCR For: Approval  
 33.501 v16.4.0  
 Source: Huawei, Hisilicon*

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

**S3-202504 Draft LS: Misalignment on requirement for access token request between TS 29.510 and 33.501**

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

**Abstract:**

An LS to CT4 to request CT4 align TS29.510 with TS33.501

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

**S3-202505 SA3 and CT4 misalignment on token request for Discovery and NFManagement**

*Type: discussion For: Endorsement  
 33.501 v..  
 Source: Mavenir*

**Abstract:**

Discussion paper for highlighting the misalignment between CT4 TS29.510 and TS33.501.

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

**S3-202506 NRF authorization during NF service consumer Access Token Get Request**

*Type: draftCR For: Approval  
 33.501 v15.10.0  
 Source: Mavenir*

**Abstract:**

Fixing the call flow text by removing the optionality of authorization during access token get request

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

**S3-202507 NRF authorization during NF service consumer Access Token Get Request**

*Type: draftCR For: Approval  
 33.501 v16.4.0  
 Source: Mavenir*

**Abstract:**

Fixing the call flow text by removing the optionality of authorization during access token get request

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

**S3-202551 reply-LS on Misalignments on HTTP message format over N32-f**

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

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

## Annex A: Contribution documents and status

### A1: List of TDocs

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Document | Title | Source | Decision | Replaces | Replaced by |
| S3-202300 | Agenda | SA WG3 Chair | revised |  | S3-202352 |
| S3-202301 | Process for SA3#100Bis-e meeting | SA WG3 Chair | noted |  |  |
| S3-202302 | Skeleton of TR 33.866 | China Mobile | withdrawn |  |  |
| S3-202303 | Scope for TR 33.866 | China Mobile | noted |  |  |
| S3-202304 | Skeleton for TR 33.862 | China Mobile | approved |  |  |
| S3-202305 | Evaluation of Solution 2 | NCSC | revised |  | S3-202675 |
| S3-202306 | Evaluation of Solution 3 | NCSC | revised |  | S3-202676 |
| S3-202307 | Evaluation of Solution 4 | NCSC | revised |  | S3-202677 |
| S3-202308 | New solution for KI2: Storage of LTK in UDR | NCSC | revised |  | S3-202680 |
| S3-202309 | Skeleton for TR 33.866 | China Mobile | revised |  | S3-202674 |
| S3-202310 | Skeleton of TR 33.864 Study on the security of Access and Mobility Management Function (AMF) re-allocation | Ericsson Hungary Ltd | approved |  |  |
| S3-202311 | New Solution for KI3: Transfer of LTK between UDR and UDM/ARPF | NCSC | approved |  |  |
| S3-202312 | New KI for TR 33.847 – privacy of identities for UE2N path switch | InterDigital Communications, CableLabs | noted |  |  |
| S3-202313 | evaluation of solution 2.1 | ZTE Corporation | noted |  |  |
| S3-202314 | Security requirement of SUCI replay | ZTE Corporation | noted |  |  |
| S3-202315 | update solution 4.3 | ZTE Corporation | noted |  |  |
| S3-202316 | update solution 4.4 | ZTE Corporation | noted |  |  |
| S3-202317 | Solution of Mitigation against the SUPI replay attack | ZTE Corporation | noted |  |  |
| S3-202318 | NEF discovers AUSF in solution 2 of TR33.839 | ZTE Corporation | approved |  |  |
| S3-202319 | Derivation of Kedge ID in UE | ZTE Corporation | approved |  |  |
| S3-202320 | Add some references and abbrevations | ZTE Corporation | approved |  |  |
| S3-202321 | Clean up | ZTE Corporation | approved |  |  |
| S3-202322 | New solution for key issue 6 Edge3 protection | ZTE Corporation | merged |  | S3-202744 |
| S3-202323 | New solution for key issue 6 type B interface protection | ZTE Corporation | merged |  | S3-202744 |
| S3-202324 | New solution for key issue #1 | ZTE Corporation | revised |  | S3-202739 |
| S3-202325 | Updates to key issue #1 Credentials owned by an external entity | ZTE Corporation | noted |  |  |
| S3-202326 | Reply LS on architectures for access to SNPNs using credentials owned by an entity separate from the SNPN | ZTE Corporation | noted |  |  |
| S3-202327 | New key issue on UE onboarding for SNPN | ZTE Corporation | merged |  | S3-202715 |
| S3-202328 | Reply LS on on-boarding and remote provisioning | ZTE Corporation | noted |  |  |
| S3-202329 | Security requirements on AMF re-allocation | ZTE Corporation | noted |  |  |
| S3-202330 | Scope for TR 33.840 | China Telecom, Huawei, HiSilicon, CATT, Nokia, Nokia Shanghai Bell | revised |  | S3-202660 |
| S3-202331 | key issue on security configuration differentiation in CU-UPs | China Telecom | noted |  |  |
| S3-202332 | New Key Issue on Provisioning of PNI-NPN credentials | Huawei, Hisilicon, Ericsson | revised |  | S3-202748 |
| S3-202333 | Clarification on Key Issue #2 | Huawei, Hisilicon, Ericsson | revised |  | S3-202749 |
| S3-202334 | New Solution for Network Access Authentication with Credentials owned by an AAA external to the SNPN | Huawei, Hisilicon | revised |  | S3-202750 |
| S3-202335 | New Key Issue on Secure Connection Establishment for UE Onboarding for SNPN | Huawei, Hisilicon | withdrawn |  |  |
| S3-202336 | Reply LS on security issue for on-boarding and remote provisioning | Huawei, Hisilicon | revised |  | S3-202751 |
| S3-202337 | System Information Protection using SNPN Credentials | Huawei, Hisilicon | noted |  |  |
| S3-202338 | Skeleton of User Consent for 3GPP services | Huawei, Hisilicon | revised |  | S3-202752 |
| S3-202339 | Scope of User Consent for 3GPP Services | Huawei, Hisilicon | noted |  |  |
| S3-202340 | Comparison with TR 33.849 | Huawei, Hisilicon | noted |  |  |
| S3-202341 | New Key Issue on Enabling User Consent for NF service consumption | Huawei, Hisilicon | noted |  |  |
| S3-202342 | New Key Issue on Enabling User Consent for NF capability exposure | Huawei, Hisilicon | noted |  |  |
| S3-202343 | Reply LS for IP address to GPSI translation | Huawei, Hisilicon | revised |  | S3-202753 |
| S3-202344 | Clarification for Solution 11 | Huawei, Hisilicon | approved |  |  |
| S3-202345 | Update ot KI#6 | Huawei, Hisilicon | approved |  |  |
| S3-202346 | New key issue on security of one-to-one communication over PC5 | Huawei, Hisilicon | revised |  | S3-202754 |
| S3-202347 | New solution on security establishment of one-to-one PC5 communication | Huawei, Hisilicon | revised |  | S3-202755 |
| S3-202348 | New solution on Authentication between EEC and EES | Huawei, Hisilicon | revised |  | S3-202756 |
| S3-202349 | New solution on Authentication between EEC and ECS | Huawei, Hisilicon | revised |  | S3-202757 |
| S3-202350 | update to KI#10 User's consent for exposure of information to Edge Applications | Huawei, Hisilicon | withdrawn |  | - |
| S3-202351 | New solution on Security of Network Information Provisioning to Local Applications | Huawei, Hisilicon | revised |  | S3-202759 |
| S3-202352 | Agenda | SA WG3 Chair | revised | S3-202300 | S3-202397 |
| S3-202353 | LS on ETSI Plugtest reports | C1-204693 | noted |  |  |
| S3-202354 | LS on mandatory support of full rate user plane integrity protection for 5G | C1-205392 | noted |  |  |
| S3-202355 | Reply LS on N32-f Error Responses – Mapping | C4-204391 | noted |  |  |
| S3-202356 | Reply LS on N32-f Protection Policy IE Data-Type Mapping | C4-204392 | noted |  |  |
| S3-202357 | Response LS to TSG SA on mandatory support of full rate user plane integrity protection for 5G | R2-2008643 | noted |  |  |
| S3-202358 | LS on propagation of user consent related information during Xn inter-PLMN handover | R3-204378 | postponed |  |  |
| S3-202359 | Reply LS on mandatory support of full rate user plane integrity protection for 5G | R3-205653 | noted |  |  |
| S3-202360 | LS on architectures for access to SNPNs using credentials owned by an entity separate from the SNPN | S2-2004385 | postponed |  |  |
| S3-202361 | LS on user consent requirements for analytics | S2-2004560 | replied to |  |  |
| S3-202362 | Reply LS on AS rekeying handling | S2-2005909 | noted |  |  |
| S3-202363 | LS on security issue for on-boarding and remote provisioning | S2-2005949 | replied to |  |  |
| S3-202364 | LS on checking security issue for Solution 22 in TR 23.748 | S2-2006033 | replied to |  |  |
| S3-202365 | Reply LS on Updated User Plane Integrity Protection advice | S2-2006180 | noted |  |  |
| S3-202366 | LS on mandatory support of full rate user plane integrity protection for 5G | S2-2006181 | noted |  |  |
| S3-202367 | LS on method for collection of data from the UE | S2-2006292 | postponed |  |  |
| S3-202368 | LS on security issues for 5G ProSe | S2-2006589 | replied to |  |  |
| S3-202369 | Reply LS on the user consent for trace reporting | S5-204542 | noted |  |  |
| S3-202370 | LS on IP address to GPSI translation | S6-200947 | replied to |  |  |
| S3-202371 | Re LS on Accreditation for Virtualised Network Products (VNPs) | GSMA SECAG | noted |  |  |
| S3-202372 | LS on Misalignments on HTTP message format over N32-f | C4-204409 | postponed |  |  |
| S3-202373 | Reply LS to SA3 on FBS detection | R2-1914224 | postponed |  |  |
| S3-202374 | Reply to LS on Resynchronisations | ETSI SAGE | postponed |  |  |
| S3-202375 | Solution for authorization and security with UE-to-Network relay using Remote | InterDigital Communications | withdrawn |  | - |
| S3-202376 | New KI for TR 33.847 – privacy of identities for UE2UE Relay path switch | InterDigital Communications, CableLabs | noted |  |  |
| S3-202377 | New KI for TR 33.847 – security for UE2N path switch | InterDigital Communications, CableLabs | revised |  | S3-202705 |
| S3-202378 | New KI for TR 33.847 – security for UE2UE Relay path switch | InterDigital Communications, CableLabs | revised |  | S3-202706 |
| S3-202379 | TR 33.847 - New key issue on security protection misalignment in L3 UE2NW relay | LG Electronics Inc. | noted |  |  |
| S3-202380 | TR 33.847 - Solution for handling security policy misalignment over ProSe L3 UE2NW relay | LG Electronics Inc. | noted |  |  |
| S3-202381 | TR 33.847 - KI on authorization for UE2NW relay | LG Electronics Inc. | approved |  |  |
| S3-202382 | TR 33.866 - new KI on user consent for NWDAF | LG Electronics Inc. | noted |  |  |
| S3-202383 | Reply LS to RAN2 on FBS detection | Huawei, HiSilicon | noted |  |  |
| S3-202384 | Discussion paper for Rel17 SID on network slicing security | Huawei, HiSilicon, Lenovo, Motorola Mobility, CableLab, CATT, CAICT, China Unicom, China Mobile | noted |  |  |
| S3-202385 | Rel17 SID on network slice security | Huawei, HiSilicon, Lenovo, Motorola Mobility, CableLab, CATT, CAICT, China Unicom, China Mobile | noted |  |  |
| S3-202386 | A solution to UAV/UAV-C pairing authorization | Huawei, HiSilicon, InterDigital | noted |  |  |
| S3-202387 | A solution to TPAE authentication and authorization | Huawei, HiSilicon | noted |  |  |
| S3-202388 | A solution to C2 communication security | Huawei, HiSilicon | noted |  |  |
| S3-202389 | A solution to RID information protection | Huawei, HiSilicon | noted |  |  |
| S3-202390 | A solution to UAS ID privacy protection | Huawei, HiSilicon | noted |  |  |
| S3-202391 | Addressing EN in Sol1 on UAS registration IE | Huawei, HiSilicon | approved |  |  |
| S3-202392 | Addressing EN in Sol1 on UAS registration Accept | Huawei, HiSilicon | revised |  | S3-202692 |
| S3-202393 | New key issue on groupcast security | Huawei, HiSilicon | revised |  | S3-202763 |
| S3-202394 | New key issue on authentication and authorization | Huawei, HiSilicon | noted |  |  |
| S3-202395 | New KI - Operator control of ProSe direct communication | KPN | noted |  |  |
| S3-202396 | Reply LS on user consent requirements for analytics | Nokia | revised |  | S3-202789 |
| S3-202397 | Agenda | SA WG3 Chair | approved | S3-202352 |  |
| S3-202398 | LS on the stage 2 aspects of MINT | C1-205332 | noted |  |  |
| S3-202399 | LS on System support for Multi-USIM devices | S2-2006011 | postponed |  |  |
| S3-202400 | LS on System support for Multi-USIM devices | S2-2006037 | replied to |  |  |
| S3-202401 | LS on ATSSS Phase 2 Requirements to IETF QUIC Working Group | S2-2006331 | noted |  |  |
| S3-202402 | LS on study items for security on management aspect | S5-204407 | replied to |  |  |
| S3-202403 | New KI - UE identity protection during ProSe discovery | KPN N.V. | revised |  | S3-202673 |
| S3-202404 | New solution for KI4 - Encrypted storage of OPc in UDR | KPN N.V. | revised |  | S3-202671 |
| S3-202405 | New solution for KI5 - Encrypted transfer of OPc out of UDR | KPN N.V. | approved |  |  |
| S3-202406 | New solution for KI6 - Encrypted storage of OP in UDR | KPN N.V. | revised |  | S3-202672 |
| S3-202407 | New solution for KI7 - Encrypted transfer of OP out of UDR | KPN N.V. | approved |  |  |
| S3-202408 | Draft LS reply to SA WG2 LS on security issues for 5G ProSe | CATT | merged |  | S3-202689 |
| S3-202409 | pCR to TR33.847- Reuse LTE security mechanism for 5G ProSe open discovery | CATT | revised |  | S3-202773 |
| S3-202410 | pCR to TR33.847- Reuse LTE security mechanism for 5G ProSe restricted discovery | CATT | revised |  | S3-202774 |
| S3-202411 | pCR to TR33.847- Key Issue on security of one-to-many communications | CATT | merged |  | S3-202763 |
| S3-202412 | pCR to TR33.847- Group communication for commercial services | CATT | noted |  |  |
| S3-202413 | New KI for TR 33.847 – security for support of Non-IP traffic | InterDigital Communications | revised |  | S3-202708 |
| S3-202414 | New KI for TR 33.847 – privacy of ProSe entities while supporting Non-IP traffic | InterDigital Communications | revised |  | S3-202713 |
| S3-202415 | Solution for UAV A&A during registration | InterDigital, Europe, Ltd. | revised |  | S3-202702 |
| S3-202416 | Solution for UAV A&A using EAP-based PDU Secondary authentication | InterDigital, Europe, Ltd. | revised |  | S3-202703 |
| S3-202417 | Solution for UAV A&A using API-based PDU Secondary authentication | InterDigital, Europe, Ltd. | revised |  | S3-202704 |
| S3-202418 | Update for KI#5 Privacy protection of UAS identities | InterDigital, Europe, Ltd. | noted |  |  |
| S3-202419 | Structuring key issues per SID objectives | Nokia, Nokia Shanghai Bell | merged |  | S3-202674 |
| S3-202420 | KI on UE data collection protection | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202421 | KI on NF data collection protection | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202422 | KI on Abnormal UE behavior detection by NWDAF | Nokia, Nokia Shanghai Bell | merged |  | S3-202766 |
| S3-202423 | KI on Abnormal NF behavior detection by NWDAF | Nokia, Nokia Shanghai Bell | merged |  | S3-202766 |
| S3-202424 | KI on Protection of data in transit between multiple NWDAF instances | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202425 | KI on Privacy preservation for transmitted data between multiple NWDAF instances | Nokia, Nokia Shanghai Bell | revised |  | S3-202790 |
| S3-202426 | KI on user consent and authorization for inter-NWDAF data transfer | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202427 | Discussion on LS S2-2006037 MUSIM busy indication | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202428 | Discussion on LS S2-2006011 on MUSIM | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202429 | Reply LS to S2-2006037 MUSIM busy indication | Nokia, Nokia Shanghai Bell | revised |  | S3-202687 |
| S3-202430 | Reply LS to S2-2006011 on MUSIM | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202431 | Discussion on S5-204407 Study items on management aspects | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202432 | Reply LS to SA5 LS on study items for security management aspect | Nokia, Nokia Shanghai Bell | revised |  | S3-202688 |
| S3-202433 | Discussion on S2-2006589 on PRoSe L2 and L3 solutions in SA2 TR | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202434 | Reply LS to S2-2006589 on Security issues for 5G PRoSe | Nokia, Nokia Shanghai Bell | revised |  | S3-202689 |
| S3-202435 | Key Issue on Generic User consent | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202436 | FS\_eSBA\_SEC | Nokia | noted | S3-202107 |  |
| S3-202437 | Discussion on editor notes in SQNms concealment solution | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202438 | Ed.note resolution on SQNms protection by concealment when 5G-GUTI is received | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202439 | Ed.note resolution on backward compatibility in solution SQNms protection by concealment | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202440 | Discussion\_paper\_on\_editor\_notes\_SQN protection during re-synchronisation | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202441 | Ed.note resolution in solution summary of sol.4.4 | Nokia, Nokia Shanghai Bell | revised |  | S3-202788 |
| S3-202442 | Ed.note resolution on backward compatibility in evaluation of sol.4.4 | Nokia, Nokia Shanghai Bell | approved |  |  |
| S3-202443 | KI update on SUCI replay | Nokia, Nokia Shanghai Bell | approved |  |  |
| S3-202444 | Solution for avoiding linkability by SUCI replay and SUPI guessing attack | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202445 | Editorial updates of solution titles | Nokia, Nokia Shanghai Bell | revised |  | S3-202786 |
| S3-202446 | Comparison of different solutions for Key issue#4.1 | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202447 | Conclusion to key issue 4.1 | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202448 | 5GFBS-RRCResumeRequest message protection | Apple, CableLabs | noted |  |  |
| S3-202449 | 5GFBS-Add a NOTE in the key issue#7 on the MitM attack | Apple | noted |  |  |
| S3-202450 | MEC-Reply LS to SA6 (S6-200947) on the protection of user’s consent | Apple | merged |  | S3-202753 |
| S3-202451 | ProSe- New solution on security of UE-to-UE relay | Apple | revised |  | S3-202780 |
| S3-202452 | 5MBS-New key issue for PTP mode | Apple | noted |  |  |
| S3-202453 | KI on boundary 5GS TSN user plane interfaces | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202454 | Requirements for KI on boundary 5GS TSN user plane interfaces | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202455 | KI details update on time synchronization messages | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202456 | Requirements for KI on time synchronization messages | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202457 | KI details update on multiple working domains | Nokia, Nokia Shanghai Bell | approved |  |  |
| S3-202458 | Requirements for KI on multiple working domains | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202459 | Solution - Authentication of TSN nodes sending time synchronization messages | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202460 | Solution - Authorization of incoming time synchronization messages based on policies | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202461 | Revised SID on IIoT Security - discussion paper | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202462 | Revised SID on Industrial IoT Security | Nokia, Nokia Shanghai Bell | agreed | SP-200355 |  |
| S3-202463 | Key issue on the binding relationship for the UE IDs | CATT | withdrawn |  |  |
| S3-202464 | Updates to solution #20 (6.20.2.1) | CableLabs, Philips International B.V, Apple, Deutsche Telekom AG, InterDigital Communications, Charter Communications | revised |  | S3-202718 |
| S3-202465 | Key issue on the binding relationship for the UE IDs | CATT | noted |  |  |
| S3-202466 | Updates to solution #20 (6.20.2.4) | CableLabs, Philips International B.V, Apple, Deutsche Telekom AG, InterDigital Communications, Charter Communications | revised |  | S3-202719 |
| S3-202467 | Updates to solution #20 (6.20.2.5.1) | CableLabs, Philips International B.V, Apple, Deutsche Telekom AG, InterDigital Communications, Charter Communications | approved |  |  |
| S3-202468 | Updates to solution #20 (adding Assessment using Annex A.3) | CableLabs, Philips International B.V, Apple, Deutsche Telekom AG, InterDigital Communications, Charter Communications | revised |  | S3-202720 |
| S3-202469 | New solution on Key management in discovery procedure | Huawei, HiSilicon | revised |  | S3-202769 |
| S3-202470 | New solution on discovery protection | Huawei, HiSilicon | revised |  | S3-202771 |
| S3-202471 | Update key issue #1 | Huawei, HiSilicon | noted |  |  |
| S3-202472 | Update key issue #2 | Huawei, HiSilicon | approved |  | - |
| S3-202473 | Add content to clause 4 | Huawei, HiSilicon | revised |  | S3-202768 |
| S3-202474 | New key issue on security enhancement | Huawei, HiSilicon;China Telecom | noted |  |  |
| S3-202475 | Abbreviation | Huawei, HiSilicon | approved |  |  |
| S3-202476 | Editorial change to key issue 2 | Huawei, HiSilicon | approved |  |  |
| S3-202477 | New solution to protect MBS traffic in transport layer | Huawei, HiSilicon | revised |  | S3-202761 |
| S3-202478 | New solution to protect MBS traffic in service layer | Huawei, HiSilicon | revised |  | S3-202762 |
| S3-202479 | New solution to verify the location information | Huawei, HiSilicon | revised |  | S3-202772 |
| S3-202480 | Key issue on the protection of multi-CU-UPs connectivity | CATT | withdrawn |  |  |
| S3-202481 | Key issue on the protection of multi-CU-UPs connectivity | CATT | noted |  |  |
| S3-202482 | New KI on service authorization between SNPNs | Huawei, Hisilicon | noted |  |  |
| S3-202483 | EC: New solution on authentication and authorization between EEC and ECS | Huawei, Hisilicon | revised |  | S3-202742 |
| S3-202484 | EC: New Key issue on authorization during Edge Data Network change | Huawei, Hisilicon | revised |  | S3-202743 |
| S3-202485 | EC: New solution on transport security for EDGE-1-9 interfaces | Huawei, Hisilicon | revised |  | S3-202744 |
| S3-202486 | 5G ProSe: New key issue on UE-to-UE Relay or UE-to-Network Relay selection | Huawei, Hisilicon | noted |  |  |
| S3-202487 | 5G ProSe: New solution on e2e authentication between two UE2 in the UE-to-UE relay scenario | Huawei, Hisilicon | noted |  |  |
| S3-202488 | Reply LS on Misalignments on HTTP message format over N32-f | Huawei, Hisilicon | noted |  |  |
| S3-202489 | JSON object modification | Huawei, Hisilicon | noted |  |  |
| S3-202490 | JSON object modification | Huawei, Hisilicon | noted |  |  |
| S3-202491 | pCR: New solution to 5G MBS authentication and authorization | Huawei, Hisilicon | approved |  |  |
| S3-202492 | pCR: Revocation of authorization of MBS communication service | Huawei, Hisilicon | revised |  | S3-202745 |
| S3-202493 | pCR: New solution to MBS traffic protection | Huawei, Hisilicon | revised |  | S3-202746 |
| S3-202494 | pCR: 33.846: Updates on key issue #2.1 | Huawei, Hisilicon | revised |  | S3-202747 |
| S3-202495 | pCR: 33.846: Conclusion on key issue #3.1 | Huawei, Hisilicon | approved |  |  |
| S3-202496 | pCR: New key issue on solving registration failure in NAS reroute via RAN | Huawei, Hisilicon,China Mobile | noted |  |  |
| S3-202497 | pCR: New solution for solving registration failure in AMF re-allocation | Huawei, Hisilicon | noted |  |  |
| S3-202498 | pCR: Description of AMF re-allocation procedure | Huawei, Hisilicon | noted |  |  |
| S3-202499 | New SID on Study on Security Enhancement of UPF deployed in the customer side | Huawei, Hisilicon | noted |  |  |
| S3-202500 | Solution on Authentication and Authorization between the Edge Enabler Client and the Edge Configuration Server | CATT | revised |  | S3-202776 |
| S3-202501 | Solution on Authentication and Authorization between the EEC and the EES when the ECS is deployed by the ECSP | CATT | revised |  | S3-202777 |
| S3-202502 | Solution on Authentication and Authorization between the EEC and the EES when the ECS is deployed by the MNO | CATT | revised |  | S3-202778 |
| S3-202503 | Solution on the service capability exposure to the EAS | CATT | revised |  | S3-202779 |
| S3-202504 | Draft LS: Misalignment on requirement for access token request between TS 29.510 and 33.501 | Mavenir | withdrawn |  |  |
| S3-202505 | SA3 and CT4 misalignment on token request for Discovery and NFManagement | Mavenir | withdrawn |  |  |
| S3-202506 | NRF authorization during NF service consumer Access Token Get Request | Mavenir | withdrawn |  |  |
| S3-202507 | NRF authorization during NF service consumer Access Token Get Request | Mavenir | withdrawn |  |  |
| S3-202508 | New solution for Key Issue #1 | CableLabs | revised |  | S3-202721 |
| S3-202509 | Discussion on SA2 LS and CR in S3-202366 | Futurewei | noted |  |  |
| S3-202510 | Discussion on SA2 LS on EC Solution #22 | Futurewei | noted |  |  |
| S3-202511 | New key issue hosting third-party CU-UP | Futurewei | noted |  |  |
| S3-202512 | New key issue on UE accessing most preferred serving NPN | Futurewei | noted |  |  |
| S3-202513 | Add Provisioning Server Term | Intel Corporation (UK) Ltd | revised |  | S3-202732 |
| S3-202514 | Add terms related to Onboarding | Intel Corporation (UK) Ltd | merged |  | S3-202715 |
| S3-202515 | Add Terms Default Credentials and DCS | Intel Corporation (UK) Ltd | approved |  |  |
| S3-202516 | Onboarding and authentication/authorization framework for Edge Enabler Server with Edge Configuration Server | Intel Corporation (UK) Ltd | revised |  | S3-202731 |
| S3-202517 | New Key Issue on NWDAF assisting in Detecting DoS Attack on Network Entities | Huawei, Hisilicon | merged |  | S3-202766 |
| S3-202518 | Scope of eNA Security | Huawei, Hisilicon | noted |  |  |
| S3-202519 | New Key Issue on Avoiding using Misleading or Untrusted Information for Data Analysis | Huawei, Hisilicon | noted |  |  |
| S3-202520 | Reply LS on User consent requirements for analytics | Huawei, Hisilicon | merged |  | S3-202789 |
| S3-202521 | Updates to Solution 3 | Intel Corporation (UK) Ltd | approved |  |  |
| S3-202522 | Key issue for UE onboarding for provisioning | Intel Corporation (UK) Ltd | merged |  | S3-202715 |
| S3-202523 | New SID on the security of the system enablers for devices having multiple Universal Subscriber Identity Modules (USIM) | Intel Corporation (UK) Ltd | revised |  | S3-202730 |
| S3-202524 | Reply LS on checking Security issue for Solution 22 in TR 23.748 | Intel Corporation (UK) Ltd | merged |  | S3-202678 |
| S3-202525 | Discussion on LS on checking security issue for Solution 22 in TR 23.748 | Intel Corporation (UK) Ltd | noted |  |  |
| S3-202526 | Solution to UE onboarding for non-public networks | Intel Corporation (UK) Ltd | noted |  |  |
| S3-202527 | Updates to Key Issue 3 and 6 | Intel Corporation (UK) Ltd | revised |  | S3-202733 |
| S3-202528 | New solution for key issue 1,2, 4,6 | Intel Corporation (UK) Ltd | revised |  | S3-202729 |
| S3-202529 | Discussion on LS new SID Security Study on system enablers for devices having multiple USIMS | Intel Corporation (UK) Ltd | noted |  |  |
| S3-202530 | A new key issue on security of data collection from UE | Ericsson | noted |  |  |
| S3-202531 | New solution for KI#3 | Philips International B.V., CableLabs | noted |  |  |
| S3-202532 | Clarification Key Issue #7 | Philips International B.V., CableLabs | merged |  | S3-202691 |
| S3-202533 | Scope for TR 33.862 | China Mobile | approved |  |  |
| S3-202534 | Key issue on cyber-attacks detection supported by NWDAF | China Mobile | revised |  | S3-202766 |
| S3-202535 | Key issue on remote provisioning of non-3GPP credentials for PNI-NPN | China Mobile | noted |  |  |
| S3-202536 | Summary of editors notes and way forwards for UPIP - TR33.853 | VODAFONE Group Plc | noted |  |  |
| S3-202537 | LS on Security Requirements for Sidelink/PC5 Relays | S2-2004750 | postponed |  |  |
| S3-202538 | New solution to KI#1: Primary authentication between an SNPN and third-party AAA server using EAP | Ericsson | revised |  | S3-202681 |
| S3-202539 | New solution to KI#1: Primary authentication between an SNPN and third-party AAA server using EAP-TTLS | Ericsson | revised |  | S3-202682 |
| S3-202540 | 5GFBS: Accuracy of Loaction Estimate for Solution#22 | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202541 | 5GFBS: FBS pretending to be in a different PLMN for Solution#22 | Nokia, Nokia Shanghai Bell | revised |  | S3-202699 |
| S3-202542 | 5GFBS: FBS Detection in Network Sharing Scenario for Solution#22 | Nokia, Nokia Shanghai Bell | approved |  |  |
| S3-202543 | 5GFBS: Support of Multiple FBS Detection for Solution#22 | Nokia, Nokia Shanghai Bell | approved |  |  |
| S3-202544 | SCAS VNP: DoS Attack via Changing Virtualized Resource | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202545 | SCAS VNP: Secure Execution Environment | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202546 | SCAS VNP: Software Tampering | Nokia, Nokia Shanghai Bell | revised |  | S3-202696 |
| S3-202547 | SCAS VNP: Threats on VNF-VNFM Interface | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202548 | SCAS VNP: VM Escape and Hypervisor Escape | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202549 | SCAS VNP: Security requirements on the interface between VNF and VNFM | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-202550 | Update of key issue on provisioning of credentials | Nokia, Nokia Shanghai Bell | merged |  | S3-202715 |
| S3-202551 | reply-LS on Misalignments on HTTP message format over N32-f | Ericsson | noted |  |  |
| S3-202552 | Update of KI#3 (Security impacts from supporting IMS voice and IMS services in SNPNs) | Ericsson | noted |  |  |
| S3-202553 | New Solution to KI#3: Authentication to IMS Core using SNPN credentials | Ericsson | noted |  |  |
| S3-202554 | New Solution to KI#3: Authentication to IMS Core using credentials generated with AKMA | Ericsson | noted |  |  |
| S3-202555 | New Solution to KI#3: Authentication to IMS Core using credentials generated from the KAUSF | Ericsson | noted |  |  |
| S3-202556 | Clarification Solution #23 | Philips International B.V. | revised |  | S3-202738 |
| S3-202557 | Updates to solution #20 (6.20.2.2.2) | Philips International B.V., CableLabs, Apple | revised |  | S3-202737 |
| S3-202558 | Updates to solution #20 (6.20.2.5.1 (verification)) | Philips International B.V., CableLabs, Apple | approved |  |  |
| S3-202559 | Clarifying summary of threats for GVNP | China Mobile | merged |  | S3-202696 |
| S3-202560 | Security functional requirements derived from 3GPP specifications – general SBA/SBI aspects | China Mobile | noted |  |  |
| S3-202561 | Adding hardening requirements for GVNP of type 1 | China Mobile | noted |  |  |
| S3-202562 | Adding hardening requirements for GVNP of type 2 | China Mobile | noted |  |  |
| S3-202563 | Adding hardening requirements for GVNP of type 3 | China Mobile | noted |  |  |
| S3-202564 | Adding basic vulnerability testing requirements for GVNP | China Mobile | noted |  |  |
| S3-202565 | Adding vendor development and product lifecycle processes and test laboratory accreditation into Clause 6 | China Mobile | noted |  |  |
| S3-202566 | Adding evaluation and SCAS instantiation into clause 7 | China Mobile | noted |  |  |
| S3-202567 | Adding test case into clause 5.2.5.5.8.5.1 | China Mobile | noted |  |  |
| S3-202568 | Adding test case into clause 5.2.5.6.6.1 | China Mobile | noted |  |  |
| S3-202569 | Adding conclusion into clause 8 | China Mobile | noted |  |  |
| S3-202570 | reply LS on security analysis for Solution 22 in TR 23.748 | China Mobile | revised |  | S3-202678 |
| S3-202571 | Complementary to key issue to mitigate the SUPI guessing attacks | China Mobile | revised |  | S3-202710 |
| S3-202572 | Discussion on a unified solution needs to the key issue #2.1 and key issue #4.1 | China Mobile | noted |  |  |
| S3-202573 | Propose a conclusion for the key issue #2.1 and key issue #4.1 | China Mobile | noted |  |  |
| S3-202574 | New Key issue on reporting of base station involved in cyber attack | NEC Europe Ltd | revised |  | S3-202584 |
| S3-202575 | IIOT: New key issue for protection of AF-NEF interface | Ericsson | revised |  | S3-202694 |
| S3-202576 | IIOT: New solution for protection of AF-NEF interface | Ericsson | revised |  | S3-202698 |
| S3-202577 | IIOT: Update to solution #2 | Ericsson | withdrawn |  |  |
| S3-202578 | UPIP: Update to solution #11 | Ericsson | revised |  | S3-202727 |
| S3-202579 | UPIP: Conclusion on <UE connects to EPC via eUTRA> | Ericsson | noted |  |  |
| S3-202580 | UPIP: New solution to resolve KI#1 for Option (eUTRA with EPC) | Ericsson | revised |  | S3-202728 |
| S3-202581 | New solution for AMF reallocation procedure when 5G NAS security context is rerouted via RAN | Ericsson | noted |  |  |
| S3-202582 | ProSe: Protection of the PC3 interface | Ericsson | revised |  | S3-202700 |
| S3-202583 | ProSe: key management for UE-to-Network Relay and Remote UE | Ericsson | revised |  | S3-202701 |
| S3-202584 | New Key issue on reporting of base station involved in cyber attack | NEC Europe Ltd | revised | S3-202574 | S3-202668 |
| S3-202585 | Securing initial access for UE onboarding between UE and SNPN | Ericsson, Huawei, Hisilicon, Qualcomm Incorporated, Lenovo, Motorola Mobility, InterDigital | revised |  | S3-202715 |
| S3-202586 | Definition of Provisioning Server | Ericsson, Huawei, Hisilicon, InterDigital, Lenovo, Motorola Mobility, China Mobile | noted |  |  |
| S3-202587 | Reply LS on propagation of user consent related information during Xn inter-PLMN handover | Ericsson | noted |  |  |
| S3-202588 | Discussion on provisioning server | Ericsson, Huawei, Hisilicon, InterDigital, Lenovo, Motorola Mobility, China Mobile | noted |  |  |
| S3-202589 | Discussion on user consent study | Ericsson | revised |  | S3-202693 |
| S3-202590 | Not ruling out impact on UE/RAN/CN | Ericsson | noted |  |  |
| S3-202591 | Separate UP-keys per CU-UP instance | Ericsson | noted |  |  |
| S3-202592 | CU-UPs supported by DC | Ericsson | noted |  |  |
| S3-202593 | New key issue for the security of the AMF re-allocation procedures | Ericsson | noted |  |  |
| S3-202594 | Introduction for the AMF re-allocation security study | Ericsson | revised |  | S3-202725 |
| S3-202595 | Scope for the AMF re-allocation security study | Ericsson | revised |  | S3-202726 |
| S3-202596 | Assumptions for the AMF re-allocation security study | Ericsson | noted |  |  |
| S3-202597 | New solution for NAS re-route via RAN and the use of a well-connected network function | Ericsson | noted |  |  |
| S3-202598 | update to KI#10 User's consent for exposure of information to Edge Applications | Huawei, Hiliscon | revised |  | S3-202758 |
| S3-202599 | pCR to TR33.853 - Conclusions for Option 1 and 3 | VODAFONE Group Plc | noted |  |  |
| S3-202600 | Broadcast privacy | Lenovo, Motorola Mobility | noted |  |  |
| S3-202601 | Key Issue on detection of MitM attacks | Lenovo, Motorola Mobility | merged |  | S3-202766 |
| S3-202602 | pCR: Conclusion of Key issue#5 | Lenovo, Motorola Mobility, Huawei | noted |  |  |
| S3-202603 | Update of Solution#15 | Lenovo, Motorola Mobility | revised |  | S3-202782 |
| S3-202604 | Key Issue on Impact of Simultaneous CU-UP applying common UP security | Lenovo, Motorola Mobility, Nokia, Nokia Shanghai Bell, Deutsche Telekom, Samsung, Altiostar | noted |  |  |
| S3-202605 | Authentication and Authorization with the Edge Data Network | Lenovo, Motorola Mobility | revised |  | S3-202781 |
| S3-202606 | Network access authentication with credentials owned by an entity separate from the SNPN | Lenovo, Motorola Mobility | revised |  | S3-202783 |
| S3-202607 | Solution on UAS Authentication and Authorization | Lenovo, Motorola Mobility | revised |  | S3-202722 |
| S3-202608 | DRAFT LS to RAN3 on UPIP solutions for LE | VODAFONE Group Plc | noted |  |  |
| S3-202609 | Solution on UAS Security Aspects | Lenovo, Motorola Mobility | noted |  |  |
| S3-202610 | [UAS] Update to KI#6 | Samsung | noted |  |  |
| S3-202611 | [5G\_ProSe] Updates to solution#1 | Samsung | revised |  | S3-202683 |
| S3-202612 | [5G\_ProSe] Updates to solution#2 | Samsung | revised |  | S3-202684 |
| S3-202613 | New KI for security policy handling in ProSe relay communication | Samsung | noted |  |  |
| S3-202614 | Solution for security policy handling in ProSe relay communication | Samsung | noted |  |  |
| S3-202615 | Key issue: Transport security for the MSGin5G interfaces | Samsung | revised |  | S3-202685 |
| S3-202616 | Key issue: Authentication and authorization between 5GMSGS client and MSGin5G server | Samsung | revised |  | S3-202686 |
| S3-202617 | Key issue: Authentication and authorization between Application Server and MSGin5G server | Samsung | approved |  |  |
| S3-202618 | Corrections to Key issue #6 | Samsung | merged |  | S3-202733 |
| S3-202619 | Moving Key issue #10 to FS\_UC3S | Samsung | merged |  | S3-202758 |
| S3-202620 | Resolving editor’s note on AKMA key derivation | Samsung | approved |  |  |
| S3-202621 | Resolving editor’s note on MAC-I calculation | Samsung | revised |  | S3-202697 |
| S3-202622 | Transfer of Key issue #10 from FS\_eEDGE\_SEC | Samsung | approved |  |  |
| S3-202623 | Potential Requirement on user's consent for exposure of information to Edge Applications | Samsung | noted |  |  |
| S3-202624 | Evaluation for Solution#13 | Samsung | noted |  |  |
| S3-202625 | Evaluation for Solution#17 | Samsung | noted |  |  |
| S3-202626 | Solution for Resumecause protection | Samsung | noted |  |  |
| S3-202627 | Revised SID: Study on Security for NR Integrated Access and Backhaul | Samsung | revised |  | S3-202695 |
| S3-202628 | Solution on UAV and UAV-C Pairing Authorization and Security Aspects | Lenovo, Motorola Mobility | noted |  |  |
| S3-202629 | Key Issue on Security Context handling issues with AMF re-allocation | Lenovo, Motorola Mobility | noted |  |  |
| S3-202630 | Certificate based solution for Protecting System Information Messages with Digital Signature in an NPN | MITRE Corporation, AT&T, InterDigital, DoD, NTIA, CISA/ECD, Charter Communications | revised |  | S3-202717 |
| S3-202631 | [DRAFT] Reply-LS on AAA based solutions for credentials owned by an entity separate from the SNPN | Ericsson | noted |  |  |
| S3-202632 | New Key Issue on privacy of PDU session parameters | Philips International B.V. | noted |  |  |
| S3-202633 | [DRAFT] reply LS on security issues for on-boarding and remote provisioning | Ericsson | noted |  |  |
| S3-202634 | pCR to TR33.853 - Updates to Solution#15 | VODAFONE Group Plc | noted |  |  |
| S3-202635 | A new solution for UAS authentication and authorization | Ericsson | revised |  | S3-202690 |
| S3-202636 | Conclusion for Key Issue #2.1 | THALES | noted |  |  |
| S3-202637 | Conclusion for Key Issue #4.1 | THALES | noted |  |  |
| S3-202638 | eNPN SID: discussion | THALES, Orange, Idemia | noted |  |  |
| S3-202639 | Restricting handovers to RAN nodes that don’t support UP IP | Qualcomm Incorporated | revised |  | S3-202707 |
| S3-202640 | pCR: Solution for UP IP for EPC connected RAN options | Qualcomm Incorporated | revised |  | S3-202723 |
| S3-202641 | Authentication and authorisation of UAVs | Qualcomm Incorporated | noted |  |  |
| S3-202642 | Obtaining UAV location information from the PLMN | Qualcomm Incorporated | revised |  | S3-202709 |
| S3-202643 | Some evaluation of solution#2.1 in TR 33.846 | Qualcomm Incorporated | approved | S3-201930 |  |
| S3-202644 | Some evaluation of solution #2.2 in TR 33.846 | Qualcomm Incorporated | approved | S3-201931 |  |
| S3-202645 | Some evaluation of solution #2.3 in TR 33.846 | Qualcomm Incorporated | revised | S3-201932 | S3-202711 |
| S3-202646 | Some evaluation of solution #2.5 in TR 33.846 | Qualcomm Incorporated | revised | S3-201933 | S3-202712 |
| S3-202647 | Proposing a conclusion for key issue #4.1 | Qualcomm Incorporated | noted | S3-201935 |  |
| S3-202648 | Solution for secure PC5 link establishment for UE-to-network relay | Qualcomm Incorporated | noted |  |  |
| S3-202649 | Solution to establish end-to-end security for the L3 UE-to-network relay | Qualcomm Incorporated | noted |  |  |
| S3-202650 | Solution for secure PC5 link establishment for UE-to-UE relay | Qualcomm Incorporated | noted |  |  |
| S3-202651 | AS security for MBS traffic protection | Qualcomm Incorporated | merged |  | S3-202761 |
| S3-202652 | Reply LS on architectures for access to SNPNs using credentials owned by an entity separate from the SNPN | Qualcomm Incorporated | noted |  |  |
| S3-202653 | pCR: Solution for KI#1 in TR 33.857 | Qualcomm Incorporated | revised |  | S3-202724 |
| S3-202654 | eNPN scope | THALES, Orange, Idemia | noted |  |  |
| S3-202655 | eNPN security assumptions | THALES, Orange, Idemia | noted |  |  |
| S3-202656 | pCR to TR33.853 - Updates to solution #14 | VODAFONE Group Plc | approved |  |  |
| S3-202657 | eNPN SID revision | THALES, Orange, Idemia | noted |  |  |
| S3-202658 | Proposed TR Assumptions on credentials | Ericsson | noted |  |  |
| S3-202659 | pCR to TR33.853 - Updates to solution #14 | VODAFONE Group Plc | withdrawn |  |  |
| S3-202660 | Scope for TR 33.840 | China Telecom, Huawei, HiSilicon, CATT, Nokia, Nokia Shanghai Bell, Lenovo, Motorola Mobility | revised | S3-202330 | S3-202792 |
| S3-202661 | [DRAFT] Reply LS on securing data collection from UE | Ericsson | noted |  |  |
| S3-202662 | pCR to 33.809 Enhanced Description of Key Issue #7 | Nokia, Nokia Shanghai Bell | revised |  | S3-202691 |
| S3-202663 | Scope of TR 33.857 | Philips International B.V. | noted |  |  |
| S3-202664 | Solution for authorization and security with UE-to-Network relay using Remote | InterDigital Communications | withdrawn | - |  |
| S3-202665 | Solution for authorization and security with UE-to-Network relay using Remote UE network primary authentication | InterDigital Communications | revised |  | S3-202714 |
| S3-202666 | Architectural model corrections | Philips International B.V. | approved |  |  |
| S3-202667 | LS to CT1 on Clarifications on NAS message processing | Nokia Germany | approved |  |  |
| S3-202668 | New Key issue on reporting of base station involved in cyber attack | NEC Europe Ltd | noted | S3-202584 |  |
| S3-202669 | Minutes of the meeting for the offline teleconference on the AMF re-allocation | Ericsson Hungary Ltd | noted |  |  |
| S3-202670 | Process and agenda for SA3#100bis-e | SA WG3 Chair | withdrawn |  |  |
| S3-202671 | New solution for KI4 - Encrypted storage of OPc in UDR | KPN N.V. | approved | S3-202404 |  |
| S3-202672 | New solution for KI6 - Encrypted storage of OP in UDR | KPN N.V. | approved | S3-202406 |  |
| S3-202673 | New KI - UE identity protection during ProSe discovery | KPN N.V. | approved | S3-202403 |  |
| S3-202674 | Skeleton for TR 33.866 | China Mobile,Nokia, Nokia Shanghai Bell | approved | S3-202309 |  |
| S3-202675 | Evaluation of Solution 2 | NCSC | approved | S3-202305 |  |
| S3-202676 | Evaluation of Solution 3 | NCSC | approved | S3-202306 |  |
| S3-202677 | Evaluation of Solution 4 | NCSC | approved | S3-202307 |  |
| S3-202678 | reply LS on security analysis for Solution 22 in TR 23.748 | China Mobile | approved | S3-202570 |  |
| S3-202679 | TR 33.818 v0.8.0 | China Mobile Com. Corporation | approved |  |  |
| S3-202680 | New solution for KI2: Storage of LTK in UDR | NCSC | approved | S3-202308 |  |
| S3-202681 | New solution to KI#1: Primary authentication between an SNPN and third-party AAA server using EAP | Ericsson | approved | S3-202538 |  |
| S3-202682 | New solution to KI#1: Primary authentication between an SNPN and third-party AAA server using EAP-TTLS | Ericsson | approved | S3-202539 |  |
| S3-202683 | [5G\_ProSe] Updates to solution#1 | Samsung | approved | S3-202611 |  |
| S3-202684 | [5G\_ProSe] Updates to solution#2 | Samsung | approved | S3-202612 |  |
| S3-202685 | Key issue: Transport security for the MSGin5G interfaces | Samsung | approved | S3-202615 |  |
| S3-202686 | Key issue: Authentication and authorization between 5GMSGS client and MSGin5G server | Samsung | approved | S3-202616 |  |
| S3-202687 | Reply LS to S2-2006037 MUSIM busy indication | Nokia, Nokia Shanghai Bell | approved | S3-202429 |  |
| S3-202688 | Reply LS to SA5 LS on study items for security management aspect | Nokia, Nokia Shanghai Bell | approved | S3-202432 |  |
| S3-202689 | Reply LS to S2-2006589 on Security issues for 5G PRoSe | Nokia, Nokia Shanghai Bell | approved | S3-202434 |  |
| S3-202690 | A new solution for UAS authentication and authorization | Ericsson | approved | S3-202635 |  |
| S3-202691 | pCR to 33.809 Enhanced Description of Key Issue #7 | Nokia, Nokia Shanghai Bell | approved | S3-202662 |  |
| S3-202692 | Addressing EN in Sol1 on UAS registration Accept | Huawei, HiSilicon, Lenovo, Motorola Mobility | approved | S3-202392 |  |
| S3-202693 | Discussion on user consent study | Ericsson, Nokia | approved | S3-202589 |  |
| S3-202694 | IIOT: New key issue for protection of AF-NEF interface | Ericsson,Nokia, Nokia Shanghai Bell | approved | S3-202575 |  |
| S3-202695 | Revised SID: Study on Security for NR Integrated Access and Backhaul | Samsung | agreed | S3-202627 |  |
| S3-202696 | SCAS VNP: Software Tampering | Nokia, Nokia Shanghai Bell, China Mobile | approved | S3-202546 |  |
| S3-202697 | Resolving editor’s note on MAC-I calculation | Samsung | approved | S3-202621 |  |
| S3-202698 | IIOT: New solution for protection of AF-NEF interface | Ericsson,Nokia, Nokia Shanghai Bell | approved | S3-202576 |  |
| S3-202699 | 5GFBS: FBS pretending to be in a different PLMN for Solution#22 | Nokia, Nokia Shanghai Bell | approved | S3-202541 |  |
| S3-202700 | ProSe: Protection of the PC3 interface | Ericsson | approved | S3-202582 |  |
| S3-202701 | ProSe: key management for UE-to-Network Relay and Remote UE | Ericsson | approved | S3-202583 |  |
| S3-202702 | Solution for UAV A&A during registration | InterDigital, Europe, Ltd. | approved | S3-202415 |  |
| S3-202703 | Solution for UAV A&A using EAP-based PDU Secondary authentication | InterDigital, Europe, Ltd. | approved | S3-202416 |  |
| S3-202704 | Solution for UAV A&A using API-based PDU Secondary authentication | InterDigital, Europe, Ltd. | approved | S3-202417 |  |
| S3-202705 | KI for TR 33.847 – adding security for UE2N path switch in KI#3 | InterDigital Communications, CableLabs | approved | S3-202377 |  |
| S3-202706 | Modification of KI for TR 33.847 – security for UE2UE Relay path switch | InterDigital Communications, CableLabs | approved | S3-202378 |  |
| S3-202707 | Restricting handovers to RAN nodes that don’t support UP IP | Qualcomm Incorporated | approved | S3-202639 |  |
| S3-202708 | New KI for TR 33.847 – security for support of Non-IP traffic | InterDigital Communications | approved | S3-202413 |  |
| S3-202709 | Obtaining UAV location information from the PLMN | Qualcomm Incorporated, Interdigital | approved | S3-202642 |  |
| S3-202710 | Complementary to key issue to mitigate the SUPI guessing attacks | China Mobile | approved | S3-202571 |  |
| S3-202711 | Some evaluation of solution #2.3 in TR 33.846 | Qualcomm Incorporated | approved | S3-202645 |  |
| S3-202712 | Some evaluation of solution #2.5 in TR 33.846 | Qualcomm Incorporated | approved | S3-202646 |  |
| S3-202713 | New KI for TR 33.847 – privacy of ProSe entities while supporting Non-IP traffic | InterDigital Communications | approved | S3-202414 |  |
| S3-202714 | Solution for authorization and security with UE-to-Network relay using Remote UE network primary authentication | InterDigital Communications | approved | S3-202665 |  |
| S3-202715 | Securing initial access for UE onboarding between UE and SNPN | Ericsson, Huawei, Hisilicon, Qualcomm Incorporated, Lenovo, Motorola Mobility, InterDigital, ZTE Corporation, Intel, Nokia, Nokia Shanghai Bell | approved | S3-202585 |  |
| S3-202716 | Draft TR 33857 v020 Study on enhanced security support for Non-Public Networks (NPN) | Ericsson | approved |  |  |
| S3-202717 | Certificate based solution for Protecting System Information Messages with Digital Signature in an NPN | MITRE Corporation, AT&T, InterDigital, DoD, NTIA, CISA/ECD, Charter Communications, SoftHandover Consulting, Apple | approved | S3-202630 |  |
| S3-202718 | Updates to solution #20 (6.20.2.1) | CableLabs, Philips International B.V, Apple, Deutsche Telekom AG, InterDigital Communications, Charter Communications | approved | S3-202464 |  |
| S3-202719 | Updates to solution #20 (6.20.2.4) | CableLabs, Philips International B.V, Apple, Deutsche Telekom AG, InterDigital Communications, Charter Communications | approved | S3-202466 |  |
| S3-202720 | Updates to solution #20 (adding Assessment using Annex A.3) | CableLabs, Philips International B.V, Apple, Deutsche Telekom AG, InterDigital Communications, Charter Communications | approved | S3-202468 |  |
| S3-202721 | New solution for Key Issue #1 | CableLabs | approved | S3-202508 |  |
| S3-202722 | Solution on UAS Authentication and Authorization | Lenovo, Motorola Mobility | approved | S3-202607 |  |
| S3-202723 | pCR: Solution for UP IP for EPC connected RAN options | Qualcomm Incorporated | approved | S3-202640 |  |
| S3-202724 | pCR: Solution for KI#1 in TR 33.857 | Qualcomm Incorporated | approved | S3-202653 |  |
| S3-202725 | Introduction for the AMF re-allocation security study | Ericsson | approved | S3-202594 |  |
| S3-202726 | Scope for the AMF re-allocation security study | Ericsson | approved | S3-202595 |  |
| S3-202727 | UPIP: Update to solution #11 | Ericsson | approved | S3-202578 |  |
| S3-202728 | UPIP: New solution to resolve KI#1 for Option (eUTRA with EPC) | Ericsson | approved | S3-202580 |  |
| S3-202729 | New solution for key issue 1,2, 4,6 | Intel Corporation (UK) Ltd | approved | S3-202528 |  |
| S3-202730 | New SID on the security of the system enablers for devices having multiple Universal Subscriber Identity Modules (USIM) | Intel Corporation (UK) Ltd | agreed | S3-202523 |  |
| S3-202731 | Onboarding and authentication/authorization framework for Edge Enabler Server with Edge Configuration Server | Intel Corporation (UK) Ltd | approved | S3-202516 |  |
| S3-202732 | Add Provisioning Server Term | Intel Corporation (UK) Ltd | approved | S3-202513 |  |
| S3-202733 | Updates to Key Issue 3 and 6 | Intel Corporation (UK) Ltd | approved | S3-202527 |  |
| S3-202734 | Draft TR 33.864 v0.1.0 Study on the security of Access and Mobility Management Function (AMF) re-allocation | Ericsson Hungary Ltd | approved |  |  |
| S3-202735 | Draft TR 33.846 v0.8.0 Study on authentication enhancements in the 5G System (5GS) | Ericsson Hungary Ltd | approved |  |  |
| S3-202736 | New Key issue on groupcast security | Huawei Device Co., Ltd | withdrawn | - |  |
| S3-202737 | Update\_solution\_20\_sec\_6.20.2.2.2 | Philips International B.V., CableLabsCableLabs, Philips International B.V, Apple, Deutsche Telekom AG | approved | S3-202557 |  |
| S3-202738 | Clarification Solution #23 | Philips International B.V. | approved | S3-202556 |  |
| S3-202739 | New solution for key issue #1 | ZTE Corporation, Nokia,Nokia Shanghai Bell | approved | S3-202324 |  |
| S3-202740 | Draft TR 33.809-5GFBS | Apple Computer Trading Co. Ltd | approved |  |  |
| S3-202741 | EC: New solution on authentication and authorization between EEC and ECS | Huawei, Hisilicon | withdrawn | - |  |
| S3-202742 | EC: New solution on authentication and authorization between EEC and ECS | Huawei, Hisilicon | approved | S3-202483 |  |
| S3-202743 | EC: New Key issue on authorization during Edge Data Network change | Huawei, Hisilicon | approved | S3-202484 |  |
| S3-202744 | EC: New solution on transport security for EDGE-1-9 interfaces | Huawei, Hisilicon, ZTE | approved | S3-202485 |  |
| S3-202745 | pCR: Revocation of authorization of MBS communication service | Huawei, Hisilicon | approved | S3-202492 |  |
| S3-202746 | pCR: New solution to MBS traffic protection | Huawei, Hisilicon | approved | S3-202493 |  |
| S3-202747 | pCR: 33.846: Updates on key issue #2.1 | Huawei, Hisilicon | approved | S3-202494 |  |
| S3-202748 | New Key Issue on Provisioning of PNI-NPN credentials | Huawei, Hisilicon, Ericsson, China Mobile | noted | S3-202332 |  |
| S3-202749 | Clarification on Key Issue #2 | Huawei, Hisilicon, Ericsson | noted | S3-202333 |  |
| S3-202750 | New Solution for Network Access Authentication with Credentials owned by an AAA external to the SNPN | Huawei, Hisilicon | approved | S3-202334 |  |
| S3-202751 | Reply LS on security issue for on-boarding and remote provisioning | Huawei, Hisilicon | approved | S3-202336 |  |
| S3-202752 | Skeleton of User Consent for 3GPP services | Huawei, Hisilicon | approved | S3-202338 |  |
| S3-202753 | Reply LS for IP address to GPSI translation | Huawei, Hisilicon | approved | S3-202343 |  |
| S3-202754 | New key issue on security of one-to-one communication over PC5 | Huawei, Hisilicon | approved | S3-202346 |  |
| S3-202755 | New solution on security establishment of one-to-one PC5 communication | Huawei, Hisilicon | approved | S3-202347 |  |
| S3-202756 | New solution on Authentication between EEC and EES | Huawei, Hisilicon | approved | S3-202348 |  |
| S3-202757 | New solution on Authentication between EEC and ECS | Huawei, Hisilicon | approved | S3-202349 |  |
| S3-202758 | update to KI#10 User's consent for exposure of information to Edge Applications | Huawei, Hisilicon, Samsung | approved | S3-202598 |  |
| S3-202759 | New solution on Security of Network Information Provisioning to Local Applications | Huawei, Hisilicon | approved | S3-202351 |  |
| S3-202760 | Draft TR 33.850 | Huawei, Hisilicon | approved |  |  |
| S3-202761 | New solution to protect MBS traffic in transport layer | Huawei, Hisilicon, Qualcomm | approved | S3-202477 |  |
| S3-202762 | New solution to protect MBS traffic in service layer | Huawei, Hisilicon | approved | S3-202478 |  |
| S3-202763 | New key issue on groupcast security | Huawei, HiSilicon, CATT, Lenovo, Motorola Mobility | approved | S3-202393 |  |
| S3-202764 | Draft TR 33.839 - FS\_eEDGE\_SEC | Huawei, Hisilicon | approved |  |  |
| S3-202765 | draftTR 33.862 | China Mobile | approved |  |  |
| S3-202766 | Key issue on cyber-attacks detection supported by NWDAF | China Mobile, Lenovo, Motorola Mobility, Huawei, Hisilicon, Nokia, Nokia Shanghai Bell | approved | S3-202534 |  |
| S3-202767 | draftTR 33.866 | China Mobile | approved |  |  |
| S3-202768 | Add content to clause 4 | Huawei, HiSilicon | approved | S3-202473 |  |
| S3-202769 | New solution on Key management in discovery procedure | Huawei, HiSilicon | approved | S3-202469 |  |
| S3-202770 | Update key issue #2 | Huawei, HiSilicon | withdrawn | - |  |
| S3-202771 | New solution on discovery protection | Huawei, HiSilicon | noted | S3-202470 |  |
| S3-202772 | New solution to verify the location information | Huawei, HiSilicon | approved | S3-202479 |  |
| S3-202773 | pCR to TR33.847- Reuse LTE security mechanism for 5G ProSe open discovery | CATT | approved | S3-202409 |  |
| S3-202774 | pCR to TR33.847- Reuse LTE security mechanism for 5G ProSe restricted discovery | CATT | approved | S3-202410 |  |
| S3-202775 | Draft TR 33.847 v0.2.0 Study on Security Aspects of Enhancement for Proximity Based Services in 5GS | CATT | approved |  |  |
| S3-202776 | Solution on Authentication and Authorization between the Edge Enabler Client and the Edge Configuration Server | CATT | approved | S3-202500 |  |
| S3-202777 | Solution on Authentication and Authorization between the EEC and the EES when the ECS is deployed by the ECSP | CATT | approved | S3-202501 |  |
| S3-202778 | Solution on Authentication and Authorization between the EEC and the EES when the ECS is deployed by the MNO | CATT | approved | S3-202502 |  |
| S3-202779 | Solution on the service capability exposure to the EAS | CATT | approved | S3-202503 |  |
| S3-202780 | ProSe- New solution on security of UE-to-UE relay | Apple | approved | S3-202451 |  |
| S3-202781 | Authentication and Authorization with the Edge Data Network | Lenovo, Motorola Mobility, Samsung | approved | S3-202605 |  |
| S3-202782 | Update of Solution#15 | Lenovo, Motorola Mobility | approved | S3-202603 |  |
| S3-202783 | Network access authentication with credentials owned by an entity separate from the SNPN | Lenovo, Motorola Mobility | approved | S3-202606 |  |
| S3-202784 | draft TR 33.867 | Huawei, Hisilicon | withdrawn |  |  |
| S3-202785 | draft TR 33.867 | Huawei Technologies Sweden AB | approved |  |  |
| S3-202786 | Editorial updates of solution titles | Nokia, Nokia Shanghai Bell | approved | S3-202445 |  |
| S3-202787 | TR 33.854 v0.2.0 | Qualcomm Incorporated | approved |  |  |
| S3-202788 | Ed.note resolution in solution summary of sol.4.4 | Nokia, Nokia Shanghai Bell | approved | S3-202441 |  |
| S3-202789 | Reply LS on user consent requirements for analytics | Nokia | approved | S3-202396 |  |
| S3-202790 | KI on Privacy preservation for transmitted data between multiple NWDAF instances | Nokia, Nokia Shanghai Bell | approved | S3-202425 |  |
| S3-202791 | TR\_33.851\_IIoT\_Sec | Nokia Germany | approved |  |  |
| S3-202792 | Scope for TR 33.840 | China Telecom, Huawei, HiSilicon, CATT, Nokia, Nokia Shanghai Bell, Lenovo, Motorola Mobility, Deutsche Telekom | approved | S3-202660 |  |
| S3-202793 | TR33.840 v0.1.0 | China Telecommunications | approved |  |  |

### A2: Tdoc decision timing

|  |  |  |
| --- | --- | --- |
| Document | Date/time UTC | Decision |
| S3-202301 | 21/10/2020 13:52:02 | noted |
| S3-202303 | 22/10/2020 10:17:38 | noted |
| S3-202304 | 22/10/2020 10:17:09 | approved |
| S3-202310 | 22/10/2020 14:08:57 | approved |
| S3-202311 | 21/10/2020 15:14:46 | approved |
| S3-202312 | 21/10/2020 16:32:09 | noted |
| S3-202313 | 21/10/2020 15:01:43 | noted |
| S3-202314 | 21/10/2020 15:01:47 | noted |
| S3-202315 | 21/10/2020 15:01:49 | noted |
| S3-202316 | 21/10/2020 15:01:54 | noted |
| S3-202317 | 21/10/2020 15:01:54 | noted |
| S3-202318 | 21/10/2020 15:25:12 | approved |
| S3-202319 | 21/10/2020 15:25:15 | approved |
| S3-202320 | 21/10/2020 15:25:18 | approved |
| S3-202321 | 21/10/2020 15:25:44 | approved |
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| S3-202325 | 21/10/2020 16:54:06 | noted |
| S3-202326 | 21/10/2020 16:55:25 | noted |
| S3-202327 | 21/10/2020 16:55:52 | available |
| S3-202328 | 21/10/2020 17:05:46 | noted |
| S3-202329 | 22/10/2020 14:09:03 | noted |
| S3-202331 | 22/10/2020 10:14:33 | noted |
| S3-202337 | 21/10/2020 13:52:27 | noted |
| S3-202339 | 22/10/2020 10:16:05 | noted |
| S3-202340 | 22/10/2020 10:16:08 | noted |
| S3-202341 | 22/10/2020 10:16:12 | noted |
| S3-202342 | 22/10/2020 10:16:15 | noted |
| S3-202344 | 21/10/2020 14:59:00 | approved |
| S3-202345 | 21/10/2020 15:15:48 | approved |
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| S3-202353 | 12/10/2020 09:20:03 | noted |
| S3-202354 | 12/10/2020 09:19:13 | noted |
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| S3-202356 | 22/10/2020 16:45:14 | noted |
| S3-202357 | 12/10/2020 09:19:23 | postponed |
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| S3-202358 | 22/10/2020 10:16:19 | postponed |
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| S3-202519 | 22/10/2020 12:17:55 | noted |
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| S3-202524 | 21/10/2020 15:43:50 | available |
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| S3-202536 | 21/10/2020 15:00:33 | noted |
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| S3-202545 | 21/10/2020 14:24:16 | noted |
| S3-202547 | 21/10/2020 14:24:36 | noted |
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| S3-202591 | 22/10/2020 10:15:20 | noted |
| S3-202592 | 22/10/2020 10:15:25 | noted |
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| S3-202596 | 22/10/2020 14:10:24 | noted |
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| S3-202714 | 21/10/2020 16:49:19 | approved |
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| S3-202719 | 21/10/2020 13:56:52 | approved |
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| S3-202726 | 22/10/2020 14:10:10 | approved |
| S3-202727 | 21/10/2020 15:00:39 | approved |
| S3-202728 | 21/10/2020 15:00:48 | approved |
| S3-202729 | 21/10/2020 16:18:09 | approved |
| S3-202730 | 22/10/2020 16:03:25 | agreed |
| S3-202731 | 21/10/2020 15:42:28 | approved |
| S3-202732 | 21/10/2020 17:10:41 | approved |
| S3-202733 | 21/10/2020 16:12:42 | approved |
| S3-202734 | 23/10/2020 09:43:07 | approved |
| S3-202735 | 23/10/2020 09:42:40 | approved |
| S3-202737 | 21/10/2020 14:00:13 | approved |
| S3-202738 | 21/10/2020 14:00:02 | approved |
| S3-202739 | 21/10/2020 16:50:07 | approved |
| S3-202740 | 23/10/2020 09:42:32 | approved |
| S3-202742 | 21/10/2020 15:39:56 | approved |
| S3-202743 | 21/10/2020 15:41:16 | approved |
| S3-202744 | 21/10/2020 15:26:04 | approved |
| S3-202745 | 21/10/2020 16:51:53 | approved |
| S3-202746 | 21/10/2020 16:51:57 | approved |
| S3-202747 | 21/10/2020 15:12:29 | approved |
| S3-202748 | 21/10/2020 17:06:25 | noted |
| S3-202749 | 21/10/2020 17:06:27 | noted |
| S3-202750 | 21/10/2020 17:07:17 | approved |
| S3-202751 | 21/10/2020 17:08:41 | approved |
| S3-202752 | 22/10/2020 10:15:55 | approved |
| S3-202753 | 21/10/2020 15:20:07 | approved |
| S3-202754 | 21/10/2020 16:32:15 | approved |
| S3-202755 | 21/10/2020 16:32:19 | approved |
| S3-202756 | 21/10/2020 15:32:54 | approved |
| S3-202757 | 21/10/2020 15:32:58 | approved |
| S3-202758 | 21/10/2020 16:25:13 | withdrawn |
| S3-202758 | 22/10/2020 09:36:12 | approved |
| S3-202759 | 21/10/2020 15:33:23 | approved |
| S3-202760 | 23/10/2020 09:46:34 | approved |
| S3-202761 | 21/10/2020 16:51:34 | approved |
| S3-202762 | 21/10/2020 16:51:38 | approved |
| S3-202763 | 21/10/2020 16:35:48 | approved |
| S3-202764 | 23/10/2020 14:33:46 | approved |
| S3-202765 | 23/10/2020 09:43:00 | approved |
| S3-202766 | 22/10/2020 12:16:48 | approved |
| S3-202767 | 26/10/2020 11:04:00 | approved |
| S3-202768 | 22/10/2020 10:14:38 | approved |
| S3-202769 | 21/10/2020 16:46:00 | approved |
| S3-202771 | 21/10/2020 16:46:21 | noted |
| S3-202772 | 21/10/2020 15:17:37 | approved |
| S3-202773 | 21/10/2020 16:37:23 | approved |
| S3-202774 | 21/10/2020 16:37:29 | approved |
| S3-202775 | 23/10/2020 09:42:47 | approved |
| S3-202776 | 21/10/2020 15:41:39 | approved |
| S3-202777 | 21/10/2020 15:41:49 | approved |
| S3-202778 | 21/10/2020 15:41:52 | approved |
| S3-202779 | 21/10/2020 15:41:59 | approved |
| S3-202780 | 21/10/2020 16:45:48 | approved |
| S3-202781 | 21/10/2020 16:18:43 | approved |
| S3-202782 | 21/10/2020 14:23:00 | approved |
| S3-202783 | 22/10/2020 10:13:18 | approved |
| S3-202785 | 23/10/2020 15:20:53 | approved |
| S3-202786 | 21/10/2020 15:12:08 | approved |
| S3-202787 | 23/10/2020 15:20:47 | approved |
| S3-202788 | 21/10/2020 15:07:44 | noted |
| S3-202788 | 21/10/2020 16:44:31 | approved |
| S3-202789 | 22/10/2020 10:20:06 | approved |
| S3-202790 | 22/10/2020 12:17:22 | approved |
| S3-202791 | 26/10/2020 13:57:58 | approved |
| S3-202792 | 22/10/2020 10:15:40 | approved |
| S3-202793 | 23/10/2020 09:42:54 | approved |

## Annex B: List of change requests

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Document | Title | Source | Spec | CR | Rev | Rel | Cat | WI | Decision |

## Annex C: Lists of liaisons

### C1: Incoming liaison statements

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Document | Original | Title | From | Decision | Reply TDoc |
| S3-202353 |  | LS on ETSI Plugtest reports | C1-204693 | noted | (none) |
| S3-202354 |  | LS on mandatory support of full rate user plane integrity protection for 5G | C1-205392 | noted | (none) |
| S3-202355 |  | Reply LS on N32-f Error Responses – Mapping | C4-204391 | noted | (none) |
| S3-202356 |  | Reply LS on N32-f Protection Policy IE Data-Type Mapping | C4-204392 | noted | (none) |
| S3-202357 |  | Response LS to TSG SA on mandatory support of full rate user plane integrity protection for 5G | R2-2008643 | noted | (none) |
| S3-202358 |  | LS on propagation of user consent related information during Xn inter-PLMN handover | R3-204378 | postponed | (none) |
| S3-202359 |  | Reply LS on mandatory support of full rate user plane integrity protection for 5G | R3-205653 | noted | (none) |
| S3-202360 |  | LS on architectures for access to SNPNs using credentials owned by an entity separate from the SNPN | S2-2004385 | postponed | (none) |
| S3-202361 |  | LS on user consent requirements for analytics | S2-2004560 | replied to | S3-202789 |
| S3-202362 |  | Reply LS on AS rekeying handling | S2-2005909 | noted | (none) |
| S3-202363 |  | LS on security issue for on-boarding and remote provisioning | S2-2005949 | replied to | S3-202751 |
| S3-202364 |  | LS on checking security issue for Solution 22 in TR 23.748 | S2-2006033 | replied to | S3-202678 |
| S3-202365 |  | Reply LS on Updated User Plane Integrity Protection advice | S2-2006180 | noted | (none) |
| S3-202366 |  | LS on mandatory support of full rate user plane integrity protection for 5G | S2-2006181 | noted | (none) |
| S3-202367 |  | LS on method for collection of data from the UE | S2-2006292 | postponed | (none) |
| S3-202368 |  | LS on security issues for 5G ProSe | S2-2006589 | replied to | S3-202689 |
| S3-202369 |  | Reply LS on the user consent for trace reporting | S5-204542 | noted | (none) |
| S3-202370 |  | LS on IP address to GPSI translation | S6-200947 | replied to | S3-202753 |
| S3-202371 |  | Re LS on Accreditation for Virtualised Network Products (VNPs) | GSMA SECAG | noted | (none) |
| S3-202372 |  | LS on Misalignments on HTTP message format over N32-f | C4-204409 | postponed | (none) |
| S3-202373 |  | Reply LS to SA3 on FBS detection | R2-1914224 | postponed | (none) |
| S3-202374 |  | Reply to LS on Resynchronisations | ETSI SAGE | postponed | (none) |
| S3-202398 |  | LS on the stage 2 aspects of MINT | C1-205332 | noted | (none) |
| S3-202399 |  | LS on System support for Multi-USIM devices | S2-2006011 | postponed | (none) |
| S3-202400 |  | LS on System support for Multi-USIM devices | S2-2006037 | replied to | S3-202687 |
| S3-202401 |  | LS on ATSSS Phase 2 Requirements to IETF QUIC Working Group | S2-2006331 | noted | (none) |
| S3-202402 |  | LS on study items for security on management aspect | S5-204407 | replied to | S3-202688 |
| S3-202537 |  | LS on Security Requirements for Sidelink/PC5 Relays | S2-2004750 | postponed | (none) |

### C2: Outgoing liaison statements

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Document | Title | To | Cc | reply to i/c LS |
| S3-202667 | LS to CT1 on Clarifications on NAS message processing | CT1 | SA2 |  |
| S3-202678 | reply LS on security analysis for Solution 22 in TR 23.748 | SA2 | - | S3-202364 |
| S3-202687 | Reply LS to S2-2006037 MUSIM busy indication | SA2, RAN2, RAN3 | - | S3-202400 |
| S3-202688 | Reply LS to SA5 LS on study items for security management aspect | SA5 | - | S3-202402 |
| S3-202689 | Reply LS to S2-2006589 on Security issues for 5G PRoSe | SA2 | - | S3-202368 |
| S3-202751 | Reply LS on security issue for on-boarding and remote provisioning | SA2 | - | S3-202363 |
| S3-202753 | Reply LS for IP address to GPSI translation | SA6 | SA2 | S3-202370 |
| S3-202789 | Reply LS on user consent requirements for analytics | SA WG2 | - | S3-202361 |

## Annex D: List of agreed/approved new and revised Work Items

|  |  |  |  |
| --- | --- | --- | --- |
| Document | Title | Source | new/revised |
| S3-202730 | New SID on the security of the system enablers for devices having multiple Universal Subscriber Identity Modules (USIM) | Intel Corporation (UK) Ltd | SID new |
| S3-202462 | Revised SID on Industrial IoT Security | Nokia, Nokia Shanghai Bell | SID revised |
| S3-202695 | Revised SID: Study on Security for NR Integrated Access and Backhaul | Samsung | SID revised |

## Annex E: List of draft Technical Specifications and Reports

|  |  |  |  |
| --- | --- | --- | --- |
| Document | Spec | vers | Doc title |
| S3-202304 | 33.862 | 0.0.0 | Skeleton for TR 33.862 |
| S3-202309 | 33.866 | 0.0.0 | Skeleton for TR 33.866 |
| S3-202310 | 33.864 | 0.0.0 | Skeleton of TR 33.864 Study on the security of Access and Mobility Management Function (AMF) re-allocation |
| S3-202674 | 33.866 | 0.0.0 | Skeleton for TR 33.866 |
| S3-202679 | 33.818 | 0.8.0 | TR 33.818 v0.8.0 |
| S3-202716 | 33.857 | 0.2.0 | Draft TR 33857 v020 Study on enhanced security support for Non-Public Networks (NPN) |
| S3-202734 | 33.864 | 0.1.0 | Draft TR 33.864 v0.1.0 Study on the security of Access and Mobility Management Function (AMF) re-allocation |
| S3-202735 | 33.846 | 0.8.0 | Draft TR 33.846 v0.8.0 Study on authentication enhancements in the 5G System (5GS) |
| S3-202740 | 33.809 | 0.11.0 | Draft TR 33.809-5GFBS |
| S3-202760 | 33.850 | 0.2.0 | Draft TR 33.850 |
| S3-202764 | 33.839 | 0.2.0 | Draft TR 33.839 - FS\_eEDGE\_SEC |
| S3-202765 | 33.862 | 0.1.0 | draftTR 33.862 |
| S3-202767 | 33.866 | 0.1.0 | draftTR 33.866 |
| S3-202775 | 33.847 | 0.2.0 | Draft TR 33.847 v0.2.0 Study on Security Aspects of Enhancement for Proximity Based Services in 5GS |
| S3-202785 | 33.867 | 0.1.0 | draft TR 33.867 |
| S3-202787 | 33.854 | 0.2.0 | TR 33.854 v0.2.0 |
| S3-202791 | 33.851 | 0.2.0 | TR\_33.851\_IIoT\_Sec |
| S3-202793 | 33.840 | 0.1.0 | TR33.840 v0.1.0 |

## Annex F: List of participants

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TITLE | Family Name | Given Name | Employer Organization | Employer Category Code | Organization Represented |
| Mr. | Alsterlid | Stefan | Sectra Communications AB | ETSI | Sectra Communications AB |
| Prof. | Babbage | Steve | VODAFONE Group Plc | ETSI | VODAFONE Group Plc |
| Dr. | Baboescu | Florin | BROADCOM CORPORATION | ETSI | BROADCOM CORPORATION |
| Dr. | Baskaran | Sheeba Backia Mary | Motorola Mobility Germany GmbH | ETSI | Lenovo Mobile Com. Technology |
| Dr. | Ben Henda | Noamen | Ericsson LM | ETSI | Ericsson LM |
| Ms. | Bi | Xiaoyu | CATT | CCSA | CATT |
| Mr. | Bjerrum | Bo Holm | Nokia Corporation | ETSI | Nokia Corporation |
| Mr. | Blanchard | Colin | BT plc | ETSI | BT plc |
| Mrs. | Brooks | Terri | T-Mobile USA Inc. | ATIS | T-Mobile USA Inc. |
| Mr. | Brown | Michael | Affirmed Networks Inc. | ETSI | Affirmed Networks Inc. |
| Mr. | Brusilovsky | Alec | InterDigital, Inc. | ETSI | InterDigital Communications |
| Mr. | Bykampadi | Nagendra | Altiostar | ETSI | Altiostar |
| Mr. | Cano Soveri | Mirko | ETSI | ETSI | ETSI |
| Mr. | Canterbury | Mark | Tencastle Limited | | National Technical Assistance |
| Dr. | Carlberg | Ken | FCC | ATIS | FCC |
| Mr. | Castagno | Mauro | TELECOM ITALIA S.p.A. | ETSI | TELECOM ITALIA S.p.A. |
| Mr. | Choyi | Vinod Kumar | Verizon UK Ltd | ETSI | Verizon Switzerland AG |
| Mr. | Chun | SungDuck | LG Electronics France | ETSI | LG Electronics France |
| Mr. | Cichonski | Jeffrey | NIST | ATIS | NIST |
| Ms. | Comak | Pinar | Ericsson LM | ETSI | Ericsson LM |
| Dr. | Corbett | Cherita | Johns Hopkins University APL | ATIS | Johns Hopkins University APL |
| Mr. | Dees | Walter | Philips International B.V. | ETSI | Philips International B.V. |
| Ms. | Deng | Juan | HuaWei Technologies Co., Ltd | CCSA | HUAWEI Technologies Japan K.K. |
| Mr. | Dietze | Claus | G+D MS | ETSI | G+D MS |
| Mr. | Doerr | Johannes | BMWi | ETSI | BMWi |
| Mr. | Ennesser | Francois | Huawei Technologies France | ETSI | Huawei Technologies France |
| Dr. | Escott | Adrian | Qualcomm CDMA Technologies | ETSI | Qualcomm CDMA Technologies |
| Mr. | Evans | Tim P. | VODAFONE Group Plc | ETSI | VODAFONE Group Plc |
| Mr. | Everett | Jared | Johns Hopkins University APL | ATIS | Johns Hopkins University APL |
| Dr. | Falk | Rainer | Siemens AG | ETSI | Siemens AG |
| Mr. | Ferdi | Samir | InterDigital, Inc. | ETSI | InterDigital, Europe, Ltd. |
| Mr. | Gamishev | Todor | Orange | ETSI | Orange |
| Dr. | Gao | Feng | China Unicom | CCSA | China Unicom |
| Dr. | Garcia-Morchon | Oscar | Philips International B.V. | ETSI | Philips International B.V. |
| Mr. | Goldberg | Martin | U.S. Department of Defense | ATIS | U.S. Department of Defense |
| Mr. | Goldfarb | Eithan | Verint | ETSI | Verint |
| Mr. | Graham | Jason | OTD | ETSI | OTD |
| Mr. | Grewal | Rajpreet Singh | NTIA | ATIS | NTIA |
| Ms. | Guo | Ivy | Apple Computer Trading Co. Ltd | CCSA | Apple Computer Trading Co. Ltd |
| Mr. | Guo | Longhua | HUAWEI TECH. GmbH | ETSI | Huawei Tech.(UK) Co., Ltd |
| Mr. | Hanhisalo | Markus | Ericsson LM | ETSI | Ericsson LM |
| Mr. | Hegedus | Gabor | SSNS | ETSI | SSNS |
| Mr. | Hoffpauir | Dusty | Charter Communications, Inc | ATIS | Charter Communications, Inc |
| Mr. | Hu | Li | Huawei Telecommunication India | TSDSI | Huawei Telecommunication India |
| Miss | Huang | Xiaoting | China Mobile Com. Corporation | CCSA | China Mobile Com. Corporation |
| Miss | Jerichow | Anja | Nokia Germany | ETSI | Nokia Germany |
| Dr. | Jost | Christine | Ericsson LM | ETSI | Ericsson LM |
| Dr. | Karakoc | Ferhat | Ericsson LM | ETSI | Ericsson LM |
| Dr. | Keesmaat | Iko | TNO | ETSI | KPN N.V. |
| Mr. | Kim | Dongjoo | LG Electronics Inc. | TTA | LG Electronics Inc. |
| Dr. | Kim | Joonwoong | SK Telecom | TTA | SK Telecom |
| Mr. | Kohalmi | Steve | Juniper Networks | ETSI | Juniper Networks |
| Ms. | Koser | Elizabeth | U.S. Department of Defense | ATIS | U.S. Department of Defense |
| Dr. | Kunz | Andreas | Motorola Mobility Germany GmbH | ETSI | Lenovo (Beijing) Ltd |
| Mr. | Leadbeater | Alex | BT plc | ETSI | BT plc |
| Dr. | Lee | Soo Bum | Qualcomm Incorporated | ATIS | Qualcomm Incorporated |
| Mr. | Lee | Xiaoyang | CISA ECD | ATIS | CISA ECD |
| Dr. | LEI | AO | HUAWEI TECHNOLOGIES Co. Ltd. | ETSI | HiSilicon Technologies Co. Ltd |
| Dr. | Lei | Zander (Zhongding) | HuaWei Technologies Co., Ltd | CCSA | HUAWEI TECHNOLOGIES Co. Ltd. |
| Mr. | Li | He | HUAWEI TECHNOLOGIES Co. Ltd. | ETSI | HuaWei Technologies Co., Ltd |
| Mr. | Libunao | Gerardo | Verizon UK Ltd | ETSI | Verizon UK Ltd |
| Mr. | Liu | Chang | China Mobile Research Inst. | | China Mobile Com. Corporation |
| Dr. | Liu | Fuwen | China Mobile Com. Corporation | CCSA | China Mobile (Suzhou) Software |
| Dr. | Liu | Xiang | HiSilicon Technologies Co. Ltd | CCSA | HiSilicon Technologies Co. Ltd |
| Mr. | Liu | Yuze | ZTE Corporation | CCSA | ZTE Corporation |
| Mr. | Loushine | Mike | AT&T | ATIS | AT&T |
| Mr. | Luft | Achim | IPCom GmbH & Co.KG | ETSI | IPCom GmbH & Co.KG |
| Mr. | Manganahalli Jayaprakash | Sandesh | TNO | ETSI | TNO |
| Dr. | Muhanna | Ahmad | Mavenir | ETSI | Mavenir |
| Ms. | Nair | Divya | T-Mobile USA | ETSI | T-Mobile USA |
| Mr. | Nair | Suresh | Nokia Germany | ETSI | Nokia |
| Mr. | Nakarmi | Prajwol Kumar | Ericsson Limited | ETSI | Ericsson Limited |
| Mr. | Niemi | Marko | MediaTek Inc. | ETSI | MediaTek Inc. |
| Mr. | Normann | Henrik Andreas | Ericsson LM | ETSI | Ericsson France S.A.S |
| Mr. | O'Driscoll | James | NCSC | ETSI | NCSC |
| Mr. | Palanigounder | Anand | Qualcomm Technologies Int | ETSI | Qualcomm Incorporated |
| Ms. | Parambath Sasi | NIvedya | Samsung R&D Institute India | TSDSI | Samsung R&D Institute India |
| Mr. | Pätzold | Thomas | Deutsche Telekom AG | ETSI | Deutsche Telekom AG |
| Mr. | PENG | Jin | ZTE Corporation | ETSI | ZTE Corporation |
| Mr. | PINTO | BARUCH | Allot Ltd | ETSI | Allot Ltd |
| Mr. | Pudney | Chris | VODAFONE Group Plc | ETSI | VODAFONE Group Plc |
| Mr. | Qi | Minpeng | China Mobile Com. Corporation | CCSA | China Mobile Com. Corporation |
| Mr. | Rajadurai | Rajavelsamy | Samsung R&D Institute UK | ETSI | Samsung Electronics Co., Ltd |
| Ms. | Rajendran | Rohini | Samsung R&D Institute India | TSDSI | SAMSUNG R&D INSTITUTE JAPAN |
| Mrs. | Rong | Wu | HUAWEI TECHNOLOGIES Co. Ltd. | ETSI | Huawei Technologies Sweden AB |
| Mr. | Rutkowski | Tony | CIS | ETSI | CIS |
| Mr. | Schumacher | Greg | T-Mobile USA | ETSI | T-Mobile USA |
| Ms. | SHAO | JING | China Mobile Research Inst. | | China Mobile E-Commerce Co. |
| Dr. | Shyy | DJ | MITRE Corporation | ETSI | MITRE Corporation |
| Mr. | Syrett | Mark | Hewlett-Packard Enterprise | ETSI | Hewlett-Packard Enterprise |
| Mr. | Tamura | Toshiyuki | NEC Europe Ltd | ETSI | NEC Europe Ltd |
| Mr. | Tiwari | Kundan | NEC Corporation | TTC | NEC Corporation |
| Mr. | Toor | Gurbakshish Singh | TD Tech Ltd | CCSA | Huawei Device Co., Ltd |
| Mr. | Torrecilla | Joaquin | Keysight Technologies UK Ltd | ETSI | Keysight Technologies UK Ltd |
| Ms. | Trakinat | Jean | T-Mobile USA Inc. | ATIS | T-Mobile USA Inc. |
| Mr. | Trygar | Tobey | Perspecta Labs Inc. | ATIS | Perspecta Labs Inc. |
| Dr. | Tsiatsis | Vlasios | Ericsson LM | ETSI | Ericsson Hungary Ltd |
| Mrs. | Vahidi | Helena | Ericsson LM | ETSI | Ericsson LM |
| Ms. | Villebrun | Emmanuelle | Ministère Economie et Finances | ETSI | Ministère Economie et Finances |
| Dr. | Wan | Tao | CableLabs | ETSI | CableLabs |
| Mr. | Whorlow | Colin | NCSC | ETSI | HOME OFFICE |
| Ms. | Wifvesson | Monica | Ericsson LM | ETSI | Ericsson LM |
| Mr. | Wong | Marcus | Futurewei | ETSI | Futurewei |
| Mr. | Woodward | Tim | Motorola Solutions Danmark A/S | ETSI | Motorola Solutions Danmark A/S |
| Miss | Wu | Yizhuang | HUAWEI TECHNOLOGIES Co. Ltd. | ETSI | HUAWEI TECHNOLOGIES Co. Ltd. |
| Ms. | Xing | Zhen | ZTE Corporation | CCSA | ZTE Corporation |
| Mr. | Xu | Yang | Guangdong OPPO Mobile Telecom. | CCSA | Dongguan OPPO Precision Elec. |
| Miss | Yang | Haorui | Beijing OPPO Com. corp., ltd | CCSA | Beijing OPPO Com. corp., ltd |
| Mr. | Yang | Yunsong | Futurewei | ETSI | Futurewei Technologies |
| Dr. | Yu | Xiaobo | Alibaba (China) Group., Ltd. | CCSA | Alibaba (China) Group., Ltd. |
| Dr. | Zhang | Bo | HUAWEI TECHNOLOGIES Co. Ltd. | ETSI | Huawei Technologies Japan K.K. |
| Mr. | Zhou | Wei | CATT | CCSA | CATT |
| Mr. | Zhu | Chunhui | Spreadtrum Communications | CCSA | Spreadtrum Communications |
| Dr. | Zugenmaier | Alf | NTT DOCOMO INC. | TTC | NTT DOCOMO INC. |

## Annex G: List of future meetings

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Title | Start date | End date (OP) | Town | Country | Reference |
| SA3#101Bis-e | 20201-01-18 | 2021-01-22 | Online |  | S3-101Bis-e |
| SA3#102-e | 2021-02-22 | 2021-03-05 | Online |  | S3-102-e |