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

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

**Online, electronic meeting, 10/10/2022 to 14/10/2022**

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## 1 Agenda and Meeting Objectives

**S3-222450 Agenda**

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

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

**S3-222451 Process for SA3#108e-AdHoc**

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

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

**S3-222453 Process and agenda planning for SA3#108e-AdHoc**

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

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

## 3 Reports and Liaisons from other Groups (related to Rel-18 Studies)

**S3-222455 LS on NCR Solutions**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: R3-225253*

**Decision:** The document was **replied to in S3-223080**.

**S3-222519 Reply LS on NCR Solutions**

*Type: LS out For: Approval  
 to RAN2, cc SA2, SA5, RAN3  
 Source: Huawei, HiSilicon*

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

**S3-222627 Draft Reply LS on NCR Solutions**

*Type: LS out For: Approval  
 to RAN3, cc RAN2, SA2, SA5  
 Source: ZTE Corporation,China Mobile*

**Decision:** The document was **revised to S3-223080**.

**S3-222801 [DRAFT] Reply LS on NCR solutions**

*Type: LS out For: Approval  
 to RAN WG3, SA WG5, cc RAN WG2, SA WG2  
 Source: Ericsson*

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

**S3-222460 LS on protection of the URSP rules from HPLMN**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2207501*

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

**S3-222753 Reply to LS on protection of the URSP rules from HPLMN**

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

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

**S3-222902 Protection of URSP rules from HPLMN**

*Type: discussion For: Endorsement  
 Source: Ericsson*

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

**S3-222903 Draft LS reply Protection of URSP rules from HPLMN**

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

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

**S3-222463 Identifier availability for Lawful Interception during Inter-PLMN handover**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: s3i220485*

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

**S3-222466 LS on Security Requirements for the MSGin5G Service**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S6-222343*

**Decision:** The document was **replied to in S3-222525**.

**S3-222525 reply LS on Security Requirements for the MSGin5G Service**

*Type: LS out For: Approval  
 to SA6, cc CT1  
 Source: China Mobile*

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

**S3-222560 Reply LS on the user consent for trace reporting**

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

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

**S3-222654 Reply LS on the User Consent for Trace Reportings**

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

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

**S3-223080 Draft Reply LS on NCR Solutions**

*Type: LS out For: Approval  
 to RAN3, cc RAN2, SA2, SA5  
 Source: ZTE Corporation,China Mobile*

(Replaces S3-222627)

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

## 4 Work areas (Rel-18)

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

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

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

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

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

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

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

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

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

## 5 Rel-18 Studies

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

**S3-222851 Updates to Solution#7 SI verification using Digital Signatures**

*Type: pCR For: Approval  
 33.809 v0.19.0  
 Source: Samsung, Apple, Deutsche Telekom*

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

**S3-222852 Resolving EN of solution#7 (TR 33.809)**

*Type: pCR For: Approval  
 33.809 v0.19.0  
 Source: Samsung, Apple, Deutsche Telekom*

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

**S3-222853 Conclusion for key issue#2**

*Type: pCR For: Approval  
 33.809 v0.19.0  
 Source: Samsung, Intel, Apple, Deutsche Telekom*

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

**S3-222687 Addressing the editor’s note in 6.27.2.1.1 of Sol#27**

*Type: pCR For: Approval  
 33.809 v0.19.0  
 Source: CableLabs*

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

**S3-222688 Addressing EN on NR Repeater in 6.27.2.2.4 of Sol#27**

*Type: pCR For: Approval  
 33.809 v0.19.0  
 Source: CableLabs*

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

**S3-222689 Addressing the editor’s note in 6.27.2.2.1of Sol#27**

*Type: pCR For: Approval  
 33.809 v0.19.0  
 Source: CableLabs, Deutsche Telekom, Philips International B.V.*

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

**S3-222541 Evaluation of solution #4**

*Type: pCR For: Approval  
 33.809 v0.19.0  
 Source: Huawei, HiSilicon, Apple, Philips International B.V.*

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

**S3-222542 Evaluation of solution #25**

*Type: pCR For: Approval  
 33.809 v0.19.0  
 Source: Huawei, HiSilicon, Philips International B.V.*

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

**S3-222543 Conclusion for KI#3**

*Type: pCR For: Approval  
 33.809 v0.19.0  
 Source: Huawei, HiSilicon, Apple, Philips International B.V.*

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

**S3-222544 Update to solution #25**

*Type: pCR For: Approval  
 33.809 v0.19.0  
 Source: Huawei, HiSilicon, Philips International B.V.*

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

**S3-222762 An update on the evaluation of solution #4**

*Type: pCR For: Approval  
 33.809 v0.19.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **revised to S3-223010**.

**S3-222454 Reply LS on authenticity and replay protection of system information**

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

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

**S3-222475 Reply LS on authenticity and replay protection of system information**

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

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

**S3-222850 Reply LS on authenticity and replay protection of system information**

*Type: LS out For: Approval  
 to RAN2  
 Source: Samsung, Deutsche Telekom*

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

**S3-222655 5GFBS - Mapping of solutions and key issues**

*Type: pCR For: Approval  
 33.809 v0.19.0  
 Source: Apple*

**Decision:** The document was **revised to S3-223125**.

**S3-222988 draft TR33.809**

*Type: draft TR For: Approval  
 33.809 v0.20.0  
 Source: Apple Computer Trading Co. Ltd*

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

**S3-223010 An update on the evaluation of solution #4**

*Type: pCR For: Approval  
 33.809 v0.19.0  
 Source: Qualcomm Incorporated*

(Replaces S3-222762)

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

**S3-223125 5GFBS - Mapping of solutions and key issues**

*Type: pCR For: Approval  
 33.809 v0.19.0  
 Source: Apple*

(Replaces S3-222655)

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

### 5.2 Study on Security Impacts of Virtualisation

**S3-222537 New solution on boot time attestation at 3GPP function level**

*Type: pCR For: Approval  
 33.848 v0.13.0  
 Source: Huawei, HiSilicon*

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

**S3-222600 Solution #4 – Evaluation and addressing EN**

*Type: pCR For: Approval  
 33.848 v0.13.0  
 Source: MITRE Corporation*

**Abstract:**

Add Evaluation and address EN in Sol #4 of TR 33.848

**Decision:** The document was **revised to S3-222995**.

**S3-222601 Solution #7 – Evaluation and addressing EN**

*Type: pCR For: Approval  
 33.848 v0.13.0  
 Source: MITRE Corporation*

**Abstract:**

Add Evaluation and address EN in Sol #7 of TR 33.848

**Decision:** The document was **revised to S3-222997**.

**S3-222683 Address EN on PACF and MANO Communication**

*Type: pCR For: Approval  
 33.848 v0.13.0  
 Source: Johns Hopkins University APL, US National Security Agency, CISA ECD*

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

**S3-222684 Address EN on verifying attestation results for NRF and PACF**

*Type: pCR For: Approval  
 33.848 v0.13.0  
 Source: Johns Hopkins University APL, US National Security Agency, CISA ECD*

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

**S3-222995 Solution #4 – Evaluation and addressing EN**

*Type: pCR For: Approval  
 33.848 v0.13.0  
 Source: MITRE Corporation*

(Replaces S3-222600)

**Abstract:**

Add Evaluation and address EN in Sol #4 of TR 33.848

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

**S3-222997 Solution #7 – Evaluation and addressing EN**

*Type: pCR For: Approval  
 33.848 v0.13.0  
 Source: MITRE Corporation*

(Replaces S3-222601)

**Abstract:**

Add Evaluation and address EN in Sol #7 of TR 33.848

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

**S3-223072 TR33848 v0140**

*Type: draft TR For: Agreement  
 33.848 v0.14.0  
 Source: BT plc*

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

### 5.3 Study on Security Aspects of Proximity Based Services in 5GS Phase 2

**S3-222462 Reply LS on 5G ProSe security open items**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2207838*

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

**S3-222480 New Key Issue on Security and privacy of switching between two indirect UE-to-Network Relay paths**

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

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

**S3-222481 New Key Issue on privacy of switching between direct Uu and indirect Layer-2 UE-to-Network Relay paths**

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

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

**S3-222482 New KI on security of U2NW multi-path connection**

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

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

**S3-222520 New Key Issue on Security and privacy of path switching between PC5 and Uu**

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

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

**S3-222582 KI for multi path relaying security**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: OPPO*

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

**S3-222609 New KI on U2U relay protection of remote UE traffic**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: OPPO*

**Decision:** The document was **revised to S3-222993**.

**S3-222629 Key issue on Subscription synchronization between PAnF and UDM**

*Type: pCR For: Agreement  
 33.740 v0.2.0  
 Source: ZTE Corporation*

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

**S3-222630 Key issue on Support direct communication path switching between PC5 and Uu**

*Type: pCR For: Agreement  
 33.740 v0.2.0  
 Source: ZTE Corporation*

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

**S3-222792 New KI: Support for Emergency service over UE-to-Network Relaying**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Ericsson*

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

**S3-222833 add new key issue for path switching**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222844 Key Issue for secure ProSe multi-path transmission for UE-to-Network relay**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Samsung*

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

**S3-222877 Key Issue on security of multi-path transmission for UE-to-Network Relay**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Beijing Xiaomi Mobile Software*

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

**S3-222486 E2E solution in L3 Relay**

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

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

**S3-222487 E2E solution in L2 Relay**

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

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

**S3-222576 Solution for U2U relay (model A) discovery security**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: China Telecom Corporation Ltd.*

**Decision:** The document was **revised to S3-222969**.

**S3-222579 Solution for U2U Relay (model B) discovery security**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: China Telecom Corporation Ltd.*

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

**S3-222585 Address the ENs in Sol #6**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: OPPO*

**Decision:** The document was **revised to S3-223116**.

**S3-222592 Update TR 33.740 solution#1**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: InterDigital, Europe, Ltd.*

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

**S3-222593 Update TR 33.740 solution#2**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: InterDigital, Europe, Ltd.*

**Decision:** The document was **revised to S3-222943**.

**S3-222594 New Solution for Security of Layer-2 based UE-to-UE Relay**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: InterDigital, Europe, Ltd.*

**Decision:** The document was **revised to S3-222944**.

**S3-222595 New Solution for E2E Authentication with Layer-3 UE-to-UE Relay**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: InterDigital, Europe, Ltd.*

**Decision:** The document was **revised to S3-222945**.

**S3-222596 New Solution for Path Switching with Layer-2 UE-to-UE Relay**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: InterDigital, Europe, Ltd.*

**Decision:** The document was **revised to S3-222946**.

**S3-222610 Solution for secure communication between source and target UEs via U2U relay**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: OPPO*

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

**S3-222631 Solution on Subscription synchronization between PAnF and UDM**

*Type: pCR For: Agreement  
 33.740 v0.2.0  
 Source: ZTE Corporation*

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

**S3-222665 ProSe - Update solution #10 (EN1)**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Philips International B.V.*

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

**S3-222666 ProSe - Update solution #10 (EN2)**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Philips International B.V.*

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

**S3-222667 ProSe - Update solution #10 (EN3)**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Philips International B.V.*

**Decision:** The document was **revised to S3-222947**.

**S3-222668 ProSe - New solution KI#2 and #3**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Philips International B.V.*

**Decision:** The document was **revised to S3-222948**.

**S3-222723 pCR to TR33.740 Centralized discovery key management and U2U relay authorization**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: CATT*

**Decision:** The document was **revised to S3-223051**.

**S3-222726 pCR to TR33.740 Distributed discovery key management and U2U relay authorization**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: CATT*

**Decision:** The document was **revised to S3-223052**.

**S3-222729 pCR to TR33.740 Solution for U2U Relay discovery message security**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: CATT*

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

**S3-222731 pCR to TR33.740 Solution for UE-to-UE relay security**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: CATT*

**Decision:** The document was **revised to S3-223053**.

**S3-222763 A new solution for UE-to-UE Relay discovery message protection for Model A discovery**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Qualcomm Incorporated*

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

**S3-222764 A new solution for UE-to-UE Relay discovery message protection for Model B discovery**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Qualcomm Incorporated*

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

**S3-222765 A new solution for secure PC5 link establishment for UE-to-UE Relay**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Qualcomm Incorporated*

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

**S3-222791 Deleting step 8 and EN about End-to-end IP security in solution #3**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Ericsson*

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

**S3-222793 Support Emergency Service over UE-to-Network Relay**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Ericsson*

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

**S3-222794 Resolve some ENs for Solution3**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Ericsson*

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

**S3-222795 Resolve EN for PC5 link setup between U2U and Target UE in Solution3**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-222986**.

**S3-222796 Resolve some ENs for Solution4**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Ericsson*

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

**S3-222797 Resolve EN for protection of DCR in Solution4**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-222987**.

**S3-222798 Deleting step 10 and EN about End-to-end IP security in solution #4**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Ericsson*

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

**S3-222799 Resolve EN for Token Provision in Solution4**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Ericsson*

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

**S3-222800 Resolve EN for same credentials used for both in-coverage and out-of-coverage mode in Solution 3**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-222989**.

**S3-222845 Solution for ProSe multipath transmission for redundant PDUs**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Samsung*

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

**S3-222846 New Solution for end-to-end security establishment over the UE-to-UE Relay**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Samsung*

**Decision:** The document was **revised to S3-223060**.

**S3-222872 Update to solution #7 and remove the Editor’s Note**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Beijing Xiaomi Mobile Software*

**Decision:** The document was **revised to S3-223109**.

**S3-222873 Update to solution #8 in TR 33.740**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Beijing Xiaomi Mobile Software*

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

**S3-222874 Update to solution #9 in TR 33.740**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Beijing Xiaomi Mobile Software*

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

**S3-222875 New solution on Network-assisted Security Establishment Procedure for 5G ProSe Layer-3 UE-to-UE Relay**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Beijing Xiaomi Mobile Software*

**Decision:** The document was **revised to S3-223110**.

**S3-222876 New solution on Security Establishment Procedure for 5G ProSe Layer-2 UE-to-UE Relay**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Beijing Xiaomi Mobile Software*

**Decision:** The document was **revised to S3-223111**.

**S3-222628 Add terms and abbreviations to TR 33.740**

*Type: pCR For: Agreement  
 33.740 v0.2.0  
 Source: ZTE Corporation*

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

**S3-222943 Update TR 33.740 solution#2**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: InterDigital, Europe, Ltd.*

(Replaces S3-222593)

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

**S3-222944 New Solution for Security of Layer-2 based UE-to-UE Relay**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: InterDigital, Europe, Ltd.*

(Replaces S3-222594)

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

**S3-222945 New Solution for E2E Authentication with Layer-3 UE-to-UE Relay**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: InterDigital, Europe, Ltd.*

(Replaces S3-222595)

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

**S3-222946 New Solution for Path Switching with Layer-2 UE-to-UE Relay**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: InterDigital, Europe, Ltd.*

(Replaces S3-222596)

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

**S3-222947 ProSe - Update solution #10 (EN3)**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Philips International B.V.*

(Replaces S3-222667)

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

**S3-222948 ProSe - New solution KI#2 and #3**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Philips International B.V.*

(Replaces S3-222668)

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

**S3-222969 Solution for U2U relay (model A) discovery security**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: China Telecom Corporation Ltd.*

(Replaces S3-222576)

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

**S3-222983 Address the ENs in Sol #6**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: OPPO*

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

**S3-222986 Resolve EN for PC5 link setup between U2U and Target UE in Solution3**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Ericsson*

(Replaces S3-222795)

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

**S3-222987 Resolve EN for protection of DCR in Solution4**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Ericsson*

(Replaces S3-222797)

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

**S3-222989 Resolve EN for same credentials used for both in-coverage and out-of-coverage mode in Solution 3**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Ericsson*

(Replaces S3-222800)

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

**S3-222993 New KI on U2U relay protection of remote UE traffic**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: OPPO*

(Replaces S3-222609)

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

**S3-223051 pCR to TR33.740 Centralized discovery key management and U2U relay authorization**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: CATT*

(Replaces S3-222723)

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

**S3-223052 pCR to TR33.740 Distributed discovery key management and U2U relay authorization**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: CATT*

(Replaces S3-222726)

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

**S3-223053 pCR to TR33.740 Solution for UE-to-UE relay security**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: CATT*

(Replaces S3-222731)

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

**S3-223054 TR 33.740 v0.3.0 Study on security aspects of Proximity Based Services (ProSe) in 5G System (5GS) phase 2**

*Type: draft TR For: Approval  
 33.740 v0.3.0  
 Source: CATT*

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

**S3-223060 New Solution for end-to-end security establishment over the Layer-3 UE-to-UE Relay**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Samsung*

(Replaces S3-222846)

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

**S3-223109 Update to solution #7 and remove the Editor’s Note**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Beijing Xiaomi Mobile Software*

(Replaces S3-222872)

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

**S3-223110 New solution on Network-assisted Security Establishment Procedure for 5G ProSe Layer-3 UE-to-UE Relay**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Beijing Xiaomi Mobile Software*

(Replaces S3-222875)

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

**S3-223111 New solution on Security Establishment Procedure for 5G ProSe Layer-2 UE-to-UE Relay**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: Beijing Xiaomi Mobile Software*

(Replaces S3-222876)

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

**S3-223116 Address the ENs in Sol #6**

*Type: pCR For: Approval  
 33.740 v0.2.0  
 Source: OPPO*

(Replaces S3-222585)

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

### 5.4 Study on privacy of identifiers over radio access

**S3-222928 Discussion paper for KI #1: Privacy aspects of variable length user identifiers**

*Type: discussion For: Discussion  
 33.870 v..  
 Source: InterDigital, Inc., AT&T, CableLabs, Convida Wireless, Deutsche Telekom, JHU, Intel, Google, Lenovo, Nokia, NCSC, Oppo, Philips International B.V., US NSA, Verizon, Xiaomi, ZTE*

(Replaces S3-222580)

**Abstract:**

This contribution provides discussion arguments for the proposed modification of KI #1: Privacy aspects of variable length user identifiers.

Note that this DP is revised from the originally submitted S3-222580. The revision is limited to the addition of a

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

**S3-222927 PCR for KI #1: Privacy aspects of variable length user identifiers**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: InterDigital, Inc., Apple, AT&T, CableLabs, Convida Wireless, Deutsche Telekom, Ericsson, Intel, JHU, Google, Lenovo, Nokia, NCSC, Oppo, Philips International B.V., US NIST, US NSA, Verizon, Xiaomi, ZTE*

(Replaces S3-222570)

**Abstract:**

This document proposes a cleanup to key issue #1: Privacy aspects of variable length user identifiers. SA3 is kindly requested to approve this document.

Note that this pCR revision replaces S3-222570 and adds another supporting company.

**Decision:** The document was **revised to S3-223044**.

**S3-222767 Applicability of SUPI Type IMSI in KI#1**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: Qualcomm Incorporated*

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

**S3-222768 Addition of threats due to EAP in KI#1**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: Qualcomm Incorporated*

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

**S3-222664 Updates to Key Issue #2**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: Johns Hopkins University APL, US National Security Agency, InterDigital, Apple, CableLabs*

**Abstract:**

Updates key issue details, threats, and requirements for KI#2

**Decision:** The document was **revised to S3-222991**.

**S3-222822 Modification to KI details of the KI #2**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: Ericsson LM*

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

**S3-222673 PrivID - New Key Issue**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: Philips International B.V.*

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

**S3-222506 New solution to key issue 1**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-223103**.

**S3-222528 solution\_for\_privacy\_KI#1**

*Type: pCR For: Approval  
 33.870 v0.4.0  
 Source: China mobile*

**Decision:** The document was **revised to S3-223017**.

**S3-222559 New solution for privacy prevention of SUPI in NAI format**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-223124**.

**S3-222586 New solution for Key issue #1**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: InterDigital, Inc.*

**Abstract:**

This pCR is proposing a new solution to key issue #1: Privacy aspects of variable length user identifiers and incorporates comments received during the earlier online discussion of draft\_S3-221329-r3.

**Decision:** The document was **revised to S3-223045**.

**S3-222632 SUPI padding solution on Key issue #1**

*Type: pCR For: Agreement  
 33.870 v0.3.0  
 Source: China Southern Power Grid Co., Ltd, ZTE Corporation*

**Decision:** The document was **revised to S3-223085**.

**S3-222696 New solution on Key issue #1**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: China Telecom Corporation Ltd.*

**Decision:** The document was **revised to S3-223014**.

**S3-222769 Solution for KI#1**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **revised to S3-223011**.

**S3-222790 Solution to address KI#1**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: Lenovo*

**Decision:** The document was **revised to S3-223005**.

**S3-222820 Padding-based solution to the leakage of the length of SUPI through SUCI**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: Ericsson LM*

**Decision:** The document was **revised to S3-223065**.

**S3-222821 Hash-based solution to the leakage of the length of SUPI through SUCI**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: Ericsson LM*

**Decision:** The document was **revised to S3-223066**.

**S3-222570 PCR for KI #1: Privacy aspects of variable length user identifiers**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: InterDigital, Inc., Apple, AT&T, CableLabs, Convida Wireless, Deutsche Telekom, Ericsson, Intel, JHU, Google, Lenovo, Nokia, Oppo, Philips International B.V., US NIST, US NSA, Verizon, Xiaomi, ZTE*

**Abstract:**

This document proposes a cleanup to key issue #1: Privacy aspects of variable length user identifiers. SA3 is kindly requested to approve this document.

**Decision:** The document was **revised to S3-222927**.

**S3-222580 Discussion paper for KI #1: Privacy aspects of variable length user identifiers**

*Type: discussion For: Discussion  
 33.870 v..  
 Source: InterDigital, Inc., AT&T, CableLabs, Convida Wireless, Deutsche Telekom, JHU, Intel, Google, Lenovo, Nokia, Oppo, Philips International B.V., US NSA, Verizon, Xiaomi, ZTE*

**Abstract:**

This contribution provides discussion arguments for the proposed modification of KI #1: Privacy aspects of variable length user identifiers.

**Decision:** The document was **revised to S3-222928**.

**S3-222663 Updates to Key Issue #2**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: Johns Hopkins University APL, US National Security Agency, InterDigital, Apple, CableLabs*

**Abstract:**

Updates to the key issues details, security threats, and potential security requirements to KI#2

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

**S3-222770 Padding-based solution to the leakage of the length of SUPI through SUCI**

*Type: pCR For: (not specified)  
 33.870 v0.3.0  
 Source: Ericsson LM*

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

**S3-222771 Hash-based solution to the leakage of the length of SUPI through SUCI**

*Type: pCR For: (not specified)  
 33.870 v0.3.0  
 Source: Ericsson LM*

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

**S3-222786 Modification to KI details of the KI #2**

*Type: pCR For: (not specified)  
 33.870 v0.3.0  
 Source: Ericsson LM*

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

**S3-222991 Updates to Key Issue #2**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: Johns Hopkins University APL, US National Security Agency, InterDigital, Apple, CableLabs*

(Replaces S3-222664)

**Abstract:**

Updates key issue details, threats, and requirements for KI#2

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

**S3-223005 Solution to address KI#1**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: Lenovo*

(Replaces S3-222790)

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

**S3-223011 Solution for KI#1**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: Qualcomm Incorporated*

(Replaces S3-222769)

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

**S3-223014 New solution on Key issue #1**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: China Telecom Corporation Ltd.*

(Replaces S3-222696)

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

**S3-223017 solution\_for\_privacy\_KI#1**

*Type: pCR For: Approval  
 33.870 v0.4.0  
 Source: China mobile*

(Replaces S3-222528)

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

**S3-223044 PCR for KI #1: Privacy aspects of variable length user identifiers**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: InterDigital, Inc., Apple, AT&T, CableLabs, Convida Wireless, Deutsche Telekom, Ericsson, Intel, JHU, Google, Lenovo, Nokia, NCSC, NTT DOCOMO, Oppo, Philips International B.V., Qualcomm Incorporated, US NIST, US NSA, Verizon, Xiaomi, ZTE*

(Replaces S3-222927)

**Abstract:**

This pCR is a revision of S3-222927-r6 approved at SA3#108-Ad Hoc-e.

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

**S3-223045 New solution for Key issue #1**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: InterDigital, Inc.*

(Replaces S3-222586)

**Abstract:**

This pCR is a revision of S3-222586-r3 approved at SA3#108-Ad Hoc-e.

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

**S3-223065 Padding-based solution to the leakage of the length of SUPI through SUCI**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: Ericsson LM*

(Replaces S3-222820)

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

**S3-223066 Hash-based solution to the leakage of the length of SUPI through SUCI**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: Ericsson LM*

(Replaces S3-222821)

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

**S3-223085 SUPI padding solution on Key issue #1**

*Type: pCR For: Agreement  
 33.870 v0.3.0  
 Source: China Southern Power Grid Co., Ltd, ZTE Corporation*

(Replaces S3-222632)

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

**S3-223103 New solution to key issue 1**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: Huawei, HiSilicon*

(Replaces S3-222506)

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

**S3-223124 New solution for privacy prevention of SUPI in NAI format**

*Type: pCR For: Approval  
 33.870 v0.3.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-222559)

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

**S3-223133 TR 33.870 v040**

*Type: draft TR For: Approval  
 33.870 v0.4.0  
 Source: InterDigital, Inc.*

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

### 5.5 Study on Standardising Automated Certificate Management in SBA

**S3-222617 Mapping of solutions to key issues**

*Type: pCR For: Approval  
 33.876 v0.3.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222615 Resolving EN in Solution #3**

*Type: pCR For: Approval  
 33.876 v0.3.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222740 Updates to OCSP revocation Procedure**

*Type: pCR For: (not specified)  
 33.876 v0.3.0  
 Source: Intel*

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

**S3-222827 Clarification for unknown revocation status**

*Type: pCR For: Approval  
 33.876 v0.3.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-223048**.

**S3-222616 Proposal to complement KI#3**

*Type: pCR For: Approval  
 33.876 v0.3.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-223028**.

**S3-222498 New solution for KI #2 and #8 in NF certificate enrolment procedure**

*Type: pCR For: Approval  
 33.876 v0.3.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-223099**.

**S3-222499 New solution for KI #6 Relation between certificate management lifecycle and NF management lifecycle**

*Type: pCR For: Approval  
 33.876 v0.3.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-223100**.

**S3-222613 Solution to indicate and validate the purpose of the certificate**

*Type: pCR For: Approval  
 33.876 v0.3.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-223029**.

**S3-222614 Solution based on OCSP Stapling addressing KI #5 & #6**

*Type: pCR For: Approval  
 33.876 v0.3.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-223030**.

**S3-222620 Solution for ACM for network slicing**

*Type: pCR For: Approval  
 33.876 v0.3.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-223031**.

**S3-222829 A new solution of building initial trust for NF certificate enrolment**

*Type: pCR For: Approval  
 33.876 v0.3.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-223049**.

**S3-222619 CMPv2 profile for SBA**

*Type: pCR For: Approval  
 33.876 v0.3.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-223032**.

**S3-222828 Proposal of CMP profiling for SBA**

*Type: pCR For: Approval  
 33.876 v0.3.0  
 Source: Ericsson*

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

**S3-222826 [DRAFT] LS on automated certificate management**

*Type: LS out For: Approval  
 to ETSI ISG NFV  
 Source: Ericsson*

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

**S3-222618 Discussion paper on Network Function identifiers**

*Type: discussion For: Discussion  
 33.876 v..  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-223026 Mapping of solutions to key issues**

*Type: pCR For: Approval  
 33.876 v0.3.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-223027 Resolving EN in Solution #3**

*Type: pCR For: Approval  
 33.876 v0.3.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-223028 Proposal to complement KI#3**

*Type: pCR For: Approval  
 33.876 v0.3.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-222616)

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

**S3-223029 Solution to indicate and validate the purpose of the certificate**

*Type: pCR For: Approval  
 33.876 v0.3.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-222613)

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

**S3-223030 Solution based on OCSP Stapling addressing KI #5 & #6**

*Type: pCR For: Approval  
 33.876 v0.3.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-222614)

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

**S3-223031 Solution for ACM for network slicing**

*Type: pCR For: Approval  
 33.876 v0.3.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-222620)

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

**S3-223032 CMPv2 profile for SBA**

*Type: pCR For: Approval  
 33.876 v0.3.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-222619)

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

**S3-223033 Draft TR 33.876 Study on Standardising Automated Certificate Management in SBA**

*Type: draft TR For: (not specified)  
 33.876 v0.4.0  
 Source: Nokia Germany*

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

**S3-223048 Clarification for unknown revocation status**

*Type: pCR For: Approval  
 33.876 v0.3.0  
 Source: Ericsson, Intel*

(Replaces S3-222827)

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

**S3-223049 A new solution of building initial trust for NF certificate enrolment**

*Type: pCR For: Approval  
 33.876 v0.3.0  
 Source: Ericsson*

(Replaces S3-222829)

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

**S3-223099 New solution for KI #2 and #8 in NF certificate enrolment procedure**

*Type: pCR For: Approval  
 33.876 v0.3.0  
 Source: Huawei, HiSilicon*

(Replaces S3-222498)

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

**S3-223100 New solution for KI #6 Relation between certificate management lifecycle and NF management lifecycle**

*Type: pCR For: Approval  
 33.876 v0.3.0  
 Source: Huawei, HiSilicon*

(Replaces S3-222499)

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

### 5.6 New SID on AKMA phase 2

**S3-222521 Addressing the EN of KI#1**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: China Mobile*

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

**S3-222608 Update KI#1 in AKMA roaming**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: OPPO*

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

**S3-222640 update the Key issue of AKMA roaming**

*Type: pCR For: Agreement  
 33.737 v0.2.0  
 Source: ZTE Corporation*

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

**S3-222583 New KI on AKMA Kaf refresh**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: OPPO*

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

**S3-222635 New KI on the Kaf refresh**

*Type: pCR For: Agreement  
 33.737 v0.2.0  
 Source: ZTE Corporation*

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

**S3-222698 Key issue on KAF refresh without primary reauthentication and its feasibility**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222837 Key Issue on KAF refresh**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: Samsung*

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

**S3-222488 Add evaluation to solution#5**

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

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

**S3-222489 address Editor's Note in solution#2**

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

**Decision:** The document was **revised to S3-223096**.

**S3-222490 add evaluation to solution#2**

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

**Decision:** The document was **revised to S3-223097**.

**S3-222568 Removal of Editor’s Notes of solution #6**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: Lenovo*

**Decision:** The document was **revised to S3-222960**.

**S3-222569 Evaluation of solution #6**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: Lenovo*

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

**S3-222612 New solution on AAnF discovery and selection for internal AF and NEF in AKMA roaming**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: OPPO*

**Decision:** The document was **revised to S3-223126**.

**S3-222636 Address EN and add evaluation for solution 3**

*Type: pCR For: Agreement  
 33.737 v0.2.0  
 Source: ZTE Corporation*

**Decision:** The document was **revised to S3-223082**.

**S3-222637 Address EN and add evaluation for solution 4**

*Type: pCR For: Agreement  
 33.737 v0.2.0  
 Source: ZTE Corporation*

**Decision:** The document was **revised to S3-223083**.

**S3-222638 Conclusion for KI#1**

*Type: pCR For: Agreement  
 33.737 v0.2.0  
 Source: ZTE Corporation*

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

**S3-222639 New solution about the roaming AKMA architecture of the AF in Data Network**

*Type: pCR For: Agreement  
 33.737 v0.2.0  
 Source: ZTE Corporation*

**Decision:** The document was **revised to S3-223084**.

**S3-222641 update to solution #1**

*Type: pCR For: Agreement  
 33.737 v0.2.0  
 Source: ZTE Corporation*

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

**S3-222642 update to solution #2**

*Type: pCR For: Agreement  
 33.737 v0.2.0  
 Source: ZTE Corporation*

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

**S3-222643 update to solution #5**

*Type: pCR For: Agreement  
 33.737 v0.2.0  
 Source: ZTE Corporation*

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

**S3-222644 update to solution #6**

*Type: pCR For: Agreement  
 33.737 v0.2.0  
 Source: ZTE Corporation*

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

**S3-222662 AKMA roaming architecture**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: Apple*

**Decision:** The document was **revised to S3-222985**.

**S3-222674 AKMA - New solution for AKMA roaming**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: Philips International B.V.*

**Decision:** The document was **revised to S3-222950**.

**S3-222839 New solution on AKMA Roaming**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: Samsung*

**Decision:** The document was **revised to S3-223057**.

**S3-222926 AKMA roaming with AF outside VPLMN**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: THALES*

**Abstract:**

Addition of solution addressing Key Issue #1

**Decision:** The document was **revised to S3-222933**.

**S3-222471 Editorial change and addressing the editor's note in solution 7**

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

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

**S3-222472 Add evaluation to solution 7**

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

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

**S3-222522 Addressing the EN in Solution#7**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: China Mobile, Xiaomi*

**Decision:** The document was **revised to S3-223087**.

**S3-222523 Evaluation of Solution#7**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: China Mobile, Xiaomi*

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

**S3-222524 Conclusion of key issue#2**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: China Mobile, Xiaomi*

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

**S3-222701 solution 1 updates for internal AF**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222702 solution 1 updates for external AF**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-222938**.

**S3-222718 Update on the solution #5**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: LG Electronics France*

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

**S3-222719 New solution for AKMA roaming scenario**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: LG Electronics France*

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

**S3-222633 Discussion on the need and usecases for Kaf update**

*Type: pCR For: Discussion  
 33.737 v0.2.0  
 Source: ZTE Corporation*

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

**S3-222697 Discussion paper of KAF refresh without primary reauthentication**

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

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

**S3-222699 Solution on Kaf refresh without primary authentication UA\***

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222700 Solution on Kaf refresh without primary authentication AAnF**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222838 New solution on AKMA KAF refresh**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: Samsung*

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

**S3-222916 Discussion about KAF refresh**

*Type: discussion For: Endorsement  
 33.737 v..  
 Source: Ericsson*

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

**S3-222917 New solution for KAF lifetime**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: Ericsson*

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

**S3-222634 Modify the scope of TR 33.737**

*Type: pCR For: Agreement  
 33.737 v0.2.0  
 Source: ZTE Corporation*

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

**S3-222918 Updates to the architectural assumptions clause**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-223069**.

**S3-222933 AKMA roaming with AF outside VPLMN**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: THALES*

(Replaces S3-222926)

**Abstract:**

Addition of solution addressing Key Issue #1

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

**S3-222938 solution 1 updates for external AF**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-222702)

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

**S3-222950 AKMA - New solution for AKMA roaming**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: Philips International B.V.*

(Replaces S3-222674)

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

**S3-222960 Removal of Editor’s Notes of solution #6**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: Lenovo*

(Replaces S3-222568)

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

**S3-222982 New solution: AAnF discovery and selection for internal AF in AKMA roaming**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: OPPO*

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

**S3-222985 AKMA roaming architecture**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: Apple*

(Replaces S3-222662)

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

**S3-223057 New solution on AKMA Roaming**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: Samsung*

(Replaces S3-222839)

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

**S3-223069 Updates to the architectural assumptions clause**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: Ericsson*

(Replaces S3-222918)

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

**S3-223082 Address EN and add evaluation for solution 3**

*Type: pCR For: Agreement  
 33.737 v0.2.0  
 Source: ZTE Corporation*

(Replaces S3-222636)

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

**S3-223083 Address EN and add evaluation for solution 4**

*Type: pCR For: Agreement  
 33.737 v0.2.0  
 Source: ZTE Corporation*

(Replaces S3-222637)

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

**S3-223084 New solution about the roaming AKMA architecture of the AF in Data Network**

*Type: pCR For: Agreement  
 33.737 v0.2.0  
 Source: ZTE Corporation*

(Replaces S3-222639)

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

**S3-223086 Modify the scope of TR 33.737**

*Type: pCR For: Agreement  
 33.737 v0.2.0  
 Source: ZTE Corporation*

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

**S3-223087 Addressing the EN in Solution#7**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: China Mobile, Xiaomi*

(Replaces S3-222522)

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

**S3-223088 draft TR 33.737**

*Type: draft TR For: (not specified)  
 33.737 v0.2.0  
 Source: China Mobile*

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

**S3-223089 draft TR 33.737**

*Type: draft TR For: Approval  
 33.737 v0.3.0  
 Source: China Mobile*

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

**S3-223096 address Editor's Note in solution#2**

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

(Replaces S3-222489)

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

**S3-223097 add evaluation to solution#2**

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

(Replaces S3-222490)

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

**S3-223126 New solution on AAnF discovery and selection for internal AF in AKMA roaming**

*Type: pCR For: Approval  
 33.737 v0.2.0  
 Source: OPPO*

(Replaces S3-222612)

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

### 5.7 Study of Security aspect of home network triggered primary authentication

**S3-222510 Update KI#1**

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

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

**S3-222513 new solution on less impact on current using key**

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

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

**S3-222694 Solution on UDM initiated primary authentication based on AAnF request for Kaf refresh scenario**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: BUPT, China Mobile*

**Abstract:**

This solution addresses key issues #1 for KAKMA the refresh use case and key issues #2 in TR 33.741. To meet the requirements of both KI 1# and KI #2, the basic idea of this solution is to make HN trigger primary authentication for Kaf refresh only when n

**Decision:** The document was **revised to S3-223019**.

**S3-222695 Solution on AUSF initiated primary authentication based on AAnF request for Kaf refresh scenario**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: BUPT, China Mobile*

**Abstract:**

This solution addresses key issues #1 for KAKMA the refresh use case and key issues #2 in TR 33.741. To meet the requirements of both KI 1# and KI #2, the basic idea of this solution is to make HN trigger primary authentication for Kaf refresh only when n

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

**S3-222739 Solution to enable HN triggered Primary Authentication with AUSF**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: Lenovo*

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

**S3-222920 New solution for Home Network triggered primary authentication**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-223070**.

**S3-222922 New solution for delegated Home Network controlled primary authentication**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-223071**.

**S3-222921 New solution for KI#2: max lifetime for KAF**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: Ericsson*

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

**S3-222511 Update solution#2**

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

**Decision:** The document was **revised to S3-223106**.

**S3-222704 solution 1 updates**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-222934**.

**S3-222717 Updates to solution 9**

*Type: pCR For: (not specified)  
 33.741 v0.2.0  
 Source: Intel*

**Decision:** The document was **revised to S3-223006**.

**S3-222737 Resolving Editors Notes in Solution 8**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: Lenovo*

**Decision:** The document was **revised to S3-223002**.

**S3-222738 Evaluation for Solution #8**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: Lenovo*

**Decision:** The document was **revised to S3-223003**.

**S3-222760 Proposed resolution of the ENs in solution #5**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: Qualcomm Incorporated*

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

**S3-222841 Resolving EN and adding evaluation for solution#9**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: Samsung*

**Decision:** The document was **revised to S3-223058**.

**S3-222842 Resolving EN and adding evaluation for solution#6**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: Samsung*

**Decision:** The document was **revised to S3-223059**.

**S3-222880 Update to solution #7 and resolve the ENs on use case and counter wrap around reason**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: Beijing Xiaomi Mobile Software*

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

**S3-222881 Evaluation of solution #7 in TR 33.741**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: Beijing Xiaomi Mobile Software*

**Decision:** The document was **revised to S3-223114**.

**S3-222512 Conclusion proposal for the study**

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

**Decision:** The document was **revised to S3-223107**.

**S3-222703 conclusion for KI2**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222843 Conclusion on KI#1**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: Samsung*

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

**S3-222919 Discussion about the way forward for the Home Network triggered authentication**

*Type: discussion For: Endorsement  
 33.741 v..  
 Source: Ericsson*

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

**S3-222923 Evaluation of the need to address the HONTRA use cases**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: Ericsson*

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

**S3-222934 solution 1 updates**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-222704)

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

**S3-223002 Resolving Editors Notes in Solution 8**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: Lenovo*

(Replaces S3-222737)

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

**S3-223003 Evaluation for Solution #8**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: Lenovo*

(Replaces S3-222738)

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

**S3-223006 Updates to solution 9**

*Type: pCR For: (not specified)  
 33.741 v0.2.0  
 Source: Intel*

(Replaces S3-222717)

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

**S3-223019 Solution on UDM initiated primary authentication based on AAnF request for Kaf refresh scenario**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: BUPT, China Mobile*

(Replaces S3-222694)

**Abstract:**

This solution addresses key issues #1 for KAKMA the refresh use case and key issues #2 in TR 33.741. To meet the requirements of both KI 1# and KI #2, the basic idea of this solution is to make HN trigger primary authentication for Kaf refresh only when n

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

**S3-223058 Resolving EN and adding evaluation for solution#9**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: Samsung*

(Replaces S3-222841)

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

**S3-223059 Resolving EN and adding evaluation for solution#6**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: Samsung*

(Replaces S3-222842)

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

**S3-223070 New solution for Home Network triggered primary authentication**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: Ericsson*

(Replaces S3-222920)

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

**S3-223071 New solution for delegated Home Network controlled primary authentication**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: Ericsson, Lenovo*

(Replaces S3-222922)

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

**S3-223106 Update solution#2**

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

(Replaces S3-222511)

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

**S3-223107 Conclusion proposal for the study**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: Huawei, HiSilicon, Xiaomi, SAMSUNG, Qualcomm, Deutsche Telekom, Intel*

(Replaces S3-222512)

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

**S3-223114 Evaluation of solution #7 in TR 33.741**

*Type: pCR For: Approval  
 33.741 v0.2.0  
 Source: Beijing Xiaomi Mobile Software*

(Replaces S3-222881)

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

**S3-223131 TR 33.741v030**

*Type: draft TR For: (not specified)  
 33.741 v0.3.0  
 Source: Huawei, HiSilicon*

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

### 5.8 Study on security aspects of enablers for Network Automation for 5G – phase 3

**S3-222457 LS OUT to GSMA on the data and analytics exchange between two NWDAFs in different PLMNs**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2207142*

**Decision:** The document was **replied to**.

**S3-222458 LS on how ML model integrity, confidentiality and availability is supported between NWDAFs from different vendors**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2207156*

**Decision:** The document was **replied to in S3-223117**.

**S3-222787 [DRAFT] Reply LS on the data and analytics exchange between two NWDAFs in different PLMNs**

*Type: LS out For: Approval  
 to SA2, cc GSMA  
 Source: Ericsson*

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

**S3-222788 [DRAFT] Reply LS on how ML model integrity, confidentiality and availability is supported between NWDAFs from different vendors**

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

**Decision:** The document was **revised to S3-223117**.

**S3-222518 Reply LS on Data and Analytics Exchange between Two NWDAFs in Different PLMNs**

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

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

**S3-222626 LS on the data and analytics exchange between two NWDAFs in different PLMNs**

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

**Decision:** The document was **revised to S3-223020**.

**S3-222735 Reply LS on the data and analytics exchange between two NWDAFs in different PLMNs**

*Type: LS out For: Approval  
 to GSMA, 3GPP SA WG2  
 Source: CATT*

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

**S3-222882 Reply LS on User consent for roaming case in eNA**

*Type: LS out For: Approval  
 to SA2, cc GSMA  
 Source: Beijing Xiaomi Mobile Software*

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

**S3-222526 Revision on key issue #1**

*Type: pCR For: Approval  
 33.738 v0.3.0  
 Source: China moblie*

**Decision:** The document was **revised to S3-223090**.

**S3-222789 Update KI#2: Authorization of selection of participant NWDAF instances in the Federated Learning group**

*Type: pCR For: Approval  
 33.738 v0.2.0  
 Source: Ericsson*

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

**S3-222500 Solution on Reusing SBA for AI/ML model storage and sharing**

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

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

**S3-222621 Solution on secured and authorized AI/ML Model transfer and retrieval**

*Type: pCR For: Approval  
 33.738 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-223021**.

**S3-222623 Resolving ENs (step 9) in Solution #3**

*Type: pCR For: Approval  
 33.738 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222625 Resolving EN (step 1) in Solution #3**

*Type: pCR For: Approval  
 33.738 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-223023**.

**S3-222747 Updates to solution 2: remove EN E2E protection**

*Type: pCR For: (not specified)  
 33.738 v0.2.0  
 Source: Intel*

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

**S3-222748 Updates to solution 2: remove EN Authorization**

*Type: pCR For: (not specified)  
 33.738 v0.2.0  
 Source: Intel*

**Decision:** The document was **revised to S3-223015**.

**S3-222749 Updates to solution 2: remove EN key management**

*Type: pCR For: (not specified)  
 33.738 v0.2.0  
 Source: Intel*

**Decision:** The document was **revised to S3-223016**.

**S3-222527 New solution on protection of data and analytics exchange in roaming case**

*Type: pCR For: Approval  
 33.738 v0.3.0  
 Source: China mobile*

**Decision:** The document was **revised to S3-223091**.

**S3-222622 Resolving ENs in Solution #5**

*Type: pCR For: Approval  
 33.738 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-223024**.

**S3-222551 Adding parameters to solution#6**

*Type: pCR For: (not specified)  
 33.738 v0.2.0  
 Source: China Telecommunications*

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

**S3-222624 Resolving EN in Solution #6**

*Type: pCR For: Approval  
 33.738 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222733 Anomalous NF behaviour event related data collection and anomalous NF**

*Type: pCR For: Approval  
 33.738 v0.2.0  
 Source: Lenovo*

**Decision:** The document was **revised to S3-223001**.

**S3-222567 New solution addressing KI#6**

*Type: pCR For: Approval  
 33.738 v0.2.0  
 Source: Lenovo*

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

**S3-222734 Cyber attack detection using NWDAF**

*Type: pCR For: Approval  
 33.738 v0.2.0  
 Source: Lenovo*

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

**S3-222744 Solution to Cyber Attack Detection**

*Type: pCR For: (not specified)  
 33.738 v0.2.0  
 Source: Intel*

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

**S3-222840 Solution on analytics for DoS attack detection**

*Type: pCR For: Approval  
 33.738 v0.2.0  
 Source: Samsung*

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

**S3-223001 Anomalous NF behaviour event related data collection and anomalous NF**

*Type: pCR For: Approval  
 33.738 v0.2.0  
 Source: Lenovo*

(Replaces S3-222733)

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

**S3-223015 Updates to solution 2: remove EN Authorization**

*Type: pCR For: (not specified)  
 33.738 v0.2.0  
 Source: Intel*

(Replaces S3-222748)

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

**S3-223016 Updates to solution 2: remove EN key management**

*Type: pCR For: (not specified)  
 33.738 v0.2.0  
 Source: Intel*

(Replaces S3-222749)

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

**S3-223020 LS on the data and analytics exchange between two NWDAFs in different PLMNs**

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

(Replaces S3-222626)

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

**S3-223021 Solution on secured and authorized AI/ML Model transfer and retrieval**

*Type: pCR For: Approval  
 33.738 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-222621)

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

**S3-223022 Resolving ENs (step 9) in Solution #3**

*Type: pCR For: Approval  
 33.738 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-223023 Resolving EN (step 1) in Solution #3**

*Type: pCR For: Approval  
 33.738 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-222625)

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

**S3-223024 Resolving ENs in Solution #5**

*Type: pCR For: Approval  
 33.738 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-222622)

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

**S3-223025 Resolving EN in Solution #6**

*Type: pCR For: Approval  
 33.738 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-223090 Revision on key issue #1**

*Type: pCR For: Approval  
 33.738 v0.3.0  
 Source: China moblie*

(Replaces S3-222526)

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

**S3-223091 New solution on protection of data and analytics exchange in roaming case**

*Type: pCR For: Approval  
 33.738 v0.3.0  
 Source: China mobile*

(Replaces S3-222527)

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

**S3-223115 draft TR 33.738 0.3.0**

*Type: draft TR For: Approval  
 33.738 v0.3.0  
 Source: China Mobile Group Device Co.*

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

**S3-223117 Reply LS on how ML model integrity, confidentiality and availability is supported between NWDAFs from different vendors**

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

(Replaces S3-222788)

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

### 5.9 Study on Security Enhancement of support for Edge Computing — phase 2

**S3-222530 New sol on Key issue #1.1: How to authorize PDU session to support local traffic routing to access an EHE in the VPLMN**

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

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

**S3-222825 A solution for authentication of EEC/UE and GPSI verification by EES/ECS**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-223047**.

**S3-222834 A solution for authentication of UE and GPSI verification by EES/ECS**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: Ericsson*

(Replaces S3-222824)

**Decision:** The document was **revised to S3-223050**.

**S3-222661 MEC- New solution on Authentication in roaming architecture**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: Apple*

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

**S3-222888 Resolve ENs in Sol #1 and Sol #2**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: Xiaomi Communication*

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

**S3-222501 Authentication mechanism selection between EEC and ECS**

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

**Decision:** The document was **revised to S3-223101**.

**S3-222508 Authentication mechanism selection between EEC and EES**

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

**Decision:** The document was **revised to S3-223105**.

**S3-222656 MEC- update to key issue#2 on adding security protection on negotiation messages**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: Apple*

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

**S3-222658 MEC- Editorial updating on solution#7**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: Apple*

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

**S3-222659 MEC- Addressing the EN#1 in solution#7**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: Apple*

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

**S3-222660 MEC- Addressing the EN#2 in solution#7**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: Apple*

**Decision:** The document was **revised to S3-222984**.

**S3-222823 A solution for UE authentication method negotiation**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-223046**.

**S3-222847 Resolving EN and evaluation of solution#3 (TR 33.739)**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: Samsung*

**Decision:** The document was **revised to S3-223061**.

**S3-222848 Resolving EN and evaluation of solution#4 (TR 33.739)**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: Samsung*

**Decision:** The document was **revised to S3-223062**.

**S3-222889 Resolve EN in Sol #5**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: Xiaomi Communication*

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

**S3-222502 Authentication and Authorization between V-ECS and H-ECS**

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

**Decision:** The document was **revised to S3-223102**.

**S3-222849 Authorization of V-ECS in roaming scenario**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: Samsung*

**Decision:** The document was **revised to S3-223063**.

**S3-222887 KI 2.3 2.4, New Sol on authentication and authorization between V-ECS and H-ECS**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: Xiaomi Communication*

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

**S3-222503 Transport security for the EDGE 10 interface**

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

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

**S3-222531 Conclusion on Key issue #2.4: Transport security for the EDGE10 interface**

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

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

**S3-222507 New KI on Authentication and Authorization between AC and EEC**

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

**Decision:** The document was **revised to S3-223104**.

**S3-222529 New KI, solution and conclusion on Authorization between EESes**

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

**Decision:** The document was **revised to S3-222951**.

**S3-222572 New key issue on authentication and authorization for EDGE-9 reference point**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: InterDigital Communications*

**Abstract:**

This Key Issue aims at addressing authentication and authorization procedures for EDGE-9 reference point.

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

**S3-222657 MEC - New key issue on AF specific identifier**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: Apple*

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

**S3-222514 Solution on Authentication and Authorization between AC and EEC**

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

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

**S3-222459 Reply LS on FS\_eEDGEAPP Solution for Support of NAT deployed within the edge**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2207394*

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

**S3-222464 LS on FS\_eEDGEAPP Solution for Support of NAT deployed within the edge data network**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S6-221953*

**Decision:** The document was **replied to in S3-223018**.

**S3-222465 Reply LS to OPAG\_34\_Doc\_07\_OPAG\_LS ETSI-3GPP-Network integration**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S6-222337*

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

**S3-222467 Forward on S6-222332, LS on Network federation interface for Telco edge consideration**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S6-222543*

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

**S3-222468 Reply LS to Network federation interface for Telco edge consideration**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S6-222557*

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

**S3-222746 draft-Reply LS on FS\_eEDGEAPP Solution for Support of NAT deployed within the edge data network**

*Type: LS out For: (not specified)  
 to SA6, cc SA2  
 Source: Intel*

**Decision:** The document was **revised to S3-223018**.

**S3-222824 A solution for authentication of UE and GPSI verification by EES/ECS**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-222834**.

**S3-222930 Reply to: LS on Network federation interface for Telco edge consideration**

*Type: LS out For: (not specified)  
 to 3GPP SA6, 3GPP SA2, 3GPP SA5, 3GPP TSG SA, cc GPP TSG CT, 3GPP CT1, 3GPP CT3, 3GPP CT4  
 Source: Huawei Technologies Japan K.K.*

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

**S3-222951 New KI, solution and conclusion on Authorization between EESes**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: Huawei, HiSilicon, , InterDigital, Ericsson*

(Replaces S3-222529)

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

**S3-222952 Draft TR 33.739 v0.3.0**

*Type: draft TR For: Approval  
 33.739 v0.3.0  
 Source: Huawei, HiSilicon*

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

**S3-222959 Resolve ENs in Sol #1 and Sol #2**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: Xiaomi Communication*

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

**S3-222984 MEC- Addressing the EN#2 in solution#7**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: Apple*

(Replaces S3-222660)

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

**S3-223018 Reply LS on FS\_eEDGEAPP Solution for Support of NAT deployed within the edge data network**

*Type: LS out For: (not specified)  
 to SA6, cc SA2  
 Source: Intel*

(Replaces S3-222746)

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

**S3-223046 A solution for UE authentication method negotiation**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: Ericsson*

(Replaces S3-222823)

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

**S3-223047 A solution for authentication of EEC/UE and GPSI verification by EES/ECS**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: Ericsson*

(Replaces S3-222825)

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

**S3-223050 A solution for authentication of UE and GPSI verification by EES/ECS**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: Ericsson*

(Replaces S3-222834)

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

**S3-223061 Resolving EN and evaluation of solution#3 (TR 33.739)**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: Samsung*

(Replaces S3-222847)

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

**S3-223062 Resolving EN and evaluation of solution#4 (TR 33.739)**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: Samsung*

(Replaces S3-222848)

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

**S3-223063 Authorization of V-ECS in roaming scenario**

*Type: pCR For: Approval  
 33.739 v0.2.0  
 Source: Samsung*

(Replaces S3-222849)

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

**S3-223101 Authentication mechanism selection between EEC and ECS**

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

(Replaces S3-222501)

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

**S3-223102 Authentication and Authorization between V-ECS and H-ECS**

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

(Replaces S3-222502)

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

**S3-223104 New KI on Authentication and Authorization between AC and EEC**

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

(Replaces S3-222507)

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

**S3-223105 Authentication mechanism selection between EEC and EES**

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

(Replaces S3-222508)

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

### 5.10 Study on Personal IoT Networks Security Aspects

**S3-222562 Discussion paper – Need for LS to SA2 on PINE Identification**

*Type: discussion For: Discussion  
 33.882 v..  
 Source: InterDigital, Inc.*

**Abstract:**

This Discussion Paper proposes an LS to SA2 on PINE Identification.

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

**S3-222589 Discussion paper on new EAP based solution variants for KI#1**

*Type: discussion For: Discussion  
 33.882 v..  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

Disucssion on solution variants using EAP for PINE authentication and authorization

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

**S3-222563 LS on PINE identification**

*Type: LS out For: Approval  
 to SA2  
 Source: InterDigital, Inc.*

**Abstract:**

This contribution proposes a draft LS on PINE identification to be issued to SA2. A corresponding discussion paper is available in S3-222562.

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

**S3-222573 New KI on provisioning information to PINE for authenticating and authorizing PINE connects to PEGC**

*Type: pCR For: Approval  
 33.882 v0.2.0  
 Source: vivo*

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

**S3-222574 New KI on verification of PIN communication configuration sent from PEGC to 5GC**

*Type: pCR For: Approval  
 33.882 v0.2.0  
 Source: vivo*

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

**S3-222646 Key issue on secure data transfer between PEGC PEMC and PIN NF**

*Type: pCR For: Agreement  
 33.882 v0.2.0  
 Source: ZTE Corporation*

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

**S3-222894 Update KI #2 Secure provisioning of PIN policies**

*Type: pCR For: Approval  
 33.882 v0.2.0  
 Source: Xiaomi Communication*

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

**S3-222895 Update KI #1 Secure PINE authorization**

*Type: pCR For: Approval  
 33.882 v0.2.0  
 Source: Xiaomi Communication*

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

**S3-222516 Solution on PINE authentication**

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

**Decision:** The document was **revised to S3-223108**.

**S3-222571 New solution to KI#1 : EAP based PIN device authentication using AKMA**

*Type: pCR For: Approval  
 33.882 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

This solution propsoes to use AKMA to secure communication between a PEGC acting as EAP authenticator and a central EAP server

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

**S3-222577 New solution for authentication and authorization of PINE**

*Type: pCR For: Approval  
 33.882 v0.2.0  
 Source: vivo*

**Decision:** The document was **revised to S3-223012**.

**S3-222584 New solution to KI#1: Using secondary authentication for PIN elements**

*Type: pCR For: Approval  
 33.882 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

This solution to KI#1 is proposing to extend secondary authentication to PIN elements.

**Decision:** The document was **revised to S3-223056**.

**S3-222647 Soultion for secure data transfer between PEGC PEMC and PIN NF**

*Type: pCR For: Agreement  
 33.882 v0.2.0  
 Source: ZTE Corporation*

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

**S3-222672 PIN - New solution KI#1**

*Type: pCR For: Approval  
 33.882 v0.2.0  
 Source: Philips International B.V.*

**Decision:** The document was **revised to S3-222949**.

**S3-222896 KI 2, New Sol on CAPIF based PIN AF authorization**

*Type: pCR For: Approval  
 33.882 v0.2.0  
 Source: Xiaomi Communication*

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

**S3-222897 KI 1, New Sol on EAP-based PINE authentication**

*Type: pCR For: Approval  
 33.882 v0.2.0  
 Source: Xiaomi Communication*

**Decision:** The document was **revised to S3-222974**.

**S3-222645 Add some context to assumptions to TR 33.882**

*Type: pCR For: Agreement  
 33.882 v0.2.0  
 Source: ZTE Corporation*

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

**S3-222648 Clean up to TR 33.882**

*Type: pCR For: Agreement  
 33.882 v0.2.0  
 Source: ZTE Corporation*

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

**S3-222949 PIN - New solution KI#1**

*Type: pCR For: Approval  
 33.882 v0.2.0  
 Source: Philips International B.V.*

(Replaces S3-222672)

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

**S3-222974 KI 1, New Sol on EAP-based PINE authentication**

*Type: pCR For: Approval  
 33.882 v0.2.0  
 Source: Xiaomi Communications*

(Replaces S3-222897)

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

**S3-223012 New solution for authentication and authorization of PINE**

*Type: pCR For: Approval  
 33.882 v0.2.0  
 Source: vivo*

(Replaces S3-222577)

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

**S3-223013 TR 33.882 v0.3.0 Study on personal IoT networks security aspects**

*Type: draft TR For: Approval  
 33.882 v0.3.0  
 Source: vivo*

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

**S3-223056 New solution to KI#1: Using secondary authentication for PIN elements**

*Type: pCR For: Approval  
 33.882 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-222584)

**Abstract:**

This solution to KI#1 is proposing to extend secondary authentication to PIN elements.

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

**S3-223108 Solution on PINE authentication**

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

(Replaces S3-222516)

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

### 5.11 Study on SNAAPP security

**S3-222905 New structure for requirements**

*Type: pCR For: Agreement  
 33.884 v0.1.0  
 Source: NTT DOCOMO*

**Decision:** The document was **revised to S3-222963**.

**S3-222496 New Solution on Obtain Resource Owner Authorization in API Invocation using OAuth Token**

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

**Decision:** The document was **revised to S3-223098**.

**S3-222561 New solution to KI#1 using OAuth client credential grant**

*Type: pCR For: Approval  
 33.884 v0.1.0  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

New solution to address UE originated API calls using the OAuth client credential grant.

**Decision:** The document was **revised to S3-223055**.

**S3-222743 Authenticate and authorize UE in UE originated API invocation**

*Type: pCR For: Approval  
 33.884 v0.1.0  
 Source: Lenovo*

**Decision:** The document was **revised to S3-223004**.

**S3-222854 New Solution on User Authorization in API Invocation**

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

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

**S3-222906 pCR to TR 33.884 new solution on UE authentication**

*Type: pCR For: Agreement  
 33.884 v0.1.0  
 Source: NTT DOCOMO*

**Decision:** The document was **revised to S3-222966**.

**S3-222907 pCR to TR 33.884 new solution on non resourceowner UE authorization**

*Type: pCR For: Agreement  
 33.884 v0.1.0  
 Source: NTT DOCOMO*

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

**S3-222908 draft LS on SNAAPP requirements clarifications**

*Type: LS out For: Agreement  
 to SA1, SA6  
 Source: NTT DOCOMO*

**Decision:** The document was **revised to S3-222970**.

**S3-222909 draft LS reply on CAPIF authorization roles related to FS\_SNAAPP**

*Type: LS out For: Agreement  
 to SA6  
 Source: NTT DOCOMO*

**Decision:** The document was **revised to S3-222972**.

**S3-222963 New structure for requirements**

*Type: pCR For: Agreement  
 33.884 v0.1.0  
 Source: NTT DOCOMO*

(Replaces S3-222905)

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

**S3-222966 pCR to TR 33.884 new solution on UE authentication**

*Type: pCR For: Agreement  
 33.884 v0.1.0  
 Source: NTT DOCOMO*

(Replaces S3-222906)

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

**S3-222970 draft LS on SNAAPP requirements clarifications**

*Type: LS out For: Agreement  
 to SA1, SA6  
 Source: NTT DOCOMO*

(Replaces S3-222908)

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

**S3-222972 draft LS reply on CAPIF authorization roles related to FS\_SNAAPP**

*Type: LS out For: Agreement  
 to SA6  
 Source: NTT DOCOMO*

(Replaces S3-222909)

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

**S3-222980 draft TR 33.884 0.2.0**

*Type: draft TR For: (not specified)  
 33.884 v0.2.0  
 Source: NTT DOCOMO INC.*

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

**S3-223004 Authenticate and authorize UE in UE originated API invocation**

*Type: pCR For: Approval  
 33.884 v0.1.0  
 Source: Lenovo*

(Replaces S3-222743)

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

**S3-223055 New solution to KI#1 using OAuth client credential grant**

*Type: pCR For: Approval  
 33.884 v0.1.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-222561)

**Abstract:**

New solution to address UE originated API calls using the OAuth client credential grant.

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

**S3-223098 New Solution on Resource Owner Authorization in API Invocation using OAuth Token**

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

(Replaces S3-222496)

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

### 5.12 Study on enhanced security for network slicing Phase 3

**S3-222545 Update to KI#1**

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

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

**S3-222546 New KI to protect slice related information sent to Home by roaming UE**

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

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

**S3-222650 Update KI#1 providing VPLMN slice information to roaming UE**

*Type: pCR For: Agreement  
 33.886 v0.1.0  
 Source: ZTE Corporation*

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

**S3-222745 Update to KI#1 Providing VPLMN slice information to roaming UE**

*Type: pCR For: Approval  
 33.886 v0.1.0  
 Source: Lenovo*

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

**S3-222830 update to KI#1 providing VPLMN slice information to roaming UE**

*Type: pCR For: Approval  
 33.886 v0.1.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222899 Update KI1 providing VPLMN slice information to roaming UE**

*Type: pCR For: Approval  
 33.886 v0.1.0  
 Source: Xiaomi Communication*

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

**S3-222550 Update to KI#3**

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

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

**S3-222832 update to KI#3 network slice admission control**

*Type: pCR For: Approval  
 33.886 v0.1.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222549 New key issue with multiple NSACFs**

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

**Decision:** The document was **revised to S3-222978**.

**S3-222649 New KI on the Security of Network Slice Service continuity**

*Type: pCR For: Agreement  
 33.886 v0.1.0  
 Source: ZTE Corporation*

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

**S3-222675 Self-Secure Network Slice**

*Type: pCR For: Approval  
 33.886 v0.1.0  
 Source: US National Security Agency, MITRE, Cable Labs, InterDigital, Charter Communications, AT&T, Apple, CISA/ECD*

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

**S3-222547 New solution to KI#1**

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

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

**S3-222831 add solution for KI#1**

*Type: pCR For: Approval  
 33.886 v0.1.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222900 KI1, New Sol Confidentiality and integrity protection for UE initiated capability indication procedure**

*Type: pCR For: Approval  
 33.886 v0.1.0  
 Source: Xiaomi Communication*

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

**S3-222901 KI1, New Sol Secure mechanism for network triggered UE capability indication procedure**

*Type: pCR For: Approval  
 33.886 v0.1.0  
 Source: Xiaomi Communication*

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

**S3-222548 New solution to KI#2 suporting temporary slice**

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

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

**S3-222978 New key issue with multiple NSACFs**

*Type: pCR For: Approval  
 33.886 v0.1.0  
 Source: Huawei, HiSilicon, Nokia, Nokia Shanghai Bell*

(Replaces S3-222549)

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

**S3-222979 Draft TR 33.886 for eNS3**

*Type: draft TR For: (not specified)  
 33.886 v0.2.0  
 Source: Huawei Technologies (Korea)*

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

### 5.13 Study on Security aspects for 5WWC Phase 2

**S3-222714 KI1 update**

*Type: pCR For: Approval  
 33.887 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell, Cablelabs*

**Decision:** The document was **revised to S3-222937**.

**S3-222715 Solution 1 enhancement for EN removal on key derivation**

*Type: pCR For: Approval  
 33.887 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-222939**.

**S3-222716 Solution 1 enhancement for EN removal on privacy**

*Type: pCR For: Approval  
 33.887 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-222940**.

**S3-222485 New solution to address KI#1**

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

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

**S3-222690 EAP base authentication for AUN3 devices behind RG in PLMN**

*Type: pCR For: Approval  
 33.887 v0.2.0  
 Source: CableLabs*

**Decision:** The document was **revised to S3-223007**.

**S3-222691 EAP base authentication for AUN3 devices behind RG in SNPN**

*Type: pCR For: Approval  
 33.887 v0.2.0  
 Source: CableLabs*

**Decision:** The document was **revised to S3-223008**.

**S3-222692 EAP base authentication for AUN3 devices behind RG in SNPN by AAA**

*Type: pCR For: Approval  
 33.887 v0.2.0  
 Source: CableLabs*

**Decision:** The document was **revised to S3-223009**.

**S3-222712 Conclusion for KI2**

*Type: pCR For: Approval  
 33.887 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-222936**.

**S3-222483 Update Key Issue 3**

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

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

**S3-222484 New solution to KI#3**

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

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

**S3-222713 Conclusion for KI3**

*Type: pCR For: Approval  
 33.887 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222693 Key issue on authentication of AUN3 device not supporting EAP**

*Type: pCR For: Approval  
 33.887 v0.2.0  
 Source: CableLabs*

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

**S3-222709 Discussion paper of WWC SID update for TNAP mobility**

*Type: discussion For: Endorsement  
 33.887 v..  
 Source: Nokia, Nokia Shanghai Bell, Lenovo, Apple*

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

**S3-222710 New SID on Security aspects for 5WWC Phase 2**

*Type: SID revised For: Approval  
 Source: Nokia, Nokia Shanghai Bell, Lenovo,Cablelabs, Charter Communications, Apple*

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

**S3-222711 New KI on TNAP mobility**

*Type: pCR For: Approval  
 33.887 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell, Lenovo, Apple*

**Decision:** The document was **revised to S3-222935**.

**S3-222456 Reply LS on TNAP mobility security aspect**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2206999*

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

**S3-222935 New KI on TNAP mobility**

*Type: pCR For: Approval  
 33.887 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell, Lenovo, Apple, CableLabs*

(Replaces S3-222711)

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

**S3-222936 Conclusion for KI2**

*Type: pCR For: Approval  
 33.887 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell, CableLabs*

(Replaces S3-222712)

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

**S3-222937 KI1 update**

*Type: pCR For: Approval  
 33.887 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell, CableLabs*

(Replaces S3-222714)

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

**S3-222939 Solution 1 enhancement for EN removal on key derivation**

*Type: pCR For: Approval  
 33.887 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell, CableLabs*

(Replaces S3-222715)

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

**S3-222940 Solution 1 enhancement for EN removal on privacy**

*Type: pCR For: Approval  
 33.887 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell, CableLabs*

(Replaces S3-222716)

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

**S3-223007 EAP base authentication for AUN3 devices behind RG in PLMN**

*Type: pCR For: Approval  
 33.887 v0.2.0  
 Source: CableLabs, Nokia, Nokia Shanghai Bell*

(Replaces S3-222690)

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

**S3-223008 EAP base authentication for AUN3 devices behind RG in SNPN**

*Type: pCR For: Approval  
 33.887 v0.2.0  
 Source: CableLabs, Nokia, Nokia Shanghai Bell*

(Replaces S3-222691)

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

**S3-223009 EAP base authentication for AUN3 devices behind RG in SNPN by AAA**

*Type: pCR For: Approval  
 33.887 v0.2.0  
 Source: CableLabs,Nokia, Nokia Shanghai Bell*

(Replaces S3-222692)

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

**S3-223127 Draft TR 33.887 v0.3.0 Study on Security aspects for 5WWC Phase 2**

*Type: draft TR For: Approval  
 33.887 v0.3.0  
 Source: Nokia Solutions & Networks (I)*

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

### 5.14 Study on the security aspects of Artificial Intelligence (AI)/Machine Learning (ML) for the NG-RAN

**S3-222552 Security Event Logging for RAN AI/ML framework**

*Type: pCR For: Approval  
 33.877 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222553 Solution for User Privacy of the RAN AI/ML framework**

*Type: pCR For: Approval  
 33.877 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222554 Detecting sources of potential data poisoning attacks towards RAN AI-ML based network optimizations**

*Type: pCR For: Approval  
 33.877 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222597 Privacy Requirements for user privacy in RAN AI/ML framework**

*Type: pCR For: Approval  
 33.877 v0.2.0  
 Source: Qualcomm Finland RFFE Oy*

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

**S3-222741 Update Security Requirements to Key issue 1**

*Type: pCR For: (not specified)  
 33.877 v0.2.0  
 Source: Intel*

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

**S3-222886 Update to KI#1 in TR 33.877**

*Type: pCR For: Approval  
 33.877 v0.2.0  
 Source: Beijing Xiaomi Mobile Software*

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

**S3-222912 Content for the scope clause of the technical report**

*Type: pCR For: Approval  
 33.877 v0.2.0  
 Source: Ericsson*

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

**S3-222913 New Key issue on the security of the information transfer of the RAN AI/ML framework**

*Type: pCR For: Approval  
 33.877 v0.2.0  
 Source: Ericsson*

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

**S3-222914 Updates to KI#1 User Privacy of the RAN AI/ML framework**

*Type: pCR For: Approval  
 33.877 v0.2.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-223067**.

**S3-222915 New Key issue on the robustness of the RAN AI/ML framework against data poisoning attacks**

*Type: pCR For: Approval  
 33.877 v0.2.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-223068**.

**S3-223067 Updates to KI#1 User Privacy of the RAN AI/ML framework**

*Type: pCR For: Approval  
 33.877 v0.2.0  
 Source: Ericsson, Qualcomm Inc, Xiaomi, Huawei*

(Replaces S3-222914)

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

**S3-223068 New Key issue on the robustness of the RAN AI/ML framework against data poisoning attacks**

*Type: pCR For: Approval  
 33.877 v0.2.0  
 Source: Ericsson*

(Replaces S3-222915)

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

**S3-223074 Draft TR 33.877 v0.3.0 Study on the security aspects of Artificial Intelligence (AI)/Machine Learning (ML) for the NG-RAN**

*Type: draft TR For: Approval  
 33.877 v0.3.0  
 Source: Ericsson España S.A.*

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

### 5.15 Study on security support for Next Generation Real Time Communication services

**S3-222538 Add security requirement to KI on data channel**

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

**Decision:** The document was **revised to S3-222955**.

**S3-222539 EN removal of solution#2**

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

**Decision:** The document was **revised to S3-222956**.

**S3-222540 New solution on SBA in IMS control plane**

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

**Decision:** The document was **revised to S3-222957**.

**S3-222761 Proposed resolution of some ENs in solution #2**

*Type: pCR For: Approval  
 33.890 v0.2.0  
 Source: Qualcomm Incorporated*

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

**S3-222835 Update Key issue #2: Security aspects of Data Channel usage in IMS network**

*Type: pCR For: (not specified)  
 33.890 v0.2.0  
 Source: Ericsson*

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

**S3-222836 Update solution#1**

*Type: pCR For: (not specified)  
 33.890 v0.2.0  
 Source: Ericsson*

**Decision:** The document was **revised to S3-222932**.

**S3-222932 Update solution#1**

*Type: pCR For: (not specified)  
 33.890 v0.2.0  
 Source: Ericsson*

(Replaces S3-222836)

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

**S3-222955 Add security requirement to KI on data channel**

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

(Replaces S3-222538)

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

**S3-222956 EN removal of solution#2**

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

(Replaces S3-222539)

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

**S3-222957 New solution on SBA in IMS control plane**

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

(Replaces S3-222540)

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

**S3-222958 Draft TR 33.890 v0.3.0**

*Type: draft TR For: Approval  
 33.890 v0.3.0  
 Source: Huawei, HiSilicon*

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

### 5.16 Study on security aspects of enhanced support of Non-Public Networks phase 2

**S3-222497 New Solution based on Reusing Existing N3GPP Security for SNPN**

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

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

**S3-222891 KI1, New Sol on Authentication mechanism for trusted non-3GPP Access in NPN scenarios**

*Type: pCR For: Approval  
 33.858 v0.1.0  
 Source: Xiaomi Communication*

**Decision:** The document was **revised to S3-222961**.

**S3-222892 KI1, New Sol on Authentication mechanism for untrusted non-3GPP Access in NPN scenarios**

*Type: pCR For: Approval  
 33.858 v0.1.0  
 Source: Xiaomi Communication*

**Decision:** The document was **revised to S3-222965**.

**S3-222893 KI1, New Sol on Authentication for devices not supporting 5GC NAS over WLAN access in NPN scenarios**

*Type: pCR For: Approval  
 33.858 v0.1.0  
 Source: Xiaomi Communication*

**Decision:** The document was **revised to S3-222990**.

**S3-222904 New solution for KI#1: Use of anonymous SUCI in trusted non-3GPP access**

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

**Decision:** The document was **revised to S3-222931**.

**S3-222766 SUCI protection for non-3GPP (WLAN) access to SNPN**

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

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

**S3-222461 Questions for SUCI protection requirements for non-3GPP (WLAN) access to SNPN**

*Type: LS in For: (not specified)  
 Original outgoing LS: -, to -, cc -  
 Source: S2-2207700*

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

**S3-222515 Reply LS on Questions for SUCI Protection Requirements for Non-3GPP (WLAN) Access to SNPN**

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

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

**S3-222651 New KI on the UE authentication for access to hosting network**

*Type: pCR For: Agreement  
 33.858 v0.1.0  
 Source: ZTE Corporation*

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

**S3-222652 New KI on the user authentication for access to hosting network**

*Type: pCR For: Agreement  
 33.858 v0.1.0  
 Source: ZTE Corporation*

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

**S3-222742 Key Issue on Authentication for access to localized services**

*Type: pCR For: Approval  
 33.858 v0.1.0  
 Source: Lenovo*

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

**S3-222772 Service requirements related to the security for providing localized services**

*Type: discussion For: Discussion  
 Source: Ericsson*

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

**S3-222773 New Key Issue "Authentication for UE access to hosting network"**

*Type: pCR For: Approval  
 33.858 v0.1.0  
 Source: Ericsson, Intel, Nokia, Nokia Shanghai Bell, ZTE*

**Decision:** The document was **revised to S3-223118**.

**S3-222774 Addressing Note in TR 23.700-08 on credentials provisioning**

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

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

**S3-222775 Communication security and subscriber privacy for access to localized services, alternative 1**

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

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

**S3-222776 Communication security and subscriber privacy for access to localized services, alternative 2**

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

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

**S3-222777 New Key Issue on authorization of UE access to the hosting network for providing localized services**

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

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

**S3-222890 New KI on UE authentication and authorization in hosting network scenarios**

*Type: pCR For: Approval  
 33.858 v0.1.0  
 Source: Xiaomi Communication*

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

**S3-222587 Key issue on security of SNPN using AAA server for primary authentication**

*Type: pCR For: Approval  
 33.858 v0.1.0  
 Source: InterDigital Communications*

**Abstract:**

It is proposed to study the issue of authenticating SNPN when using AAA server for primary authentication.

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

**S3-222931 New solution for KI#1: Use of anonymous SUCI in trusted non-3GPP access**

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

(Replaces S3-222904)

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

**S3-222961 KI1, New Sol on Authentication mechanism for trusted non-3GPP Access in NPN scenarios**

*Type: pCR For: Approval  
 33.858 v0.1.0  
 Source: Xiaomi Communication*

(Replaces S3-222891)

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

**S3-222965 KI1, New Sol on Authentication mechanism for untrusted non-3GPP Access in NPN scenarios**

*Type: pCR For: Approval  
 33.858 v0.1.0  
 Source: Xiaomi Communication*

(Replaces S3-222892)

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

**S3-222971 KI1, New Sol on Authentication for devices not supporting 5GC NAS over WLAN access in NPN scenarios**

*Type: pCR For: Approval  
 33.858 v0.1.0  
 Source: Xiaomi Communication*

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

**S3-222990 KI1, New Sol on Authentication for devices not supporting 5GC NAS over WLAN access in NPN scenarios**

*Type: pCR For: Approval  
 33.858 v0.1.0  
 Source: Xiaomi Communication*

(Replaces S3-222893)

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

**S3-223118 New Key Issue "Authentication for UE access to hosting network"**

*Type: pCR For: Approval  
 33.858 v0.1.0  
 Source: Ericsson, Intel, Nokia, Nokia Shanghai Bell, ZTE, Xiaomi, Lenovo*

(Replaces S3-222773)

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

**S3-223120 draft TR 33.858 v0.2.0 (Study on security aspects of enhanced support of Non-Public Networks phase 2)**

*Type: draft TR For: Approval  
 33.858 v0.2.0  
 Source: Ericsson*

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

### 5.17 Study on Security of Phase 2 for UAS, UAV and UAM

**S3-222754 Proposed key issue on the privacy of 3GPP identifiers used to transport Broadcast Remote ID**

*Type: pCR For: Approval  
 33.891 v0.2.0  
 Source: Qualcomm Incorporated*

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

**S3-222755 Proposed key issue on the privacy of 3GPP identifiers used to transport broadcasted DAA traffic**

*Type: pCR For: Approval  
 33.891 v0.2.0  
 Source: Qualcomm Incorporated*

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

**S3-222756 Proposed solution on the privacy of 3GPP identifiers used to transport broadcast remote ID**

*Type: pCR For: Approval  
 33.891 v0.2.0  
 Source: Qualcomm Incorporated*

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

**S3-222757 Proposed solution on the privacy of 3GPP identifiers used to transport DAA traffic**

*Type: pCR For: Approval  
 33.891 v0.2.0  
 Source: Qualcomm Incorporated*

**Decision:** The document was **revised to S3-223128**.

**S3-222479 Update to Sol#1 in 33.891**

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

**Decision:** The document was **revised to S3-223095**.

**S3-222509 Evaluate the Sol#1 in 33.891**

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

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

**S3-222590 Update Solution#4**

*Type: pCR For: Approval  
 33.891 v0.2.0  
 Source: InterDigital, Europe, Ltd.*

**Decision:** The document was **revised to S3-222941**.

**S3-222591 New solution: Restricted Discovery for Direct C2**

*Type: pCR For: Approval  
 33.891 v0.2.0  
 Source: InterDigital, Europe, Ltd.*

**Decision:** The document was **revised to S3-222942**.

**S3-222736 Evaluation for Solution #2**

*Type: pCR For: Approval  
 33.891 v0.2.0  
 Source: Lenovo*

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

**S3-222758 Proposed resolution of EN on mixing traffic in solution #3**

*Type: pCR For: Approval  
 33.891 v0.2.0  
 Source: Qualcomm Incorporated*

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

**S3-222759 Making solution #3 resolve key issues #4 and #5**

*Type: pCR For: Approval  
 33.891 v0.2.0  
 Source: Qualcomm Incorporated*

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

**S3-222941 Update Solution#4**

*Type: pCR For: Approval  
 33.891 v0.2.0  
 Source: InterDigital, Europe, Ltd.*

(Replaces S3-222590)

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

**S3-222942 New solution: Restricted Discovery for Direct C2**

*Type: pCR For: Approval  
 33.891 v0.2.0  
 Source: InterDigital, Europe, Ltd.*

(Replaces S3-222591)

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

**S3-223095 Update to Sol#1 in 33.891**

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

(Replaces S3-222479)

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

**S3-223128 Proposed solution on the privacy of 3GPP identifiers used to transport DAA traffic**

*Type: pCR For: Approval  
 33.891 v0.2.0  
 Source: Qualcomm Incorporated*

(Replaces S3-222757)

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

**S3-223129 Draft TR 33.891**

*Type: draft TR For: Approval  
 33.891 v0.3.0  
 Source: Qualcomm Incorporated*

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

### 5.18 Study to enable URSP rules to securely identify Applications

**S3-222564 Assumption on actors and attacker model**

*Type: pCR For: Approval  
 33.892 v0.2.0  
 Source: Lenovo*

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

**S3-222565 Update of KI#1**

*Type: pCR For: Approval  
 33.892 v0.2.0  
 Source: Lenovo, Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-222964**.

**S3-222566 Evaluation of solution #2**

*Type: pCR For: Approval  
 33.892 v0.2.0  
 Source: Lenovo*

**Decision:** The document was **revised to S3-222968**.

**S3-222750 Proposal for an evaluation to solution #2**

*Type: pCR For: Approval  
 33.892 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-223073**.

**S3-222751 Proposal for a KI on injection of authentication data**

*Type: pCR For: Approval  
 33.892 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222752 Discussion paper on a way forward for LS on protection of the URSP rules from HPLM**

*Type: discussion For: Discussion  
 33.892 v..  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222964 Update of KI#1**

*Type: pCR For: Approval  
 33.892 v0.2.0  
 Source: Lenovo, Nokia, Nokia Shanghai Bell*

(Replaces S3-222565)

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

**S3-222968 Evaluation of solution #2**

*Type: pCR For: Approval  
 33.892 v0.2.0  
 Source: Lenovo*

(Replaces S3-222566)

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

**S3-223073 Proposal for an evaluation to solution #1**

*Type: pCR For: Approval  
 33.892 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-222750)

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

**S3-223122 Draft TR 33.892 V0.3.0**

*Type: draft TR For: (not specified)  
 33.892 v0.3.0  
 Source: Lenovo*

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

### 5.19 Study on Security Aspects of Ranging Based Services and Sidelink Positioning

**S3-222473 address the editor's note in key issue 1**

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

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

**S3-222671 Ranging - Update Key Issue #1- privacy risks of exposing positioning reference signals**

*Type: pCR For: Approval  
 33.893 v0.2.0  
 Source: Philips International B.V.*

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

**S3-222858 33.893: Additional Roles for Authorization in KI#2**

*Type: pCR For: Approval  
 33.893 v0.2.0  
 Source: Xiaomi Technology*

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

**S3-222557 New Key issue for Detecting ranging triggered DoS attacks**

*Type: pCR For: Approval  
 33.893 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222558 New Key issue for Updating security policy parameters on ranging device when it is out of 5G coverage**

*Type: pCR For: Approval  
 33.893 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222677 Protection of Sidelink IDs**

*Type: pCR For: Approval  
 33.893 v0.2.0  
 Source: US National Security Agency, MITRE, Cable Labs, Charter Communications, AT&T, Apple, CISA/ECD*

**Abstract:**

This proposal proposes changes to Key Issues clause by adding a new key issue: Protection of Sidelink IDs.

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

**S3-222474 solutions on privacy protection for UEs in ranging**

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

**Decision:** The document was **revised to S3-223094**.

**S3-222670 Ranging - New solution KI#1, #2, #3**

*Type: pCR For: Approval  
 33.893 v0.2.0  
 Source: Philips International B.V.*

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

**S3-222859 33.893: Solution on Application Server Authorization for KI#2**

*Type: pCR For: Approval  
 33.893 v0.2.0  
 Source: Xiaomi Technology*

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

**S3-222860 33.893: Solution on 5GC NF Authorization for KI#2**

*Type: pCR For: Approval  
 33.893 v0.2.0  
 Source: Xiaomi Technology*

**Decision:** The document was **revised to S3-223034**.

**S3-222861 33.893: Solution on Subscription-based Authorization of the Role of the UE during Discovery**

*Type: pCR For: Approval  
 33.893 v0.2.0  
 Source: Xiaomi Technology*

**Decision:** The document was **revised to S3-223035**.

**S3-222862 33.893: Solution on Token-based Authorization of the Role of the UE during Discovery**

*Type: pCR For: Approval  
 33.893 v0.2.0  
 Source: Xiaomi Technology*

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

**S3-222878 New solution on GMLC based authorization for Ranging/SL Positioning services**

*Type: pCR For: Approval  
 33.893 v0.2.0  
 Source: Beijing Xiaomi Mobile Software*

**Decision:** The document was **revised to S3-223112**.

**S3-222879 New solution on Token based Authorization for Network assisted sidelink positioning services**

*Type: pCR For: Approval  
 33.893 v0.2.0  
 Source: Beijing Xiaomi Mobile Software*

**Decision:** The document was **revised to S3-223113**.

**S3-222929 Use of authorization tokens at PC5 security establishment**

*Type: pCR For: Approval  
 33.893 v0.2.0  
 Source: Ericsson*

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

**S3-222478 New solution of security for the Ranging SL positioning device discovery**

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

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

**S3-222477 New solution for protecting direct communication**

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

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

**S3-222863 33.893: Solution on Direct Communication Security for SL Positioning Service**

*Type: pCR For: Approval  
 33.893 v0.2.0  
 Source: Xiaomi Technology*

**Decision:** The document was **revised to S3-223036**.

**S3-222857 33.893: Terminology Alignment**

*Type: pCR For: Approval  
 33.893 v0.2.0  
 Source: Xiaomi Technology*

**Decision:** The document was **revised to S3-223037**.

**S3-223034 33.893: Solution on 5GC NF Authorization for KI#2**

*Type: pCR For: Approval  
 33.893 v0.2.0  
 Source: Xiaomi Technology*

(Replaces S3-222860)

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

**S3-223035 33.893: Solution on Subscription-based Authorization of the Role of the UE during Discovery**

*Type: pCR For: Approval  
 33.893 v0.2.0  
 Source: Xiaomi Technology*

(Replaces S3-222861)

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

**S3-223036 33.893: Solution on Direct Communication Security for SL Positioning Service**

*Type: pCR For: Approval  
 33.893 v0.2.0  
 Source: Xiaomi Technology*

(Replaces S3-222863)

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

**S3-223037 33.893: Terminology Alignment**

*Type: pCR For: Approval  
 33.893 v0.2.0  
 Source: Xiaomi Technology*

(Replaces S3-222857)

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

**S3-223038 Draft TR 33.893 v0.3.0**

*Type: draft TR For: Approval  
 33.893 v0.3.0  
 Source: Xiaomi Technology*

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

**S3-223094 solutions on privacy protection for UEs in ranging**

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

(Replaces S3-222474)

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

**S3-223112 New solution on GMLC based authorization for Ranging/SL Positioning services**

*Type: pCR For: Approval  
 33.893 v0.2.0  
 Source: Beijing Xiaomi Mobile Software*

(Replaces S3-222878)

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

**S3-223113 New solution on Token based Authorization for Network assisted sidelink positioning services**

*Type: pCR For: Approval  
 33.893 v0.2.0  
 Source: Beijing Xiaomi Mobile Software*

(Replaces S3-222879)

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

### 5.20 Study on Security and Privacy of AI/ML-based Services and Applications in 5G

**S3-222602 KI on authorization of AF accessing th 5GC assistance information**

*Type: pCR For: Approval  
 33.898 v0.1.0  
 Source: OPPO, Xidian*

**Decision:** The document was **revised to S3-222996**.

**S3-222603 KI on authorization of UE accessing the 5GC analytic information**

*Type: pCR For: Approval  
 33.898 v0.1.0  
 Source: OPPO, Xidian*

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

**S3-222708 Key issue on authorization of UE accessing the 5G analytics**

*Type: pCR For: Approval  
 33.898 v0.1.0  
 Source: Nokia, Nokia Shanghai Bell, IDCC, OPPO, Verizon*

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

**S3-222611 New KI:the Authorization of Federated Learning Model Sharing**

*Type: pCR For: Approval  
 33.898 v0.1.0  
 Source: China Telecom Corporation Ltd.*

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

**S3-222707 Key issue on AF authorization for AIML operations**

*Type: pCR For: Approval  
 33.898 v0.1.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222604 KI on securing application AIML data exchange between UE and AF**

*Type: pCR For: Approval  
 33.898 v0.1.0  
 Source: OPPO, Xidian*

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

**S3-222706 Key issue on securing AIML operation**

*Type: pCR For: Approval  
 33.898 v0.1.0  
 Source: Nokia, Nokia Shanghai Bell, IDCC, OPPO, Verizon*

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

**S3-222605 KI on securing provisioning of external parameters**

*Type: pCR For: Approval  
 33.898 v0.1.0  
 Source: OPPO, Xidian*

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

**S3-222575 New key issue on Federated Learning AIML model protection**

*Type: pCR For: Approval  
 33.898 v0.1.0  
 Source: InterDigital Communications*

**Abstract:**

The contribution proposes a KI to AIML model protection

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

**S3-222705 Key issue on Security criteria of UE selection for AIML**

*Type: pCR For: Approval  
 33.898 v0.1.0  
 Source: Nokia, Nokia Shanghai Bell, IDCC*

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

**S3-222606 KI on classification and protection of AIML data among 5GC AF and UE**

*Type: pCR For: (not specified)  
 33.898 v0.1.0  
 Source: OPPO, Xidian*

**Decision:** The document was **revised to S3-222998**.

**S3-222578 New key issue on Federated Learning AIML model privacy protection**

*Type: pCR For: Approval  
 33.898 v0.1.0  
 Source: InterDigital Communications*

**Abstract:**

New key issue on Federated Learning AIML model privacy protection

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

**S3-222607 KI on user consent for 5GC provided assistance information**

*Type: pCR For: Approval  
 33.898 v0.1.0  
 Source: OPPO*

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

**S3-222996 KI on authorization of AF accessing th 5GC assistance information**

*Type: pCR For: Approval  
 33.898 v0.1.0  
 Source: OPPO, Xidian, Nokia, Nokia Shanghai Bell*

(Replaces S3-222602)

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

**S3-222998 KI on classification and protection of AIML data among 5GC AF and UE**

*Type: pCR For: (not specified)  
 33.898 v0.1.0  
 Source: OPPO, Xidian*

(Replaces S3-222606)

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

**S3-223000 draft TR 33.898**

*Type: draft TR For: Approval  
 33.898 v0.2.0  
 Source: OPPO*

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

### 5.21 Study on applicability of the Zero Trust Security principles in mobile networks

**S3-222504 Evaluation of tenet 1 on resources**

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

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

**S3-222910 Alignment of 3GPP’s 5G Security to the first NIST Tenet of ZTA**

*Type: pCR For: (not specified)  
 33.894 v0.2.0  
 Source: Ericsson*

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

**S3-222679 ZT Tenet 1**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS*

**Abstract:**

This submission contains a gap analysis comparing the NIST zero trust tenets to current 3GPP security mechanisms for the 5G Core. For this analysis, some thought was put into how the tenets specifically apply to a 5G Core since the NIST Special Publicatio

**Decision:** The document was **revised to S3-223075**.

**S3-222720 Evaluation of Tenet #1**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: Lenovo, US NSA*

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

**S3-222505 Evaluation of tenet 2 on secure communication**

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

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

**S3-222911 Alignment of 3GPP’s 5G Security to the second NIST Tenet of ZTA**

*Type: pCR For: (not specified)  
 33.894 v0.2.0  
 Source: Ericsson LM*

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

**S3-222721 Evaluation of Tenet #2**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: Lenovo, US NSA*

**Decision:** The document was **revised to S3-222992**.

**S3-222924 Alignment of 3GPP’s 5G Security to the third NIST Tenet of ZTA**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: Ericsson LM*

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

**S3-222681 ZT Tenet 3**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS*

**Abstract:**

This submission contains a gap analysis comparing the NIST zero trust tenets to current 3GPP security mechanisms for the 5G Core. For this analysis, some thought was put into how the tenets specifically apply to a 5G Core since the NIST Special Publicatio

**Decision:** The document was **revised to S3-223076**.

**S3-222722 Evaluation of Tenet #3**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: Lenovo, US NSA*

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

**S3-222682 ZT Tenet 4**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS*

**Abstract:**

This submission contains a gap analysis comparing the NIST zero trust tenets to current 3GPP security mechanisms for the 5G Core. For this analysis, some thought was put into how the tenets specifically apply to a 5G Core since the NIST Special Publicatio

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

**S3-222724 Evaluation of Tenet #4**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: Lenovo, US NSA*

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

**S3-222517 Evaluation of tenet 5 on security posture**

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

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

**S3-222680 ZT Tenet 5**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS*

**Abstract:**

This submission contains a gap analysis comparing the NIST zero trust tenets to current 3GPP security mechanisms for the 5G Core. For this analysis, some thought was put into how the tenets specifically apply to a 5G Core since the NIST Special Publicatio

**Decision:** The document was **revised to S3-223077**.

**S3-222725 Evaluation of Tenet #5**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: Lenovo, US NSA*

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

**S3-222678 ZT Tenet 6**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS*

**Abstract:**

This submission contains a gap analysis comparing the NIST zero trust tenets to current 3GPP security mechanisms for the 5G Core. For this analysis, some thought was put into how the tenets specifically apply to a 5G Core since the NIST Special Publicatio

**Decision:** The document was **revised to S3-223078**.

**S3-222727 Evaluation of Tenet #6**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: Lenovo, US NSA*

**Abstract:**

Evaluation of Tenet #6

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

**S3-222676 ZT Tenet 7**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS*

**Abstract:**

This submission contains a gap analysis comparing the NIST zero trust tenets to current 3GPP security mechanisms for the 5G Core. For this analysis, some thought was put into how the tenets specifically apply to a 5G Core since the NIST Special Publicatio

**Decision:** The document was **revised to S3-223079**.

**S3-222728 Evaluation of Tenets #7**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: Lenovo, US NSA*

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

**S3-222730 Evaluation of Tenets and current security mechanisms**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: Lenovo, US NSA*

**Decision:** The document was **revised to S3-222994**.

**S3-222588 New Key Issue on Potential Excessive Trust of NFs**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: China Telecom Corporation Ltd.*

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

**S3-222732 Key Issue on Need for continuous security monitoring and Trust evaluation**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: Lenovo, Nokia, Nokia Shanghai Bell, Rakuten Mobile Inc., Interdigital, US NSA, Motorola Solutions, Johns Hopkins University APL, Intel, Center for Internet Security, China Mobile, ZTE, CableLabs*

**Decision:** The document was **revised to S3-222999**.

**S3-222992 Evaluation of Tenet #2**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: Lenovo, US National Security Agency, Ericsson, Huawei, HiSilicon*

(Replaces S3-222721)

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

**S3-222994 Evaluation of Tenets and current security mechanisms**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: Lenovo, US National Security Agency*

(Replaces S3-222730)

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

**S3-222999 Key Issue on Need for continuous security monitoring and Trust evaluation**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: Lenovo, Nokia, Nokia Shanghai Bell, Rakuten Mobile Inc., Interdigital, US National Security Agency, Motorola Solutions, Johns Hopkins University APL, Intel, Center for Internet Security, China Mobile, ZTE, CableLabs*

(Replaces S3-222732)

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

**S3-223075 ZT Tenet 1**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS*

(Replaces S3-222679)

**Abstract:**

This submission contains a gap analysis comparing the NIST zero trust tenets to current 3GPP security mechanisms for the 5G Core. For this analysis, some thought was put into how the tenets specifically apply to a 5G Core since the NIST Special Publicatio

**Decision:** The document was **revised to S3-223134**.

**S3-223134 ZT Tenet 1**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS,Ericsson, Nokia*

(Replaces S3-223075)

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

**S3-223076 ZT Tenet 3**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS*

(Replaces S3-222681)

**Abstract:**

This submission contains a gap analysis comparing the NIST zero trust tenets to current 3GPP security mechanisms for the 5G Core. For this analysis, some thought was put into how the tenets specifically apply to a 5G Core since the NIST Special Publicatio

**Decision:** The document was **revised to S3-223135**.

**S3-223135 ZT Tenet 3**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS, Nokia, Ericsson*

(Replaces S3-223076)

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

**S3-223077 ZT Tenet 5**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS*

(Replaces S3-222680)

**Abstract:**

This submission contains a gap analysis comparing the NIST zero trust tenets to current 3GPP security mechanisms for the 5G Core. For this analysis, some thought was put into how the tenets specifically apply to a 5G Core since the NIST Special Publicatio

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

**S3-223078 ZT Tenet 6**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS*

(Replaces S3-222678)

**Abstract:**

This submission contains a gap analysis comparing the NIST zero trust tenets to current 3GPP security mechanisms for the 5G Core. For this analysis, some thought was put into how the tenets specifically apply to a 5G Core since the NIST Special Publicatio

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

**S3-223079 ZT Tenet 7**

*Type: pCR For: Approval  
 33.894 v0.2.0  
 Source: US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS*

(Replaces S3-222676)

**Abstract:**

This submission contains a gap analysis comparing the NIST zero trust tenets to current 3GPP security mechanisms for the 5G Core. For this analysis, some thought was put into how the tenets specifically apply to a 5G Core since the NIST Special Publicatio

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

**S3-223121 draft TR 33.894 v0.3.0**

*Type: draft TR For: Approval  
 33.894 v0.3.0  
 Source: Lenovo*

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

### 5.22 Study of Security aspects on User Consent for 3GPP Services Phase 2

**S3-222491 New key issue on User Consent for AI/ML for Network Optimization**

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

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

**S3-222653 New KI on User consent for application layer AIML operation**

*Type: pCR For: Agreement  
 33.896 v0.2.0  
 Source: ZTE Corporation*

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

**S3-222598 New Key Issue on user consent for Personally Identifiable Information used for Network Optimization**

*Type: pCR For: Approval  
 33.896 v0.2.0  
 Source: Qualcomm Finland RFFE Oy*

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

**S3-222492 Key Issue Update on User Consent for NTN**

*Type: pCR For: Approval  
 33.896 v0.2.0  
 Source: Huawei, HiSilicon, Philips International B.V., Xiaomi, Qualcomm*

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

**S3-222818 UC3S User consent checking by roaming partner NF**

*Type: pCR For: Approval  
 33.896 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222819 UC3S Central authorization function for user consent**

*Type: pCR For: Approval  
 33.896 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-223132**.

**S3-222493 New Solution on User Consent for Analytics Request from vPLMN**

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

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

**S3-222883 New solution on User Consent for UE Data Exposure to HPLMN in the Roaming case**

*Type: pCR For: Approval  
 33.896 v0.2.0  
 Source: Beijing Xiaomi Mobile Software*

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

**S3-222884 New solution on User Consent for UE Data Exposure to VPLMN in the Roaming case**

*Type: pCR For: Approval  
 33.896 v0.2.0  
 Source: Beijing Xiaomi Mobile Software*

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

**S3-222885 New solution on Modification or Revocation of User Consent for eNA in the Roaming case**

*Type: pCR For: Approval  
 33.896 v0.2.0  
 Source: Beijing Xiaomi Mobile Software*

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

**S3-222494 New Solution on unified User Consent Architecture for RAN features**

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

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

**S3-222669 UC - New solution NTN**

*Type: pCR For: Approval  
 33.896 v0.2.0  
 Source: Philips International B.V.*

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

**S3-222870 33.896: Solution on Obtaining User Consent with Mobility in RAN for KI#2**

*Type: pCR For: Approval  
 33.896 v0.2.0  
 Source: Xiaomi Technology*

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

**S3-222871 33.896: Solution on Obtaining User Consent with Mobility in SN for KI#2**

*Type: pCR For: Approval  
 33.896 v0.2.0  
 Source: Xiaomi Technology*

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

**S3-222869 33.896: Resolve the ENs in Solutions #1 and #2**

*Type: pCR For: Approval  
 33.896 v0.2.0  
 Source: Xiaomi Technology*

**Decision:** The document was **revised to S3-223039**.

**S3-222495 Overview of UC3S\_Ph2**

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

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

**S3-222925 Guiding principles for determining the applicability for user consent**

*Type: pCR For: (not specified)  
 33.896 v0.2.0  
 Source: Ericsson*

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

**S3-222599 Discussions on User Consent for Analytics Request in roaming scenarios**

*Type: discussion For: Approval  
 33.896 v..  
 Source: Qualcomm Finland RFFE Oy*

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

**S3-222783 [DRAFT] Reply LS on the data and analytics exchange between two NWDAFs in different PLMNs**

*Type: LS out For: Approval  
 to SA2, cc GSMA  
 Source: Ericsson*

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

**S3-222784 [DRAFT] Reply LS on how ML model integrity, confidentiality and availability is supported between NWDAFs from different vendors**

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

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

**S3-222785 Update KI#2: Authorization of selection of participant NWDAF instances in the Federated Learning group**

*Type: pCR For: Approval  
 33.738 v0.2.0  
 Source: Ericsson*

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

**S3-223039 33.896: Resolve the ENs in Solutions #1 and #2**

*Type: pCR For: Approval  
 33.896 v0.2.0  
 Source: Xiaomi Technology*

(Replaces S3-222869)

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

**S3-223130 TR 33.896v030**

*Type: draft TR For: (not specified)  
 33.896 v0.3.0  
 Source: Huawei, HiSilicon*

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

**S3-223132 UC3S Central authorization function for user consent**

*Type: pCR For: Approval  
 33.896 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-222819)

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

### 5.23 Study on security enhancements for 5G multicast-broadcast services Phase 2

**S3-222469 Requirement on TMGI protection**

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

**Decision:** The document was **revised to S3-223092**.

**S3-222470 Security threat and requirement in MOCN network sharing scenario**

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

**Decision:** The document was **revised to S3-223093**.

**S3-222555 MOCN security handling for MBS**

*Type: pCR For: Approval  
 33.883 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-223123**.

**S3-222556 TMGI protection during group Paging**

*Type: pCR For: Approval  
 33.883 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222855 Updates to KI on MOCN scenario**

*Type: pCR For: Approval  
 33.883 v0.2.0  
 Source: Samsung*

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

**S3-222856 Solution on MBS protection for MOCN deployments**

*Type: pCR For: Approval  
 33.883 v0.2.0  
 Source: Samsung*

**Decision:** The document was **revised to S3-223064**.

**S3-223064 Solution on MBS protection for MOCN deployments**

*Type: pCR For: Approval  
 33.883 v0.2.0  
 Source: Samsung*

(Replaces S3-222856)

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

**S3-223081 TR 33.883 for 5MBS security**

*Type: draft TR For: (not specified)  
 33.883 v0.3.0  
 Source: Huawei, HiSilicon*

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

**S3-223092 Requirement on TMGI protection**

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

(Replaces S3-222469)

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

**S3-223093 Security threat and requirement in MOCN network sharing scenario**

*Type: pCR For: Approval  
 33.883 v0.2.0  
 Source: Huawei, HiSilicon, Samsung, Nokia, Nokia Shanghai Bell*

(Replaces S3-222470)

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

**S3-223123 MOCN security handling for MBS**

*Type: pCR For: Approval  
 33.883 v0.2.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-222555)

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

### 5.24 Study on enhanced Security Aspects of the 5G Service Based Architecture

**S3-222802 Editiorial updates to 33875-130**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222803 Abbreviations**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222804 Trust in standalone SCP**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222805 Extend trust in inter-PLMN**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-222962**.

**S3-222686 Resolving ENs in solution 6.13**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: CableLabs*

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

**S3-222806 KI1 analysis on NFp authentication in indirect comm**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-222967**.

**S3-222532 Conclusion on KI#1 authentication of NRF/NFp in the indirect communication mode**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Huawei, HiSilicon*

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

**S3-222536 Resolving EN in Key issue #3**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Huawei, HiSilicon*

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

**S3-222778 KI#3 (Subscribe-Notify): Clarification of Editor's Note**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Ericsson*

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

**S3-222807 KI3 EN resolution on requirements for subscribe notify**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222534 Resolving ENs in Sol#12**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-222954**.

**S3-222808 KI3 EN resolution in sol12**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222779 KI#3 (Subscribe-Notify): Removing EN and providing evaluation for Solution #12**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Ericsson*

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

**S3-222533 Resolving ENs in Sol#15**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Huawei, HiSilicon*

**Decision:** The document was **revised to S3-222953**.

**S3-222780 KI#3 (Subscribe-Notify): Removing EN and providing evaluation for Solution #15**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Ericsson*

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

**S3-222781 KI#3 (Subscribe-Notify): Analysis and conclusion**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Ericsson*

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

**S3-222809 KI4 Sol SCP authorization check by NRF**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222685 Resolving ENs in solution 6.16**

*Type: pCR For: (not specified)  
 33.875 v1.3.0  
 Source: CableLabs*

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

**S3-222810 KI6 EN resolution Sol7**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-222975**.

**S3-222811 KI7 Sol17 EN resolution**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-222976**.

**S3-222535 Conclusion on KI#7 authorization mechanism determination**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Huawei, HiSilicon*

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

**S3-222812 KI7 conclusion**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **revised to S3-222977**.

**S3-222813 KI9 solution 18 update**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222814 KI9 Sol11 EN resolution**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222817 KI10 Update of Sol20 RHUB PRINS**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222815 KI10 Clarification on securing remote RHUB and SEPP discovery**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222816 KI10 Solution for securing remote RHUB and SEPP discovery**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-222782 Solution for KI#12 Different SEPP Type requirements**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Ericsson*

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

**S3-222953 Resolving ENs in Sol#15**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Huawei, HiSilicon*

(Replaces S3-222533)

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

**S3-222954 Resolving ENs in Sol#12**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Huawei, HiSilicon, Nokia, Nokia Shanghai Bell, Ericsson*

(Replaces S3-222534)

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

**S3-222962 Extend trust in inter-PLMN**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-222805)

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

**S3-222967 KI1 analysis on NFp authentication in indirect comm**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-222806)

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

**S3-222973 Resolving ENs in Sol#12**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Huawei, HiSilicon*

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

**S3-222975 KI6 EN resolution Sol7**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-222810)

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

**S3-222976 KI7 Sol17 EN resolution**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-222811)

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

**S3-222977 KI7 conclusion**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S3-222812)

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

**S3-222981 TR 33.875-140 eSBA Security**

*Type: draft TR For: (not specified)  
 33.875 v1.4.0  
 Source: Nokia, Nokia Shanghai Bell*

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

**S3-223119 KI#3 (Subscribe-Notify): Clarification of Editor's Note**

*Type: pCR For: Approval  
 33.875 v1.3.0  
 Source: Ericsson*

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

### 5.25 Study on Security Aspects of Satellite Access

**S3-222864 33.700-28: Draft Skeleton**

*Type: draft TR For: Approval  
 33.700-28 v0.0.1  
 Source: Xiaomi Technology*

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

**S3-222865 33.700-28: Scope**

*Type: pCR For: Approval  
 33.700-28 v0.0.1  
 Source: Xiaomi Technology*

**Decision:** The document was **revised to S3-223040**.

**S3-222866 33.700-28: Assumptions**

*Type: pCR For: Approval  
 33.700-28 v0.0.1  
 Source: Xiaomi Technology*

**Decision:** The document was **revised to S3-223041**.

**S3-222476 Key issue on security enhancement with discontinuous satellite coverage**

*Type: pCR For: Approval  
 33.700-28 v0.0.0  
 Source: Huawei, HiSilicon*

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

**S3-222581 Key issue on Security for Satellite Coverage Information provisioning**

*Type: pCR For: Approval  
 33.700-28 v0.0.0  
 Source: China Telecom Corporation Ltd.*

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

**S3-222867 33.700-28: New Key Issue on Protection of Satellite Coverage Information used by the UE**

*Type: pCR For: Approval  
 33.700-28 v0.0.1  
 Source: Xiaomi Technology*

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

**S3-222868 33.700-28: New Key Issue on Protection of Satellite Coverage Information used by 5GC/EPC**

*Type: pCR For: Approval  
 33.700-28 v0.0.1  
 Source: Xiaomi Technology*

**Decision:** The document was **revised to S3-223042**.

**S3-222898 New KI on AF authorization in Satellite access scenarios**

*Type: pCR For: Approval  
 33.700-28 v0.0.1  
 Source: Xiaomi Communication*

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

**S3-223040 33.700-28: Scope**

*Type: pCR For: Approval  
 33.700-28 v0.0.1  
 Source: Xiaomi Technology*

(Replaces S3-222865)

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

**S3-223041 33.700-28: Assumptions**

*Type: pCR For: Approval  
 33.700-28 v0.0.1  
 Source: Xiaomi Technology*

(Replaces S3-222866)

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

**S3-223042 33.700-28: New Key Issue on Protection of Satellite Coverage Information used by 5GC/EPC**

*Type: pCR For: Approval  
 33.700-28 v0.0.1  
 Source: Xiaomi Technology*

(Replaces S3-222868)

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

**S3-223043 Draft TR 33.700-28 v0.1.0**

*Type: draft TR For: Approval  
 33.700-28 v0.1.0  
 Source: Xiaomi Technology*

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

## 6 New Study/Work item proposals

## 7 CVD and research

## 8 Any Other Business

**S3-222452 Meeting notes from SA3 leadership**

*Type: report For: (not specified)  
 Source: MCC*

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

## Annex A: Contribution documents and status

### A1: List of TDocs

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Document | Title | Source | Decision | Replaces | Replaced by |
| S3-222450 | Agenda | SA WG3 Chair | approved |  |  |
| S3-222451 | Process for SA3#108e-AdHoc | SA WG3 Chair | noted |  |  |
| S3-222452 | Meeting notes from SA3 leadership | MCC | available |  |  |
| S3-222453 | Process and agenda planning for SA3#108e-AdHoc | SA WG3 Chair | noted |  |  |
| S3-222454 | Reply LS on authenticity and replay protection of system information | R2-2208985 | postponed |  |  |
| S3-222455 | LS on NCR Solutions | R3-225253 | replied to |  |  |
| S3-222456 | Reply LS on TNAP mobility security aspect | S2-2206999 | noted |  |  |
| S3-222457 | LS OUT to GSMA on the data and analytics exchange between two NWDAFs in different PLMNs | S2-2207142 | replied to |  | S3-223020 |
| S3-222458 | LS on how ML model integrity, confidentiality and availability is supported between NWDAFs from different vendors | S2-2207156 | replied to |  |  |
| S3-222459 | Reply LS on FS\_eEDGEAPP Solution for Support of NAT deployed within the edge | S2-2207394 | noted |  |  |
| S3-222460 | LS on protection of the URSP rules from HPLMN | S2-2207501 | postponed |  |  |
| S3-222461 | Questions for SUCI protection requirements for non-3GPP (WLAN) access to SNPN | S2-2207700 | postponed |  |  |
| S3-222462 | Reply LS on 5G ProSe security open items | S2-2207838 | noted |  |  |
| S3-222463 | Identifier availability for Lawful Interception during Inter-PLMN handover | s3i220485 | noted |  |  |
| S3-222464 | LS on FS\_eEDGEAPP Solution for Support of NAT deployed within the edge data network | S6-221953 | replied to |  |  |
| S3-222465 | Reply LS to OPAG\_34\_Doc\_07\_OPAG\_LS ETSI-3GPP-Network integration | S6-222337 | noted |  |  |
| S3-222466 | LS on Security Requirements for the MSGin5G Service | S6-222343 | replied to |  |  |
| S3-222467 | Forward on S6-222332, LS on Network federation interface for Telco edge consideration | S6-222543 | postponed |  |  |
| S3-222468 | Reply LS to Network federation interface for Telco edge consideration | S6-222557 | noted |  |  |
| S3-222469 | Requirement on TMGI protection | Huawei, HiSilicon | revised |  | S3-223092 |
| S3-222470 | Security threat and requirement in MOCN network sharing scenario | Huawei, HiSilicon | revised |  | S3-223093 |
| S3-222471 | Editorial change and addressing the editor's note in solution 7 | Huawei, HiSilicon | merged |  | S3-223087 |
| S3-222472 | Add evaluation to solution 7 | Huawei, HiSilicon | approved |  |  |
| S3-222473 | address the editor's note in key issue 1 | Huawei, HiSilicon | noted |  |  |
| S3-222474 | solutions on privacy protection for UEs in ranging | Huawei, HiSilicon | revised |  | S3-223094 |
| S3-222475 | Reply LS on authenticity and replay protection of system information | Huawei, HiSilicon | noted |  |  |
| S3-222476 | Key issue on security enhancement with discontinuous satellite coverage | Huawei, HiSilicon | noted |  |  |
| S3-222477 | New solution for protecting direct communication | Huawei, HiSilicon | noted |  |  |
| S3-222478 | New solution of security for the Ranging SL positioning device discovery | Huawei, HiSilicon | noted |  |  |
| S3-222479 | Update to Sol#1 in 33.891 | Huawei, HiSilicon | revised |  | S3-223095 |
| S3-222480 | New Key Issue on Security and privacy of switching between two indirect UE-to-Network Relay paths | Huawei, HiSilicon | noted |  |  |
| S3-222481 | New Key Issue on privacy of switching between direct Uu and indirect Layer-2 UE-to-Network Relay paths | Huawei, HiSilicon | noted |  |  |
| S3-222482 | New KI on security of U2NW multi-path connection | Huawei, HiSilicon | noted |  |  |
| S3-222483 | Update Key Issue 3 | Huawei, HiSilicon | noted |  |  |
| S3-222484 | New solution to KI#3 | Huawei, HiSilicon | noted |  |  |
| S3-222485 | New solution to address KI#1 | Huawei, HiSilicon | noted |  |  |
| S3-222486 | E2E solution in L3 Relay | Huawei, HiSilicon | noted |  |  |
| S3-222487 | E2E solution in L2 Relay | Huawei, HiSilicon | noted |  |  |
| S3-222488 | Add evaluation to solution#5 | Huawei, HiSilicon | noted |  |  |
| S3-222489 | address Editor's Note in solution#2 | Huawei, HiSilicon | revised |  | S3-223096 |
| S3-222490 | add evaluation to solution#2 | Huawei, HiSilicon | revised |  | S3-223097 |
| S3-222491 | New key issue on User Consent for AI/ML for Network Optimization | Huawei, HiSilicon | noted |  |  |
| S3-222492 | Key Issue Update on User Consent for NTN | Huawei, HiSilicon, Philips International B.V., Xiaomi, Qualcomm | noted |  |  |
| S3-222493 | New Solution on User Consent for Analytics Request from vPLMN | Huawei, HiSilicon | noted |  |  |
| S3-222494 | New Solution on unified User Consent Architecture for RAN features | Huawei, HiSilicon | noted |  |  |
| S3-222495 | Overview of UC3S\_Ph2 | Huawei, HiSilicon | noted |  |  |
| S3-222496 | New Solution on Obtain Resource Owner Authorization in API Invocation using OAuth Token | Huawei, HiSilicon | revised |  | S3-223098 |
| S3-222497 | New Solution based on Reusing Existing N3GPP Security for SNPN | Huawei, HiSilicon | noted |  |  |
| S3-222498 | New solution for KI #2 and #8 in NF certificate enrolment procedure | Huawei, HiSilicon | revised |  | S3-223099 |
| S3-222499 | New solution for KI #6 Relation between certificate management lifecycle and NF management lifecycle | Huawei, HiSilicon | revised |  | S3-223100 |
| S3-222500 | Solution on Reusing SBA for AI/ML model storage and sharing | Huawei, HiSilicon | noted |  |  |
| S3-222501 | Authentication mechanism selection between EEC and ECS | Huawei, HiSilicon | revised |  | S3-223101 |
| S3-222502 | Authentication and Authorization between V-ECS and H-ECS | Huawei, HiSilicon | revised |  | S3-223102 |
| S3-222503 | Transport security for the EDGE 10 interface | Huawei, HiSilicon | approved |  |  |
| S3-222504 | Evaluation of tenet 1 on resources | Huawei, HiSilicon | merged |  | S3-223075 |
| S3-222505 | Evaluation of tenet 2 on secure communication | Huawei, HiSilicon | merged |  | S3-222992 |
| S3-222506 | New solution to key issue 1 | Huawei, HiSilicon | revised |  | S3-223103 |
| S3-222507 | New KI on Authentication and Authorization between AC and EEC | Huawei, HiSilicon | revised |  | S3-223104 |
| S3-222508 | Authentication mechanism selection between EEC and EES | Huawei, HiSilicon | revised |  | S3-223105 |
| S3-222509 | Evaluate the Sol#1 in 33.891 | Huawei, HiSilicon | approved |  |  |
| S3-222510 | Update KI#1 | Huawei, HiSilicon | noted |  |  |
| S3-222511 | Update solution#2 | Huawei, HiSilicon | revised |  | S3-223106 |
| S3-222512 | Conclusion proposal for the study | Huawei, HiSilicon | revised |  | S3-223107 |
| S3-222513 | new solution on less impact on current using key | Huawei, HiSilicon | noted |  |  |
| S3-222514 | Solution on Authentication and Authorization between AC and EEC | Huawei, HiSilicon | noted |  |  |
| S3-222515 | Reply LS on Questions for SUCI Protection Requirements for Non-3GPP (WLAN) Access to SNPN | Huawei, HiSilicon | noted |  |  |
| S3-222516 | Solution on PINE authentication | Huawei, HiSilicon | revised |  | S3-223108 |
| S3-222517 | Evaluation of tenet 5 on security posture | Huawei, HiSilicon | merged |  | S3-223077 |
| S3-222518 | Reply LS on Data and Analytics Exchange between Two NWDAFs in Different PLMNs | Huawei, HiSilicon | merged |  | S3-223020 |
| S3-222519 | Reply LS on NCR Solutions | Huawei, HiSilicon | merged |  | S3-223080 |
| S3-222520 | New Key Issue on Security and privacy of path switching between PC5 and Uu | Huawei, HiSilicon | noted |  |  |
| S3-222521 | Addressing the EN of KI#1 | China Mobile | approved |  |  |
| S3-222522 | Addressing the EN in Solution#7 | China Mobile, Xiaomi | revised |  | S3-223087 |
| S3-222523 | Evaluation of Solution#7 | China Mobile, Xiaomi | noted |  |  |
| S3-222524 | Conclusion of key issue#2 | China Mobile, Xiaomi | approved |  |  |
| S3-222525 | reply LS on Security Requirements for the MSGin5G Service | China Mobile | approved |  |  |
| S3-222526 | Revision on key issue #1 | China moblie | revised |  | S3-223090 |
| S3-222527 | New solution on protection of data and analytics exchange in roaming case | China mobile | revised |  | S3-223091 |
| S3-222528 | solution\_for\_privacy\_KI#1 | China mobile | revised |  | S3-223017 |
| S3-222529 | New KI, solution and conclusion on Authorization between EESes | Huawei, HiSilicon | revised |  | S3-222951 |
| S3-222530 | New sol on Key issue #1.1: How to authorize PDU session to support local traffic routing to access an EHE in the VPLMN | Huawei, HiSilicon | approved |  |  |
| S3-222531 | Conclusion on Key issue #2.4: Transport security for the EDGE10 interface | Huawei, HiSilicon | approved |  |  |
| S3-222532 | Conclusion on KI#1 authentication of NRF/NFp in the indirect communication mode | Huawei, HiSilicon | noted |  |  |
| S3-222533 | Resolving ENs in Sol#15 | Huawei, HiSilicon | revised |  | S3-222953 |
| S3-222534 | Resolving ENs in Sol#12 | Huawei, HiSilicon | revised |  | S3-222954 |
| S3-222535 | Conclusion on KI#7 authorization mechanism determination | Huawei, HiSilicon | noted |  |  |
| S3-222536 | Resolving EN in Key issue #3 | Huawei, HiSilicon | noted |  |  |
| S3-222537 | New solution on boot time attestation at 3GPP function level | Huawei, HiSilicon | noted |  |  |
| S3-222538 | Add security requirement to KI on data channel | Huawei, HiSilicon | revised |  | S3-222955 |
| S3-222539 | EN removal of solution#2 | Huawei, HiSilicon | revised |  | S3-222956 |
| S3-222540 | New solution on SBA in IMS control plane | Huawei, HiSilicon | revised |  | S3-222957 |
| S3-222541 | Evaluation of solution #4 | Huawei, HiSilicon, Apple, Philips International B.V. | noted |  |  |
| S3-222542 | Evaluation of solution #25 | Huawei, HiSilicon, Philips International B.V. | noted |  |  |
| S3-222543 | Conclusion for KI#3 | Huawei, HiSilicon, Apple, Philips International B.V. | noted |  |  |
| S3-222544 | Update to solution #25 | Huawei, HiSilicon, Philips International B.V. | noted |  |  |
| S3-222545 | Update to KI#1 | Huawei, HiSilicon | noted |  |  |
| S3-222546 | New KI to protect slice related information sent to Home by roaming UE | Huawei, HiSilicon | noted |  |  |
| S3-222547 | New solution to KI#1 | Huawei, HiSilicon | noted |  |  |
| S3-222548 | New solution to KI#2 suporting temporary slice | Huawei, HiSilicon | noted |  |  |
| S3-222549 | New key issue with multiple NSACFs | Huawei, HiSilicon | revised |  | S3-222978 |
| S3-222550 | Update to KI#3 | Huawei, HiSilicon | noted |  |  |
| S3-222551 | Adding parameters to solution#6 | China Telecommunications | approved |  |  |
| S3-222552 | Security Event Logging for RAN AI/ML framework | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222553 | Solution for User Privacy of the RAN AI/ML framework | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222554 | Detecting sources of potential data poisoning attacks towards RAN AI-ML based network optimizations | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222555 | MOCN security handling for MBS | Nokia, Nokia Shanghai Bell | revised |  | S3-223123 |
| S3-222556 | TMGI protection during group Paging | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222557 | New Key issue for Detecting ranging triggered DoS attacks | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222558 | New Key issue for Updating security policy parameters on ranging device when it is out of 5G coverage | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222559 | New solution for privacy prevention of SUPI in NAI format | Nokia, Nokia Shanghai Bell | revised |  | S3-223124 |
| S3-222560 | Reply LS on the user consent for trace reporting | R3-225250 | postponed |  |  |
| S3-222561 | New solution to KI#1 using OAuth client credential grant | Nokia, Nokia Shanghai Bell | revised |  | S3-223055 |
| S3-222562 | Discussion paper – Need for LS to SA2 on PINE Identification | InterDigital, Inc. | noted |  |  |
| S3-222563 | LS on PINE identification | InterDigital, Inc. | noted |  |  |
| S3-222564 | Assumption on actors and attacker model | Lenovo | approved |  |  |
| S3-222565 | Update of KI#1 | Lenovo, Nokia, Nokia Shanghai Bell | revised |  | S3-222964 |
| S3-222566 | Evaluation of solution #2 | Lenovo | revised |  | S3-222968 |
| S3-222567 | New solution addressing KI#6 | Lenovo | noted |  |  |
| S3-222568 | Removal of Editor’s Notes of solution #6 | Lenovo | revised |  | S3-222960 |
| S3-222569 | Evaluation of solution #6 | Lenovo | approved |  |  |
| S3-222570 | PCR for KI #1: Privacy aspects of variable length user identifiers | InterDigital, Inc., Apple, AT&T, CableLabs, Convida Wireless, Deutsche Telekom, Ericsson, Intel, JHU, Google, Lenovo, Nokia, Oppo, Philips International B.V., US NIST, US NSA, Verizon, Xiaomi, ZTE | revised |  | S3-222927 |
| S3-222571 | New solution to KI#1 : EAP based PIN device authentication using AKMA | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222572 | New key issue on authentication and authorization for EDGE-9 reference point | InterDigital Communications | merged |  | S3-222951 |
| S3-222573 | New KI on provisioning information to PINE for authenticating and authorizing PINE connects to PEGC | vivo | noted |  |  |
| S3-222574 | New KI on verification of PIN communication configuration sent from PEGC to 5GC | vivo | noted |  |  |
| S3-222575 | New key issue on Federated Learning AIML model protection | InterDigital Communications | noted |  |  |
| S3-222576 | Solution for U2U relay (model A) discovery security | China Telecom Corporation Ltd. | revised |  | S3-222969 |
| S3-222577 | New solution for authentication and authorization of PINE | vivo | revised |  | S3-223012 |
| S3-222578 | New key issue on Federated Learning AIML model privacy protection | InterDigital Communications | noted |  |  |
| S3-222579 | Solution for U2U Relay (model B) discovery security | China Telecom Corporation Ltd. | noted |  |  |
| S3-222580 | Discussion paper for KI #1: Privacy aspects of variable length user identifiers | InterDigital, Inc., AT&T, CableLabs, Convida Wireless, Deutsche Telekom, JHU, Intel, Google, Lenovo, Nokia, Oppo, Philips International B.V., US NSA, Verizon, Xiaomi, ZTE | revised |  | S3-222928 |
| S3-222581 | Key issue on Security for Satellite Coverage Information provisioning | China Telecom Corporation Ltd. | noted |  |  |
| S3-222582 | KI for multi path relaying security | OPPO | noted |  |  |
| S3-222583 | New KI on AKMA Kaf refresh | OPPO | noted |  |  |
| S3-222584 | New solution to KI#1: Using secondary authentication for PIN elements | Nokia, Nokia Shanghai Bell | revised |  | S3-223056 |
| S3-222585 | Address the ENs in Sol #6 | OPPO | revised |  | S3-223116 |
| S3-222586 | New solution for Key issue #1 | InterDigital, Inc. | revised |  | S3-223045 |
| S3-222587 | Key issue on security of SNPN using AAA server for primary authentication | InterDigital Communications | noted |  |  |
| S3-222588 | New Key Issue on Potential Excessive Trust of NFs | China Telecom Corporation Ltd. | noted |  |  |
| S3-222589 | Discussion paper on new EAP based solution variants for KI#1 | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222590 | Update Solution#4 | InterDigital, Europe, Ltd. | revised |  | S3-222941 |
| S3-222591 | New solution: Restricted Discovery for Direct C2 | InterDigital, Europe, Ltd. | revised |  | S3-222942 |
| S3-222592 | Update TR 33.740 solution#1 | InterDigital, Europe, Ltd. | approved |  |  |
| S3-222593 | Update TR 33.740 solution#2 | InterDigital, Europe, Ltd. | revised |  | S3-222943 |
| S3-222594 | New Solution for Security of Layer-2 based UE-to-UE Relay | InterDigital, Europe, Ltd. | revised |  | S3-222944 |
| S3-222595 | New Solution for E2E Authentication with Layer-3 UE-to-UE Relay | InterDigital, Europe, Ltd. | revised |  | S3-222945 |
| S3-222596 | New Solution for Path Switching with Layer-2 UE-to-UE Relay | InterDigital, Europe, Ltd. | revised |  | S3-222946 |
| S3-222597 | Privacy Requirements for user privacy in RAN AI/ML framework | Qualcomm Finland RFFE Oy | merged |  | S3-223067 |
| S3-222598 | New Key Issue on user consent for Personally Identifiable Information used for Network Optimization | Qualcomm Finland RFFE Oy | noted |  |  |
| S3-222599 | Discussions on User Consent for Analytics Request in roaming scenarios | Qualcomm Finland RFFE Oy | noted |  |  |
| S3-222600 | Solution #4 – Evaluation and addressing EN | MITRE Corporation | revised |  | S3-222995 |
| S3-222601 | Solution #7 – Evaluation and addressing EN | MITRE Corporation | revised |  | S3-222997 |
| S3-222602 | KI on authorization of AF accessing th 5GC assistance information | OPPO, Xidian | revised |  | S3-222996 |
| S3-222603 | KI on authorization of UE accessing the 5GC analytic information | OPPO, Xidian | noted |  |  |
| S3-222604 | KI on securing application AIML data exchange between UE and AF | OPPO, Xidian | noted |  |  |
| S3-222605 | KI on securing provisioning of external parameters | OPPO, Xidian | noted |  |  |
| S3-222606 | KI on classification and protection of AIML data among 5GC AF and UE | OPPO, Xidian | revised |  | S3-222998 |
| S3-222607 | KI on user consent for 5GC provided assistance information | OPPO | noted |  |  |
| S3-222608 | Update KI#1 in AKMA roaming | OPPO | noted |  |  |
| S3-222609 | New KI on U2U relay protection of remote UE traffic | OPPO | revised |  | S3-222993 |
| S3-222610 | Solution for secure communication between source and target UEs via U2U relay | OPPO | noted |  |  |
| S3-222611 | New KI:the Authorization of Federated Learning Model Sharing | China Telecom Corporation Ltd. | noted |  |  |
| S3-222612 | New solution on AAnF discovery and selection for internal AF and NEF in AKMA roaming | OPPO | revised |  | S3-223126 |
| S3-222613 | Solution to indicate and validate the purpose of the certificate | Nokia, Nokia Shanghai Bell | revised |  | S3-223029 |
| S3-222614 | Solution based on OCSP Stapling addressing KI #5 & #6 | Nokia, Nokia Shanghai Bell | revised |  | S3-223030 |
| S3-222615 | Resolving EN in Solution #3 | Nokia, Nokia Shanghai Bell | approved |  | - |
| S3-222616 | Proposal to complement KI#3 | Nokia, Nokia Shanghai Bell | revised |  | S3-223028 |
| S3-222617 | Mapping of solutions to key issues | Nokia, Nokia Shanghai Bell | approved |  | - |
| S3-222618 | Discussion paper on Network Function identifiers | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222619 | CMPv2 profile for SBA | Nokia, Nokia Shanghai Bell | revised |  | S3-223032 |
| S3-222620 | Solution for ACM for network slicing | Nokia, Nokia Shanghai Bell | revised |  | S3-223031 |
| S3-222621 | Solution on secured and authorized AI/ML Model transfer and retrieval | Nokia, Nokia Shanghai Bell | revised |  | S3-223021 |
| S3-222622 | Resolving ENs in Solution #5 | Nokia, Nokia Shanghai Bell | revised |  | S3-223024 |
| S3-222623 | Resolving ENs (step 9) in Solution #3 | Nokia, Nokia Shanghai Bell | approved |  | - |
| S3-222624 | Resolving EN in Solution #6 | Nokia, Nokia Shanghai Bell | approved |  | - |
| S3-222625 | Resolving EN (step 1) in Solution #3 | Nokia, Nokia Shanghai Bell | revised |  | S3-223023 |
| S3-222626 | LS on the data and analytics exchange between two NWDAFs in different PLMNs | Nokia, Nokia Shanghai Bell | revised |  | S3-223020 |
| S3-222627 | Draft Reply LS on NCR Solutions | ZTE Corporation,China Mobile | revised |  | S3-223080 |
| S3-222628 | Add terms and abbreviations to TR 33.740 | ZTE Corporation | approved |  |  |
| S3-222629 | Key issue on Subscription synchronization between PAnF and UDM | ZTE Corporation | noted |  |  |
| S3-222630 | Key issue on Support direct communication path switching between PC5 and Uu | ZTE Corporation | noted |  |  |
| S3-222631 | Solution on Subscription synchronization between PAnF and UDM | ZTE Corporation | noted |  |  |
| S3-222632 | SUPI padding solution on Key issue #1 | China Southern Power Grid Co., Ltd, ZTE Corporation | revised |  | S3-223085 |
| S3-222633 | Discussion on the need and usecases for Kaf update | ZTE Corporation | noted |  |  |
| S3-222634 | Modify the scope of TR 33.737 | ZTE Corporation | approved |  | - |
| S3-222635 | New KI on the Kaf refresh | ZTE Corporation | noted |  |  |
| S3-222636 | Address EN and add evaluation for solution 3 | ZTE Corporation | revised |  | S3-223082 |
| S3-222637 | Address EN and add evaluation for solution 4 | ZTE Corporation | revised |  | S3-223083 |
| S3-222638 | Conclusion for KI#1 | ZTE Corporation | noted |  |  |
| S3-222639 | New solution about the roaming AKMA architecture of the AF in Data Network | ZTE Corporation | revised |  | S3-223084 |
| S3-222640 | update the Key issue of AKMA roaming | ZTE Corporation | noted |  |  |
| S3-222641 | update to solution #1 | ZTE Corporation | noted |  |  |
| S3-222642 | update to solution #2 | ZTE Corporation | noted |  |  |
| S3-222643 | update to solution #5 | ZTE Corporation | noted |  |  |
| S3-222644 | update to solution #6 | ZTE Corporation | noted |  |  |
| S3-222645 | Add some context to assumptions to TR 33.882 | ZTE Corporation | approved |  |  |
| S3-222646 | Key issue on secure data transfer between PEGC PEMC and PIN NF | ZTE Corporation | noted |  |  |
| S3-222647 | Soultion for secure data transfer between PEGC PEMC and PIN NF | ZTE Corporation | noted |  |  |
| S3-222648 | Clean up to TR 33.882 | ZTE Corporation | approved |  |  |
| S3-222649 | New KI on the Security of Network Slice Service continuity | ZTE Corporation | noted |  |  |
| S3-222650 | Update KI#1 providing VPLMN slice information to roaming UE | ZTE Corporation | noted |  |  |
| S3-222651 | New KI on the UE authentication for access to hosting network | ZTE Corporation | merged |  | S3-223118 |
| S3-222652 | New KI on the user authentication for access to hosting network | ZTE Corporation | noted |  |  |
| S3-222653 | New KI on User consent for application layer AIML operation | ZTE Corporation | noted |  |  |
| S3-222654 | Reply LS on the User Consent for Trace Reportings | Huawei, HiSilicon | noted |  |  |
| S3-222655 | 5GFBS - Mapping of solutions and key issues | Apple | revised |  | S3-223125 |
| S3-222656 | MEC- update to key issue#2 on adding security protection on negotiation messages | Apple | noted |  |  |
| S3-222657 | MEC - New key issue on AF specific identifier | Apple | noted |  |  |
| S3-222658 | MEC- Editorial updating on solution#7 | Apple | approved |  |  |
| S3-222659 | MEC- Addressing the EN#1 in solution#7 | Apple | noted |  |  |
| S3-222660 | MEC- Addressing the EN#2 in solution#7 | Apple | revised |  | S3-222984 |
| S3-222661 | MEC- New solution on Authentication in roaming architecture | Apple | noted |  |  |
| S3-222662 | AKMA roaming architecture | Apple | revised |  | S3-222985 |
| S3-222663 | Updates to Key Issue #2 | Johns Hopkins University APL, US National Security Agency, InterDigital, Apple, CableLabs | withdrawn |  |  |
| S3-222664 | Updates to Key Issue #2 | Johns Hopkins University APL, US National Security Agency, InterDigital, Apple, CableLabs | revised |  | S3-222991 |
| S3-222665 | ProSe - Update solution #10 (EN1) | Philips International B.V. | approved |  |  |
| S3-222666 | ProSe - Update solution #10 (EN2) | Philips International B.V. | approved |  |  |
| S3-222667 | ProSe - Update solution #10 (EN3) | Philips International B.V. | revised |  | S3-222947 |
| S3-222668 | ProSe - New solution KI#2 and #3 | Philips International B.V. | revised |  | S3-222948 |
| S3-222669 | UC - New solution NTN | Philips International B.V. | noted |  |  |
| S3-222670 | Ranging - New solution KI#1, #2, #3 | Philips International B.V. | noted |  |  |
| S3-222671 | Ranging - Update Key Issue #1- privacy risks of exposing positioning reference signals | Philips International B.V. | noted |  |  |
| S3-222672 | PIN - New solution KI#1 | Philips International B.V. | revised |  | S3-222949 |
| S3-222673 | PrivID - New Key Issue | Philips International B.V. | noted |  |  |
| S3-222674 | AKMA - New solution for AKMA roaming | Philips International B.V. | revised |  | S3-222950 |
| S3-222675 | Self-Secure Network Slice | US National Security Agency, MITRE, Cable Labs, InterDigital, Charter Communications, AT&T, Apple, CISA/ECD | noted |  |  |
| S3-222676 | ZT Tenet 7 | US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS | revised |  | S3-223079 |
| S3-222677 | Protection of Sidelink IDs | US National Security Agency, MITRE, Cable Labs, Charter Communications, AT&T, Apple, CISA/ECD | noted |  |  |
| S3-222678 | ZT Tenet 6 | US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS | revised |  | S3-223078 |
| S3-222679 | ZT Tenet 1 | US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS | revised |  | S3-223075 |
| S3-222680 | ZT Tenet 5 | US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS | revised |  | S3-223077 |
| S3-222681 | ZT Tenet 3 | US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS | revised |  | S3-223076 |
| S3-222682 | ZT Tenet 4 | US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS | noted |  |  |
| S3-222683 | Address EN on PACF and MANO Communication | Johns Hopkins University APL, US National Security Agency, CISA ECD | noted |  |  |
| S3-222684 | Address EN on verifying attestation results for NRF and PACF | Johns Hopkins University APL, US National Security Agency, CISA ECD | noted |  |  |
| S3-222685 | Resolving ENs in solution 6.16 | CableLabs | noted |  |  |
| S3-222686 | Resolving ENs in solution 6.13 | CableLabs | noted |  |  |
| S3-222687 | Addressing the editor’s note in 6.27.2.1.1 of Sol#27 | CableLabs | noted |  |  |
| S3-222688 | Addressing EN on NR Repeater in 6.27.2.2.4 of Sol#27 | CableLabs | noted |  |  |
| S3-222689 | Addressing the editor’s note in 6.27.2.2.1of Sol#27 | CableLabs, Deutsche Telekom, Philips International B.V. | noted |  |  |
| S3-222690 | EAP base authentication for AUN3 devices behind RG in PLMN | CableLabs | revised |  | S3-223007 |
| S3-222691 | EAP base authentication for AUN3 devices behind RG in SNPN | CableLabs | revised |  | S3-223008 |
| S3-222692 | EAP base authentication for AUN3 devices behind RG in SNPN by AAA | CableLabs | revised |  | S3-223009 |
| S3-222693 | Key issue on authentication of AUN3 device not supporting EAP | CableLabs | noted |  |  |
| S3-222694 | Solution on UDM initiated primary authentication based on AAnF request for Kaf refresh scenario | BUPT, China Mobile | revised |  | S3-223019 |
| S3-222695 | Solution on AUSF initiated primary authentication based on AAnF request for Kaf refresh scenario | BUPT, China Mobile | noted |  |  |
| S3-222696 | New solution on Key issue #1 | China Telecom Corporation Ltd. | revised |  | S3-223014 |
| S3-222697 | Discussion paper of KAF refresh without primary reauthentication | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222698 | Key issue on KAF refresh without primary reauthentication and its feasibility | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222699 | Solution on Kaf refresh without primary authentication UA\* | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222700 | Solution on Kaf refresh without primary authentication AAnF | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222701 | solution 1 updates for internal AF | Nokia, Nokia Shanghai Bell | approved |  |  |
| S3-222702 | solution 1 updates for external AF | Nokia, Nokia Shanghai Bell | revised |  | S3-222938 |
| S3-222703 | conclusion for KI2 | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222704 | solution 1 updates | Nokia, Nokia Shanghai Bell | revised |  | S3-222934 |
| S3-222705 | Key issue on Security criteria of UE selection for AIML | Nokia, Nokia Shanghai Bell, IDCC | noted |  |  |
| S3-222706 | Key issue on securing AIML operation | Nokia, Nokia Shanghai Bell, IDCC, OPPO, Verizon | noted |  |  |
| S3-222707 | Key issue on AF authorization for AIML operations | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222708 | Key issue on authorization of UE accessing the 5G analytics | Nokia, Nokia Shanghai Bell, IDCC, OPPO, Verizon | noted |  |  |
| S3-222709 | Discussion paper of WWC SID update for TNAP mobility | Nokia, Nokia Shanghai Bell, Lenovo, Apple | noted |  |  |
| S3-222710 | New SID on Security aspects for 5WWC Phase 2 | Nokia, Nokia Shanghai Bell, Lenovo,Cablelabs, Charter Communications, Apple | noted |  |  |
| S3-222711 | New KI on TNAP mobility | Nokia, Nokia Shanghai Bell, Lenovo, Apple | revised |  | S3-222935 |
| S3-222712 | Conclusion for KI2 | Nokia, Nokia Shanghai Bell | revised |  | S3-222936 |
| S3-222713 | Conclusion for KI3 | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222714 | KI1 update | Nokia, Nokia Shanghai Bell, Cablelabs | revised |  | S3-222937 |
| S3-222715 | Solution 1 enhancement for EN removal on key derivation | Nokia, Nokia Shanghai Bell | revised |  | S3-222939 |
| S3-222716 | Solution 1 enhancement for EN removal on privacy | Nokia, Nokia Shanghai Bell | revised |  | S3-222940 |
| S3-222717 | Updates to solution 9 | Intel | revised |  | S3-223006 |
| S3-222718 | Update on the solution #5 | LG Electronics France | approved |  |  |
| S3-222719 | New solution for AKMA roaming scenario | LG Electronics France | approved |  |  |
| S3-222720 | Evaluation of Tenet #1 | Lenovo, US NSA | merged |  | S3-223075 |
| S3-222721 | Evaluation of Tenet #2 | Lenovo, US NSA | revised |  | S3-222992 |
| S3-222722 | Evaluation of Tenet #3 | Lenovo, US NSA | merged |  | S3-223076 |
| S3-222723 | pCR to TR33.740 Centralized discovery key management and U2U relay authorization | CATT | revised |  | S3-223051 |
| S3-222724 | Evaluation of Tenet #4 | Lenovo, US NSA | noted |  |  |
| S3-222725 | Evaluation of Tenet #5 | Lenovo, US NSA | merged |  | S3-223077 |
| S3-222726 | pCR to TR33.740 Distributed discovery key management and U2U relay authorization | CATT | revised |  | S3-223052 |
| S3-222727 | Evaluation of Tenet #6 | Lenovo, US NSA | merged |  | S3-223078 |
| S3-222728 | Evaluation of Tenets #7 | Lenovo, US NSA | merged |  | S3-223079 |
| S3-222729 | pCR to TR33.740 Solution for U2U Relay discovery message security | CATT | noted |  |  |
| S3-222730 | Evaluation of Tenets and current security mechanisms | Lenovo, US NSA | revised |  | S3-222994 |
| S3-222731 | pCR to TR33.740 Solution for UE-to-UE relay security | CATT | revised |  | S3-223053 |
| S3-222732 | Key Issue on Need for continuous security monitoring and Trust evaluation | Lenovo, Nokia, Nokia Shanghai Bell, Rakuten Mobile Inc., Interdigital, US NSA, Motorola Solutions, Johns Hopkins University APL, Intel, Center for Internet Security, China Mobile, ZTE, CableLabs | revised |  | S3-222999 |
| S3-222733 | Anomalous NF behaviour event related data collection and anomalous NF | Lenovo | revised |  | S3-223001 |
| S3-222734 | Cyber attack detection using NWDAF | Lenovo | noted |  |  |
| S3-222735 | Reply LS on the data and analytics exchange between two NWDAFs in different PLMNs | CATT | merged |  | S3-223020 |
| S3-222736 | Evaluation for Solution #2 | Lenovo | approved |  |  |
| S3-222737 | Resolving Editors Notes in Solution 8 | Lenovo | revised |  | S3-223002 |
| S3-222738 | Evaluation for Solution #8 | Lenovo | revised |  | S3-223003 |
| S3-222739 | Solution to enable HN triggered Primary Authentication with AUSF | Lenovo | noted |  |  |
| S3-222740 | Updates to OCSP revocation Procedure | Intel | merged |  | S3-223048 |
| S3-222741 | Update Security Requirements to Key issue 1 | Intel | noted |  |  |
| S3-222742 | Key Issue on Authentication for access to localized services | Lenovo | merged |  | S3-223118 |
| S3-222743 | Authenticate and authorize UE in UE originated API invocation | Lenovo | revised |  | S3-223004 |
| S3-222744 | Solution to Cyber Attack Detection | Intel | noted |  |  |
| S3-222745 | Update to KI#1 Providing VPLMN slice information to roaming UE | Lenovo | noted |  |  |
| S3-222746 | draft-Reply LS on FS\_eEDGEAPP Solution for Support of NAT deployed within the edge data network | Intel | revised |  | S3-223018 |
| S3-222747 | Updates to solution 2: remove EN E2E protection | Intel | noted |  |  |
| S3-222748 | Updates to solution 2: remove EN Authorization | Intel | revised |  | S3-223015 |
| S3-222749 | Updates to solution 2: remove EN key management | Intel | revised |  | S3-223016 |
| S3-222750 | Proposal for an evaluation to solution #2 | Nokia, Nokia Shanghai Bell | revised |  | S3-223073 |
| S3-222751 | Proposal for a KI on injection of authentication data | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222752 | Discussion paper on a way forward for LS on protection of the URSP rules from HPLM | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222753 | Reply to LS on protection of the URSP rules from HPLMN | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222754 | Proposed key issue on the privacy of 3GPP identifiers used to transport Broadcast Remote ID | Qualcomm Incorporated | noted |  |  |
| S3-222755 | Proposed key issue on the privacy of 3GPP identifiers used to transport broadcasted DAA traffic | Qualcomm Incorporated | approved |  |  |
| S3-222756 | Proposed solution on the privacy of 3GPP identifiers used to transport broadcast remote ID | Qualcomm Incorporated | noted |  |  |
| S3-222757 | Proposed solution on the privacy of 3GPP identifiers used to transport DAA traffic | Qualcomm Incorporated | revised |  | S3-223128 |
| S3-222758 | Proposed resolution of EN on mixing traffic in solution #3 | Qualcomm Incorporated | approved |  |  |
| S3-222759 | Making solution #3 resolve key issues #4 and #5 | Qualcomm Incorporated | approved |  |  |
| S3-222760 | Proposed resolution of the ENs in solution #5 | Qualcomm Incorporated | approved |  |  |
| S3-222761 | Proposed resolution of some ENs in solution #2 | Qualcomm Incorporated | merged |  | S3-222957 |
| S3-222762 | An update on the evaluation of solution #4 | Qualcomm Incorporated | revised |  | S3-223010 |
| S3-222763 | A new solution for UE-to-UE Relay discovery message protection for Model A discovery | Qualcomm Incorporated | noted |  |  |
| S3-222764 | A new solution for UE-to-UE Relay discovery message protection for Model B discovery | Qualcomm Incorporated | noted |  |  |
| S3-222765 | A new solution for secure PC5 link establishment for UE-to-UE Relay | Qualcomm Incorporated | noted |  |  |
| S3-222766 | SUCI protection for non-3GPP (WLAN) access to SNPN | Qualcomm Incorporated | noted |  |  |
| S3-222767 | Applicability of SUPI Type IMSI in KI#1 | Qualcomm Incorporated | merged |  | S3-223044 |
| S3-222768 | Addition of threats due to EAP in KI#1 | Qualcomm Incorporated | merged |  | S3-223044 |
| S3-222769 | Solution for KI#1 | Qualcomm Incorporated | revised |  | S3-223011 |
| S3-222770 | Padding-based solution to the leakage of the length of SUPI through SUCI | Ericsson LM | withdrawn |  |  |
| S3-222771 | Hash-based solution to the leakage of the length of SUPI through SUCI | Ericsson LM | withdrawn |  |  |
| S3-222772 | Service requirements related to the security for providing localized services | Ericsson | noted |  |  |
| S3-222773 | New Key Issue "Authentication for UE access to hosting network" | Ericsson, Intel, Nokia, Nokia Shanghai Bell, ZTE | revised |  | S3-223118 |
| S3-222774 | Addressing Note in TR 23.700-08 on credentials provisioning | Ericsson | noted |  |  |
| S3-222775 | Communication security and subscriber privacy for access to localized services, alternative 1 | Ericsson | noted |  |  |
| S3-222776 | Communication security and subscriber privacy for access to localized services, alternative 2 | Ericsson | noted |  |  |
| S3-222777 | New Key Issue on authorization of UE access to the hosting network for providing localized services | Ericsson | noted |  |  |
| S3-222778 | KI#3 (Subscribe-Notify): Clarification of Editor's Note | Ericsson | noted |  | - |
| S3-222779 | KI#3 (Subscribe-Notify): Removing EN and providing evaluation for Solution #12 | Ericsson | merged |  | S3-222954 |
| S3-222780 | KI#3 (Subscribe-Notify): Removing EN and providing evaluation for Solution #15 | Ericsson | merged |  | S3-222953 |
| S3-222781 | KI#3 (Subscribe-Notify): Analysis and conclusion | Ericsson | noted |  |  |
| S3-222782 | Solution for KI#12 Different SEPP Type requirements | Ericsson | noted |  |  |
| S3-222783 | [DRAFT] Reply LS on the data and analytics exchange between two NWDAFs in different PLMNs | Ericsson | withdrawn |  |  |
| S3-222784 | [DRAFT] Reply LS on how ML model integrity, confidentiality and availability is supported between NWDAFs from different vendors | Ericsson | withdrawn |  |  |
| S3-222785 | Update KI#2: Authorization of selection of participant NWDAF instances in the Federated Learning group | Ericsson | withdrawn |  |  |
| S3-222786 | Modification to KI details of the KI #2 | Ericsson LM | withdrawn |  |  |
| S3-222787 | [DRAFT] Reply LS on the data and analytics exchange between two NWDAFs in different PLMNs | Ericsson | merged |  | S3-223020 |
| S3-222788 | [DRAFT] Reply LS on how ML model integrity, confidentiality and availability is supported between NWDAFs from different vendors | Ericsson | revised |  | S3-223117 |
| S3-222789 | Update KI#2: Authorization of selection of participant NWDAF instances in the Federated Learning group | Ericsson | approved |  |  |
| S3-222790 | Solution to address KI#1 | Lenovo | revised |  | S3-223005 |
| S3-222791 | Deleting step 8 and EN about End-to-end IP security in solution #3 | Ericsson | approved |  |  |
| S3-222792 | New KI: Support for Emergency service over UE-to-Network Relaying | Ericsson | noted |  |  |
| S3-222793 | Support Emergency Service over UE-to-Network Relay | Ericsson | noted |  |  |
| S3-222794 | Resolve some ENs for Solution3 | Ericsson | approved |  |  |
| S3-222795 | Resolve EN for PC5 link setup between U2U and Target UE in Solution3 | Ericsson | revised |  | S3-222986 |
| S3-222796 | Resolve some ENs for Solution4 | Ericsson | approved |  |  |
| S3-222797 | Resolve EN for protection of DCR in Solution4 | Ericsson | revised |  | S3-222987 |
| S3-222798 | Deleting step 10 and EN about End-to-end IP security in solution #4 | Ericsson | approved |  |  |
| S3-222799 | Resolve EN for Token Provision in Solution4 | Ericsson | approved |  |  |
| S3-222800 | Resolve EN for same credentials used for both in-coverage and out-of-coverage mode in Solution 3 | Ericsson | revised |  | S3-222989 |
| S3-222801 | [DRAFT] Reply LS on NCR solutions | Ericsson | merged |  | S3-223080 |
| S3-222802 | Editiorial updates to 33875-130 | Nokia, Nokia Shanghai Bell | approved |  |  |
| S3-222803 | Abbreviations | Nokia, Nokia Shanghai Bell | approved |  |  |
| S3-222804 | Trust in standalone SCP | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222805 | Extend trust in inter-PLMN | Nokia, Nokia Shanghai Bell | revised |  | S3-222962 |
| S3-222806 | KI1 analysis on NFp authentication in indirect comm | Nokia, Nokia Shanghai Bell | revised |  | S3-222967 |
| S3-222807 | KI3 EN resolution on requirements for subscribe notify | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222808 | KI3 EN resolution in sol12 | Nokia, Nokia Shanghai Bell | merged |  | S3-222954 |
| S3-222809 | KI4 Sol SCP authorization check by NRF | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222810 | KI6 EN resolution Sol7 | Nokia, Nokia Shanghai Bell | revised |  | S3-222975 |
| S3-222811 | KI7 Sol17 EN resolution | Nokia, Nokia Shanghai Bell | revised |  | S3-222976 |
| S3-222812 | KI7 conclusion | Nokia, Nokia Shanghai Bell | revised |  | S3-222977 |
| S3-222813 | KI9 solution 18 update | Nokia, Nokia Shanghai Bell | approved |  |  |
| S3-222814 | KI9 Sol11 EN resolution | Nokia, Nokia Shanghai Bell | approved |  |  |
| S3-222815 | KI10 Clarification on securing remote RHUB and SEPP discovery | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222816 | KI10 Solution for securing remote RHUB and SEPP discovery | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222817 | KI10 Update of Sol20 RHUB PRINS | Nokia, Nokia Shanghai Bell | approved |  |  |
| S3-222818 | UC3S User consent checking by roaming partner NF | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222819 | UC3S Central authorization function for user consent | Nokia, Nokia Shanghai Bell | revised |  | S3-223132 |
| S3-222820 | Padding-based solution to the leakage of the length of SUPI through SUCI | Ericsson LM | revised |  | S3-223065 |
| S3-222821 | Hash-based solution to the leakage of the length of SUPI through SUCI | Ericsson LM | revised |  | S3-223066 |
| S3-222822 | Modification to KI details of the KI #2 | Ericsson LM | merged |  | S3-222991 |
| S3-222823 | A solution for UE authentication method negotiation | Ericsson | revised |  | S3-223046 |
| S3-222824 | A solution for authentication of UE and GPSI verification by EES/ECS | Ericsson | revised |  | S3-222834 |
| S3-222825 | A solution for authentication of EEC/UE and GPSI verification by EES/ECS | Ericsson | revised |  | S3-223047 |
| S3-222826 | [DRAFT] LS on automated certificate management | Ericsson | noted |  |  |
| S3-222827 | Clarification for unknown revocation status | Ericsson | revised |  | S3-223048 |
| S3-222828 | Proposal of CMP profiling for SBA | Ericsson | merged |  | S3-223032 |
| S3-222829 | A new solution of building initial trust for NF certificate enrolment | Ericsson | revised |  | S3-223049 |
| S3-222830 | update to KI#1 providing VPLMN slice information to roaming UE | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222831 | add solution for KI#1 | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222832 | update to KI#3 network slice admission control | Nokia, Nokia Shanghai Bell | merged |  | S3-222978 |
| S3-222833 | add new key issue for path switching | Nokia, Nokia Shanghai Bell | noted |  |  |
| S3-222834 | A solution for authentication of UE and GPSI verification by EES/ECS | Ericsson | revised | S3-222824 | S3-223050 |
| S3-222835 | Update Key issue #2: Security aspects of Data Channel usage in IMS network | Ericsson | merged |  | S3-222955 |
| S3-222836 | Update solution#1 | Ericsson | revised |  | S3-222932 |
| S3-222837 | Key Issue on KAF refresh | Samsung | noted |  |  |
| S3-222838 | New solution on AKMA KAF refresh | Samsung | noted |  |  |
| S3-222839 | New solution on AKMA Roaming | Samsung | revised |  | S3-223057 |
| S3-222840 | Solution on analytics for DoS attack detection | Samsung | noted |  |  |
| S3-222841 | Resolving EN and adding evaluation for solution#9 | Samsung | revised |  | S3-223058 |
| S3-222842 | Resolving EN and adding evaluation for solution#6 | Samsung | revised |  | S3-223059 |
| S3-222843 | Conclusion on KI#1 | Samsung | noted |  |  |
| S3-222844 | Key Issue for secure ProSe multi-path transmission for UE-to-Network relay | Samsung | noted |  |  |
| S3-222845 | Solution for ProSe multipath transmission for redundant PDUs | Samsung | noted |  |  |
| S3-222846 | New Solution for end-to-end security establishment over the UE-to-UE Relay | Samsung | revised |  | S3-223060 |
| S3-222847 | Resolving EN and evaluation of solution#3 (TR 33.739) | Samsung | revised |  | S3-223061 |
| S3-222848 | Resolving EN and evaluation of solution#4 (TR 33.739) | Samsung | revised |  | S3-223062 |
| S3-222849 | Authorization of V-ECS in roaming scenario | Samsung | revised |  | S3-223063 |
| S3-222850 | Reply LS on authenticity and replay protection of system information | Samsung, Deutsche Telekom | noted |  |  |
| S3-222851 | Updates to Solution#7 SI verification using Digital Signatures | Samsung, Apple, Deutsche Telekom | noted |  |  |
| S3-222852 | Resolving EN of solution#7 (TR 33.809) | Samsung, Apple, Deutsche Telekom | noted |  |  |
| S3-222853 | Conclusion for key issue#2 | Samsung, Intel, Apple, Deutsche Telekom | noted |  |  |
| S3-222854 | New Solution on User Authorization in API Invocation | Samsung | noted |  |  |
| S3-222855 | Updates to KI on MOCN scenario | Samsung | merged |  | S3-223093 |
| S3-222856 | Solution on MBS protection for MOCN deployments | Samsung | revised |  | S3-223064 |
| S3-222857 | 33.893: Terminology Alignment | Xiaomi Technology | revised |  | S3-223037 |
| S3-222858 | 33.893: Additional Roles for Authorization in KI#2 | Xiaomi Technology | noted |  |  |
| S3-222859 | 33.893: Solution on Application Server Authorization for KI#2 | Xiaomi Technology | merged |  | S3-223112 |
| S3-222860 | 33.893: Solution on 5GC NF Authorization for KI#2 | Xiaomi Technology | revised |  | S3-223034 |
| S3-222861 | 33.893: Solution on Subscription-based Authorization of the Role of the UE during Discovery | Xiaomi Technology | revised |  | S3-223035 |
| S3-222862 | 33.893: Solution on Token-based Authorization of the Role of the UE during Discovery | Xiaomi Technology | noted |  |  |
| S3-222863 | 33.893: Solution on Direct Communication Security for SL Positioning Service | Xiaomi Technology | revised |  | S3-223036 |
| S3-222864 | 33.700-28: Draft Skeleton | Xiaomi Technology | approved |  |  |
| S3-222865 | 33.700-28: Scope | Xiaomi Technology | revised |  | S3-223040 |
| S3-222866 | 33.700-28: Assumptions | Xiaomi Technology | revised |  | S3-223041 |
| S3-222867 | 33.700-28: New Key Issue on Protection of Satellite Coverage Information used by the UE | Xiaomi Technology | noted |  |  |
| S3-222868 | 33.700-28: New Key Issue on Protection of Satellite Coverage Information used by 5GC/EPC | Xiaomi Technology | revised |  | S3-223042 |
| S3-222869 | 33.896: Resolve the ENs in Solutions #1 and #2 | Xiaomi Technology | revised |  | S3-223039 |
| S3-222870 | 33.896: Solution on Obtaining User Consent with Mobility in RAN for KI#2 | Xiaomi Technology | noted |  |  |
| S3-222871 | 33.896: Solution on Obtaining User Consent with Mobility in SN for KI#2 | Xiaomi Technology | noted |  |  |
| S3-222872 | Update to solution #7 and remove the Editor’s Note | Beijing Xiaomi Mobile Software | revised |  | S3-223109 |
| S3-222873 | Update to solution #8 in TR 33.740 | Beijing Xiaomi Mobile Software | noted |  |  |
| S3-222874 | Update to solution #9 in TR 33.740 | Beijing Xiaomi Mobile Software | noted |  |  |
| S3-222875 | New solution on Network-assisted Security Establishment Procedure for 5G ProSe Layer-3 UE-to-UE Relay | Beijing Xiaomi Mobile Software | revised |  | S3-223110 |
| S3-222876 | New solution on Security Establishment Procedure for 5G ProSe Layer-2 UE-to-UE Relay | Beijing Xiaomi Mobile Software | revised |  | S3-223111 |
| S3-222877 | Key Issue on security of multi-path transmission for UE-to-Network Relay | Beijing Xiaomi Mobile Software | noted |  |  |
| S3-222878 | New solution on GMLC based authorization for Ranging/SL Positioning services | Beijing Xiaomi Mobile Software | revised |  | S3-223112 |
| S3-222879 | New solution on Token based Authorization for Network assisted sidelink positioning services | Beijing Xiaomi Mobile Software | revised |  | S3-223113 |
| S3-222880 | Update to solution #7 and resolve the ENs on use case and counter wrap around reason | Beijing Xiaomi Mobile Software | approved |  |  |
| S3-222881 | Evaluation of solution #7 in TR 33.741 | Beijing Xiaomi Mobile Software | revised |  | S3-223114 |
| S3-222882 | Reply LS on User consent for roaming case in eNA | Beijing Xiaomi Mobile Software | merged |  | S3-223020 |
| S3-222883 | New solution on User Consent for UE Data Exposure to HPLMN in the Roaming case | Beijing Xiaomi Mobile Software | noted |  |  |
| S3-222884 | New solution on User Consent for UE Data Exposure to VPLMN in the Roaming case | Beijing Xiaomi Mobile Software | noted |  |  |
| S3-222885 | New solution on Modification or Revocation of User Consent for eNA in the Roaming case | Beijing Xiaomi Mobile Software | noted |  |  |
| S3-222886 | Update to KI#1 in TR 33.877 | Beijing Xiaomi Mobile Software | merged |  | S3-223067 |
| S3-222887 | KI 2.3 2.4, New Sol on authentication and authorization between V-ECS and H-ECS | Xiaomi Communication | merged |  | S3-223102 |
| S3-222888 | Resolve ENs in Sol #1 and Sol #2 | Xiaomi Communication | approved |  | - |
| S3-222889 | Resolve EN in Sol #5 | Xiaomi Communication | noted |  |  |
| S3-222890 | New KI on UE authentication and authorization in hosting network scenarios | Xiaomi Communication | merged |  | S3-223118 |
| S3-222891 | KI1, New Sol on Authentication mechanism for trusted non-3GPP Access in NPN scenarios | Xiaomi Communication | revised |  | S3-222961 |
| S3-222892 | KI1, New Sol on Authentication mechanism for untrusted non-3GPP Access in NPN scenarios | Xiaomi Communication | revised |  | S3-222965 |
| S3-222893 | KI1, New Sol on Authentication for devices not supporting 5GC NAS over WLAN access in NPN scenarios | Xiaomi Communication | revised |  | S3-222990 |
| S3-222894 | Update KI #2 Secure provisioning of PIN policies | Xiaomi Communication | noted |  |  |
| S3-222895 | Update KI #1 Secure PINE authorization | Xiaomi Communication | noted |  |  |
| S3-222896 | KI 2, New Sol on CAPIF based PIN AF authorization | Xiaomi Communication | noted |  |  |
| S3-222897 | KI 1, New Sol on EAP-based PINE authentication | Xiaomi Communication | revised |  | S3-222974 |
| S3-222898 | New KI on AF authorization in Satellite access scenarios | Xiaomi Communication | noted |  |  |
| S3-222899 | Update KI1 providing VPLMN slice information to roaming UE | Xiaomi Communication | noted |  |  |
| S3-222900 | KI1, New Sol Confidentiality and integrity protection for UE initiated capability indication procedure | Xiaomi Communication | noted |  |  |
| S3-222901 | KI1, New Sol Secure mechanism for network triggered UE capability indication procedure | Xiaomi Communication | noted |  |  |
| S3-222902 | Protection of URSP rules from HPLMN | Ericsson | noted |  |  |
| S3-222903 | Draft LS reply Protection of URSP rules from HPLMN | Ericsson | noted |  |  |
| S3-222904 | New solution for KI#1: Use of anonymous SUCI in trusted non-3GPP access | Ericsson | revised |  | S3-222931 |
| S3-222905 | New structure for requirements | NTT DOCOMO | revised |  | S3-222963 |
| S3-222906 | pCR to TR 33.884 new solution on UE authentication | NTT DOCOMO | revised |  | S3-222966 |
| S3-222907 | pCR to TR 33.884 new solution on non resourceowner UE authorization | NTT DOCOMO | noted |  |  |
| S3-222908 | draft LS on SNAAPP requirements clarifications | NTT DOCOMO | revised |  | S3-222970 |
| S3-222909 | draft LS reply on CAPIF authorization roles related to FS\_SNAAPP | NTT DOCOMO | revised |  | S3-222972 |
| S3-222910 | Alignment of 3GPP’s 5G Security to the first NIST Tenet of ZTA | Ericsson | merged |  | S3-223075 |
| S3-222911 | Alignment of 3GPP’s 5G Security to the second NIST Tenet of ZTA | Ericsson LM | merged |  | S3-222992 |
| S3-222912 | Content for the scope clause of the technical report | Ericsson | approved |  |  |
| S3-222913 | New Key issue on the security of the information transfer of the RAN AI/ML framework | Ericsson | noted |  |  |
| S3-222914 | Updates to KI#1 User Privacy of the RAN AI/ML framework | Ericsson | revised |  | S3-223067 |
| S3-222915 | New Key issue on the robustness of the RAN AI/ML framework against data poisoning attacks | Ericsson | revised |  | S3-223068 |
| S3-222916 | Discussion about KAF refresh | Ericsson | endorsed |  |  |
| S3-222917 | New solution for KAF lifetime | Ericsson | noted |  |  |
| S3-222918 | Updates to the architectural assumptions clause | Ericsson | revised |  | S3-223069 |
| S3-222919 | Discussion about the way forward for the Home Network triggered authentication | Ericsson | noted |  |  |
| S3-222920 | New solution for Home Network triggered primary authentication | Ericsson | revised |  | S3-223070 |
| S3-222921 | New solution for KI#2: max lifetime for KAF | Ericsson | noted |  |  |
| S3-222922 | New solution for delegated Home Network controlled primary authentication | Ericsson | revised |  | S3-223071 |
| S3-222923 | Evaluation of the need to address the HONTRA use cases | Ericsson | noted |  |  |
| S3-222924 | Alignment of 3GPP’s 5G Security to the third NIST Tenet of ZTA | Ericsson LM | merged |  | S3-223076 |
| S3-222925 | Guiding principles for determining the applicability for user consent | Ericsson | noted |  |  |
| S3-222926 | AKMA roaming with AF outside VPLMN | THALES | revised |  | S3-222933 |
| S3-222927 | PCR for KI #1: Privacy aspects of variable length user identifiers | InterDigital, Inc., Apple, AT&T, CableLabs, Convida Wireless, Deutsche Telekom, Ericsson, Intel, JHU, Google, Lenovo, Nokia, NCSC, Oppo, Philips International B.V., US NIST, US NSA, Verizon, Xiaomi, ZTE | revised | S3-222570 | S3-223044 |
| S3-222928 | Discussion paper for KI #1: Privacy aspects of variable length user identifiers | InterDigital, Inc., AT&T, CableLabs, Convida Wireless, Deutsche Telekom, JHU, Intel, Google, Lenovo, Nokia, NCSC, Oppo, Philips International B.V., US NSA, Verizon, Xiaomi, ZTE | noted | S3-222580 |  |
| S3-222929 | Use of authorization tokens at PC5 security establishment | Ericsson | merged |  | S3-223113 |
| S3-222930 | Reply to: LS on Network federation interface for Telco edge consideration | Huawei Technologies Japan K.K. | noted |  |  |
| S3-222931 | New solution for KI#1: Use of anonymous SUCI in trusted non-3GPP access | Ericsson | approved | S3-222904 |  |
| S3-222932 | Update solution#1 | Ericsson | approved | S3-222836 |  |
| S3-222933 | AKMA roaming with AF outside VPLMN | THALES | approved | S3-222926 |  |
| S3-222934 | solution 1 updates | Nokia, Nokia Shanghai Bell | approved | S3-222704 |  |
| S3-222935 | New KI on TNAP mobility | Nokia, Nokia Shanghai Bell, Lenovo, Apple, CableLabs | approved | S3-222711 |  |
| S3-222936 | Conclusion for KI2 | Nokia, Nokia Shanghai Bell, CableLabs | approved | S3-222712 |  |
| S3-222937 | KI1 update | Nokia, Nokia Shanghai Bell, CableLabs | approved | S3-222714 |  |
| S3-222938 | solution 1 updates for external AF | Nokia, Nokia Shanghai Bell | approved | S3-222702 |  |
| S3-222939 | Solution 1 enhancement for EN removal on key derivation | Nokia, Nokia Shanghai Bell, CableLabs | approved | S3-222715 |  |
| S3-222940 | Solution 1 enhancement for EN removal on privacy | Nokia, Nokia Shanghai Bell, CableLabs | approved | S3-222716 |  |
| S3-222941 | Update Solution#4 | InterDigital, Europe, Ltd. | approved | S3-222590 |  |
| S3-222942 | New solution: Restricted Discovery for Direct C2 | InterDigital, Europe, Ltd. | approved | S3-222591 |  |
| S3-222943 | Update TR 33.740 solution#2 | InterDigital, Europe, Ltd. | approved | S3-222593 |  |
| S3-222944 | New Solution for Security of Layer-2 based UE-to-UE Relay | InterDigital, Europe, Ltd. | approved | S3-222594 |  |
| S3-222945 | New Solution for E2E Authentication with Layer-3 UE-to-UE Relay | InterDigital, Europe, Ltd. | approved | S3-222595 |  |
| S3-222946 | New Solution for Path Switching with Layer-2 UE-to-UE Relay | InterDigital, Europe, Ltd. | approved | S3-222596 |  |
| S3-222947 | ProSe - Update solution #10 (EN3) | Philips International B.V. | approved | S3-222667 |  |
| S3-222948 | ProSe - New solution KI#2 and #3 | Philips International B.V. | approved | S3-222668 |  |
| S3-222949 | PIN - New solution KI#1 | Philips International B.V. | approved | S3-222672 |  |
| S3-222950 | AKMA - New solution for AKMA roaming | Philips International B.V. | approved | S3-222674 |  |
| S3-222951 | New KI, solution and conclusion on Authorization between EESes | Huawei, HiSilicon, , InterDigital, Ericsson | approved | S3-222529 |  |
| S3-222952 | Draft TR 33.739 v0.3.0 | Huawei, HiSilicon | approved |  |  |
| S3-222953 | Resolving ENs in Sol#15 | Huawei, HiSilicon | approved | S3-222533 |  |
| S3-222954 | Resolving ENs in Sol#12 | Huawei, HiSilicon, Nokia, Nokia Shanghai Bell, Ericsson | approved | S3-222534 |  |
| S3-222955 | Add security requirement to KI on data channel | Huawei, HiSilicon | approved | S3-222538 |  |
| S3-222956 | EN removal of solution#2 | Huawei, HiSilicon | approved | S3-222539 |  |
| S3-222957 | New solution on SBA in IMS control plane | Huawei, HiSilicon | approved | S3-222540 |  |
| S3-222958 | Draft TR 33.890 v0.3.0 | Huawei, HiSilicon | approved |  |  |
| S3-222959 | Resolve ENs in Sol #1 and Sol #2 | Xiaomi Communication | withdrawn | - |  |
| S3-222960 | Removal of Editor’s Notes of solution #6 | Lenovo | approved | S3-222568 |  |
| S3-222961 | KI1, New Sol on Authentication mechanism for trusted non-3GPP Access in NPN scenarios | Xiaomi Communication | approved | S3-222891 |  |
| S3-222962 | Extend trust in inter-PLMN | Nokia, Nokia Shanghai Bell | approved | S3-222805 |  |
| S3-222963 | New structure for requirements | NTT DOCOMO | approved | S3-222905 |  |
| S3-222964 | Update of KI#1 | Lenovo, Nokia, Nokia Shanghai Bell | approved | S3-222565 |  |
| S3-222965 | KI1, New Sol on Authentication mechanism for untrusted non-3GPP Access in NPN scenarios | Xiaomi Communication | approved | S3-222892 |  |
| S3-222966 | pCR to TR 33.884 new solution on UE authentication | NTT DOCOMO | noted | S3-222906 |  |
| S3-222967 | KI1 analysis on NFp authentication in indirect comm | Nokia, Nokia Shanghai Bell | approved | S3-222806 |  |
| S3-222968 | Evaluation of solution #2 | Lenovo | approved | S3-222566 |  |
| S3-222969 | Solution for U2U relay (model A) discovery security | China Telecom Corporation Ltd. | approved | S3-222576 |  |
| S3-222970 | draft LS on SNAAPP requirements clarifications | NTT DOCOMO | approved | S3-222908 |  |
| S3-222971 | KI1, New Sol on Authentication for devices not supporting 5GC NAS over WLAN access in NPN scenarios | Xiaomi Communication | withdrawn | - |  |
| S3-222972 | draft LS reply on CAPIF authorization roles related to FS\_SNAAPP | NTT DOCOMO | approved | S3-222909 |  |
| S3-222973 | Resolving ENs in Sol#12 | Huawei, HiSilicon | withdrawn | - |  |
| S3-222974 | KI 1, New Sol on EAP-based PINE authentication | Xiaomi Communications | approved | S3-222897 |  |
| S3-222975 | KI6 EN resolution Sol7 | Nokia, Nokia Shanghai Bell | approved | S3-222810 |  |
| S3-222976 | KI7 Sol17 EN resolution | Nokia, Nokia Shanghai Bell | approved | S3-222811 |  |
| S3-222977 | KI7 conclusion | Nokia, Nokia Shanghai Bell | approved | S3-222812 |  |
| S3-222978 | New key issue with multiple NSACFs | Huawei, HiSilicon, Nokia, Nokia Shanghai Bell | approved | S3-222549 |  |
| S3-222979 | Draft TR 33.886 for eNS3 | Huawei Technologies (Korea) | approved |  |  |
| S3-222980 | draft TR 33.884 0.2.0 | NTT DOCOMO INC. | approved |  |  |
| S3-222981 | TR 33.875-140 eSBA Security | Nokia, Nokia Shanghai Bell | approved |  |  |
| S3-222982 | New solution: AAnF discovery and selection for internal AF in AKMA roaming | OPPO | withdrawn | - |  |
| S3-222983 | Address the ENs in Sol #6 | OPPO | withdrawn | - |  |
| S3-222984 | MEC- Addressing the EN#2 in solution#7 | Apple | approved | S3-222660 |  |
| S3-222985 | AKMA roaming architecture | Apple | approved | S3-222662 |  |
| S3-222986 | Resolve EN for PC5 link setup between U2U and Target UE in Solution3 | Ericsson | approved | S3-222795 |  |
| S3-222987 | Resolve EN for protection of DCR in Solution4 | Ericsson | approved | S3-222797 |  |
| S3-222988 | draft TR33.809 | Apple Computer Trading Co. Ltd | approved |  |  |
| S3-222989 | Resolve EN for same credentials used for both in-coverage and out-of-coverage mode in Solution 3 | Ericsson | approved | S3-222800 |  |
| S3-222990 | KI1, New Sol on Authentication for devices not supporting 5GC NAS over WLAN access in NPN scenarios | Xiaomi Communication | approved | S3-222893 |  |
| S3-222991 | Updates to Key Issue #2 | Johns Hopkins University APL, US National Security Agency, InterDigital, Apple, CableLabs | approved | S3-222664 |  |
| S3-222992 | Evaluation of Tenet #2 | Lenovo, US National Security Agency, Ericsson, Huawei, HiSilicon | approved | S3-222721 |  |
| S3-222993 | New KI on U2U relay protection of remote UE traffic | OPPO | approved | S3-222609 |  |
| S3-222994 | Evaluation of Tenets and current security mechanisms | Lenovo, US National Security Agency | approved | S3-222730 |  |
| S3-222995 | Solution #4 – Evaluation and addressing EN | MITRE Corporation | approved | S3-222600 |  |
| S3-222996 | KI on authorization of AF accessing th 5GC assistance information | OPPO, Xidian, Nokia, Nokia Shanghai Bell | approved | S3-222602 |  |
| S3-222997 | Solution #7 – Evaluation and addressing EN | MITRE Corporation | approved | S3-222601 |  |
| S3-222998 | KI on classification and protection of AIML data among 5GC AF and UE | OPPO, Xidian | approved | S3-222606 |  |
| S3-222999 | Key Issue on Need for continuous security monitoring and Trust evaluation | Lenovo, Nokia, Nokia Shanghai Bell, Rakuten Mobile Inc., Interdigital, US National Security Agency, Motorola Solutions, Johns Hopkins University APL, Intel, Center for Internet Security, China Mobile, ZTE, CableLabs | approved | S3-222732 |  |
| S3-223000 | draft TR 33.898 | OPPO | approved |  |  |
| S3-223001 | Anomalous NF behaviour event related data collection and anomalous NF | Lenovo | approved | S3-222733 |  |
| S3-223002 | Resolving Editors Notes in Solution 8 | Lenovo | approved | S3-222737 |  |
| S3-223003 | Evaluation for Solution #8 | Lenovo | approved | S3-222738 |  |
| S3-223004 | Authenticate and authorize UE in UE originated API invocation | Lenovo | approved | S3-222743 |  |
| S3-223005 | Solution to address KI#1 | Lenovo | approved | S3-222790 |  |
| S3-223006 | Updates to solution 9 | Intel | approved | S3-222717 |  |
| S3-223007 | EAP base authentication for AUN3 devices behind RG in PLMN | CableLabs, Nokia, Nokia Shanghai Bell | approved | S3-222690 |  |
| S3-223008 | EAP base authentication for AUN3 devices behind RG in SNPN | CableLabs, Nokia, Nokia Shanghai Bell | approved | S3-222691 |  |
| S3-223009 | EAP base authentication for AUN3 devices behind RG in SNPN by AAA | CableLabs,Nokia, Nokia Shanghai Bell | approved | S3-222692 |  |
| S3-223010 | An update on the evaluation of solution #4 | Qualcomm Incorporated | approved | S3-222762 |  |
| S3-223011 | Solution for KI#1 | Qualcomm Incorporated | approved | S3-222769 |  |
| S3-223012 | New solution for authentication and authorization of PINE | vivo | approved | S3-222577 |  |
| S3-223013 | TR 33.882 v0.3.0 Study on personal IoT networks security aspects | vivo | approved |  |  |
| S3-223014 | New solution on Key issue #1 | China Telecom Corporation Ltd. | approved | S3-222696 |  |
| S3-223015 | Updates to solution 2: remove EN Authorization | Intel | approved | S3-222748 |  |
| S3-223016 | Updates to solution 2: remove EN key management | Intel | approved | S3-222749 |  |
| S3-223017 | solution\_for\_privacy\_KI#1 | China mobile | approved | S3-222528 |  |
| S3-223018 | Reply LS on FS\_eEDGEAPP Solution for Support of NAT deployed within the edge data network | Intel | approved | S3-222746 |  |
| S3-223019 | Solution on UDM initiated primary authentication based on AAnF request for Kaf refresh scenario | BUPT, China Mobile | approved | S3-222694 |  |
| S3-223020 | LS on the data and analytics exchange between two NWDAFs in different PLMNs | Nokia, Nokia Shanghai Bell | approved | S3-222626 |  |
| S3-223021 | Solution on secured and authorized AI/ML Model transfer and retrieval | Nokia, Nokia Shanghai Bell | approved | S3-222621 |  |
| S3-223022 | Resolving ENs (step 9) in Solution #3 | Nokia, Nokia Shanghai Bell | withdrawn | - |  |
| S3-223023 | Resolving EN (step 1) in Solution #3 | Nokia, Nokia Shanghai Bell | approved | S3-222625 |  |
| S3-223024 | Resolving ENs in Solution #5 | Nokia, Nokia Shanghai Bell | approved | S3-222622 |  |
| S3-223025 | Resolving EN in Solution #6 | Nokia, Nokia Shanghai Bell | withdrawn | - |  |
| S3-223026 | Mapping of solutions to key issues | Nokia, Nokia Shanghai Bell | withdrawn | - |  |
| S3-223027 | Resolving EN in Solution #3 | Nokia, Nokia Shanghai Bell | withdrawn | - |  |
| S3-223028 | Proposal to complement KI#3 | Nokia, Nokia Shanghai Bell | approved | S3-222616 |  |
| S3-223029 | Solution to indicate and validate the purpose of the certificate | Nokia, Nokia Shanghai Bell | approved | S3-222613 |  |
| S3-223030 | Solution based on OCSP Stapling addressing KI #5 & #6 | Nokia, Nokia Shanghai Bell | approved | S3-222614 |  |
| S3-223031 | Solution for ACM for network slicing | Nokia, Nokia Shanghai Bell | approved | S3-222620 |  |
| S3-223032 | CMPv2 profile for SBA | Nokia, Nokia Shanghai Bell | approved | S3-222619 |  |
| S3-223033 | Draft TR 33.876 Study on Standardising Automated Certificate Management in SBA | Nokia Germany | approved |  |  |
| S3-223034 | 33.893: Solution on 5GC NF Authorization for KI#2 | Xiaomi Technology | approved | S3-222860 |  |
| S3-223035 | 33.893: Solution on Subscription-based Authorization of the Role of the UE during Discovery | Xiaomi Technology | approved | S3-222861 |  |
| S3-223036 | 33.893: Solution on Direct Communication Security for SL Positioning Service | Xiaomi Technology | approved | S3-222863 |  |
| S3-223037 | 33.893: Terminology Alignment | Xiaomi Technology | approved | S3-222857 |  |
| S3-223038 | Draft TR 33.893 v0.3.0 | Xiaomi Technology | approved |  |  |
| S3-223039 | 33.896: Resolve the ENs in Solutions #1 and #2 | Xiaomi Technology | approved | S3-222869 |  |
| S3-223040 | 33.700-28: Scope | Xiaomi Technology | approved | S3-222865 |  |
| S3-223041 | 33.700-28: Assumptions | Xiaomi Technology | approved | S3-222866 |  |
| S3-223042 | 33.700-28: New Key Issue on Protection of Satellite Coverage Information used by 5GC/EPC | Xiaomi Technology | approved | S3-222868 |  |
| S3-223043 | Draft TR 33.700-28 v0.1.0 | Xiaomi Technology | approved |  |  |
| S3-223044 | PCR for KI #1: Privacy aspects of variable length user identifiers | InterDigital, Inc., Apple, AT&T, CableLabs, Convida Wireless, Deutsche Telekom, Ericsson, Intel, JHU, Google, Lenovo, Nokia, NCSC, NTT DOCOMO, Oppo, Philips International B.V., Qualcomm Incorporated, US NIST, US NSA, Verizon, Xiaomi, ZTE | approved | S3-222927 |  |
| S3-223045 | New solution for Key issue #1 | InterDigital, Inc. | approved | S3-222586 |  |
| S3-223046 | A solution for UE authentication method negotiation | Ericsson | approved | S3-222823 |  |
| S3-223047 | A solution for authentication of EEC/UE and GPSI verification by EES/ECS | Ericsson | approved | S3-222825 |  |
| S3-223048 | Clarification for unknown revocation status | Ericsson, Intel | approved | S3-222827 |  |
| S3-223049 | A new solution of building initial trust for NF certificate enrolment | Ericsson | approved | S3-222829 |  |
| S3-223050 | A solution for authentication of UE and GPSI verification by EES/ECS | Ericsson | approved | S3-222834 |  |
| S3-223051 | pCR to TR33.740 Centralized discovery key management and U2U relay authorization | CATT | approved | S3-222723 |  |
| S3-223052 | pCR to TR33.740 Distributed discovery key management and U2U relay authorization | CATT | approved | S3-222726 |  |
| S3-223053 | pCR to TR33.740 Solution for UE-to-UE relay security | CATT | approved | S3-222731 |  |
| S3-223054 | TR 33.740 v0.3.0 Study on security aspects of Proximity Based Services (ProSe) in 5G System (5GS) phase 2 | CATT | approved |  |  |
| S3-223055 | New solution to KI#1 using OAuth client credential grant | Nokia, Nokia Shanghai Bell | approved | S3-222561 |  |
| S3-223056 | New solution to KI#1: Using secondary authentication for PIN elements | Nokia, Nokia Shanghai Bell | approved | S3-222584 |  |
| S3-223057 | New solution on AKMA Roaming | Samsung | approved | S3-222839 |  |
| S3-223058 | Resolving EN and adding evaluation for solution#9 | Samsung | approved | S3-222841 |  |
| S3-223059 | Resolving EN and adding evaluation for solution#6 | Samsung | approved | S3-222842 |  |
| S3-223060 | New Solution for end-to-end security establishment over the Layer-3 UE-to-UE Relay | Samsung | approved | S3-222846 |  |
| S3-223061 | Resolving EN and evaluation of solution#3 (TR 33.739) | Samsung | approved | S3-222847 |  |
| S3-223062 | Resolving EN and evaluation of solution#4 (TR 33.739) | Samsung | approved | S3-222848 |  |
| S3-223063 | Authorization of V-ECS in roaming scenario | Samsung | approved | S3-222849 |  |
| S3-223064 | Solution on MBS protection for MOCN deployments | Samsung | approved | S3-222856 |  |
| S3-223065 | Padding-based solution to the leakage of the length of SUPI through SUCI | Ericsson LM | approved | S3-222820 |  |
| S3-223066 | Hash-based solution to the leakage of the length of SUPI through SUCI | Ericsson LM | approved | S3-222821 |  |
| S3-223067 | Updates to KI#1 User Privacy of the RAN AI/ML framework | Ericsson, Qualcomm Inc, Xiaomi, Huawei | approved | S3-222914 |  |
| S3-223068 | New Key issue on the robustness of the RAN AI/ML framework against data poisoning attacks | Ericsson | approved | S3-222915 |  |
| S3-223069 | Updates to the architectural assumptions clause | Ericsson | approved | S3-222918 |  |
| S3-223070 | New solution for Home Network triggered primary authentication | Ericsson | approved | S3-222920 |  |
| S3-223071 | New solution for delegated Home Network controlled primary authentication | Ericsson, Lenovo | approved | S3-222922 |  |
| S3-223072 | TR33848 v0140 | BT plc | approved |  |  |
| S3-223073 | Proposal for an evaluation to solution #1 | Nokia, Nokia Shanghai Bell | approved | S3-222750 |  |
| S3-223074 | Draft TR 33.877 v0.3.0 Study on the security aspects of Artificial Intelligence (AI)/Machine Learning (ML) for the NG-RAN | Ericsson España S.A. | approved |  |  |
| S3-223075 | ZT Tenet 1 | US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS | revised | S3-222679 | S3-223134 |
| S3-223076 | ZT Tenet 3 | US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS | revised | S3-222681 | S3-223135 |
| S3-223077 | ZT Tenet 5 | US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS | approved | S3-222680 |  |
| S3-223078 | ZT Tenet 6 | US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS | approved | S3-222678 |  |
| S3-223079 | ZT Tenet 7 | US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS | approved | S3-222676 |  |
| S3-223080 | Draft Reply LS on NCR Solutions | ZTE Corporation,China Mobile | approved | S3-222627 |  |
| S3-223081 | TR 33.883 for 5MBS security | Huawei, HiSilicon | approved |  |  |
| S3-223082 | Address EN and add evaluation for solution 3 | ZTE Corporation | approved | S3-222636 |  |
| S3-223083 | Address EN and add evaluation for solution 4 | ZTE Corporation | approved | S3-222637 |  |
| S3-223084 | New solution about the roaming AKMA architecture of the AF in Data Network | ZTE Corporation | approved | S3-222639 |  |
| S3-223085 | SUPI padding solution on Key issue #1 | China Southern Power Grid Co., Ltd, ZTE Corporation | approved | S3-222632 |  |
| S3-223086 | Modify the scope of TR 33.737 | ZTE Corporation | withdrawn | - |  |
| S3-223087 | Addressing the EN in Solution#7 | China Mobile, Xiaomi | approved | S3-222522 |  |
| S3-223088 | draft TR 33.737 | China Mobile | withdrawn |  |  |
| S3-223089 | draft TR 33.737 | China Mobile | approved |  |  |
| S3-223090 | Revision on key issue #1 | China moblie | approved | S3-222526 |  |
| S3-223091 | New solution on protection of data and analytics exchange in roaming case | China mobile | approved | S3-222527 |  |
| S3-223092 | Requirement on TMGI protection | Huawei, HiSilicon | approved | S3-222469 |  |
| S3-223093 | Security threat and requirement in MOCN network sharing scenario | Huawei, HiSilicon, Samsung, Nokia, Nokia Shanghai Bell | approved | S3-222470 |  |
| S3-223094 | solutions on privacy protection for UEs in ranging | Huawei, HiSilicon | approved | S3-222474 |  |
| S3-223095 | Update to Sol#1 in 33.891 | Huawei, HiSilicon | approved | S3-222479 |  |
| S3-223096 | address Editor's Note in solution#2 | Huawei, HiSilicon | approved | S3-222489 |  |
| S3-223097 | add evaluation to solution#2 | Huawei, HiSilicon | approved | S3-222490 |  |
| S3-223098 | New Solution on Resource Owner Authorization in API Invocation using OAuth Token | Huawei, HiSilicon | approved | S3-222496 |  |
| S3-223099 | New solution for KI #2 and #8 in NF certificate enrolment procedure | Huawei, HiSilicon | approved | S3-222498 |  |
| S3-223100 | New solution for KI #6 Relation between certificate management lifecycle and NF management lifecycle | Huawei, HiSilicon | approved | S3-222499 |  |
| S3-223101 | Authentication mechanism selection between EEC and ECS | Huawei, HiSilicon | approved | S3-222501 |  |
| S3-223102 | Authentication and Authorization between V-ECS and H-ECS | Huawei, HiSilicon,Xiaomi | approved | S3-222502 |  |
| S3-223103 | New solution to key issue 1 | Huawei, HiSilicon | approved | S3-222506 |  |
| S3-223104 | New KI on Authentication and Authorization between AC and EEC | Huawei, HiSilicon | approved | S3-222507 |  |
| S3-223105 | Authentication mechanism selection between EEC and EES | Huawei, HiSilicon | approved | S3-222508 |  |
| S3-223106 | Update solution#2 | Huawei, HiSilicon | approved | S3-222511 |  |
| S3-223107 | Conclusion proposal for the study | Huawei, HiSilicon, Xiaomi, SAMSUNG, Qualcomm, Deutsche Telekom, Intel | noted | S3-222512 |  |
| S3-223108 | Solution on PINE authentication | Huawei, HiSilicon | approved | S3-222516 |  |
| S3-223109 | Update to solution #7 and remove the Editor’s Note | Beijing Xiaomi Mobile Software | approved | S3-222872 |  |
| S3-223110 | New solution on Network-assisted Security Establishment Procedure for 5G ProSe Layer-3 UE-to-UE Relay | Beijing Xiaomi Mobile Software | approved | S3-222875 |  |
| S3-223111 | New solution on Security Establishment Procedure for 5G ProSe Layer-2 UE-to-UE Relay | Beijing Xiaomi Mobile Software | approved | S3-222876 |  |
| S3-223112 | New solution on GMLC based authorization for Ranging/SL Positioning services | Beijing Xiaomi Mobile Software | approved | S3-222878 |  |
| S3-223113 | New solution on Token based Authorization for Network assisted sidelink positioning services | Beijing Xiaomi Mobile Software | approved | S3-222879 |  |
| S3-223114 | Evaluation of solution #7 in TR 33.741 | Beijing Xiaomi Mobile Software | approved | S3-222881 |  |
| S3-223115 | draft TR 33.738 0.3.0 | China Mobile Group Device Co. | approved |  |  |
| S3-223116 | Address the ENs in Sol #6 | OPPO | approved | S3-222585 |  |
| S3-223117 | Reply LS on how ML model integrity, confidentiality and availability is supported between NWDAFs from different vendors | Ericsson | approved | S3-222788 |  |
| S3-223118 | New Key Issue "Authentication for UE access to hosting network" | Ericsson, Intel, Nokia, Nokia Shanghai Bell, ZTE, Xiaomi, Lenovo | approved | S3-222773 |  |
| S3-223119 | KI#3 (Subscribe-Notify): Clarification of Editor's Note | Ericsson | withdrawn | - |  |
| S3-223120 | draft TR 33.858 v0.2.0 (Study on security aspects of enhanced support of Non-Public Networks phase 2) | Ericsson | approved |  |  |
| S3-223121 | draft TR 33.894 v0.3.0 | Lenovo | approved |  |  |
| S3-223122 | Draft TR 33.892 V0.3.0 | Lenovo | approved |  |  |
| S3-223123 | MOCN security handling for MBS | Nokia, Nokia Shanghai Bell | approved | S3-222555 |  |
| S3-223124 | New solution for privacy prevention of SUPI in NAI format | Nokia, Nokia Shanghai Bell | approved | S3-222559 |  |
| S3-223125 | 5GFBS - Mapping of solutions and key issues | Apple | approved | S3-222655 |  |
| S3-223126 | New solution on AAnF discovery and selection for internal AF in AKMA roaming | OPPO | approved | S3-222612 |  |
| S3-223127 | Draft TR 33.887 v0.3.0 Study on Security aspects for 5WWC Phase 2 | Nokia Solutions & Networks (I) | approved |  |  |
| S3-223128 | Proposed solution on the privacy of 3GPP identifiers used to transport DAA traffic | Qualcomm Incorporated | approved | S3-222757 |  |
| S3-223129 | Draft TR 33.891 | Qualcomm Incorporated | approved | - |  |
| S3-223130 | TR 33.896v030 | Huawei, HiSilicon | approved |  |  |
| S3-223131 | TR 33.741v030 | Huawei, HiSilicon | approved |  |  |
| S3-223132 | UC3S Central authorization function for user consent | Nokia, Nokia Shanghai Bell | approved | S3-222819 |  |
| S3-223133 | TR 33.870 v040 | InterDigital, Inc. | approved |  |  |
| S3-223134 | ZT Tenet 1 | US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS,Ericsson, Nokia | approved | S3-223075 | - |
| S3-223135 | ZT Tenet 3 | US National Security Agency, NIST, CISA ECD, Lenovo, CableLabs, InterDigital, AT&T, Johns Hopkins University APL, CIS, Nokia, Ericsson | approved | S3-223076 | - |

### A2: Tdoc decision timing

|  |  |  |
| --- | --- | --- |
| Document | Date/time UTC | Decision |
| S3-222450 | 19/10/2022 13:29:26 | approved |
| S3-222451 | 19/10/2022 13:29:29 | noted |
| S3-222453 | 19/10/2022 13:29:34 | noted |
| S3-222454 | 19/10/2022 14:22:33 | postponed |
| S3-222455 | 19/10/2022 13:33:50 | available |
| S3-222456 | 20/10/2022 09:33:18 | noted |
| S3-222457 | 19/10/2022 15:33:23 | available |
| S3-222458 | 19/10/2022 15:33:43 | available |
| S3-222459 | 19/10/2022 16:15:06 | noted |
| S3-222460 | 19/10/2022 13:37:10 | postponed |
| S3-222461 | 20/10/2022 09:38:04 | postponed |
| S3-222462 | 19/10/2022 14:27:51 | noted |
| S3-222463 | 19/10/2022 13:37:36 | noted |
| S3-222464 | 19/10/2022 16:15:11 | noted |
| S3-222465 | 19/10/2022 16:15:15 | noted |
| S3-222466 | 19/10/2022 13:38:27 | available |
| S3-222467 | 11/10/2022 15:47:13 | replied to |
| S3-222467 | 19/10/2022 16:15:20 | postponed |
| S3-222468 | 19/10/2022 16:15:26 | noted |
| S3-222471 | 19/10/2022 15:10:43 | available |
| S3-222472 | 19/10/2022 15:10:48 | approved |
| S3-222473 | 20/10/2022 09:44:35 | noted |
| S3-222475 | 19/10/2022 14:22:42 | noted |
| S3-222476 | 20/10/2022 14:41:11 | noted |
| S3-222477 | 20/10/2022 09:46:04 | noted |
| S3-222478 | 20/10/2022 09:46:01 | noted |
| S3-222480 | 19/10/2022 14:27:51 | noted |
| S3-222481 | 19/10/2022 14:27:57 | noted |
| S3-222482 | 19/10/2022 14:27:58 | noted |
| S3-222483 | 20/10/2022 09:32:37 | noted |
| S3-222484 | 20/10/2022 09:32:44 | noted |
| S3-222485 | 20/10/2022 09:31:49 | noted |
| S3-222486 | 19/10/2022 14:28:46 | noted |
| S3-222487 | 19/10/2022 14:28:51 | noted |
| S3-222488 | 19/10/2022 14:55:14 | noted |
| S3-222491 | 20/10/2022 14:30:03 | noted |
| S3-222492 | 20/10/2022 14:30:14 | noted |
| S3-222493 | 20/10/2022 14:30:32 | noted |
| S3-222494 | 20/10/2022 14:30:51 | noted |
| S3-222495 | 20/10/2022 14:33:52 | noted |
| S3-222497 | 20/10/2022 09:37:00 | noted |
| S3-222500 | 19/10/2022 15:36:01 | noted |
| S3-222503 | 19/10/2022 16:13:42 | approved |
| S3-222504 | 20/10/2022 09:48:04 | available |
| S3-222505 | 20/10/2022 09:49:17 | available |
| S3-222509 | 20/10/2022 09:43:06 | approved |
| S3-222510 | 19/10/2022 15:19:58 | noted |
| S3-222513 | 19/10/2022 15:20:01 | noted |
| S3-222514 | 19/10/2022 16:15:06 | noted |
| S3-222515 | 20/10/2022 09:38:18 | noted |
| S3-222517 | 20/10/2022 09:52:43 | available |
| S3-222518 | 19/10/2022 15:35:10 | available |
| S3-222519 | 19/10/2022 13:34:12 | available |
| S3-222520 | 19/10/2022 14:28:05 | noted |
| S3-222521 | 19/10/2022 14:47:37 | approved |
| S3-222523 | 19/10/2022 15:15:38 | noted |
| S3-222524 | 19/10/2022 15:16:25 | approved |
| S3-222525 | 19/10/2022 13:38:33 | approved |
| S3-222530 | 19/10/2022 16:08:36 | approved |
| S3-222531 | 19/10/2022 16:13:47 | approved |
| S3-222532 | 20/10/2022 14:36:31 | noted |
| S3-222535 | 20/10/2022 14:39:57 | noted |
| S3-222536 | 20/10/2022 14:36:34 | noted |
| S3-222537 | 19/10/2022 14:26:55 | noted |
| S3-222541 | 19/10/2022 14:22:09 | noted |
| S3-222542 | 19/10/2022 14:22:10 | noted |
| S3-222543 | 19/10/2022 14:22:13 | noted |
| S3-222544 | 19/10/2022 14:22:20 | noted |
| S3-222545 | 20/10/2022 09:29:44 | noted |
| S3-222546 | 20/10/2022 09:29:44 | noted |
| S3-222547 | 20/10/2022 09:31:07 | noted |
| S3-222548 | 20/10/2022 09:31:18 | noted |
| S3-222550 | 20/10/2022 09:30:03 | noted |
| S3-222551 | 19/10/2022 16:07:21 | approved |
| S3-222552 | 20/10/2022 09:33:26 | noted |
| S3-222553 | 20/10/2022 09:33:32 | noted |
| S3-222554 | 20/10/2022 09:33:33 | noted |
| S3-222556 | 20/10/2022 14:34:35 | noted |
| S3-222557 | 20/10/2022 09:44:44 | noted |
| S3-222558 | 20/10/2022 09:44:49 | noted |
| S3-222560 | 19/10/2022 13:38:45 | postponed |
| S3-222562 | 19/10/2022 16:21:31 | noted |
| S3-222563 | 19/10/2022 16:21:39 | noted |
| S3-222564 | 20/10/2022 09:43:48 | approved |
| S3-222567 | 19/10/2022 16:08:14 | noted |
| S3-222569 | 19/10/2022 14:55:38 | approved |
| S3-222571 | 19/10/2022 16:22:05 | noted |
| S3-222572 | 19/10/2022 16:14:54 | available |
| S3-222573 | 19/10/2022 16:21:43 | noted |
| S3-222574 | 19/10/2022 16:21:49 | noted |
| S3-222575 | 20/10/2022 09:47:22 | noted |
| S3-222578 | 20/10/2022 09:47:48 | noted |
| S3-222579 | 19/10/2022 14:31:01 | noted |
| S3-222581 | 20/10/2022 14:41:14 | noted |
| S3-222582 | 19/10/2022 14:28:06 | noted |
| S3-222583 | 19/10/2022 14:54:57 | noted |
| S3-222587 | 20/10/2022 09:39:51 | noted |
| S3-222588 | 20/10/2022 09:56:00 | noted |
| S3-222589 | 19/10/2022 16:21:34 | noted |
| S3-222592 | 19/10/2022 14:31:42 | approved |
| S3-222597 | 20/10/2022 09:33:52 | available |
| S3-222598 | 20/10/2022 14:30:08 | noted |
| S3-222599 | 20/10/2022 14:34:02 | noted |
| S3-222603 | 20/10/2022 09:47:01 | noted |
| S3-222604 | 20/10/2022 09:47:11 | noted |
| S3-222605 | 20/10/2022 09:47:20 | noted |
| S3-222607 | 20/10/2022 09:47:49 | noted |
| S3-222608 | 19/10/2022 14:54:03 | noted |
| S3-222610 | 19/10/2022 14:32:17 | noted |
| S3-222611 | 20/10/2022 09:47:09 | noted |
| S3-222615 | 20/10/2022 08:59:12 | approved |
| S3-222617 | 20/10/2022 08:59:26 | approved |
| S3-222618 | 19/10/2022 14:47:28 | noted |
| S3-222623 | 20/10/2022 14:43:15 | approved |
| S3-222624 | 20/10/2022 14:43:22 | approved |
| S3-222628 | 19/10/2022 14:35:20 | approved |
| S3-222629 | 19/10/2022 14:28:19 | approved |
| S3-222629 | 19/10/2022 14:28:20 | noted |
| S3-222630 | 19/10/2022 14:28:26 | noted |
| S3-222631 | 19/10/2022 14:32:17 | noted |
| S3-222633 | 19/10/2022 15:16:46 | noted |
| S3-222634 | 19/10/2022 15:19:05 | approved |
| S3-222635 | 19/10/2022 14:55:03 | noted |
| S3-222638 | 20/10/2022 14:42:32 | noted |
| S3-222640 | 19/10/2022 14:54:03 | noted |
| S3-222641 | 19/10/2022 14:56:26 | noted |
| S3-222642 | 19/10/2022 14:56:28 | noted |
| S3-222643 | 19/10/2022 14:56:32 | noted |
| S3-222644 | 19/10/2022 14:56:33 | noted |
| S3-222645 | 19/10/2022 16:30:17 | approved |
| S3-222646 | 19/10/2022 16:21:51 | noted |
| S3-222647 | 19/10/2022 16:29:52 | noted |
| S3-222648 | 19/10/2022 16:30:21 | approved |
| S3-222649 | 20/10/2022 09:31:00 | noted |
| S3-222650 | 20/10/2022 09:29:52 | noted |
| S3-222651 | 20/10/2022 09:38:34 | available |
| S3-222652 | 20/10/2022 09:38:39 | noted |
| S3-222653 | 20/10/2022 14:30:06 | noted |
| S3-222654 | 19/10/2022 13:38:50 | noted |
| S3-222656 | 19/10/2022 16:12:35 | noted |
| S3-222657 | 19/10/2022 16:14:59 | noted |
| S3-222658 | 19/10/2022 16:12:37 | approved |
| S3-222659 | 19/10/2022 16:12:39 | noted |
| S3-222661 | 19/10/2022 16:09:02 | noted |
| S3-222665 | 19/10/2022 14:32:25 | approved |
| S3-222666 | 19/10/2022 14:32:26 | approved |
| S3-222669 | 20/10/2022 14:30:52 | noted |
| S3-222670 | 20/10/2022 09:45:02 | noted |
| S3-222671 | 20/10/2022 09:44:39 | noted |
| S3-222673 | 19/10/2022 14:36:24 | noted |
| S3-222675 | 20/10/2022 09:31:00 | noted |
| S3-222677 | 20/10/2022 09:44:50 | noted |
| S3-222682 | 20/10/2022 09:52:30 | noted |
| S3-222683 | 19/10/2022 14:27:12 | noted |
| S3-222684 | 19/10/2022 14:27:14 | noted |
| S3-222685 | 20/10/2022 14:39:39 | noted |
| S3-222686 | 20/10/2022 14:36:13 | noted |
| S3-222687 | 19/10/2022 14:21:56 | noted |
| S3-222688 | 19/10/2022 14:21:59 | noted |
| S3-222689 | 19/10/2022 14:22:01 | noted |
| S3-222693 | 20/10/2022 09:32:47 | noted |
| S3-222695 | 19/10/2022 15:20:13 | noted |
| S3-222697 | 19/10/2022 15:16:52 | noted |
| S3-222698 | 19/10/2022 14:55:05 | noted |
| S3-222699 | 19/10/2022 15:16:53 | noted |
| S3-222700 | 19/10/2022 15:17:00 | noted |
| S3-222701 | 19/10/2022 15:16:28 | approved |
| S3-222703 | 19/10/2022 15:32:07 | noted |
| S3-222705 | 20/10/2022 09:47:27 | noted |
| S3-222706 | 20/10/2022 09:47:17 | noted |
| S3-222707 | 20/10/2022 09:47:09 | noted |
| S3-222708 | 20/10/2022 09:47:03 | noted |
| S3-222709 | 20/10/2022 09:32:53 | noted |
| S3-222710 | 20/10/2022 09:33:06 | noted |
| S3-222713 | 20/10/2022 09:32:45 | noted |
| S3-222718 | 19/10/2022 15:16:40 | approved |
| S3-222719 | 19/10/2022 15:16:42 | approved |
| S3-222720 | 20/10/2022 09:49:00 | available |
| S3-222722 | 20/10/2022 09:52:26 | available |
| S3-222724 | 20/10/2022 09:52:35 | noted |
| S3-222725 | 20/10/2022 09:53:00 | available |
| S3-222727 | 20/10/2022 09:55:06 | available |
| S3-222728 | 20/10/2022 09:55:43 | available |
| S3-222729 | 19/10/2022 14:33:38 | noted |
| S3-222734 | 19/10/2022 16:08:19 | noted |
| S3-222735 | 19/10/2022 15:35:31 | available |
| S3-222736 | 20/10/2022 09:43:18 | approved |
| S3-222739 | 19/10/2022 15:20:17 | noted |
| S3-222740 | 19/10/2022 14:45:59 | available |
| S3-222741 | 20/10/2022 09:33:56 | noted |
| S3-222742 | 20/10/2022 09:38:45 | available |
| S3-222744 | 19/10/2022 16:08:21 | noted |
| S3-222745 | 20/10/2022 09:29:53 | noted |
| S3-222747 | 19/10/2022 15:59:38 | noted |
| S3-222751 | 20/10/2022 09:44:24 | noted |
| S3-222752 | 20/10/2022 09:44:25 | noted |
| S3-222753 | 19/10/2022 13:37:15 | noted |
| S3-222754 | 20/10/2022 09:40:01 | noted |
| S3-222755 | 20/10/2022 09:40:03 | approved |
| S3-222756 | 20/10/2022 09:40:06 | noted |
| S3-222758 | 20/10/2022 09:43:20 | approved |
| S3-222759 | 20/10/2022 09:43:27 | approved |
| S3-222760 | 19/10/2022 15:21:12 | approved |
| S3-222761 | 20/10/2022 09:35:48 | available |
| S3-222763 | 19/10/2022 14:33:52 | noted |
| S3-222764 | 19/10/2022 14:33:57 | noted |
| S3-222765 | 19/10/2022 14:33:57 | noted |
| S3-222766 | 20/10/2022 09:37:54 | noted |
| S3-222767 | 19/10/2022 14:35:54 | available |
| S3-222768 | 19/10/2022 14:36:02 | available |
| S3-222772 | 20/10/2022 09:38:50 | noted |
| S3-222774 | 20/10/2022 09:39:27 | noted |
| S3-222775 | 20/10/2022 09:39:28 | noted |
| S3-222776 | 20/10/2022 09:39:29 | noted |
| S3-222777 | 20/10/2022 09:39:35 | noted |
| S3-222778 | 21/10/2022 12:46:41 | noted |
| S3-222779 | 20/10/2022 14:38:08 | available |
| S3-222780 | 20/10/2022 14:39:31 | available |
| S3-222781 | 20/10/2022 14:39:34 | noted |
| S3-222782 | 20/10/2022 14:40:30 | noted |
| S3-222787 | 19/10/2022 15:34:48 | available |
| S3-222789 | 19/10/2022 15:35:56 | approved |
| S3-222791 | 19/10/2022 14:34:05 | approved |
| S3-222792 | 19/10/2022 14:28:30 | noted |
| S3-222793 | 19/10/2022 14:34:10 | noted |
| S3-222794 | 19/10/2022 14:34:11 | approved |
| S3-222796 | 19/10/2022 14:34:18 | approved |
| S3-222798 | 19/10/2022 14:34:32 | approved |
| S3-222799 | 19/10/2022 14:34:33 | approved |
| S3-222801 | 19/10/2022 13:37:02 | available |
| S3-222802 | 20/10/2022 14:35:55 | approved |
| S3-222803 | 20/10/2022 14:35:57 | approved |
| S3-222804 | 20/10/2022 14:35:58 | noted |
| S3-222807 | 20/10/2022 14:36:53 | noted |
| S3-222808 | 20/10/2022 14:37:58 | available |
| S3-222809 | 20/10/2022 14:39:36 | noted |
| S3-222813 | 20/10/2022 14:40:11 | approved |
| S3-222814 | 20/10/2022 14:40:16 | approved |
| S3-222815 | 20/10/2022 14:40:23 | noted |
| S3-222816 | 20/10/2022 14:40:27 | noted |
| S3-222817 | 20/10/2022 14:40:19 | approved |
| S3-222818 | 20/10/2022 14:30:17 | noted |
| S3-222822 | 19/10/2022 14:36:21 | available |
| S3-222826 | 19/10/2022 14:47:25 | noted |
| S3-222828 | 19/10/2022 14:47:18 | available |
| S3-222830 | 20/10/2022 09:29:55 | noted |
| S3-222831 | 20/10/2022 09:31:08 | noted |
| S3-222832 | 20/10/2022 09:30:14 | available |
| S3-222833 | 19/10/2022 14:28:35 | noted |
| S3-222835 | 20/10/2022 09:36:12 | available |
| S3-222837 | 19/10/2022 14:55:10 | noted |
| S3-222838 | 19/10/2022 15:17:02 | noted |
| S3-222840 | 19/10/2022 16:08:24 | noted |
| S3-222843 | 19/10/2022 15:32:08 | noted |
| S3-222844 | 19/10/2022 14:28:42 | noted |
| S3-222845 | 19/10/2022 14:34:43 | noted |
| S3-222850 | 19/10/2022 14:22:50 | noted |
| S3-222851 | 19/10/2022 14:21:46 | noted |
| S3-222852 | 19/10/2022 14:21:49 | noted |
| S3-222853 | 19/10/2022 14:21:54 | noted |
| S3-222854 | 20/10/2022 09:29:03 | noted |
| S3-222855 | 20/10/2022 14:34:58 | available |
| S3-222858 | 20/10/2022 09:44:40 | noted |
| S3-222859 | 20/10/2022 09:45:22 | available |
| S3-222862 | 20/10/2022 09:45:35 | noted |
| S3-222864 | 20/10/2022 14:40:45 | approved |
| S3-222867 | 20/10/2022 14:41:20 | noted |
| S3-222870 | 20/10/2022 14:30:54 | noted |
| S3-222871 | 20/10/2022 14:30:59 | noted |
| S3-222873 | 19/10/2022 14:34:57 | noted |
| S3-222874 | 19/10/2022 14:34:57 | noted |
| S3-222877 | 19/10/2022 14:28:42 | noted |
| S3-222880 | 19/10/2022 15:21:25 | approved |
| S3-222882 | 19/10/2022 15:35:42 | available |
| S3-222883 | 20/10/2022 14:30:38 | noted |
| S3-222884 | 20/10/2022 14:30:39 | noted |
| S3-222885 | 20/10/2022 14:30:41 | noted |
| S3-222886 | 20/10/2022 09:34:02 | available |
| S3-222887 | 19/10/2022 16:13:38 | available |
| S3-222888 | 20/10/2022 09:06:41 | approved |
| S3-222889 | 19/10/2022 16:13:13 | noted |
| S3-222890 | 20/10/2022 09:39:41 | available |
| S3-222894 | 19/10/2022 16:21:53 | noted |
| S3-222895 | 19/10/2022 16:21:59 | noted |
| S3-222896 | 19/10/2022 16:30:06 | noted |
| S3-222898 | 20/10/2022 14:41:54 | noted |
| S3-222899 | 20/10/2022 09:30:03 | noted |
| S3-222900 | 20/10/2022 09:31:09 | noted |
| S3-222901 | 20/10/2022 09:31:17 | noted |
| S3-222902 | 19/10/2022 13:37:22 | noted |
| S3-222903 | 19/10/2022 13:37:25 | noted |
| S3-222907 | 20/10/2022 09:29:15 | noted |
| S3-222910 | 20/10/2022 09:48:10 | available |
| S3-222911 | 20/10/2022 09:49:23 | available |
| S3-222912 | 20/10/2022 09:34:10 | approved |
| S3-222913 | 20/10/2022 09:34:11 | noted |
| S3-222916 | 19/10/2022 15:17:11 | available |
| S3-222917 | 19/10/2022 15:17:16 | noted |
| S3-222919 | 19/10/2022 15:32:10 | noted |
| S3-222921 | 19/10/2022 15:20:32 | noted |
| S3-222923 | 19/10/2022 15:32:16 | noted |
| S3-222924 | 20/10/2022 09:49:44 | available |
| S3-222925 | 20/10/2022 14:33:57 | noted |
| S3-222928 | 19/10/2022 14:35:30 | noted |
| S3-222929 | 20/10/2022 09:45:55 | available |
| S3-222930 | 19/10/2022 16:20:09 | withdrawn |
| S3-222930 | 19/10/2022 16:20:20 | noted |
| S3-222931 | 20/10/2022 09:37:47 | approved |
| S3-222932 | 20/10/2022 09:36:42 | approved |
| S3-222933 | 19/10/2022 15:10:18 | approved |
| S3-222934 | 19/10/2022 15:20:47 | approved |
| S3-222935 | 20/10/2022 09:33:11 | approved |
| S3-222936 | 20/10/2022 09:32:32 | approved |
| S3-222937 | 20/10/2022 09:31:39 | approved |
| S3-222938 | 19/10/2022 15:16:33 | approved |
| S3-222939 | 20/10/2022 09:31:40 | approved |
| S3-222940 | 20/10/2022 09:31:45 | approved |
| S3-222941 | 20/10/2022 09:43:08 | approved |
| S3-222942 | 20/10/2022 09:43:10 | approved |
| S3-222943 | 19/10/2022 14:31:44 | approved |
| S3-222944 | 19/10/2022 14:31:52 | approved |
| S3-222945 | 19/10/2022 14:32:01 | approved |
| S3-222946 | 19/10/2022 14:32:07 | approved |
| S3-222947 | 19/10/2022 14:32:32 | approved |
| S3-222948 | 19/10/2022 14:32:35 | approved |
| S3-222949 | 19/10/2022 16:29:58 | approved |
| S3-222950 | 19/10/2022 15:09:59 | approved |
| S3-222951 | 19/10/2022 16:14:01 | approved |
| S3-222952 | 19/10/2022 16:14:30 | reserved |
| S3-222952 | 21/10/2022 10:45:16 | approved |
| S3-222953 | 20/10/2022 14:38:16 | approved |
| S3-222954 | 20/10/2022 14:37:47 | approved |
| S3-222955 | 20/10/2022 09:35:07 | approved |
| S3-222956 | 20/10/2022 09:35:09 | approved |
| S3-222957 | 20/10/2022 09:35:13 | approved |
| S3-222958 | 20/10/2022 09:35:21 | reserved |
| S3-222958 | 21/10/2022 11:43:42 | approved |
| S3-222959 | 20/10/2022 09:06:47 | withdrawn |
| S3-222960 | 19/10/2022 14:55:31 | approved |
| S3-222961 | 20/10/2022 09:37:06 | approved |
| S3-222962 | 20/10/2022 14:36:05 | approved |
| S3-222963 | 20/10/2022 09:28:34 | approved |
| S3-222964 | 20/10/2022 09:43:52 | approved |
| S3-222965 | 20/10/2022 09:37:10 | approved |
| S3-222966 | 20/10/2022 09:29:08 | noted |
| S3-222967 | 20/10/2022 14:36:21 | approved |
| S3-222968 | 20/10/2022 09:43:54 | approved |
| S3-222969 | 19/10/2022 14:30:55 | approved |
| S3-222970 | 20/10/2022 09:29:18 | approved |
| S3-222972 | 20/10/2022 09:29:23 | approved |
| S3-222974 | 19/10/2022 16:30:11 | approved |
| S3-222975 | 20/10/2022 14:39:47 | approved |
| S3-222976 | 20/10/2022 14:39:49 | approved |
| S3-222977 | 20/10/2022 14:40:03 | approved |
| S3-222978 | 20/10/2022 09:30:29 | approved |
| S3-222979 | 20/10/2022 09:30:42 | reserved |
| S3-222979 | 21/10/2022 09:02:28 | approved |
| S3-222980 | 20/10/2022 09:29:30 | reserved |
| S3-222980 | 24/10/2022 09:55:13 | approved |
| S3-222981 | 20/10/2022 14:43:55 | approved |
| S3-222984 | 19/10/2022 16:12:44 | approved |
| S3-222985 | 19/10/2022 15:09:49 | approved |
| S3-222986 | 19/10/2022 14:34:20 | approved |
| S3-222987 | 19/10/2022 14:34:24 | approved |
| S3-222988 | 19/10/2022 13:39:54 | reserved |
| S3-222988 | 21/10/2022 09:02:39 | approved |
| S3-222989 | 19/10/2022 14:34:36 | approved |
| S3-222990 | 20/10/2022 09:37:30 | approved |
| S3-222991 | 19/10/2022 14:36:10 | approved |
| S3-222992 | 20/10/2022 09:49:28 | approved |
| S3-222993 | 19/10/2022 14:28:13 | approved |
| S3-222994 | 20/10/2022 09:55:51 | approved |
| S3-222995 | 19/10/2022 14:27:05 | approved |
| S3-222996 | 20/10/2022 09:46:51 | approved |
| S3-222997 | 19/10/2022 14:27:06 | approved |
| S3-222998 | 20/10/2022 09:47:33 | approved |
| S3-222999 | 20/10/2022 09:56:04 | approved |
| S3-223000 | 20/10/2022 09:47:37 | reserved |
| S3-223000 | 20/10/2022 14:44:57 | approved |
| S3-223001 | 19/10/2022 16:08:06 | approved |
| S3-223002 | 19/10/2022 15:21:01 | approved |
| S3-223003 | 19/10/2022 15:21:04 | approved |
| S3-223004 | 20/10/2022 09:28:58 | approved |
| S3-223005 | 19/10/2022 14:37:58 | approved |
| S3-223006 | 19/10/2022 15:20:55 | approved |
| S3-223007 | 20/10/2022 09:31:55 | approved |
| S3-223008 | 20/10/2022 09:31:56 | approved |
| S3-223009 | 20/10/2022 09:32:01 | approved |
| S3-223010 | 19/10/2022 14:22:25 | approved |
| S3-223011 | 19/10/2022 14:37:50 | approved |
| S3-223012 | 19/10/2022 16:29:13 | approved |
| S3-223013 | 19/10/2022 16:29:27 | reserved |
| S3-223013 | 21/10/2022 09:02:44 | approved |
| S3-223014 | 19/10/2022 14:37:40 | approved |
| S3-223015 | 19/10/2022 15:59:42 | approved |
| S3-223016 | 19/10/2022 15:59:46 | approved |
| S3-223017 | 19/10/2022 14:36:37 | approved |
| S3-223018 | 19/10/2022 16:15:35 | approved |
| S3-223019 | 19/10/2022 15:20:09 | approved |
| S3-223020 | 19/10/2022 15:32:59 | approved |
| S3-223021 | 19/10/2022 15:36:06 | approved |
| S3-223022 | 20/10/2022 14:43:10 | withdrawn |
| S3-223023 | 19/10/2022 15:59:28 | approved |
| S3-223024 | 19/10/2022 16:07:15 | approved |
| S3-223025 | 20/10/2022 14:43:28 | withdrawn |
| S3-223026 | 20/10/2022 08:59:32 | withdrawn |
| S3-223027 | 20/10/2022 08:59:04 | withdrawn |
| S3-223028 | 19/10/2022 14:46:13 | approved |
| S3-223029 | 19/10/2022 14:46:34 | approved |
| S3-223030 | 19/10/2022 14:46:36 | approved |
| S3-223031 | 19/10/2022 14:46:39 | approved |
| S3-223032 | 19/10/2022 14:46:55 | approved |
| S3-223033 | 20/10/2022 14:42:08 | reserved |
| S3-223033 | 20/10/2022 14:50:00 | approved |
| S3-223034 | 20/10/2022 09:45:28 | approved |
| S3-223035 | 20/10/2022 09:45:33 | approved |
| S3-223036 | 20/10/2022 09:46:11 | approved |
| S3-223037 | 20/10/2022 09:46:13 | approved |
| S3-223038 | 20/10/2022 09:46:19 | reserved |
| S3-223038 | 21/10/2022 09:03:58 | approved |
| S3-223039 | 20/10/2022 14:31:03 | approved |
| S3-223040 | 20/10/2022 14:40:55 | approved |
| S3-223041 | 20/10/2022 14:40:57 | approved |
| S3-223042 | 20/10/2022 14:41:25 | approved |
| S3-223043 | 20/10/2022 14:41:40 | reserved |
| S3-223043 | 21/10/2022 09:04:05 | approved |
| S3-223044 | 19/10/2022 14:35:39 | approved |
| S3-223045 | 19/10/2022 14:36:53 | approved |
| S3-223046 | 19/10/2022 16:12:54 | approved |
| S3-223047 | 19/10/2022 16:08:42 | approved |
| S3-223048 | 19/10/2022 14:46:04 | approved |
| S3-223049 | 19/10/2022 14:46:48 | approved |
| S3-223050 | 19/10/2022 16:08:49 | approved |
| S3-223051 | 19/10/2022 14:33:26 | approved |
| S3-223052 | 19/10/2022 14:33:32 | approved |
| S3-223053 | 19/10/2022 14:33:43 | approved |
| S3-223054 | 19/10/2022 14:37:12 | reserved |
| S3-223054 | 21/10/2022 09:02:54 | approved |
| S3-223055 | 20/10/2022 09:28:49 | approved |
| S3-223056 | 19/10/2022 16:29:19 | approved |
| S3-223057 | 19/10/2022 15:10:08 | approved |
| S3-223058 | 19/10/2022 15:21:16 | approved |
| S3-223059 | 19/10/2022 15:21:18 | approved |
| S3-223060 | 19/10/2022 14:34:48 | approved |
| S3-223061 | 19/10/2022 16:12:59 | approved |
| S3-223062 | 19/10/2022 16:13:02 | approved |
| S3-223063 | 19/10/2022 16:13:24 | approved |
| S3-223064 | 20/10/2022 14:35:05 | approved |
| S3-223065 | 19/10/2022 14:38:08 | approved |
| S3-223066 | 19/10/2022 14:42:21 | approved |
| S3-223067 | 20/10/2022 09:34:37 | approved |
| S3-223068 | 20/10/2022 09:34:44 | approved |
| S3-223069 | 19/10/2022 15:19:48 | approved |
| S3-223070 | 19/10/2022 15:20:21 | approved |
| S3-223071 | 19/10/2022 15:20:26 | approved |
| S3-223072 | 19/10/2022 14:27:43 | reserved |
| S3-223072 | 21/10/2022 09:02:58 | approved |
| S3-223073 | 20/10/2022 09:43:58 | approved |
| S3-223074 | 20/10/2022 09:34:50 | reserved |
| S3-223074 | 21/10/2022 09:04:10 | approved |
| S3-223075 | 19/10/2022 14:25:17 | revised |
| S3-223076 | 19/10/2022 14:25:24 | revised |
| S3-223077 | 20/10/2022 09:52:47 | approved |
| S3-223078 | 20/10/2022 09:54:56 | approved |
| S3-223079 | 20/10/2022 09:55:12 | approved |
| S3-223080 | 19/10/2022 13:34:23 | approved |
| S3-223081 | 20/10/2022 14:35:10 | reserved |
| S3-223081 | 20/10/2022 14:50:11 | approved |
| S3-223082 | 19/10/2022 14:56:07 | approved |
| S3-223083 | 19/10/2022 14:56:11 | approved |
| S3-223084 | 19/10/2022 14:56:15 | approved |
| S3-223085 | 19/10/2022 14:37:28 | approved |
| S3-223087 | 19/10/2022 15:10:53 | approved |
| S3-223089 | 19/10/2022 15:11:22 | reserved |
| S3-223089 | 20/10/2022 14:50:16 | approved |
| S3-223090 | 19/10/2022 15:35:48 | approved |
| S3-223091 | 19/10/2022 15:59:57 | approved |
| S3-223092 | 20/10/2022 14:34:11 | approved |
| S3-223093 | 20/10/2022 14:34:14 | approved |
| S3-223094 | 20/10/2022 09:44:56 | approved |
| S3-223095 | 20/10/2022 09:43:00 | approved |
| S3-223096 | 19/10/2022 14:55:20 | approved |
| S3-223097 | 19/10/2022 14:55:24 | approved |
| S3-223098 | 20/10/2022 09:28:44 | approved |
| S3-223099 | 19/10/2022 14:46:21 | approved |
| S3-223100 | 19/10/2022 14:46:24 | approved |
| S3-223101 | 19/10/2022 16:12:19 | approved |
| S3-223102 | 19/10/2022 16:13:18 | approved |
| S3-223103 | 19/10/2022 14:36:30 | approved |
| S3-223104 | 19/10/2022 16:13:52 | approved |
| S3-223105 | 19/10/2022 16:12:25 | approved |
| S3-223106 | 19/10/2022 15:20:37 | approved |
| S3-223107 | 19/10/2022 15:31:17 | noted |
| S3-223108 | 19/10/2022 16:22:01 | approved |
| S3-223109 | 19/10/2022 14:34:50 | approved |
| S3-223110 | 19/10/2022 14:35:02 | approved |
| S3-223111 | 19/10/2022 14:35:10 | approved |
| S3-223112 | 20/10/2022 09:45:43 | approved |
| S3-223113 | 20/10/2022 09:45:44 | approved |
| S3-223114 | 19/10/2022 15:30:49 | approved |
| S3-223115 | 19/10/2022 16:07:00 | reserved |
| S3-223115 | 21/10/2022 09:03:09 | approved |
| S3-223116 | 19/10/2022 14:31:29 | approved |
| S3-223117 | 19/10/2022 15:33:53 | approved |
| S3-223118 | 20/10/2022 09:38:59 | approved |
| S3-223119 | 20/10/2022 14:36:43 | reserved |
| S3-223119 | 21/10/2022 12:46:34 | withdrawn |
| S3-223120 | 20/10/2022 09:39:07 | reserved |
| S3-223120 | 21/10/2022 12:47:06 | approved |
| S3-223121 | 20/10/2022 09:55:18 | reserved |
| S3-223121 | 20/10/2022 14:50:31 | approved |
| S3-223122 | 20/10/2022 09:44:02 | reserved |
| S3-223122 | 24/10/2022 09:55:54 | approved |
| S3-223123 | 20/10/2022 14:34:23 | approved |
| S3-223124 | 19/10/2022 14:36:45 | approved |
| S3-223125 | 19/10/2022 14:23:01 | approved |
| S3-223126 | 19/10/2022 14:56:01 | approved |
| S3-223127 | 20/10/2022 09:32:11 | reserved |
| S3-223127 | 20/10/2022 14:50:36 | approved |
| S3-223128 | 20/10/2022 09:40:13 | approved |
| S3-223129 | 20/10/2022 09:40:30 | reserved |
| S3-223129 | 21/10/2022 09:03:13 | approved |
| S3-223130 | 20/10/2022 14:31:09 | reserved |
| S3-223130 | 21/10/2022 09:03:22 | approved |
| S3-223131 | 19/10/2022 15:30:56 | reserved |
| S3-223131 | 21/10/2022 09:42:31 | approved |
| S3-223132 | 20/10/2022 14:30:21 | approved |
| S3-223133 | 19/10/2022 14:42:46 | reserved |
| S3-223133 | 20/10/2022 14:51:03 | approved |
| S3-223134 | 19/10/2022 14:25:56 | approved |
| S3-223135 | 19/10/2022 14:25:56 | approved |

## Annex B: Lists of liaisons

### B1: Incoming liaison statements

| **Tdoc** | **originalLS** | **Title** | **Source** | **Decision** | **ReplyIn** |
| --- | --- | --- | --- | --- | --- |
| S3-222454 |  | Reply LS on authenticity and replay protection of system information | R2-2208985 | postponed | S3-222475, S3-222850 |
| S3-222455 |  | LS on NCR Solutions | R3-225253 | replied to | S3-223080 |
| S3-222456 |  | Reply LS on TNAP mobility security aspect | S2-2206999 | noted |  |
| S3-222457 |  | LS OUT to GSMA on the data and analytics exchange between two NWDAFs in different PLMNs | S2-2207142 | replied to | S3-223020 |
| S3-222458 |  | LS on how ML model integrity, confidentiality and availability is supported between NWDAFs from different vendors | S2-2207156 | replied to | S3-223117 |
| S3-222459 |  | Reply LS on FS\_eEDGEAPP Solution for Support of NAT deployed within the edge | S2-2207394 | noted |  |
| S3-222460 |  | LS on protection of the URSP rules from HPLMN | S2-2207501 | postponed |  |
| S3-222461 |  | Questions for SUCI protection requirements for non-3GPP (WLAN) access to SNPN | S2-2207700 | postponed |  |
| S3-222462 |  | Reply LS on 5G ProSe security open items | S2-2207838 | noted |  |
| S3-222463 |  | Identifier availability for Lawful Interception during Inter-PLMN handover | s3i220485 | noted |  |
| S3-222464 |  | LS on FS\_eEDGEAPP Solution for Support of NAT deployed within the edge data network | S6-221953 | replied to | S3-223018 |
| S3-222465 |  | Reply LS to OPAG\_34\_Doc\_07\_OPAG\_LS ETSI-3GPP-Network integration | S6-222337 | noted |  |
| S3-222466 |  | LS on Security Requirements for the MSGin5G Service | S6-222343 | replied to | S3-222525 |
| S3-222467 |  | Forward on S6-222332, LS on Network federation interface for Telco edge consideration | S6-222543 | postponed | S3-222930 |
| S3-222468 |  | Reply LS to Network federation interface for Telco edge consideration | S6-222557 | noted |  |
| S3-222560 |  | Reply LS on the user consent for trace reporting | R3-225250 | postponed |  |

### C2: Outgoing liaison statements

| **Tdoc** | **Title** | **To** | **Cc** | **ReplyTo** |
| --- | --- | --- | --- | --- |
| S3-222525 | reply LS on Security Requirements for the MSGin5G Service | SA6 | CT1 | S3-222466 |
| S3-222970 | draft LS on SNAAPP requirements clarifications | SA1, SA6 | - |  |
| S3-222972 | draft LS reply on CAPIF authorization roles related to FS\_SNAAPP | SA6 | - | S6-221771 |
| S3-223018 | Reply LS on FS\_eEDGEAPP Solution for Support of NAT deployed within the edge data network | SA6 | SA2 | S3-222464 |
| S3-223020 | LS on the data and analytics exchange between two NWDAFs in different PLMNs | SA2 | GSMA | S3-222457 |
| S3-223080 | Draft Reply LS on NCR Solutions | RAN3 | RAN2, SA2, SA5 | S3-222455 |
| S3-223117 | Reply LS on how ML model integrity, confidentiality and availability is supported between NWDAFs from different vendors | SA2 | - | S3-222458 |

## Annex C: List of draft Technical Specifications and Reports

| **Tdoc** | **Spec** | **Version-Current** | **Title** |
| --- | --- | --- | --- |
| S3-222864 | 33.700-28 | 0.0.1 | 33.700-28: Draft Skeleton |
| S3-222952 | 33.739 | 0.3.0 | Draft TR 33.739 v0.3.0 |
| S3-222958 | 33.890 | 0.3.0 | Draft TR 33.890 v0.3.0 |
| S3-222979 | 33.886 | 0.2.0 | Draft TR 33.886 for eNS3 |
| S3-222980 | 33.884 | 0.2.0 | draft TR 33.884 0.2.0 |
| S3-222981 | 33.875 | 1.4.0 | TR 33.875-140 eSBA Security |
| S3-222988 | 33.809 | 0.20.0 | draft TR33.809 |
| S3-223000 | 33.898 | 0.2.0 | draft TR 33.898 |
| S3-223013 | 33.882 | 0.3.0 | TR 33.882 v0.3.0 Study on personal IoT networks security aspects |
| S3-223033 | 33.876 | 0.4.0 | Draft TR 33.876 Study on Standardising Automated Certificate Management in SBA |
| S3-223038 | 33.893 | 0.3.0 | Draft TR 33.893 v0.3.0 |
| S3-223043 | 33.700-28 | 0.1.0 | Draft TR 33.700-28 v0.1.0 |
| S3-223054 | 33.740 | 0.3.0 | TR 33.740 v0.3.0 Study on security aspects of Proximity Based Services (ProSe) in 5G System (5GS) phase 2 |
| S3-223072 | 33.848 | 0.14.0 | TR33848 v0140 |
| S3-223074 | 33.877 | 0.3.0 | Draft TR 33.877 v0.3.0 Study on the security aspects of Artificial Intelligence (AI)/Machine Learning (ML) for the NG-RAN |
| S3-223081 | 33.883 | 0.3.0 | TR 33.883 for 5MBS security |
| S3-223088 | 33.737 | 0.2.0 | draft TR 33.737 |
| S3-223089 | 33.737 | 0.3.0 | draft TR 33.737 |
| S3-223115 | 33.738 | 0.3.0 | draft TR 33.738 0.3.0 |
| S3-223120 | 33.858 | 0.2.0 | draft TR 33.858 v0.2.0 (Study on security aspects of enhanced support of Non-Public Networks phase 2) |
| S3-223121 | 33.894 | 0.3.0 | draft TR 33.894 v0.3.0 |
| S3-223122 | 33.892 | 0.3.0 | Draft TR 33.892 V0.3.0 |
| S3-223127 | 33.887 | 0.3.0 | Draft TR 33.887 v0.3.0 Study on Security aspects for 5WWC Phase 2 |
| S3-223129 | 33.891 | 0.3.0 | Draft TR 33.891 |
| S3-223130 | 33.896 | 0.3.0 | TR 33.896v030 |
| S3-223131 | 33.741 | 0.3.0 | TR 33.741v030 |
| S3-223133 | 33.870 | 0.4.0 | TR 33.870 v040 |

## Annex D: List of participants

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TITLE | Family Name | Given Name | Employer Organization | Organization Represented |
| Mr. | Ahmad | Saad | InterDigital, Inc. | InterDigital Belgium. LLC |
| Dr. | Baboescu | Florin | BROADCOM CORPORATION | BROADCOM CORPORATION |
| Dr. | Baskaran | Sheeba Backia Mary | Motorola Mobility Germany GmbH | Motorola Mobility España SA |
| Dr. | Ben Henda | Noamen | Huawei Technologies Sweden AB | Huawei Technologies Sweden AB |
| Mr. | Bhatt | Rakshesh P. | Nokia Japan | Nokia Japan |
| Mr. | Bilca | Michael | OTD | OTD |
| Mr. | Bjerrum | Bo Holm | Nokia Corporation | Nokia Denmark |
| Ing. | Broszeit | Marco | Vodafone GmbH | Vodafone GmbH |
| Mr. | Brusilovsky | Alec | InterDigital, Inc. | InterDigital, Inc. |
| Mr. | Cano Soveri | Mirko | ETSI | ETSI |
| Ms. | Carducci | Candace | Johns Hopkins University APL | Johns Hopkins University APL |
| Mr. | Chen | Jingran | OPPO Beijing | OnePlus |
| Mr. | Cheng | Sihan | vivo Mobile Communication Co., | Nanjing Weibo |
| Dr. | Chiba | Tsunehiko | VIAVI Solutions | VIAVI Solutions |
| Ms. | Cho | Min Kyoung | Deloitte Tohmatsu Cyber LLC | KDDI Corporation |
| Miss | chong | vivian | VIVO TECH GmbH | VIVO TECH GmbH |
| Mr. | Chou | Joey | Intel Corporation (UK) Ltd | Intel Korea, Ltd. |
| Mr. | Cong | Shi | Guangdong OPPO Mobile Telecom. | OPPO |
| Dr. | Corbett | Cherita | Johns Hopkins University APL | Johns Hopkins University APL |
| Mr. | Dees | Walter | Philips International B.V. | Philips International B.V. |
| Mr. | Doerr | Johannes | BMWK | BMWK |
| Mr. | Eckel | Charles | Cisco Systems Belgium | Cisco Systems Belgium |
| Mr. | Ennesser | Francois | Huawei Technologies France | Huawei Technologies France |
| Dr. | Escott | Adrian | Qualcomm CDMA Technologies | Qualcomm CDMA Technologies |
| Mr. | Espi | Sergi | G+D MS | G+D MS |
| Mr. | Evans | Tim P. | VODAFONE Group Plc | VODAFONE Group Plc |
| Dr. | Falk | Rainer | Siemens AG | Siemens AG |
| Mrs. | Fan | Ning | China Telecom Corporation Ltd. | China Telecom Corporation Ltd. |
| Mr. | Ferdi | Samir | InterDigital, Inc. | InterDigital, Europe, Ltd. |
| Miss | Flygare | Helena | Ericsson LM | Ericsson LM |
| Dr. | Fukushima | Kazuhide | KDDI Corporation | KDDI Corporation |
| Ing. | Gallo | Luigi | TELECOM ITALIA S.p.A. | TELECOM ITALIA S.p.A. |
| Mrs. | Gan | Lu | OPPO | OPPO Beijing |
| Mr. | Gao | Weihan | China Telecom Corporation Ltd. | China Telecom Corporation Ltd. |
| Dr. | Garcia-Morchon | Oscar | Philips International B.V. | Philips International B.V. |
| Mr. | Gholmieh | Aziz | Qualcomm Technologies Int | Qualcomm Finland RFFE Oy |
| Mr. | Goldberg | Martin | U.S. National Security Agency | U.S. National Security Agency |
| Mr. | Guo | Boren | OPPO Beijing | Hangzhou Douku |
| Ms. | Guo | Ivy | Apple Computer Trading Co. Ltd | Apple Computer Trading Co. Ltd |
| Mr. | Guo | Longhua | HUAWEI TECH. GmbH | HUAWEI Technologies Japan K.K. |
| Mr. | Guo | Tao | Huawei Technologies France | Huawei Tech.(UK) Co.. Ltd |
| Ms. | Guo | Yali | OPPO Beijing | Shenzhen Heytap |
| Mr. | Gupta | Varini | Samsung R&D Institute India | Samsung R&D Institute India |
| Mr. | Gustafsson | Sune | Ericsson LM | Ericsson LM |
| Mr. | Hanhisalo | Markus | Ericsson LM | Ericsson LM |
| Ms. | Heng | Xin | China Telecom Corporation Ltd. | China Telecom Corporation Ltd. |
| Mr. | Hoffpauir | Dusty | Charter Communications, Inc | Charter Communications, Inc |
| Mr. | Hu | Li | HUAWEI TECHNOLOGIES Co. Ltd. | HiSilicon Technologies Co. Ltd |
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| Dr. | Jost | Christine | Ericsson LM | Ericsson LM |
| Dr. | Karakoc | Ferhat | Ericsson LM | Ericsson LM |
| Dr. | Keesmaat | Iko | TNO | TNO |
| Dr. | Khan | Mohsin | Ericsson LM | Ericsson LM |
| Mr. | Khare | Saurabh | Nokia Germany | Nokia Solutions & Networks (I) |
| Mr. | Kim | Anbin | LG Electronics France | LG Electronics France |
| Dr. | Kim | Hongil | Qualcomm Incorporated | Qualcomm Technologies Int |
| Dr. | Kim | Hyunsook | LG Electronics Inc. | LG Electronics Inc. |
| Mr. | Kolekar | Abhijeet | Intel Corporation (UK) Ltd | Intel |
| Ms. | Koser | Elizabeth | U.S. National Security Agency | U.S. National Security Agency |
| Dr. | Kunz | Andreas | Motorola Mobility Germany GmbH | Lenovo Mobile Com. Technology |
| Mr. | Lazara | Dominic | Motorola Solutions UK Ltd. | Motorola Solutions UK Ltd. |
| Dr. | Lee | Soo Bum | Qualcomm Incorporated | Qualcomm Israel Ltd. |
| Mr. | Lee | Xiaoyang | CISA ECD | CISA ECD |
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| Ms. | Li | Chenyi | China Unicom | Unicompay |
| Mr. | Li | Fei | HUAWEI TECHNOLOGIES Co. Ltd. | Huawei Technologies France |
| Mr. | Li | He | HUAWEI TECHNOLOGIES Co. Ltd. | Huawei Device Co., Ltd |
| Dr. | Li | Lun | HuaWei Technologies Co., Ltd | HUAWEI TECHNOLOGIES Co. Ltd. |
| Mr. | Li | Meng | Guangdong OPPO Mobile Telecom. | Guangdong OPPO Mobile Telecom. |
| Dr. | Liang | Haoran | Xiaomi Communications | Xiaomi Communications |
| Mr. | Liu | Hongjun | ZTE Corporation | Nubia Technology Co.,Ltd |
| Mr. | LIU | Jianning(Carry) | Beijing Xiaomi Software Tech | Beijing Xiaomi Electronics |
| Miss | Liu | Peilin | ZTE Corporation | ZTE Corporation. |
| Mr. | Liu | Shanbin | China Unicom | Unicom Broadband Online |
| Mr. | Liu | Yuze | ZTE Corporation | ShenZhen Zhongxing Shitong |
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| Mr. | Manganahalli Jayaprakash | Sandesh | TNO | KPN N.V. |
| Mr. | MAO | Yuxin | Beijing Xiaomi Mobile Software | Xiaomi EV Technology |
| Dr. | Muhanna | Ahmad | Mavenir | Mavenir |
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| Mrs. | Nisbeth | Daphanie | U.S. National Security Agency | U.S. National Security Agency |
| Mr. | Norton | Mark | U.S. Department of Defense | U.S. Department of Defense |
| Mr. | Orkopoulos | Stawros | Nokia Germany | Nokia Italy |
| Ms. | Parambath Sasi | NIvedya | Samsung R&D Institute India | Samsung R&D Institute India |
| Dr. | Park | Junhyun | Samsung R&D Institute UK | Samsung R&D Institute UK |
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| Mr. | Pätzold | Thomas | Deutsche Telekom AG | Deutsche Telekom AG |
| Mrs. | Pauliac | Mireille | THALES | THALES |
| Mr. | Peinado | German | Nokia Germany | Nokia Germany |
| Miss | Ping | Jing | Nokia Germany | Nokia Shanghai Bell |
| Dr. | Polak | Adam | Qualcomm CDMA Technologies | Qualcomm Tech. Netherlands B.V |
| Mr. | Pudney | Chris | VODAFONE Group Plc | Vodafone GmbH |
| Dr. | qin | chuan | CENC | CENC |
| Dr. | Qu | Zhicheng | ZTE Corporation | ZONSON |
| Mr. | Ren | Chi | China Unicom | CITC |
| Mrs. | Rong | Wu | HUAWEI TECHNOLOGIES Co. Ltd. | HUAWEI TECH. GmbH |
| Mr. | Rudolph | Hans Christian | Deloitte Tohmatsu Cyber LLC | KDDI Corporation |
| Mr. | Sällberg | Krister | Ericsson LM | Ericsson Inc. |
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| Mr. | Starsinic | Michael | InterDigital, Inc. | InterDigital France R&D, SAS |
| Dr. | Staufer | Markus | Nokia Germany | Nokia Hungary |
| Mrs. | Sun | Xiaowen | vivo Mobile Communication Co., | vivo Mobile Communication (H) |
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| Dr. | Targali | Yousif | Verizon UK Ltd | Verizon UK Ltd |
| Dr. | Tsiatsis | Vlasios | Ericsson LM | Ericsson España S.A. |
| Mrs. | Vahidi | Helena | Ericsson LM | Ericsson LM |
| Mr. | Vujcic | Dragan | IDEMIA | IDEMIA |
| Mr. | Wang | Guanzhou | InterDigital Communications | InterDigital Finland Oy |
| Miss | Wang | Qianran | China Telecommunications | China Telecom Corporation Ltd. |
| Mr. | Wang | Wen | vivo Mobile Communication Co., | vivo Mobile Com. (Chongqing) |
| Dr. | Wang | Zhaoning | China Unicom | CUG |
| Dr. | Wang | Zhibi | InterDigital Communications | InterDigital Communications |
| Mr. | Ward | Bruce | NTIA | NTIA |
| Ms. | Warren | Denisha | U.S. National Security Agency | U.S. National Security Agency |
| Ms. | WEI | QUN | China Unicom | BTPDI |
| Mr. | Wen | Wu | ZTE Corporation. | CALTTA |
| Mr. | Whorlow | Colin | NCSC | HOME OFFICE |
| Ms. | Wifvesson | Monica | Ericsson LM | Ericsson LM |
| Dr. | Wilson | Kelce | Anemone Technology | Anemone Technology |
| Mr. | Wong | Marcus | OPPO | Chengdu OPPO Telecommunication |
| Mr. | Woodward | Tim | Motorola Solutions Danmark A/S | Motorola Solutions Danmark A/S |
| Dr. | Wu | Deh-Min Richard | Charter Communications, Inc | Charter Communications, Inc |
| Ms. | WU | Jinhua | Beijing Xiaomi Mobile Software | Beijing Xiaomi Mobile Software |
| Miss | Wu | Yizhuang | HUAWEI TECHNOLOGIES Co. Ltd. | HuaWei Technologies Co., Ltd |
| Dr. | Xie | Shaowei | ZTE Corporation | ZXNE |
| Mr. | Xie | Zhenhua | vivo Mobile Communication Co., | vivo Mobile Communication (S) |
| Mr. | Xing | TianQi | China Unicom | CU Digital Technology |
| Ms. | Xing | Zhen | ZTE Corporation. | ZTE Photonics |
| Miss | Xiong | Lihui | Guangdong OPPO Mobile Telecom. | Guangdong OPPO Mobile Telecom. |
| Dr. | Xu | Jin | BUPT | BUPT |
| Mr. | Xu | Yang | Guangdong OPPO Mobile Telecom. | OPPO (chongqing) Intelligence |
| Miss | Yang | Haorui | OPPO Beijing | Hangzhou Mengyuxiang |
| Dr. | Yao | Ge | China Unicom | China Unicom |
| Ms. | Yi | Haofan | BJTU | BJTU |
| Mr. | You | Shilin | ZTE Corporation. | ZTE Wistron Telecom AB |
| Mr. | Yu | Hang | vivo Mobile Com. (Chongqing) | vivo Communication Technology |
| Miss | Yuan | Liya | ZTE Corporation | Jetflow |
| Dr. | Zhang | Amy | vivo Japan KK | vivo Japan KK |
| Dr. | Zhang | Bo | HUAWEI TECHNOLOGIES Co. Ltd. | Huawei Technologies Japan K.K. |
| Dr. | Zhang | Diana | Johns Hopkins University APL | Johns Hopkins University APL |
| Mr. | Zhang | Pengfei | vivo Mobile Communication Co., | vivo Mobile Communication (S) |
| Mr. | Zhang | Yizhong | vivo Mobile Communication (S) | vivo Mobile Communication Co., |
| Ms. | Zhang | Yuan | ZEKU | ZEKU |
| Dr. | Zhang | Zhuoyun | Tencent | Tencent Cloud |
| Mr. | Zhou | Wei | CATT | CATT |
| Mr. | Zhu | Chunhui | Beijing Xiaomi Mobile Software | Xiaomi EV Technology |
| Mr. | Zhu | Zengbao | BUPT | BUPT |

## Annex E: List of future meetings

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Title | Start date | End date (OP) | Town | Country | Reference |
| SA3#109 | 2022-11-14 | 2022-11-18 | Toulouse | FR | S3-109 |
| SA3#109-bis | 2023-01-16 | 2023-01-20 | TBD |  | S3-109-bis |
| SA3#88-LI | 2023-01-31 | 2023-02-03 | Sophia Antipolis | FR | S3-88 |
| SA3#110 | 2023-02-20 | 2023-02-24 | EU | EU | S3-110 |
| SA3#110-bis | 2023-04-17 | 2023-04-21 | TBD | US | S3-110-bis |
| SA3#111 | 2023-05-22 | 2023-05-26 | China | CN | S3-111 |
| SA3#112 | 2023-08-14 | 2023-08-18 | EU | EU | S3-112 |
| SA3#113 | 2023-11-06 | 2023-11-10 | TBD | US | S3-113 |
| SA3#114 | 2024-01-22 | 2024-01-26 | TBD |  | S3-114 |
| SA3#115 | 2024-02-26 | 2024-03-01 | TBD |  | S3-115 |
| SA3#116-(option 1) | 2024-05-13 | 2024-05-17 | TBD |  | S3-116 |
| SA3#116-(option 2) | 2024-05-20 | 2024-05-24 | TBD |  | S3-116 |
| SA3#117 | 2024-08-26 | 2024-08-30 | TBD |  | S3-117 |
| SA3#118 | 2024-10-07 | 2024-10-11 | TBD |  | S3-118 |
| SA3#119 | 2024-11-11 | 2024-11-15 | TBD |  | S3-119 |