**3GPP TSG-SA WG6 Meeting #40-e S6-202038**

**e-meeting, 16th – 24th November 2020**

Source: MCC

Title: SA6 Meeting 39-bis-e report

Agenda Item: 3

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*Abstract: Meeting report of 3GPP SA6 meeting #39-bis-e*

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

**DRAFT Meeting Report  
for  
TSG SA WG6 meeting #39-bis**

**e-meeting 12/10/2020 to 20/10/2020**

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## 1 Opening of the meeting

### 1.1 IPR and antitrust policy reminders

The chairman Suresh Chitturi (Samsung) opened the e-meeting that consisted of formal opening/closing sessions, a number of topic specific informal online sessions of approximately 1,5 - 2 hours each, as well as discussions over the WG SA6 email reflector. In this report the abbreviation ICC has been used to refer to Informal Conference Calls. The planning and schedule of these can be found in the meeting agenda.

**IPR Call Reminder:**

The chairman of the meeting made the following reminders about members’ obligations in relation to IPRs, and asked members to check the latest version of ETSI's policy available on the web server:

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

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

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

- to notify their respective Organizational Partners of all potential IPRs, e.g., for ETSI, by means of the IPR Statement and the Licensing declaration forms (<https://www.3gpp.org/about-3gpp/legal-matters> ).

**Antitrust declaration:**

The chairman of the meeting made the following antitrust declaration:

The attention of the delegates to the meeting was drawn to the fact that 3GPP activities were subject to antitrust and competition laws and that compliance with said laws was therefore required by any participant of the meeting, including the Chairman and Vice-Chairmen and were invited to seek any clarification needed with their legal counsel. The present meeting would be conducted with strict impartiality and in the interests of 3GPP. Delegates were reminded that timely submission of work items in advance of TSG/WG meetings was important to allow for full and fair consideration of such matters.

### 1.2 Reminder to check-in at the e-meeting

The chairman reminded delegates to check-in for the meeting.

## 2 Agenda and Chairman’s notes

**S6-201689 SA6 Meeting 39-bis-e Agenda**

*Type: agenda For: Approval  
 Source: SA6 Chairman*

**Abstract:**

Agenda for the SA6#39-bis-e meeting

**Discussion:**

The document was presented during the opening call.

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

**S6-201691 SA6 Meeting #39-bis-e - Agenda with Tdocs allocation after submission deadline**

*Type: agenda For: Approval  
 Source: SA6 Chairman*

**Abstract:**

The SA6#39-bis-e meeting agenda with Tdocs allocation after submission deadline

**Discussion:**

The document was presented during the opening call.

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

**S6-201692 SA6 Meeting #39-bis-e - Agenda with Tdocs allocation at start of the meeting**

*Type: agenda For: Approval  
 Source: SA6 Chairman*

**Abstract:**

The SA6#39-bis-e meeting agenda with Tdocs allocation at the start of the meeting

**Discussion:**

The document was presented during the opening call.

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

**S6-201693 SA6 Meeting #39-bis-e - Chairman's notes at end of the meeting**

*Type: agenda For: Approval  
 Source: SA6 Chairman*

**Abstract:**

Chairman's notes at end of the SA6#39-bis-e meeting

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

## 3 Report from previous meetings

**S6-201690 SA6 Meeting 39-e Report**

*Type: report For: Approval  
 Source: MCC*

**Abstract:**

The report of the SA6#39-e meeting.

**Discussion:**

The document was presented during the opening call.

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

**S6-201709 Report on SA6 related topics at SA#89-e**

*Type: report For: Information  
 Source: SA6 Chairman*

**Abstract:**

This document contains a brief report from SA#89-e on matters relating to SA6 WG activities.

**Discussion:**

The document was presented during the opening call.

The chairman made a remark on the Rel-17 Timeline, and he noted that it was unlikely to ne March 2021, but likely June 2021.

Motorola Solutions noted it could even be shifted beyond June 2021, like e.g. September.

The chairman further noted that meetings for Q1 and Q2 should be planned to take place in the form of e-meetings. However, a physical meeting in late Q2 could be planned in case the overall situation would improve.

As a side note (not discussed in the plenary) the chairman noted that elections will resume with start in March 2021, plenary elections to be prioritized to take place first.

There was also discussion on a topic that had been initiated by MCC, i.e. that a specific feature should be present through all stages. There was no conclusion on whether a stage 2 feature then should be removed from a spec, if it has not been included at stage 3.

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

## 4 Liaison statements

### 4.1 Incoming LSs

**S6-201694 LS on ETSI Plugtest reports**

*Type: LS in For: Information  
 Original outgoing LS: C1-204693, to ETSI Plugtests, cc SA3, SA6  
 Source: CT1*

**Abstract:**

1 . Overall description

3GPP CT1 wishes to update ETSI Plugtests on the progress made to resolve issues with 3GPP mission critical standards that were noted by Plugtest participants. The list of issues and their resolution or status can be found in clause 4 below. Where further information and input is needed for a particular issue, that request is included.

2 . Actions

To ETSI Plugtests

ACTION:

Please take the information below into account as you progress your mission critical testing.

Please provide the information requested for Issues 5 and 9.

For details see:

https://www.3gpp.org/ftp/tsg\_sa/WG6\_MissionCritical/TSGS6\_039-BIS-e/Docs/S6-201694.zip

**Discussion:**

FirstNet presented, during the opening call, the LS available in S6-201694.

Motorola Solutions was of the view that certain issues addressed to SA6, were not really an SA6 issue.

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

**S6-201695 LS on clarifications for authorised user learning about the users whose floor requests are queued**

*Type: LS in For: Action  
 Original outgoing LS: C1-205510, to SA6, cc -  
 Source: CT1*

**Abstract:**

1. Overall Description:

CT1 is working on MCPTT enhancements for Rel-17 for implementation of the stage 2 requirements that are not yet implemented in stage 3. We have found the following relevant requirements in TS 23.379:

3GPP TS 23.379:

Information flows:

10.9.1.2.5 Floor request cancel

10.9.1.2.6 Floor request cancel response

10.9.1.2.7 Floor request cancel notify

Procedures:

10.9.1.3.4.1 Floor request cancellation from the queue – MCPTT user initiated

10.9.1.3.4.2 Floor request cancellation from the queue - floor control server initiated

CT1 would like to get clarification from SA6 for the following issues:

1. There is no capability for a user, authorised or not, to get a list of those users whose floor request is queued. How does SA6 envision the authorised user learning the contents of the list of users queued with floor requests in order to be able to specify the list of users to be cancelled from the floor queue?

a. CT1 notes that, if a list of queued users is provided to an authorised user, by the time the authorised user gets the list, the list has a very high probability of having changed.

2. Would SA6 consider a procedure allowing an authorised user to request clearing the entire queue instead of specifying a list of users to be cleared?

3. CT1 also do not understand the purpose of allowing the floor control server to choose to cancel users waiting in the floor request queue, since the floor control server has no knowledge of the purpose and value of the call other than the priority used by each group member. Was it intended that the ability of the floor control server to cancel users from the floor request queue be used to handle dropping lower priority users when the queue is full?

CT1 requests SA6 to provide clarifications for the above issues to help guide CT1 in MCPTT stage 3 development.

2. Actions:

To SA6 group.

ACTION: CT1 kindly asks SA6 to kindly provide clarifications on the issues listed above to help guide CT1 in MCPTT stage 3 development.

**Discussion:**

Samsung presented, during the opening call, the LS available in S6-201695.

Samsung noted they had prepared a proposal for response in S6-201730.

**Decision:** The document was **replied to in S6-202007**.

**S6-201696 LS on application layer impact of FS\_enh\_EC solution #16**

*Type: LS in For: Action  
 Original outgoing LS: S2-2005963, to SA6, cc -  
 Source: SA2*

**Abstract:**

1. Overall Description:

SA2 has identified that a solution documented in TR 23.748 requires SA6 review for suitability before SA2 can conclude on whether to include this solution in recommended normative work. Specifically, clause 6.16 of TR 23.748 documents solution #16 (Edge Configuration Server Based Discovery) which is a solution for SA2 Key Issue #1 (Discovery).

This solution proposes to support SA6 EDGEAPP work by distributing Edge Configuration Server Information from the network to the UE from the SMF during the PDU Session Establishment. SA2 understand this solution requires that UE may be provided with the ECS IP address and/or ECS FQDN and requires enhancement to the UE (e.g. OS or OS and AT Commands) to support delivery the ECS IP address or FQDN received in NAS signalling to the EEC inside the UE. The impact on the UE and 5GC NF is documented in the solution #16 and solution evaluation of TR 23.748. SA2 has no consensus whether all of UEs can have this capability. SA2 would like request that SA6 review solution #16 in TR 23.748 for suitability, and provide timely comments to SA2.

2. Actions:

To SA6 group:

SA2 requests SA6 to review solution #16 in TR 23.748 for suitability and provide timely (for SA2#141E or SA2#142E) comments to SA2.

**Discussion:**

Revised due to error in TDoc number in the file placed in the archive.

**Decision:** The document was **revised to S6-201882**.

**S6-201882 LS on application layer impact of FS\_enh\_EC solution #16**

*Type: LS in For: Action  
 Original outgoing LS: S2-2005963, to SA6, cc -  
 Source: SA2*

(Replaces S6-201696)

**Abstract:**

Revision of the incoming LS to correct the incorrect TDoc number (S6-2011696) in the file name in the zip archive.

**Discussion:**

Qualcomm presented, during the opening call, the LS available in S6-201882.

It was noted that there were 3 different LS proposals, S6-201748, S6-201777 and S6-201816, to respond to the present incoming LS.

**Decision:** The document was **replied to in S6-202025**.

**S6-201697 LS on IP address to GPSI translation**

*Type: LS in For: Action  
 Original outgoing LS: S2-2005923, to SA6, cc SA3  
 Source: SA2*

**Abstract:**

1. Overall Description:

SA2 thanks SA6 for their LS. SA2 have discussed the incoming SA6 LS and would like to answer the following

1. SA6 Question: Is there a core network supported method to provide a UE’s GPSI to an EAS directly?

SA2 Answer: No.

2. SA6 Question: Does the core network provide an API to translate a UE's IP address (private and public) to its GPSI, and if not, would it be feasible to provide such functionality in Rel-17 in order to address the SA6 requirement for UE IP address translation?

SA2 Answer: No and there is neither on-going nor planned work at SA2 to support an API to translate a UE's address (allocated by 5GC or public/NATed IP address or Ethernet address) to its GPSI. SA2 would like to understand the use case for this SA6 requirement.

3. SA6 Question: While providing the functionality requested in bullet 1, is it feasible to provide application-specific GPSIs, to ensure that a single GPSI cannot be used to track an end user's activity across applications (EASs), to protect end user privacy?

SA2 Answer: SA2 would like to point out that a subscription may have one or several External Identifier(s) but whether is an appropriate mechanism to protect end users privacy is up to SA3 to comment on.

SA2 would also like to comment about “Allowing NEF to provide the AF with a corresponding GPSI “; security concerns were raised and SA2 would work in the future on this part of SA6 request only if agreed by SA3

2. Actions:

To SA6 group.

ACTION: SA2 would like SA6 to kindly consider the above and provide feedback accordingly.

**Discussion:**

Samsung presented, during the opening call, the LS available in S6-201697.

Samsung noted there was a draft reply available as S6-201813.

**Decision:** The document was **replied to in S6-202008**.

**S6-201700 Reply LS on security procedures for Edge Applications**

*Type: LS in For: Action  
 Original outgoing LS: S3-202087, to SA6, cc -  
 Source: SA3*

**Abstract:**

1. Overall Description:

SA3 would like to thank SA6 for their LS on security procedures for Edge Applications, and provide the following feedback.

SA3 is currently working on key issues and the corresponding security requirements for edge computing in TR 33.839. Most of these valuable security requirements provided by SA6 is discussed and involved in the TR 33.839 during SA3 #100e meeting. The other requirements will be taken into account in the following SA3 meeting. Therefore, it is too early to provide solutions that fulfil SA6 security requirement at this stage.

2. Actions:

To SA6 group.

ACTION: SA3 kindly asks SA6 to take above information into account.

**Discussion:**

Huawei presented, during the opening call, the LS available in S6-201700.

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

**S6-201698 Response LS on 5GMSG requirement clarifications**

*Type: LS in For: Action  
 Original outgoing LS: S1-203273, to SA6, cc -  
 Source: SA1*

**Abstract:**

1. Overall Description:

SA1 thanks SA6 for their LS on 5GMSG requirement clarifications.

SA1 notes that the first 3 questions in the LS relate to the following requirement from TS 22.262.

[R-5.1.2-002] The MSGin5G Service shall support variable size of payload of a text or data message with maximum [2048] bytes, and support segmented transmission if the content is large than the maximum payload length of a message.

Question 1: Is the segment size [2048] bytes a fixed value or a configurable value?

Answer 1: In [R-5.1.2-002] the value [2048] represents the upper limit of the configurable size payload to be supported by 5GMSG. [R-5.1.2-002] also includes the requirement to support the case where the payload is larger than the maximum payload length. Therefore, the value [2048] also represents the maximum segment size if the 5GMSG Service payload requires segmentation. It is up to SA6 how to implement a mechanism supporting variable size payloads, e.g. by supporting configurable segment sizes.

Question 2: If the segment size [2048] bytes is a fixed value, why [2048] is chosen?

Answer 2: The value [2048] is an example value which was chosen as the upper limit of the payloads to be supported by 5GMSG Service based on MIoT use cases analysed in the context of 5GMSG. The value of 2048 bytes reflects “an order of magnitude” based on use cases. If SA6 has specific reasons to prefer a different value, then SA1 invites SA6 to suggest a different value within the same order of magnitude.

Question 3: If the segment size [2048] bytes is a configurable value, does SA1 have a recommended range of the segment size?

Answer 3: See also answer 1. For a mechanism with configurable maximum segment size, it is up to SA6 to decide the allowed range of segment sizes (as long as the maximum segment size is not larger than 2048 bytes).

SA1 notes that questions 4 thru 6 in the LS relate to the following text from TS 22.262.

“To meet the requirements of remote control, the MSGin5G Service needs to provide very low end-to-end latency and high reliability of message delivery.”

“The AOMT messages are time sensitive. The MSGin5G Service needs to support low latency delivery of AOMT messages.”

Question 4: Does MSGin5G service require to support priority among messages to meet low latency requirement?

Answer 4: In terms of latency, SA1 would like to point out [R-5.5.2-001] which states that “The MSGin5G Service shall support broadcasting a text or data message with end-to-end latency less than [500] ms”. Given that the MSGin5G service is required to support a variety of latencies and reliability levels, it should support a way of differentiating between these levels. It is up to SA6 to determine how differentiating between these levels is implemented, (e.g. priority).

Question 5: If priority is required to be supported among messages, then on what basis the priority is set for the messages?

Answer 5: See also Answer 4. Message delivery differentiation shall be based on criteria including (but not limited to) latency and reliability.

Question 6: If priority among messages are not required to be supported, then does SA1 have a recommendation to differentiate messages that needs to be sent periodically (e.g. hourly basis) and messages that are time sensitive?

Answer 6. See also answers 4 and 5. It is out of SA1 scope to specify message delivery mechanisms.

SA6 also addressed the following question for clarification:

Question 7: Does MSGin5G service require to support conversation based and session based communication?

Answer 7: SA1 does not have requirements for the support of conversational based or session based communication with 5GMSG.

2. Actions:

To SA6 group.

ACTION: SA1 kindly asks SA6 to take the above answers into account.

**Discussion:**

Convida presented, during the opening call, the LS available in S6-201698.

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

**S6-201699 LS on 5GMSG store and forward**

*Type: LS in For: Action  
 Original outgoing LS: S1-203275, to SA6, cc -  
 Source: SA1*

**Abstract:**

1. Overall Description:

SA1 thanks SA6 for their LS on 5GMSG store and forward.SA1 would like to clarify the related requirements as below.

Q1: Does the [R-5.1.2-005] requirement mean to store a message for later delivery only when a UE is unavailable at the time of delivery? Or can this store and forward feature also be used by the MSGin5G service sending endpoint to send a message to be delivered later with a specific criteria such as at the certain time of the day?

SA1 Response: [R-5.1.2-005] requirement means to store a message for later delivery only when a UE is unavailable at the time of delivery..

Q2: Does the [R-5.1.2-005] requirement allow the originator to provide processing preferences such as priority in the forwarding queue, maximum storage time, etc. or are such parameters subject solely to MSGin5G node policy?

SA1 Response: Processing preferences is not specified in 22.262.

Q3: Does the [R-5.1.2-005] requirement apply to all types of message in MSGin5G Service, i.e. all 5GMSGS messages, legacy-3GPP messages and Non-3GPP messages? If the message is needed to be sent via legacy-3GPP message (e.g. SMS) or non-3GPP message, and it can not be delivered as the terminating UE is unavailable at this time, whether it is needed for the MSGin5G service to store the Legacy-3GPP message or non-3GPP message for the further delivery?

SA1 Response: The answer is yes. The existing requirement applies to all types of message in MSGin5G Service.

2. Actions:

To SA6 group.

ACTION: SA1 kindly asks SA6 group to take the above clarification into consideration.

**Discussion:**

Samsung presented, during the opening call, the LS available in S6-201699.

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

**S6-201701 Reply LS on Key Management procedure in SEAL**

*Type: LS in For: Information  
 Original outgoing LS: S3-202177, to CT3, cc SA6, CT1  
 Source: SA3*

**Abstract:**

1. Overall Description:

SA3 would like to thank CT3 for the LS on Key Management Procedure in SEAL. In LS S3-201508 (C3-203588), CT3 asks for clarification regarding certain fields in the SEAL KM Request and Response messages as specified in clause 5.3.2 of TS 33.434. SA3 has provided the following responses to the CT3 questions:

Q1. Need clarity on the “Version” information element. What is the purpose of this version? Is it used to identify a key version or a message version for the reference point?

SA3 A1: The ‘Version’ field within the SEAL KM Request message is meant to identify the message version of the SEAL KM Request message.

SA3 will consider clarifying the ‘Version’ field in 3GPP TS 33.434.

Q2. On ClientID that maps to the VAL client, there is no explicit requirement in TS 23.434 requiring a VAL server to support VAL client id. Is ClientID needed only for KM-UU? Or it is also applicable for KM-S reference point?

SA3 A2: For flexibility in the SEAL key management procedure, SA3 believes that the VAL server may support a VAL client ID. If the KM-S reference point (between the Val Server and the Key management server) follows a client/server model which is likely as it supports the HTTP-1 and HTTP-2 interfaces, then the VAL server would perform the HTTP client role and could provide a client ID to the SKM-S in the SEAL KM Request message. Note that the other optional SEAL KM Request parameters (DeviceID or UserID) may also be used by a VAL server instead of a ClientID, in conjunction with the ServiceID and access token.

SA3 will consider clarifying the use of the ‘ClientID’ field in 3GPP TS 33.434.

Q3. Except for identifying the late requests and responses, is there any other requirement of date/time in the KM request and the corresponding KM request response?

SA3 A3: The ‘Date/Time’ field is used primarily as an anti-replay mechanism for SEAL key management requests and responses. If the ‘Date/Time’ field is significantly out of range, this could indicate a replay attack. At this time, there is no other intended use for the ‘Date/Time’ parameter.

SA3 will consider clarifying the ‘Date/Time’ field in 3GPP TS 33.434.

Q4. As per SEAL KM request procedure, the KMS shall verify the SKMSUri is the SKM-S URI of the target SEAL KMS. It is not clear if the SKMSUri is the URI where the key information are storedor it is a URI on the target KMS that the receiving KMS needs to further use/contact the target KMS via SEAL-E reference point by using the SkmsURI?

SA3 A4: The ‘SKMSUri’ field in the SEAL KM Request message is the URI of the SKM-S where the key information is stored.

SA3 will consider clarifying the ‘SKMSUri’ parameter in 3GPP TS 33.434.

Q5. In SEAL KM response message, why is “Payload” optional and what is the meaning of “if the request does not require a payload” in its description? Are these to indicate there is no provisioned key material specific to the VAL service, VAL user/ue/client in the SEAL KM request? If so, what is the expected behavior for the VAL server, VAL user/ue/client after receiving the response without key?

SA3 A5: The ‘payload’ field is optional in the SEAL KM Response message. For the use case when an error occurs in the processing of the SEAL KM Request message, an error indication is returned to the client and the ‘payload’ field is not present. A ‘payload’ field should be present and contain a set of security parameters, however the key material contents or the payload are defined by the underlying VAL service or application and are outside the scope of SEAL specification TS 33.434. Its presence, response or behaviour depends on the VAL service or application and should be defined by the particular vertical specification.

If an error is returned and indicates that key material cannot or will not be provided, it seems reasonable that the error should be raised to the user and/or the operator of the VAL service, UE or client.

SA3 will consider further clarifying the optional ‘payload’ field in 3GPP TS 33.434.

2. Actions:

To CT3 group.

ACTION: SA3 respectfully asks CT3 to take the above information into consideration regarding development of the SEAL Stage 3 security.

**Discussion:**

Motorola briefly presented, during the opening call, the LS available in S6-201701.

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

**S6-201714 Support of UAVs in 3GPP system and interfacing with USS/UTM**

*Type: LS in For: Action  
 Original outgoing LS: -, to SA2, cc SA6, SA3, SA1  
 Source: ACJA (GSMA and GUTMA)*

**Abstract:**

Introduction

Aerial Connectivity Joint Activity (ACJA) is the first initiative to result from the cooperation agreement signed last year by the GSMA and the Global UTM Association (GUTMA)\*1. ACJA has been conceived in large part to give relevant members of the aviation and cellular industries a forum by which they can share views on how their two worlds can work most effectively together. ACJA therefore also aims to educate stakeholders from across the cellular and aviation ecosystems – in particular, by creating a common understanding. Particular focus for ACJA will be given to how standards are used to promote safety, as standards-based systems benefit from more testing, data analysis, and experience than individual proprietary systems. ACJA’s work will also seek to identify the potential capabilities and needs of cellular networks in unmanned traffic management (UTM) and aviation in general. The Global UTM Association (GUTMA) is a non-profit consortium of worldwide Unmanned Aircraft Systems Traffic Management (UTM) stakeholders. Its purpose is to foster the safe, secure and efficient integration of drones in national airspace systems. Its mission is to support and accelerate the transparent implementation of globally interoperable UTM systems. GUTMA gathers various type of stakeholders starting from UTM companies, Drone Manufacturers, Aircraft manufacturers, CAAs, ANSPs and Airline. As a strong player in UTM world, GUTMA is working with FAA / EASA and SDOs to provide market driven recommendations and standards.

Overall Description

ACJA formed four main area of work, and one of the work tasks is related to Cellular standards, a group led by Stefano Faccin, Director, Technical Standards at Qualcomm. The work task allows to share 3GPP developments pertinent to Unmanned Aircraft Systems (UAS) to both GSMA and GUTMA. As part of the work ACJA circulated a survey to GUTMA members to solicit views from the USS community regarding some aspects that have been under discussion in 3GPP SA2. Specifically, the following three aspects have been discussed: Interfacing between USS and 3GPP mobile networks The USS will consider the 3GPP mobile network as one of multiple Supplementary Data Service Providers (SDSP) the USS will be interfacing with as part of the overall UTM model.

\*1 https://www.gsma.com/iot/news/gsma-and-gutma-launch-new-joint-initiative-to-align-mobile-andaviation-industries/

GUTMA realizes that a USS would interface with the 3GPP mobile networks for a variety of potential services: location and tracking (using 3GPP location services), requiring specific QoS assuring minimum safety and operability and providing required reporting. It is expected that such 3GPP services will be available to USS leveraging the existing Network Exposure Function (NEF) webservices framework, where a set of APIs is available for the USS to invoke such services.

The GUTMA survey has indicated that the interfacing between the USS and the SDSPs should minimize the burden and impact on the USS, which includes the need for complex interfacing solutions and the need for new functionality in the USS. GUTMA considers that requiring a USS to implement solutions like Diameters, EAP, and the need for the USS to become an EAP/Diameter server would add unnecessary complexity to the USS which is not required for interfacing with any other SDSPs. Interfacing with the 3GPP system via a mechanism like NEF/SCEF is preferred.

UAV and UAV Controller Model Regulations regarding UAV and UAV controllers at present focus on non-networked UAV controllers, i.e. UAV controllers that are not 3GPP devices and that typically connect to the UAV via a an RF link that is not a 3GPP link. GUTMA is aware that 3GPP has considered also the scenario of networked UAV controllers, where the UAV controller communicates with the UAV via the 3GPP network using network connectivity, and for which there is no fix and strict pairing between a UAV and a UAV controller.

In the industry there are numerous examples already flying in which the cellular data link provided by an MNO is considered the C2 link and thus, by definition, "part" of the Unmanned Aircraft System, and the controller is located in the Internet or is a 3GPP device. However, such model is not formalized in regulations and no directives exist on how to identify the UAV controller separately from the UAV.

GUTMA recognizes the interest for such scenario in the future, however at present there are no regulations describing such scenarios, and there is varied interest in this scenario. This is likely due to a range of factors, from the lack of availability of the services to UAV operators to their understanding of how these services would be shown to fit within the UAV regulation compliance arguments within a SORA. Within this is how the UAV controller would be identified separately from the UAV. GUTMA considers this is not a priority scenario for the integration of 3GPP mobile networks in the UTM ecosystem, and that this does not need to be addressed necessarily in the first release of the 3GPP work and can be considered in future 3GPP work as needed and when regulations covering this scenario are developed. GUTMA recognizes that assumptions on how a UAVC is identified separately from the UAV would be based on solutions not supported at present in the aviation community and in existing regulations.

UAV identification at USS level ASTM and the Federal Aviation Administration (FAA) Notice of Proposed Rule Making (NPRM) have defined three types of UAV identities to be used for UAV identification in the framework of Remote Identification. In addition to Serial Number and UUII contained in the ASTM standard, a dynamic Session ID as defined in the FAA NPRM is also considered.

It has been brought to GUTMA’s attention that 3GPP has been discussing solutions in which the Session ID may be dynamically allocated by the USS to the UAV operator (and thus their UAV) in collaboration with the SDSP (the 3GPP Mobile Network Operator or MNO). This offers interesting opportunities for greater collaboration and data sharing between the USS and SDSP MNO, both in support of the defined intent of the Remote ID and the wider location, tracking, and data services to the UAV operator. This can be e.g. used in order to enable routing of queries by a ground entity (e.g. police car) to the SDSP based on the Session ID received in the Broadcast Remote Identification. As an example, this would enable the querying entity to retrieve the UAV location and additional information not broadcasted (e.g. the full UAV identity), and for the SDSP MNO to route the query to the USS in order to retrieve further UAV-related information. The format of such Session ID would of course be defined by the USS community and not the MNO specifically, to ensure consistency for an USS using multiple MNOs. It should be noted that with this mechanism the Session ID is tied to the MNO for the lifetime of the Session ID. GUTMA sees the potential with exploring such an optional approach for allocation and expanded use of the Session ID.

ACTIONS GSMA and GUTMA, as part of the joint activity ACJA, kindly asks 3GPP to take this information into account.

**Discussion:**

Airbus presented, during the opening call, the LS available in S6-201714.

Huawei made a remark that it will be of interest to follow what response SA2 will provide.

Qualcomm made a remark that this was an excellent paper indicating the customers' priorities.

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

**S6-201702 LS on Rel-17 schedule**

*Type: LS in For: Action  
 Original outgoing LS: SP-200888, to SA1, SA2, SA3, SA4, SA5, SA6, CT, cc RAN  
 Source: SA*

**Abstract:**

1. Overall Description:

SA acknowledges that the current Rel-17 Stage 2 freeze date (i.e. Dec 2020) is unrealistic and agrees that a shift in stage-2 freeze dates is required.

The decision on new Rel-17 Stage-2 freeze dates will be taken at SA#90-e as part of the discussion on the overall Rel-17 timeline, in coordination with RAN and CT.

2. Actions:

To SA1, SA2, SA3, SA4, SA5, SA6, CT

ACTION:

Please take the above decision into account.

To SA2

ACTION:

1. SA2 should complete Rel-17 study items (i.e. reach conclusions on the Key Issues) by Dec 2020. Any Key Issue not concluded (e.g. due to RAN/other dependencies) should be informed to the SA#90-e.

2. SA2 should produce Rel-17 work item descriptions (as per Rel-17 study items conclusions) and submit to SA#90-e.

**Discussion:**

The chairman presented, during the opening call, the LS available in S6-201702.

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

**S6-201883 Reply LS on ETSI Plugtest reports**

*Type: LS in For: Information  
 Original outgoing LS: -, to -, cc -  
 Source: UPV/EHU (ETSI MCX Plugtests)*

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

### 4.2 Outgoing LSs

**S6-201730 Reply LS on clarifications for authorised user learning about the users whose floor requests are queued**

*Type: LS out For: Approval  
 to CT1  
 Source: Samsung R&D Institute India*

**Abstract:**

Response to LS (S6-201695) on Floor request cancel and authorize user learning about the users whose floor request are queued procedure from CT1

**Discussion:**

Samsung presented, during the opening call, a draft LS for a response to the incoming LS in S6-201695.

FirstNet point out that the proposed response seems to be concentrating on one particular issue only, but was in general fine with the proposal.

Motorola Solutions suggested checking whether the stage 1 requirements are still valid.

The status of the contribution was discussed during ICC#7.

It was noted the LS would be (if needed) revised to include correct attachment.

**Decision:** The document was **revised to S6-201911**.

**S6-201911 Reply LS on clarifications for authorised user learning about the users whose floor requests are queued**

*Type: LS out For: Approval  
 to CT1  
 Source: Samsung R&D Institute India*

(Replaces S6-201730)

**Discussion:**

The only change is to include the correct attachment i.e. S6-202006.

**Decision:** The document was **revised to S6-202007**.

**S6-202007 Reply LS on clarifications for authorised user learning about the users whose floor requests are queued**

*Type: LS out For: Approval  
 to CT1  
 Source: Samsung R&D Institute India*

(Replaces S6-201911)

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

**S6-201814 UE ID API and UE IP address to GPSI translation**

*Type: discussion For: Discussion  
 Source: Samsung Electronics*

**Abstract:**

Discussion paper on UE ID API & UE IP address to GPSI translation.

**Discussion:**

Related to proposed outgoing LS S6-201813.

**Decision:** The document was **revised to S6-201972**.

**S6-201972 UE ID API and UE IP address to GPSI translation**

*Type: discussion For: Discussion  
 Source: Samsung Electronics*

(Replaces S6-201814)

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

**S6-201813 LS reply on UE IP address to GPSI translation**

*Type: LS out For: Approval  
 to SA2, SA3  
 Source: Samsung Electronics*

**Discussion:**

Samsung presented, during the opening call, the draft outgoing LS available in S6-201813.

A related discussion paper can be found in S6-201814.

Nokia raised a concern with regard to the UE IP address to GPSI translation.

The meeting ICC#8 discussed a further revision of the draft LS (r3).

Nokia raised concerns with the LS and suggested e.g. rephrasing (with a requirement as opposed to a solution) the last paragraph.

Convida suggested clarifying whether an UE can have several external IDs.

Qualcomm was of the view that the question was not about whether an UE can have several external IDs.

AT&T disagreed with the view of Qualcomm.

**Decision:** The document was **revised to S6-201971**.

**S6-201971 LS reply on UE IP address to GPSI translation**

*Type: LS out For: Approval  
 to SA2, SA3  
 Source: Samsung Electronics*

(Replaces S6-201813)

**Decision:** The document was **revised to S6-202008**.

**S6-202008 Reply LS on IP address to GPSI translation**

*Type: LS out For: Approval  
 to SA2, SA3  
 Source: SA6*

(Replaces S6-201971)

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

**S6-201747 Way forward of providing ECS information/IP address to UE**

*Type: discussion For: Discussion  
 23.558 v..  
 Source: vivo*

**Abstract:**

This contribution proposes a way forward of providing new ECS information/IP address to UE. And this discussion paper refers to LS reply on application layer impact of FS\_enh\_EC solution #16.

**Discussion:**

Vivo presented, during the opening call, a discussion paper in relation to the proposed LS response S6-201748 (response to incoming LS S6-201882).

Convida did not see the relevance of the discussion paper.

Ericsson raised concerns about the solution 4.

Qualcomm disagreed with various points of the paper like the reuse of DNS or local DNS.

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

**S6-201748 LS Reply on application layer impact of FS\_enh\_EC solution #16**

*Type: LS out For: Approval  
 to SA WG2  
 Source: vivo*

**Discussion:**

Vivo presented the draft LS, during the opening call. The document proposes a response to incoming LS S6-201882.

A related discussion paper can be found as S6-201747.

After having discussed the papers S6-201748, S6-201777 and S6-201816 and decision to merge the papers into S6-201777, Vivo stressed to include some information on the limitations of solution 16.

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

**S6-201777 LS Reply on application layer impact of FS\_enh\_EC solution #16**

*Type: LS out For: Approval  
 to SA2  
 Source: Qualcomm Technologies Int*

**Discussion:**

Qualcomm presented the draft LS, during the opening call. The document proposes a response to incoming LS S6-201882.

Convida indicated principal support for the proposed LS.

Vivo raised concerns over UEs that does not possess the capability in questions.

Qualcomm was of the view that the solution 16 is able to serve large enough population of UEs.

Further changes were discussed during the ICC4.

There was a proposal to recommend solution 16 to SA2.

Vivo however had concerns with the recommendation as the topic had been contentious.

The was a proposal to rephrase stating that SA6 believes solution 16 is suitable.

Convida however was in support of a stronger language than e.g. "is suitable".

InterDigital suggested to stay with technical facts.

Another draft proposal (r7) was discussed during the ICC#8.

**Decision:** The document was **revised to S6-201903**.

**S6-201903 LS Reply on application layer impact of FS\_enh\_EC solution #16**

*Type: LS out For: Approval  
 to SA2  
 Source: Qualcomm Technologies Int*

(Replaces S6-201777)

**Decision:** The document was **revised to S6-202025**.

**S6-202025 LS Reply on application layer impact of FS\_enh\_EC solution #16**

*Type: LS out For: Approval  
 to SA2  
 Source: SA6*

(Replaces S6-201903)

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

**S6-201815 Discussion on Provisioning ECS Address Information via the 5GC**

*Type: discussion For: Discussion  
 Source: Convida Wireless LLC, ATT, Samsung*

**Abstract:**

Observations and proposals enabling drafting of an LS response to S2-2005963 / S6-201696

**Discussion:**

Convida presented, during the opening call. The present discussion paper related to the draft outgoing response LS in S6-201816.

Intel was of the view that the paper seemed to contain much, maybe too much detail, and that some stage 3 information was included. However, they agreed with the view on support for solution 16 for normative work.

Convida agreed that possibly some detail could be left out, but that most of it served a purpose.

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

**S6-201816 [DRAFT] Reply LS on application layer impact of FS\_enh\_EC solution #16**

*Type: LS out For: Approval  
 to SA2  
 Source: Convida Wireless LLC, ATT, Samsung*

**Abstract:**

Draft response to SA2 LS S2-2005963 / S6-201696

**Discussion:**

Convida presented the draft LS, during the opening call. The document proposes a response to incoming LS S6-201882. The main discussion revolved around the related discussion paper that can be found as S6-201815.

The chairman suggested to merge the 3 LSs, S6-201748, S6-201777 and S6-201816, by using S6-201777 as a starting point and hence have one email discussion thread only.

Convida however noted they like to see some of the material in S6-201816 included in the LS.

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

**S6-201840 LS on DNAI clarification and enhancements**

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

**Abstract:**

Proposal for LS on DNAI clarification and enhancements

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

**S6-201884 APIs in EDGEAPP**

*Type: LS out For: Approval  
 to CT1, cc CT3, CT4  
 Source: SA6*

**Discussion:**

Samsung presented the draft LS available as S6-201884 during ICC#8.

Huawei raised concerns with current wording and did not think it was necessary to attach the S6-201799.

**Decision:** The document was **revised to S6-201973**.

**S6-201973 APIs in EDGEAPP**

*Type: LS out For: Approval  
 to CT1, cc CT3, CT4  
 Source: SA6*

(Replaces S6-201884)

**Discussion:**

Only change is to remove "Draft" from the title.

**Decision:** The document was **revised to S6-202009**.

**S6-202009 LS on APIs in EDGEAPP**

*Type: LS out For: Approval  
 to CT1, CT3, cc CT4  
 Source: SA6*

(Replaces S6-201973)

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

## 5 Items for early consideration

### 5.1 Working Agreements

### 5.2 Others

## 6 Rel-16 Work Items

**S6-201778 Fixing media resources request procedure from MC service server**

*Type: CR For: Agreement  
 23.280 v16.5.0 CR-0276 Cat: F (Rel-16)  
  
 Source: Ericsson*

**Abstract:**

When the SIP core provides NAT traversal, the call setup procedure shall include that the MC service client provides access resource details (e.g. IP addresses and ports of the client and the media anchoring points) required by the MC service server to re

**Discussion:**

Ericsson presented the doc S6-201778, during the ICC1.

Huawei suggested including further clarifications.

Motorola Solutions was of the view that this was a very implementation specific proposal.

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

**S6-201780 Access resource information in MCPTT information flows**

*Type: CR For: Agreement  
 23.379 v16.6.1 CR-0281 Cat: F (Rel-16)  
  
 Source: Ericsson*

**Abstract:**

For the case that the SIP core provides NAT traversal for the MCPTT service, information flows are modified to include required access resources information which are missing to enable the request of network resources for the media plane via the MCPTT-5 r

**Discussion:**

Ericsson presented the doc S6-201780, during the ICC1.

Motorola Solutions did not consider the proposed correction to be an essential correction for Rel-16, and further suggested simplifying the proposal.

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

**S6-201789 IP connectivity, SDS and FD functional model correction**

*Type: CR For: Agreement  
 23.282 v16.7.0 CR-0247 Cat: F (Rel-16)  
  
 Source: Union Inter. Chemins de Fer*

**Abstract:**

Updates of figures that correspond to the following service capabilities:

-IP connectivity: Correction of figure 6.8.1-1

-SDS: Correction of figure 6.5.1-1 and reordering of the corresponding text.

-File Distribution (FD): Correction of figure 6.6.1-1 an

**Decision:** The document was **revised to S6-201894**.

**S6-201894 IP connectivity, SDS and FD functional model correction**

*Type: CR For: Agreement  
 23.282 v16.7.0 CR-0247 rev 1 Cat: F (Rel-16)  
  
 Source: Union Inter. Chemins de Fer*

(Replaces S6-201789)

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

**S6-201790 IP connectivity, SDS and FD functional model correction**

*Type: CR For: Agreement  
 23.282 v17.4.0 CR-0248 Cat: A (Rel-17)  
  
 Source: Union Inter. Chemins de Fer*

**Abstract:**

Updates of figures that corresponds to the following service capabilities:

-IP connectivity: Correction of figure 6.8.1-1

-SDS: Correction of figure 6.5.1-1 and reordering of the corresponding text.

-File Distribution (FD): Correction of figure 6.6.1-1 an

**Discussion:**

WID to be changed from eMCData3 to eMCData2.

**Decision:** The document was **revised to S6-201934**.

**S6-201934 IP connectivity, SDS and FD functional model correction**

*Type: CR For: Agreement  
 23.282 v17.4.0 CR-0248 rev 1 Cat: A (Rel-17)  
  
 Source: Union Inter. Chemins de Fer*

(Replaces S6-201790)

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

**S6-201712 Align Annex B with changes to “auto-send”**

*Type: CR For: Agreement  
 23.282 v16.7.0 CR-0244 Cat: F (Rel-16)  
  
 Source: AT&T GNS Belgium SPRL*

**Abstract:**

Align Annex B with changes to “auto-send”

**Discussion:**

WID to be changed from eMCData3 to eMCData2.

**Decision:** The document was **revised to S6-201901**.

**S6-201901 Align Annex B with changes to “auto-send”**

*Type: CR For: Agreement  
 23.282 v16.7.0 CR-0244 rev 1 Cat: F (Rel-16)  
  
 Source: AT&T, FirstNet*

(Replaces S6-201712)

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

**S6-201710 Align Annex B with changes to “auto-send”**

*Type: CR For: Agreement  
 23.282 v17.4.0 CR-0242 Cat: F (Rel-17)  
  
 Source: AT&T GNS Belgium SPRL*

**Abstract:**

Align Annex B with changes to “auto-send”.

**Discussion:**

During the opening call it was noted that this CR should be cat A as it is a mirror CR of S6-201712 as a result the WID should be changed to WID eMCData2.

**Decision:** The document was **revised to S6-201899**.

**S6-201899 Align Annex B with changes to “auto-send”**

*Type: CR For: Agreement  
 23.282 v17.4.0 CR-0242 rev 1 Cat: A (Rel-17)  
  
 Source: AT&T, FirstNet*

(Replaces S6-201710)

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

**S6-201713 Correction to the transmission control configuration parameters**

*Type: CR For: Agreement  
 23.282 v16.7.0 CR-0245 Cat: F (Rel-16)  
  
 Source: AT&T GNS Belgium SPRL*

**Abstract:**

Correction to the transmission control configuration parameters

**Decision:** The document was **revised to S6-201902**.

**S6-201902 Correction to the transmission control configuration parameters**

*Type: CR For: Agreement  
 23.282 v16.7.0 CR-0245 rev 1 Cat: F (Rel-16)  
  
 Source: AT&T GNS Belgium SPRL*

(Replaces S6-201713)

**Discussion:**

The only change is to revert the proposed change to "criteria".

**Decision:** The document was **revised to S6-202010**.

**S6-202010 Correction to the transmission control configuration parameters**

*Type: CR For: Agreement  
 23.282 v16.7.0 CR-0245 rev 2 Cat: F (Rel-16)  
  
 Source: AT&T GNS Belgium SPRL*

(Replaces S6-201902)

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

**S6-201711 Correction to the transmission control configuration parameters**

*Type: CR For: Agreement  
 23.282 v17.4.0 CR-0243 Cat: F (Rel-17)  
  
 Source: AT&T GNS Belgium SPRL*

**Abstract:**

Correction to the transmission control configuration parameters

**Discussion:**

During the opening call it was noted that this CR should be cat A as it is a mirror CR of S6-201713 as a result the WID should be changed to WID eMCData2.

**Decision:** The document was **revised to S6-201900**.

**S6-201900 Correction to the transmission control configuration parameters**

*Type: CR For: Agreement  
 23.282 v17.4.0 CR-0243 rev 1 Cat: A (Rel-17)  
  
 Source: AT&T GNS Belgium SPRL*

(Replaces S6-201711)

**Discussion:**

The only change is to revert the proposed change to "criteria".

**Decision:** The document was **revised to S6-202011**.

**S6-202011 Correction to the transmission control configuration parameters**

*Type: CR For: Agreement  
 23.282 v17.4.0 CR-0243 rev 2 Cat: A (Rel-17)  
  
 Source: AT&T GNS Belgium SPRL*

(Replaces S6-201900)

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

**S6-201845 FA controlling role description in MCVideo**

*Type: CR For: Agreement  
 23.281 v16.3.0 CR-0154 Cat: F (Rel-16)  
  
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for FA controlling role description in MCVideo

**Decision:** The document was **revised to S6-201995**.

**S6-201995 FA controlling role description in MCVideo**

*Type: CR For: Agreement  
 23.281 v16.3.0 CR-0154 rev 1 Cat: F (Rel-16)  
  
 Source: Huawei, Hisilicon*

(Replaces S6-201845)

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

**S6-201846 FA controlling role description in MCVideo**

*Type: CR For: Agreement  
 23.281 v17.4.0 CR-0155 Cat: A (Rel-17)  
  
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for FA controlling role description in MCVideo

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

**S6-201847 FA management procedure in MCVideo**

*Type: CR For: Agreement  
 23.281 v16.3.0 CR-0156 Cat: F (Rel-16)  
  
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for FA management procedure in MCVideo

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

**S6-201848 FA management procedure in MCVideo**

*Type: CR For: Agreement  
 23.281 v17.4.0 CR-0157 Cat: A (Rel-17)  
  
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for FA management procedure in MCVideo

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

**S6-201866 Updates to group creation notification**

*Type: CR For: Agreement  
 23.434 v16.5.0 CR-0028 Cat: F (Rel-16)  
  
 Source: Samsung*

**Abstract:**

The CR adds a pre-condition to clarify that the group management server is aware of the target URI of all group members

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

**S6-201867 Clarification on group join notification**

*Type: CR For: Agreement  
 23.434 v16.5.0 CR-0029 Cat: F (Rel-16)  
  
 Source: Samsung*

**Abstract:**

Proposal is to add clarification in clauses 10.3.8.2 and 10.3.9.2 explaining the entities that the identity list notification is sent only to the entities whose subscription to receive notifications of newly registered VAL UE IDs is successful.

**Decision:** The document was **revised to S6-201935**.

**S6-201935 Clarification on group join notification**

*Type: CR For: Agreement  
 23.434 v16.5.0 CR-0029 rev 1 Cat: F (Rel-16)  
  
 Source: Samsung*

(Replaces S6-201867)

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

**S6-201872 Resolution of ENs on security aspects**

*Type: CR For: Agreement  
 23.434 v16.5.0 CR-0030 Cat: F (Rel-16)  
  
 Source: Samsung*

**Abstract:**

The contribution proposes resolving security related ENs with appropriate subclauses from TS 33.434 and TS 29.549.

**Decision:** The document was **revised to S6-201936**.

**S6-201936 Resolution of ENs on security aspects**

*Type: CR For: Agreement  
 23.434 v16.5.0 CR-0030 rev 1 Cat: F (Rel-16)  
  
 Source: Samsung*

(Replaces S6-201872)

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

## 7 Rel-17 Work Items

### 7.1 eMONASTERY2 – Enhancements to Application Architecture for the Mobile Communication System for Railways Phase 2

**S6-201706 Improvements for IP connectivity point-to-point MCData service**

*Type: discussion For: Discussion  
 Source: Kontron Transportation France*

**Abstract:**

Discussion paper on enhancement to IP connectivity point-to-point MCData service to allow optionally a direct connection between the involved clients

**Discussion:**

Kontron presented the doc S6-201706, during the ICC1.

Motorola Solutions did not support the proposal as it, according to them, could result in security issues. They also noted that TS 23.501 is a 5G spec.

AT&T agreed in principle with the proposal but thought it would require further rework.

Ericsson also noted that further study would be required in order to complete the solution.

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

**S6-201707 Enhancement to IP connectivity point-to-point MCData service to allow optionally a direct connection between the involved clients**

*Type: CR For: Approval  
 23.282 v17.4.0 CR-0241 Cat: B (Rel-17)  
  
 Source: Kontron Transportation France*

**Abstract:**

This paper describes an enhancement for the IP connectivity point-to-point MCData service to optionally establish the media plane directly between the two involved MCData IP connectivity clients.

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

**S6-201844 Call restrictions for normal private calls**

*Type: CR For: Agreement  
 23.281 v17.4.0 CR-0153 Cat: C (Rel-17)  
  
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for Call restrictions for normal private calls

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

### 7.2 MCIOPS – MC services support on IOPS mode of operation

### 7.3 enh3MCPTT – Enhanced Mission Critical Push-to-talk architecture phase 3

**S6-201729 Authorized user being notified about other users floor queue status**

*Type: CR For: Agreement  
 23.379 v17.4.0 CR-0279 Cat: B (Rel-17)  
  
 Source: Samsung R&D Institute India*

**Abstract:**

The stage 2 has the architecture requirement and procedure for floor request cancellation from the floor request queue by authorized user or floor control server. To realize this procedure the authorized user should learn about the queued floor request s

**Discussion:**

Samsung presented the doc S6-201729, during the ICC1.

Motorola Solution made a remark that there was no requirement for cancelling the whole queue.

BDBOS commented that removing one user is not needed, but the whole list would make more sense.

FirstNet agreed that cancelling the whole queue would be useful, unfortunately the requirement only addressed cancelling one user.

Further developments of the contribution (R2) were discussed during the ICC7.

**Decision:** The document was **revised to S6-201910**.

**S6-201910 Authorized user being notified about other users floor queue status**

*Type: CR For: Agreement  
 23.379 v17.4.0 CR-0279 rev 1 Cat: B (Rel-17)  
  
 Source: Samsung R&D Institute India*

(Replaces S6-201729)

**Discussion:**

During the closing call it was noted that the figure should be made editable (only change).

**Decision:** The document was **revised to S6-202006**.

**S6-202006 Authorized user being notified about other users floor queue status**

*Type: CR For: Agreement  
 23.379 v17.4.0 CR-0279 rev 2 Cat: B (Rel-17)  
  
 Source: Samsung R&D Institute India*

(Replaces S6-201910)

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

**S6-201761 MC service emergency alert clarifications**

*Type: CR For: Agreement  
 23.280 v17.4.0 CR-0275 Cat: C (Rel-17)  
  
 Source: FirstNet*

**Abstract:**

Additional clarifications are needed for emergency alert cancellation, and a Note that is not supported by Stage 1 requirements is removed.

**Discussion:**

FirstNet presented the doc S6-201761, during the ICC1.

**Decision:** The document was **revised to S6-201895**.

**S6-201895 MC service emergency alert clarifications**

*Type: CR For: Agreement  
 23.280 v17.4.0 CR-0275 rev 1 Cat: C (Rel-17)  
  
 Source: FirstNet*

(Replaces S6-201761)

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

**S6-201763 MCPTT in-progress emergency group state cancel modification**

*Type: CR For: Agreement  
 23.379 v17.4.0 CR-0280 Cat: C (Rel-17)  
  
 Source: FirstNet*

**Abstract:**

Based on Stage 3 feedback, the MCPTT in-progress emergency group state cancel procedure needs additional clarifications. A step that applies only when a call is in progress is made optional, a step is added for cancel authorization, and a note is modified

**Discussion:**

FirstNet presented the doc S6-201763, during the ICC1.

Motorola Solutions suggested rephrasing the change to Note 4.

**Decision:** The document was **revised to S6-201896**.

**S6-201896 MCPTT in-progress emergency group state cancel modification**

*Type: CR For: Agreement  
 23.379 v17.4.0 CR-0280 rev 1 Cat: C (Rel-17)  
  
 Source: FirstNet*

(Replaces S6-201763)

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

**S6-201782 Request for network resources at session establishment from the MC service server**

*Type: CR For: Agreement  
 23.280 v17.4.0 CR-0278 Cat: B (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

The procedure for the request of resources at session establishment from the MC service server is introduced.

**Decision:** The document was **revised to S6-201925**.

**S6-201925 Request for network resources at session establishment from the MC service server**

*Type: CR For: Agreement  
 23.280 v17.4.0 CR-0278 rev 1 Cat: B (Rel-17)  
  
 Source: Ericsson*

(Replaces S6-201782)

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

**S6-201786 Minor changes to information elements and procedures**

*Type: CR For: Agreement  
 23.379 v17.4.0 CR-0283 Cat: D (Rel-17)  
  
 Source: Samsung R&D Institute India*

**Abstract:**

Minor corrections to the information elements and editorial changes to procedures.

**Decision:** The document was **revised to S6-201933**.

**S6-201933 Minor changes to information elements and procedures**

*Type: CR For: Agreement  
 23.379 v17.4.0 CR-0283 rev 1 Cat: D (Rel-17)  
  
 Source: Samsung R&D Institute India*

(Replaces S6-201786)

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

**S6-201994 Location management mechanism backward compatibility**

*Type: CR For: Agreement  
 23.379 v17.4.0 CR-0284 rev 1 Cat: B (Rel-17)  
  
 Source: Huawei, Hisilicon*

(Replaces S6-201843)

**Discussion:**

Document reviewed during the closing call but concerns from Motorola Solutions remained.

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

**S6-201703 Subscription to Group Location**

*Type: CR For: Agreement  
 23.280 v17.4.0 CR-0274 Cat: B (Rel-17)  
  
 Source: Motorola Solutions UK Ltd.*

**Discussion:**

The paper had been submitted late but the meeting agreed during the opening call to consider the paper normally.

The contribution was discussed during the ICC7.

BDBOS raised concerns suggesting adding further details and possibly splitting the procedure.

**Decision:** The document was **revised to S6-201951**.

**S6-201951 Subscription to Group Location**

*Type: CR For: Agreement  
 23.280 v17.4.0 CR-0274 rev 1 Cat: B (Rel-17)  
  
 Source: Motorola Solutions UK Ltd.*

(Replaces S6-201703)

**Discussion:**

Document reviewed during the closing call but concerns (objection) from BDBOS remained.

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

**S6-201779 Fixing media resources request procedure from MC service server**

*Type: CR For: Agreement  
 23.280 v17.4.0 CR-0277 Cat: A (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

When the SIP core provides NAT traversal, the call setup procedure shall include that the MC service client provides access resource details (e.g. IP addresses and ports of the client and the media anchoring points) required by the MC service server to re

**Discussion:**

The contribution was discussed during ICC#7.

Huawei was of the view that there was no need for proposed change as the Public IP adress can be used.

Ericsson made a remark that the question was not the use of IP address but the anchoring point.

**Decision:** The document was **revised to S6-201923**.

**S6-201923 Fixing media resources request procedure from MC service server**

*Type: CR For: Agreement  
 23.280 v17.4.0 CR-0277 rev 1 Cat: A (Rel-17)  
  
 Source: Ericsson*

(Replaces S6-201779)

**Discussion:**

Document reviewed during the closing call but concerns from Huawei remained.

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

**S6-201781 Access resource information in MCPTT information flows**

*Type: CR For: Agreement  
 23.379 v17.4.0 CR-0282 Cat: A (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

For the case that the SIP core provides NAT traversal for the MCPTT service, information flows are modified to include required access resources information which are missing to enable the request of network resources for the media plane via the MCPTT-5 r

**Discussion:**

During ICC#7 it was noted the discussion of contribution S6-201779 also applies to this contribution (to be continued over email).

**Decision:** The document was **revised to S6-201924**.

**S6-201924 Access resource information in MCPTT information flows**

*Type: CR For: Agreement  
 23.379 v17.4.0 CR-0282 rev 1 Cat: A (Rel-17)  
  
 Source: Ericsson*

(Replaces S6-201781)

**Discussion:**

Document reviewed during the closing call but concerns from Huawei remained

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

**S6-201843 Location management mechanism backward compatibility**

*Type: CR For: Agreement  
 23.379 v17.4.0 CR-0284 Cat: B (Rel-17)  
  
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for Location management mechanism backward compatibility

**Discussion:**

Huawei presented the doc S6-201763, during the ICC1.

Motorola Solutions made a remark that they did not understand the need for this proposal. As the MCPTT server already receives the location from the UE to e.g. decide on unicast vs multicast.

Huawei was of the view that there were deployment scenarios where this would be useful.

**Decision:** The document was **revised to S6-201994**.

### 7.4 eMCData3 – Enhancements for functional architecture and information flows for Mission Critical Data

**S6-201743 Various corrections**

*Type: CR For: Agreement  
 23.282 v17.4.0 CR-0246 Cat: F (Rel-17)  
  
 Source: AT&T*

**Abstract:**

Various corrections like:

- Mis-numbered Figures or references to figures,

- Punctuation and/or use of language errors,

- References to missing or non-numbered procedure steps,

- Clarification that bearer priority for emergency communications can be di

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

### 7.5 MCOver5GS – Mission Critical Services over 5GS

**S6-201791 TS 23.289 Skeleton**

*Type: pCR For: Approval  
 23.289 v0.0.0  
 Source: Union Inter. Chemins de Fer*

**Abstract:**

TS 23.289 Skeleton

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

**S6-201792 Pseudo-CR on MCOver5GS normative work**

*Type: pCR For: Approval  
 23.289 v0.0.0  
 Source: Union Inter. Chemins de Fer*

**Abstract:**

The present pCR encompasses proposals for the clauses “Introduction” and “Scope” for the new 3GPP TS 23.289 MCOver5GS.

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

**S6-201793 Pseudo-CR on TS 23.289 Clause 4 multiple access and session connectivity**

*Type: pCR For: Approval  
 23.289 v0.0.0  
 Source: Union Inter. Chemins de Fer*

**Abstract:**

This pCR addresses the areas of multiple access and data network access for the use of 5GS for MC service system purposes.

**Decision:** The document was **revised to S6-201897**.

**S6-201897 Pseudo-CR on TS 23.289 Clause 4 multiple access and session connectivity**

*Type: pCR For: Approval  
 23.289 v0.0.0  
 Source: Union Inter. Chemins de Fer*

(Replaces S6-201793)

**Decision:** The document was **revised to S6-201981**.

**S6-201981 Pseudo-CR on TS 23.289 Clause 4 multiple access and session connectivity**

*Type: pCR For: Approval  
 23.289 v0.0.0  
 Source: Union Inter. Chemins de Fer*

(Replaces S6-201897)

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

### 7.6 EDGEAPP – Architecture for enabling Edge Applications

**S6-201831 Editorial changes to Application layer architecture**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for Editorial changes to Application layer architecture

**Decision:** The document was **revised to S6-201985**.

**S6-201985 Editorial changes to Application layer architecture**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon*

(Replaces S6-201831)

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

**S6-201760 Add EAS discovery in EDGE-3**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Ericsson*

**Abstract:**

This contribution adds EAS discovery as part of EDGE-3 supported functions.

**Decision:** The document was **revised to S6-201920**.

**S6-201920 Add EAS discovery in EDGE-3**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Ericsson*

(Replaces S6-201760)

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

**S6-201829 Alignment between functionalities of functional entities and Reference Points**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for Alignment between functionalities of functional entities and Reference Points

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

**S6-201727 Add new UE ID**

*Type: discussion For: Endorsement  
 23.558 v..  
 Source: China Mobile Com. Corporation*

**Abstract:**

The existing UE ID in TS 23.558 7.2.6 only contains GPSI, which need to be expanded. Using GPSI as UE ID in edge application may also have security issue. It’s proposed to add two new way to identify UE ID.

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

**S6-201728 Pseudo-CR on < Add new UE ID >**

*Type: pCR For: Agreement  
 23.558 v1.0.0  
 Source: China Mobile Com. Corporation*

**Abstract:**

This pCR introduces a method of defining UE ID.

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

**S6-201807 EN related to UE location**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics*

**Abstract:**

The contribution is closing the following EN:

- Editor's Note: With regards to UE location & Target DNAI - it is for FFS if we need two different UE Location definitions as per Editor’s Note in clause 7.3.2.

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

**S6-201762 Remove location EN**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Ericsson*

**Abstract:**

This contribution resolves the editor note related to UE location and target DNAI.

**Discussion:**

Add Samsung as source in the revised Tdoc.

**Decision:** The document was **revised to S6-201921**.

**S6-201921 Remove location EN**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Ericsson, Samsung*

(Replaces S6-201762)

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

**S6-201801 AC's associated EASs**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics*

**Abstract:**

This contribution closes the following ENs:

- Editor's Note: Whether the 'Application Client Service KPIs' are applicable per EAS ID is FFS.

- Editor's Note: It is FFs whether a "memory" IE should be included in the KPIs

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

**S6-201746 Clarification to Edge Configuration Server discovery**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: vivo, OPPO, Xiaomi*

**Abstract:**

The contribution proposes removing the requirement that ECS address information is provisioned by MNO through 5GC procedure.

**Discussion:**

The contribution (R1) was discussed during the ICC8.

It was noted the contribution changes the same clause as S6-201756.

Vivo was of the view the two contributions did not say the same thing and hence preferred both contributions being pursued separately.

**Decision:** The document was **revised to S6-201959**.

**S6-201959 Clarification to Edge Configuration Server discovery**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: vivo, OPPO, Xiaomi*

(Replaces S6-201746)

**Discussion:**

Draft revision reviewed and approved during the closing call.

**Decision:** The document was **revised to S6-202023**.

**S6-202023 Clarification to Edge Configuration Server discovery**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: vivo, OPPO, Xiaomi, Spreadtrum*

(Replaces S6-201959)

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

**S6-201756 Pseudo-CR on ECS Discovery from 5GC**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Sony*

**Abstract:**

SA2 has not finalized theirs study and has not started the normative work for supporting Edge Enabling layer in the core network. So far, they have not specified a solution that allows deployment of EEC and AC on existing smartphones.

**Discussion:**

The contribution (R1) was discussed during the ICC8.

It was noted the contribution changes the same clause as S6-201746.

**Decision:** The document was **revised to S6-201906**.

**S6-201906 Pseudo-CR on ECS Discovery from 5GC**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Sony*

(Replaces S6-201756)

**Decision:** The document was **revised to S6-202024**.

**S6-202024 Pseudo-CR on ECS Discovery from 5GC**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Sony*

(Replaces S6-201906)

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

**S6-201795 Application information optionality**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics*

**Abstract:**

This contribution proposes a way forward for optionality of application information in service provisioning and EAS discovery requests, sent from the Edge Enabler Client.

The contribution proposes that, if needed, the Edge Configuration Server and Edge E

**Decision:** The document was **revised to S6-201960**.

**S6-201960 Application information optionality**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics*

(Replaces S6-201795)

**Discussion:**

Document reviewed during the closing call but concerns from Huawei remained.

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

**S6-201827 Service provisioning without Application Client profile(s)**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon, Qualcomm, CATT, China Mobile*

**Abstract:**

Proposal for Service provisioning without Application Client profile(s)

**Decision:** The document was **revised to S6-201982**.

**S6-201982 Service provisioning without Application Client profile(s)**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon, Qualcomm, CATT, China Mobile*

(Replaces S6-201827)

**Discussion:**

Document reviewed during the closing call, but concerns remained (see S6-201960).

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

**S6-201828 EAS discovery without Discovery filters**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon, Qualcomm, CATT, China Mobile*

**Abstract:**

Proposal for EAS discovery without Discovery filters

**Decision:** The document was **revised to S6-201983**.

**S6-201983 EAS discovery without Discovery filters**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon, Qualcomm, CATT, China Mobile*

(Replaces S6-201828)

**Discussion:**

Document reviewed during the closing call, but concerns remained (see S6-201960).

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

**S6-201796 EAS discovery filters flag**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics*

**Abstract:**

This contribution introduces an EAS discovery filters flag provided to the EEC.

**Decision:** The document was **revised to S6-201961**.

**S6-201961 EAS discovery filters flag**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics*

(Replaces S6-201796)

**Discussion:**

Document reviewed during the closing call but concerns from Huawei remained.

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

**S6-201802 EEC ID and UE ID**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics*

**Abstract:**

This contribution closes the following EN related to EEC ID and UE ID in the EEC originated messages:

- Editor's Note: It is FFS whether the EEC ID is mandatory or whether the UE ID should be included.

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

**S6-201757 Pseudo-CR on EEC ID in Service provisioning**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Sony*

**Abstract:**

To allow the Edge Enabler Server to distinguish between the different Edge Enabler Clients in the same UE then the EEC ID must be mandatory and therefore the Editor’s Note to study if the EEC ID is mandatory should be removed.

**Decision:** The document was **revised to S6-201907**.

**S6-201907 Pseudo-CR on EEC ID in Service provisioning**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Sony, Samsung*

(Replaces S6-201757)

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

**S6-201832 Trigger the EAS instantiation by ECS**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for Trigger the EAS instantiation by ECS

**Decision:** The document was **revised to S6-201986**.

**S6-201986 Trigger the EAS instantiation by ECS**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon*

(Replaces S6-201832)

**Discussion:**

Document reviewed during the closing call but concerns from Samsung remained.

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

**S6-201826 Decoupling EEC registration with EAS discovery**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon, Ericsson, Nokia, Nokia Shanghai Bell*

**Abstract:**

Proposal for Decoupling EEC registration with EAS discovery

**Discussion:**

Doc reviewed and approved during the closing call.

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

**S6-201754 UE NAS mode and interaction with 3GPP network**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung*

**Abstract:**

This pCR proposes to include UE NAS mode information within the EEC Registration Request and the Service Provisioning Request to support EDGE-2 and EDGE-8 operations, respectively.

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

**S6-201798 EEC context**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics, Convida, Sony*

**Abstract:**

This contribution provides several updates and details related to EEC context and its handling.

**Decision:** The document was **revised to S6-201963**.

**S6-201963 EEC context**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics, Convida, Sony*

(Replaces S6-201798)

**Discussion:**

Document reviewed during the closing call but concerns from Ericsson remained.

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

**S6-201803 Registering EAS instances**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics*

**Abstract:**

The contribution closes the following EN related to EAS instances:

- Editor's note: It's FFS whether and how the EAS instances are registered and authorized at the Edge Enabler Server.

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

**S6-201830 Clarification on Edge Application Server Registration**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for Clarification on Edge Application Server Registration

**Decision:** The document was **revised to S6-201984**.

**S6-201984 Clarification on Edge Application Server Registration**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon, Samsung*

(Replaces S6-201830)

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

**S6-201811 EAS, EES registration APIs**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics*

**Abstract:**

This contribution provides description of the EAS and EES registration APIs.

**Decision:** The document was **revised to S6-201969**.

**S6-201969 EAS, EES registration APIs**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics*

(Replaces S6-201811)

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

**S6-201812 Informing EES of the selected EAS**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics*

**Abstract:**

The contribution proposes an interaction between the EEC and the EES of the selected EAS, informing the EES that the EAS registered with it is selected for AC communication.

**Discussion:**

Samsung presented the doc S6-201812, during the ICC4.

There seemed to be general interest for the proposal (e.g. Qualcomm, Ericsson, Intel), but there were some requests for further development of the solution.

**Decision:** The document was **revised to S6-201970**.

**S6-201970 Informing EES of the selected EAS**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics*

(Replaces S6-201812)

**Discussion:**

Document reviewed during the closing call but concerns from Huawei remained.

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

**S6-201718 Dynamic availability of Edge Application Server**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: ETRI*

**Abstract:**

This pCR proposes to add new procedures to obtain dynamic availability information of EAS in clause 8.5 Edge Application Server discovery.

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

**S6-201797 EAS discovery and dynamic information subscription**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics*

**Abstract:**

This contribution introduces subscription-notification mechanisms between the EEC and the EES for EAS related information.

**Discussion:**

Add Samsung as source in revised Tdoc.

**Decision:** The document was **revised to S6-201962**.

**S6-201962 EAS discovery and dynamic information subscription**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics, ETRI, UANGEL*

(Replaces S6-201797)

**Discussion:**

Draft revision reviewed and approved during the closing call.

**Decision:** The document was **revised to S6-202026**.

**S6-202026 EAS discovery and dynamic information subscription**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics, ETRI, UANGEL*

(Replaces S6-201962)

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

**S6-201768 Separation between geographical and topological location**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Intel Deutschland GmbH, InterDigital, Convida Wireless, Samsung, Apple*

**Abstract:**

The purpose of this contribution is to separate geographical location from topological location and specify different IEs for each such as: a ‘Geographical Service Area’ IE and a ‘Topological Service Area’ IE. They have different meanings and are used for

**Decision:** The document was **revised to S6-201915**.

**S6-201915 Separation between geographical and topological location**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Intel Deutschland GmbH, InterDigital, Convida Wireless, Samsung, Apple*

(Replaces S6-201768)

**Discussion:**

Draft revision reviewed and approved during the closing call.

**Decision:** The document was **revised to S6-202027**.

**S6-202027 Separation between geographical and topological location**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Intel, InterDigital, Convida Wireless, Samsung, Apple*

(Replaces S6-201915)

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

**S6-201839 DNAI clarifications**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for DNAI clarifications

**Decision:** The document was **revised to S6-201992**.

**S6-201992 DNAI clarifications**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon*

(Replaces S6-201839)

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

**S6-201800 Relation between DNAIs of EAS, EES and EDN**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics*

**Abstract:**

This contribution provides the relationship between the DNAIs of the EAS, EES and the EDN, and closes several related ENs.

**Discussion:**

The meeting discussed the status on the discussions of the of the contribution.

After some discussion it was clear that stakeholders (e.g. Huawei, Samsung and Ericsson) had different view on how to proceed. Related input contribution can be found in S6-20176 and S6-201839.

**Decision:** The document was **revised to S6-201965**.

**S6-201965 Relation between DNAIs of EAS, EES and EDN**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics*

(Replaces S6-201800)

**Decision:** The document was **revised to S6-202028**.

**S6-202028 Relation between DNAIs of EAS, EES and EDN**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics*

(Replaces S6-201965)

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

**S6-201765 EAS DNAI in EES profile and selected EAS**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Ericsson*

**Abstract:**

This contribution introduces EAS DNAI in EES profile and EAS info in service provisioning subscription.

**Decision:** The document was **revised to S6-201919**.

**S6-201919 EAS DNAI in EES profile and selected EAS**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Ericsson*

(Replaces S6-201765)

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

**S6-201809 Update to capability exposure clause**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics*

**Abstract:**

This contribution updates the description of capability exposure for enabling edge applications.

**Decision:** The document was **revised to S6-201968**.

**S6-201968 Update to capability exposure clause**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics*

(Replaces S6-201809)

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

**S6-201810 Aligning API nomenclature with CAPIF**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics*

**Abstract:**

This contribution aligns API nomenclature of EDGEAPP to that of CAPIF.

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

**S6-201726 EDGEAPP: Proposal to modify the API service operation names**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: ETRI*

**Abstract:**

This paper proposes to modify the existing APIs specified in TS 23.558 in the form of service-based interfaces by exploiting the same convention used in TS 23.502.

**Discussion:**

ETRI presented the doc S6-201726, during the ICC4.

There was discussion on interface naming.

Following options came up in the discussion.

An unofficial "raise of hands" was held to poll the support for the different options.

The result was as follows.

* 3 EDGE\_
* 3 EXY\_(EXY=EES, EAS, ECS, etc.)
* 10 Nexy\_(exy=ees, eas, ecs, etc.)
* 4 Eexy\_(exy=ees, eas, ecs, etc.)
* 3 EDGEx\_(x=1..9)

InterDigital was hoping stage 2 could come up with naming good enough that they could/would be used by the Stage 3.

Qualcomm raised a concern with using the "Nexy" format.

Motorola Solutions suggested SA6 coming up with an own naming.

In a second round of raise of hands (with the two "best" options from the first round)

* 1 Nexy\_(exy=ees, eas, ecs, etc.)
* 12 Eexy\_(exy=ees, eas, ecs, etc.)

Ericssson raised a concern with a term starting with “E”.

After a further discussion following proposals were put forward.

* 8 Eexy\_(exy=ees, eas, ecs, etc.)
* 2 Aexy\_(exy=ees, eas, ecs, etc.)
* 4 EXY\_

The chairman noted that the Eexy\_ based nomenclature would be taken for time being, but may be subject to change.

**Decision:** The document was **revised to S6-201893**.

**S6-201893 EDGEAPP: Proposal to modify the API service operation names**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: ETRI, Samsung*

(Replaces S6-201726)

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

**S6-201799 EDGE-1 and EDGE-4 APIs**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics, AT&T, Deutsche Telekom, Intel*

**Abstract:**

The contribution provides API summary of the procedures on EDGE-1 and EDGE-4 interface.

**Discussion:**

Samsung presented the doc S6-201799, during the ICC4.

Huawei was not in favour of defining the EDGE-1 and EDGE-4 interfaces at this stage.

Ericsson supported the proposed contribution.

InterDigital suggested to liaise with CT1 on this subject.

Deutsche Telekom also indicated support for the contribution.

Huawei supported liaising with CT1 on this subject.

**Decision:** The document was **revised to S6-201964**.

**S6-201770 Support group-based location exposure**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Ericsson*

**Abstract:**

This contribution introduces group-based location exposure in UE location API and UP path mgmt. API.

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

**S6-201964 EDGE-1 and EDGE-4 APIs**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics, AT&T, Deutsche Telekom, Intel*

(Replaces S6-201799)

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

**S6-201749 Clarification on UP path management event API**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung*

**Abstract:**

This pCR clarifies the procedure for UP path management event API when the EAS Acknowledgement is expected as a response to the UP path management event notification.

**Decision:** The document was **revised to S6-201912**.

**S6-201912 Clarification on UP path management event API**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung*

(Replaces S6-201749)

**Decision:** The document was **revised to S6-202029**.

**S6-202029 Clarification on UP path management event API**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung, Huawei, Hisilicon*

(Replaces S6-201912)

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

**S6-201834 Application relocation information notification**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for Application relocation information notification

**Decision:** The document was **revised to S6-201988**.

**S6-201988 Application relocation information notification**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon*

(Replaces S6-201834)

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

**S6-201835 User Plane Path Management event information flow update**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for User Plane Path Management event information flow update

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

**S6-201836 User Plane Path Management event and notification enhancement**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for User Plane Path Management event and notification enhancement

**Decision:** The document was **revised to S6-201989**.

**S6-201989 User Plane Path Management event and notification enhancement**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon*

(Replaces S6-201836)

**Discussion:**

Draft revision reviewed and approved during the closing call.

**Decision:** The document was **revised to S6-202030**.

**S6-202030 User Plane Path Management event and notification enhancement**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon*

(Replaces S6-201989)

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

**S6-201837 User Plane Path Management event enhancement with application context availability**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for User Plane Path Management event enhancement with application context availability

**Decision:** The document was **revised to S6-201990**.

**S6-201990 User Plane Path Management event enhancement with application context availability**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon*

(Replaces S6-201837)

**Discussion:**

Document reviewed during the closing call, but concerns remained.

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

**S6-201838 User Plane Path Management event enhancement with available target EAS**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for User Plane Path Management event enhancement with available target EAS

**Decision:** The document was **revised to S6-201991**.

**S6-201991 User Plane Path Management event enhancement with available target EAS**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon*

(Replaces S6-201838)

**Discussion:**

Document reviewed during the closing call but concerns from Samsung remained.

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

**S6-201804 UE Identifier API**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics, Intel*

**Abstract:**

This contribution proposes an explicit request from EES to obtain the UE ID from the EEC.

**Decision:** The document was **revised to S6-201966**.

**S6-201966 UE Identifier API**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics, Intel*

(Replaces S6-201804)

**Discussion:**

Document reviewed during the closing call, but concerns remained.

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

**S6-201771 Support more UE IDs in QoS exposure**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Ericsson*

**Abstract:**

This contribution introduces more UE identifies in Session with QoS API.

**Discussion:**

Document reviewed during the closing call but concerns from Huawei remained.

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

**S6-201808 Duplicate ENs in Session with QoS API**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics*

**Abstract:**

This contribution proposes to remove duplicate ENs present in Session with QoS API.

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

**S6-201751 Network Capability Exposure information transfer over EDGE-9**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung*

**Abstract:**

This pCR proposes the network capability exposure information transfer between Edge Enabler Servers to reduce the signalling between the network exposure function and service provider NFs.

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

**S6-201752 Pseudo-CR on Determination of common application context transfer solutions**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Apple, Intel*

**Abstract:**

This pCR proposes that additional considerations are needed, should TS 23.558 continue to support multiple different solutions for application context relocation.

**Decision:** The document was **revised to S6-201892**.

**S6-201892 Pseudo-CR on Determination of common application context transfer solutions**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Apple, Intel*

(Replaces S6-201752)

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

**S6-201767 Application Context: Transfer or Relocation?**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Apple*

**Abstract:**

This pCR proposes to use consistent terminology throughout the TS for application context relocation.

**Decision:** The document was **revised to S6-201891**.

**S6-201891 Application Context: Transfer or Relocation?**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Apple*

(Replaces S6-201767)

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

**S6-201758 Pseudo-CR on Service Continuity Support Indication**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Sony*

**Abstract:**

Currently we specify an Information Element if Service continuity is supported or not in the Edge Application Server, but we do not specify what is the implication if the feature Service continuity is not supported.

**Decision:** The document was **revised to S6-201908**.

**S6-201908 Pseudo-CR on Service Continuity Support Indication**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Sony*

(Replaces S6-201758)

**Discussion:**

Draft revision reviewed and approved during the closing call.

**Decision:** The document was **revised to S6-202031**.

**S6-202031 Pseudo-CR on Service Continuity Support Indication**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Sony*

(Replaces S6-201908)

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

**S6-201759 Pseudo-CR on Application Context Relocation Decision Making**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Sony*

**Abstract:**

It is proposed that in addition to decide the change of serving Edge Application Server, the Source EAS decide if the user data should be transferred during Application Context Relocation.

**Decision:** The document was **revised to S6-201909**.

**S6-201909 Pseudo-CR on Application Context Relocation Decision Making**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Sony*

(Replaces S6-201759)

**Discussion:**

Draft revision reviewed and approved during the closing call.

**Decision:** The document was **revised to S6-202032**.

**S6-202032 Pseudo-CR on Application Context Relocation Decision Making**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Sony*

(Replaces S6-201909)

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

**S6-201805 Intra-EDN mobility and load balancers**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics*

**Abstract:**

This contribution resolves 2 Editor's Notes related to service continuity general description.

**Discussion:**

Document reviewed during the closing call but concerns from Huawei remained.

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

**S6-201776 Pseudo-CR on deduplication of application context relocation**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Qualcomm Technologies Int*

**Abstract:**

With multiple procedures for detecting and executing application context relocation, there is a need to determine methods and entities which can deduplicate multiple concurrent application context relocation requests.

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

**S6-201775 Source EAS decided application context relocation**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: InterDigital*

**Abstract:**

Since the solution outlined in clause 8.8.2.2 relies on EDGE5 (EEC to AC reference point) which is out of scope of TS 23.558 and since also AC to EAS signalling is out of scope of TS 23.558, it is proposed to remove the solution in clause 8.8.2.2.

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

**S6-201769 UE internal movement detection**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Intel Deutschland GmbH, Apple*

**Abstract:**

Since there are ways to detect an entering of a UE to a new cell, and there are ways to figure out the best EES for this new cell, it is recommended to remove the related editor’s notes in subclause 8.8.2.2 and 8.8.2.3.

**Decision:** The document was **revised to S6-201916**.

**S6-201916 UE internal movement detection**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Intel Deutschland GmbH, Apple*

(Replaces S6-201769)

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

**S6-201750 EEC detection in application context relocation**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung*

**Abstract:**

This pCR proposes resolving a number of editor’s notes related to EEC involvement in the detection phase of app context relocation.

**Decision:** The document was **revised to S6-201913**.

**S6-201913 EEC detection in application context relocation**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung*

(Replaces S6-201750)

**Discussion:**

Draft revision reviewed and approved during the closing call.

**Decision:** The document was **revised to S6-202033**.

**S6-202033 EEC detection in application context relocation**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung, InterDigital*

(Replaces S6-201913)

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

**S6-201733 Update to EEC executed application context relocation**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: InterDigital*

**Abstract:**

Proposal for update to EEC executed application context relocation.

**Decision:** The document was **revised to S6-201957**.

**S6-201957 Update to EEC executed application context relocation**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: InterDigital*

(Replaces S6-201733)

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

**S6-201734 Clarifications on Source EAS decided application context relocation**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: InterDigital*

**Abstract:**

Proposal for clarifications on Source EAS decided application context relocation

**Decision:** The document was **revised to S6-201958**.

**S6-201958 Clarifications on Source EAS decided application context relocation**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: InterDigital*

(Replaces S6-201734)

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

**S6-201755 User plane connectivity modification in S-EES executed ACR**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung*

**Abstract:**

It has been discussed how user plane connectivity for the UE and AC is modified in the application context relocation procedure.

**Decision:** The document was **revised to S6-201914**.

**S6-201914 User plane connectivity modification in S-EES executed ACR**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung*

(Replaces S6-201755)

**Discussion:**

Draft revision reviewed and approved during the closing call.

**Decision:** The document was **revised to S6-202034**.

**S6-202034 User plane connectivity modification in S-EES executed ACR**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung*

(Replaces S6-201914)

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

**S6-201753 T-EES executed application context relocation procedure**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung*

**Abstract:**

The application context relocation executed by T-EES is proposed.

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

**S6-201764 AF influence in Application Context Relocation**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Ericsson, Intel*

**Abstract:**

This contribution introduces the AF traffic influence handling in the Application Context Relocation.

**Decision:** The document was **revised to S6-201917**.

**S6-201917 AF influence in Application Context Relocation**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Ericsson, Intel*

(Replaces S6-201764)

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

**S6-201833 ACR with full operations at edge enabler layer**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for ACR with full operations at edge enabler layer

**Decision:** The document was **revised to S6-201987**.

**S6-201987 ACR with full operations at edge enabler layer**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Huawei, Hisilicon*

(Replaces S6-201833)

**Discussion:**

Document reviewed during the closing call, but concerns remained.

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

**S6-201806 Target EES and target EAS selection**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics*

**Abstract:**

This contribution closes the following ENs related to target EES and target EAS selection:

- Editor’s Note: How Edge Enabler Server is selected from the list of Edge Enabler servers and whether the EEC needs to be notified when this selection happens is

**Discussion:**

Samsung presented the doc S6-201806, during the ICC4.

**Decision:** The document was **revised to S6-201967**.

**S6-201967 Target EES and target EAS selection**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Samsung Electronics*

(Replaces S6-201806)

**Discussion:**

Document reviewed during the closing call but concerns from Huawei remained.

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

**S6-201817 ACR indicator for EAS discovery requests**

*Type: pCR For: Approval  
 23.558 v1.0.0  
 Source: Convida Wireless LLC*

**Abstract:**

Proposal to provide EES with the capability of knowing whether a discovery request is part of an Application Context Relocation procedure.

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

**S6-201766 Support AEF location and API invoker interface for edge application**

*Type: CR For: Agreement  
 23.222 v17.2.0 CR-0078 Cat: B (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

Proposal for adding the:

- AEF location information in the Service API information and

- API invoker interface in the discovery request message.

**Decision:** The document was **revised to S6-201918**.

**S6-201918 Support AEF location and API invoker interface for edge application**

*Type: CR For: Agreement  
 23.222 v17.2.0 CR-0078 rev 1 Cat: B (Rel-17)  
  
 Source: Ericsson*

(Replaces S6-201766)

**Discussion:**

Draft revision reviewed and approved during the closing call.

**Decision:** The document was **revised to S6-202035**.

**S6-202035 Support AEF location and API invoker interface for edge application**

*Type: CR For: Agreement  
 23.222 v17.2.0 CR-0078 rev 2 Cat: B (Rel-17)  
  
 Source: Ericsson*

(Replaces S6-201918)

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

**S6-201922 context maintained on EES**

*Type: discussion For: Discussion  
 Source: Ericsson*

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

### 7.7 eV2XAPP – Enhanced application layer support for V2X services

**S6-201854 Business relationships between V2X service providers**

*Type: CR For: Agreement  
 23.286 v16.4.0 CR-0023 Cat: B (Rel-17)  
  
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for Business relationships between V2X service providers

**Decision:** The document was **revised to S6-202000**.

**S6-202000 Business relationships between V2X service providers**

*Type: CR For: Agreement  
 23.286 v16.4.0 CR-0023 rev 1 Cat: B (Rel-17)  
  
 Source: Huawei, Hisilicon*

(Replaces S6-201854)

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

**S6-201853 V2X application layer architecture enhancement**

*Type: CR For: Agreement  
 23.286 v16.4.0 CR-0022 Cat: B (Rel-17)  
  
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for V2X application layer architecture enhancement

**Discussion:**

Huawei presented the doc S6-201853, during the ICC3.

**Decision:** The document was **revised to S6-201999**.

**S6-201999 V2X application layer architecture enhancement**

*Type: CR For: Agreement  
 23.286 v16.4.0 CR-0022 rev 1 Cat: B (Rel-17)  
  
 Source: Huawei, Hisilicon*

(Replaces S6-201853)

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

**S6-201774 PC5 Provisioning in multi-operator V2X scenarios**

*Type: CR For: Agreement  
 23.286 v16.4.0 CR-0021 Cat: B (Rel-17)  
  
 Source: Lenovo, Motorola Mobility*

**Abstract:**

This CR introduces the architectural requirements and the mechanism at the VAE layer for the PC5 provisioning in multi-operator V2X scenarios (based on the approved Solution #7 of TR 23.764).

**Discussion:**

Lenovo presented the doc S6-201774, during the ICC3.

Huawei was of the view that the steps 2 and 3 were not needed.

**Decision:** The document was **revised to S6-201954**.

**S6-201954 PC5 Provisioning in multi-operator V2X scenarios**

*Type: CR For: Agreement  
 23.286 v16.4.0 CR-0021 rev 1 Cat: B (Rel-17)  
  
 Source: Lenovo, Motorola Mobility*

(Replaces S6-201774)

**Discussion:**

During the closing call the meeting agreed to revision version 2.

**Decision:** The document was **revised to S6-202012**.

**S6-202012 PC5 Provisioning in multi-operator V2X scenarios**

*Type: CR For: Agreement  
 23.286 v16.4.0 CR-0021 rev 2 Cat: B (Rel-17)  
  
 Source: Lenovo, Motorola Mobility*

(Replaces S6-201954)

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

**S6-201855 V2X service discovery across multiple V2X service providers**

*Type: CR For: Agreement  
 23.286 v16.4.0 CR-0024 Cat: B (Rel-17)  
  
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for V2X service discovery across multiple V2X service providers

**Decision:** The document was **revised to S6-202001**.

**S6-202001 V2X service discovery across multiple V2X service providers**

*Type: CR For: Agreement  
 23.286 v16.4.0 CR-0024 rev 1 Cat: B (Rel-17)  
  
 Source: Huawei, Hisilicon*

(Replaces S6-201855)

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

**S6-201856 Support for HD map dynamic information**

*Type: CR For: Agreement  
 23.286 v16.4.0 CR-0025 Cat: B (Rel-17)  
  
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for Support for HD map dynamic information

**Decision:** The document was **revised to S6-202002**.

**S6-202002 Support for HD map dynamic information**

*Type: CR For: Agreement  
 23.286 v16.4.0 CR-0025 rev 1 Cat: B (Rel-17)  
  
 Source: Huawei, Hisilicon*

(Replaces S6-201856)

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

**S6-201857 Tracking UE and obtaining dynamic UE information**

*Type: CR For: Agreement  
 23.434 v16.5.0 CR-0027 Cat: B (Rel-17)  
  
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for Tracking UE and obtaining dynamic UE information

**Decision:** The document was **revised to S6-202003**.

**S6-202003 Tracking UE and obtaining dynamic UE information**

*Type: CR For: Agreement  
 23.434 v16.5.0 CR-0027 rev 1 Cat: B (Rel-17)  
  
 Source: Huawei, Hisilicon*

(Replaces S6-201857)

**Discussion:**

A revised version was reviewed and agreed during the closing call.

**Decision:** The document was **revised to S6-202013**.

**S6-202013 Tracking UE and obtaining dynamic UE information**

*Type: CR For: Agreement  
 23.434 v16.5.0 CR-0027 rev 2 Cat: B (Rel-17)  
  
 Source: Huawei, Hisilicon*

(Replaces S6-202003)

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

### 7.8 TEI17 – Technical Enhancements and Improvements

**S6-201784 MCVideo pull and push corrections**

*Type: CR For: Agreement  
 23.281 v17.4.0 CR-0152 Cat: F (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

MCVideo pull and push indications are included in the MCVideo private call request to be sent from the MCVideo server to the MCVideo client.

Also, the implicit transmit media request information element is included in the MCVideo private call response for

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

## 8 Study Items

### 8.1 FS\_MCOver5GS – Study on Mission Critical Services support over 5G System

### 8.2 FS\_enhMCLoc – Study on location enhancements for mission critical services

### 8.3 FS\_eV2XAPP – Study on Enhancements to application layer support for V2X services

**S6-201858 Editorial corrections**

*Type: CR For: Agreement  
 23.764 v17.0.0 CR-0003 Cat: D (Rel-17)  
  
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for Editorial corrections

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

**S6-201820 Pseudo-CR on update to solution #16**

*Type: CR For: Agreement  
 23.764 v17.0.0 CR-0001 Cat: F (Rel-17)  
  
 Source: CATT*

**Abstract:**

This contribution updates the solution #16 - Enhancements to network monitoring procedure.

**Decision:** The document was **revised to S6-201904**.

**S6-201904 Pseudo-CR on update to solution #16**

*Type: CR For: Agreement  
 23.764 v17.0.0 CR-0001 rev 1 Cat: F (Rel-17)  
  
 Source: CATT*

(Replaces S6-201820)

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

**S6-201823 Evaluation of solution #15**

*Type: CR For: Agreement  
 23.764 v17.0.0 CR-0002 Cat: F (Rel-17)  
  
 Source: CATT*

**Abstract:**

The CR adds the evaluation for solution #15.

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

**S6-201859 Missing solution evaluations**

*Type: CR For: Agreement  
 23.764 v17.0.0 CR-0004 Cat: F (Rel-17)  
  
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for Missing solution evaluations

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

### 8.4 FS\_FFAPP – Study on application layer support for Factories of the Future in 5G network

**S6-201841 Editorial correction to solution#2**

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

**Abstract:**

Proposal for Editorial correction to solution#2

**Discussion:**

The meeting discussed, during the ICC6, the current status. There seemed to be no outstanding comments at this moment.

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

**S6-201773 Updated Solution on FFAE layer support for network slicing**

*Type: pCR For: Approval  
 23.745 v1.0.0  
 Source: Lenovo, Motorola Mobility*

**Abstract:**

This paper provides an update of solution #13 to Key issue 1 – Use of network slicing for FFAPP.

**Discussion:**

The meeting discussed, during the ICC6, the current status. There seemed to be no outstanding comments at this moment.

**Decision:** The document was **revised to S6-201953**.

**S6-201953 Updated Solution on FFAE layer support for network slicing**

*Type: pCR For: Approval  
 23.745 v1.0.0  
 Source: Lenovo, Motorola Mobility*

(Replaces S6-201773)

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

**S6-201861 Pseudo-CR on Solution for positioning method negotiation**

*Type: pCR For: Approval  
 23.745 v1.0.0  
 Source: Samsung*

**Abstract:**

This contribution proposes to update SEAL Location management service to enable positioning method negotiation.

**Discussion:**

The meeting discussed, during the ICC6, the current status.

Ericsson still had some concern with the proposed solution stating that the LMS will decide on positioning method to be used.

**Decision:** The document was **revised to S6-201937**.

**S6-201937 Pseudo-CR on Solution for positioning method negotiation**

*Type: pCR For: Approval  
 23.745 v1.0.0  
 Source: Samsung*

(Replaces S6-201861)

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

**S6-201735 Device Onboarding support**

*Type: pCR For: Approval  
 23.745 v1.0.0  
 Source: ZTE Corporation*

**Abstract:**

This contribution proposes adding a Device Onboarding support solution.

**Discussion:**

The meeting discussed, during the ICC6, the current status.

ZTE suggested to postpone the current contribution.

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

**S6-201737 OPC-UA integration**

*Type: pCR For: Approval  
 23.745 v1.0.0  
 Source: ZTE Corporation*

**Abstract:**

This contribution proposes adding an OPC-UA integration solution.

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

**S6-201842 Supporting OPC UA**

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

**Abstract:**

Proposal for Supporting OPC UA

**Discussion:**

The meeting discussed, during the ICC6, the current status.

Qualcomm noted they still had problems understanding whether OPC is an application or transport layer.

Ericsson raised concerns in the same direction as Qualcomm.

**Decision:** The document was **revised to S6-201993**.

**S6-201993 Supporting OPC UA**

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

(Replaces S6-201842)

**Discussion:**

During the closing call Qualcomm suggested removing (e.g. OPC UA) as did Ericsson.

Only changes to the version 2 is can be co-located to ma be located Is capable may be capable

**Decision:** The document was **revised to S6-202014**.

**S6-202014 Communicating FF application service requirements with 3GPP system**

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

(Replaces S6-201993)

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

**S6-201864 Pseudo-CR on solution for the group communication**

*Type: pCR For: Approval  
 23.745 v1.0.0  
 Source: Samsung*

**Abstract:**

This contribution proposes solution for the key issue 15 to support for group communication in FFAPP.

**Discussion:**

The meeting discussed, during the ICC6, the current status.

Samsung noted that some comments had been received, that are being worked on at the moment.

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

**S6-201787 Discussion on Constrained devices - CoAP**

*Type: discussion For: Discussion  
 23.745 v..  
 Source: Ericsson*

**Abstract:**

The contribution presents a discussion paper, for introducing CoAP as an additional protocol for the SEAL signalling control plane to address mainly constrained devices, as described in the companion paper S6-201788.

**Discussion:**

The meeting discussed, during the ICC6, the current status and whether it can be marked noted. Ericsson noted it can be noted.

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

**S6-201736 Constrained devices supporting**

*Type: pCR For: Approval  
 23.745 v1.0.0  
 Source: ZTE Corporation*

**Abstract:**

This contribution proposes adding a constrained devices supporting solution.

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

**S6-201788 SEAL support for CoAP**

*Type: pCR For: Approval  
 23.745 v1.0.0  
 Source: Ericsson*

**Abstract:**

The contribution proposes introducing CoAP as an additional protocol for the SEAL signalling control plane to address mainly constrained devices.

**Discussion:**

The meeting discussed, during the ICC6, the current status. No outstanding issues were noted at this moment.

**Decision:** The document was **revised to S6-201926**.

**S6-201926 SEAL support for CoAP**

*Type: pCR For: Approval  
 23.745 v1.0.0  
 Source: Ericsson, ZTE Corporation*

(Replaces S6-201788)

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

**S6-201862 Pseudo-CR on new key issue to support message communication**

*Type: pCR For: Approval  
 23.745 v1.0.0  
 Source: Samsung*

**Abstract:**

This contribution proposes new key issue to support message communication in FFAPP.

**Discussion:**

The meeting discussed, during the ICC6, the current status.

Qualcomm had some doubts whether the key issue was required.

Ericsson shared the view of Qualcomm.

Deutsche Telekom did not see the need for this key issue.

Convida supported the contribution.

**Decision:** The document was **revised to S6-201938**.

**S6-201938 Pseudo-CR on new key issue to support message communication**

*Type: pCR For: Approval  
 23.745 v1.0.0  
 Source: Samsung*

(Replaces S6-201862)

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

**S6-201863 Pseudo-CR on solution to the key issue to support message communication**

*Type: pCR For: Approval  
 23.745 v1.0.0  
 Source: Samsung*

**Abstract:**

This contribution proposes procedure for FF UEs to communicate among each other within FFAPP.

**Discussion:**

The meeting discussed, during the ICC6, the current status.

Samsung noted that this contribution provided a solution to the key issue in S6-201862. Hence one would need to await whether progress can be made on S6-201862 given the comments, before considering S6-201863.

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

**S6-201873 Pseudo-CR Enable FFAP for 5G CN capabilities**

*Type: pCR For: Approval  
 23.745 v1.0.0  
 Source: Samsung*

**Abstract:**

Propose new key issue to study how SEAL layer supports FF application layer requirements involving invocation of SCEF/NEF APIs.

**Discussion:**

The meeting discussed, during the ICC6, the current status. Comments had been received and are being worked on.

**Decision:** The document was **revised to S6-201939**.

**S6-201939 Pseudo-CR Enable FFAP for 5G CN capabilities**

*Type: pCR For: Approval  
 23.745 v1.0.0  
 Source: Samsung*

(Replaces S6-201873)

**Discussion:**

Reviewed during the closing call.

**Decision:** The document was **revised to S6-202015**.

**S6-202015 Pseudo-CR Enable FFAP for 5G CN capabilities**

*Type: pCR For: Approval  
 23.745 v1.0.0  
 Source: Samsung*

(Replaces S6-201939)

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

**S6-201874 Pseudo-CR New Solution to enable FFAP for 5G CN capabilities**

*Type: pCR For: Approval  
 23.745 v1.0.0  
 Source: Samsung*

**Abstract:**

This pCR proposes a new solution to the key issue (Using 5G CN capabilities for SEAL groups). The solution enables the SEAL GMS to support the 3GPP defined external group identifier, identifying a group of UEs.

**Discussion:**

The meeting discussed, during the ICC6, the current status.

Huawei raised some concerns with regard to the use of the Group ID, i.e. "..fetch the external group identifier from the SEAL GMS using the VAL Group ID".

**Decision:** The document was **revised to S6-201940**.

**S6-201940 Pseudo-CR New Solution to enable FFAP for 5G CN capabilities**

*Type: pCR For: Approval  
 23.745 v1.0.0  
 Source: Samsung*

(Replaces S6-201874)

**Discussion:**

Reviewed during the closing call.

**Decision:** The document was **revised to S6-202016**.

**S6-202016 Pseudo-CR New Solution to enable FFAP for 5G CN capabilities**

*Type: pCR For: Approval  
 23.745 v1.0.0  
 Source: Samsung*

(Replaces S6-201940)

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

### 8.5 FS\_UASAPP – Study on application layer support for Unmanned Aerial System (UAS)

**S6-201732 Progress and completion of FS\_UASAPP**

*Type: discussion For: Decision  
 Source: InterDigital*

**Abstract:**

The timeline in the SID is now outdated (June-20 / Sept-20), thus a new and realistic timeline for completion of the work is needed. This is needed both for SA6, for coordination with SA2 and for timely completion of stage-3 by the Release-17 deadline. It

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

**S6-201852 Discussion on UASAPP progress update considering SA2 and SA6 work**

*Type: discussion For: Information  
 Source: Huawei, Hisilicon*

**Abstract:**

Discussion on UASAPP progress update considering SA2 and SA6 work

**Discussion:**

Huawei presented the doc S6-201852, during the ICC3.

Lenovo was of the view that SA6 was more dependent on SA1 than SA2.

Airbus disagreed with the view of Lenovo, and suggested SA6 still to wait for SA2 to further develop the architecture.

InterDigital was of the view that there is no reason for SA6 to rush with the SA6 work and suggested the SA6 doc could be submitted for information in Dec 2020.

SA6 chairman suggested to develop a concrete plan for the expected work ahead and its timeline.

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

**S6-201708 Pseudo CR on Alignment of the definition of UAS**

*Type: pCR For: Approval  
 23.755 v0.10.0  
 Source: InterDigital*

**Abstract:**

This pCR align the definition of UAS with the recently modified definition of UAS in Stage 1.

**Decision:** The document was **revised to S6-201950**.

**S6-201950 Pseudo CR on Alignment of the definition of UAS**

*Type: pCR For: Approval  
 23.755 v0.10.0  
 Source: InterDigital*

(Replaces S6-201708)

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

**S6-201850 Relationship of SA2 and SA6 UAS architecture**

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

**Abstract:**

Proposal for Relationship of SA2 and SA6 UAS architecture

**Decision:** The document was **revised to S6-201997**.

**S6-201997 Relationship of SA2 and SA6 UAS architecture**

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

(Replaces S6-201850)

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

**S6-201715 Pseudo CR on Update solution#6 switching C2 between UAV-UAV-C and USS-UTM navigated**

*Type: pCR For: Approval  
 23.755 v0.10.0  
 Source: InterDigital*

**Abstract:**

This contribution proposes to update Solution #6: "Selection and switching between Network Assisted/Direct and USS/UTM navigated C2 communication"

**Decision:** The document was **revised to S6-201955**.

**S6-201955 Pseudo CR on Update solution#6 switching C2 between UAV-UAV-C and USS-UTM navigated**

*Type: pCR For: Approval  
 23.755 v0.10.0  
 Source: InterDigital*

(Replaces S6-201715)

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

**S6-201879 Pseudo-CR on Update to Solution #1**

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

**Abstract:**

Solution #1, proposes a new function UCF, which will enable network assisted position for USS/UTM. SEAL being an enabler layer for multiple verticals, it is proposed to enhance SEAL with UCF functionality, which may also be applicable for other verticals

**Decision:** The document was **revised to S6-201941**.

**S6-201941 Pseudo-CR on Update to Solution #1**

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

(Replaces S6-201879)

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

**S6-201731 Pseudo CR on Solution #x: QoS requirement provisioning during C2 connectivity establishment**

*Type: pCR For: Approval  
 23.755 v0.10.0  
 Source: InterDigital*

**Abstract:**

This contribution proposes a new solution to address Key Issue #5 "UAV Application Server QoS Provisioning".

**Decision:** The document was **revised to S6-201956**.

**S6-201956 Pseudo CR on Solution #x: QoS requirement provisioning during C2 connectivity establishment**

*Type: pCR For: Approval  
 23.755 v0.10.0  
 Source: InterDigital*

(Replaces S6-201731)

**Decision:** The document was **revised to S6-202004**.

**S6-202004 Pseudo CR on Solution #x: QoS requirement provisioning during C2 connectivity establishment**

*Type: pCR For: Approval  
 23.755 v0.10.0  
 Source: InterDigital*

(Replaces S6-201956)

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

**S6-201772 Proposal of solution for assisting dynamic C2 mode switching**

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

(Replaces S6-201598)

**Abstract:**

This paper provides a solution to KI #6 on assisting dynamic C2 mode switching from in-direct to direct C2 or vice versa.

**Decision:** The document was **revised to S6-201952**.

**S6-201952 Proposal of solution for assisting dynamic C2 mode switching**

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

(Replaces S6-201772)

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

**S6-201745 Pseudo-CR on key issue x: UAS Identification management**

*Type: pCR For: Approval  
 23.755 v0.10.0  
 Source: Tencent*

**Abstract:**

This proposal identifies a new KI relating to UAS ID management in the application layer.

**Discussion:**

Tencent presented the doc S6-201745, during the ICC3.

InterDigital suggested rephrasing the key issue to make it clear it really is a key issue.

Huawei suggested not using the term identification management.

**Decision:** The document was **revised to S6-201886**.

**S6-201886 Pseudo-CR on key issue x: UAS Identification management**

*Type: pCR For: Approval  
 23.755 v0.10.0  
 Source: Tencent*

(Replaces S6-201745)

**Discussion:**

Draft revision reviewed and approved during the closing call (revision marks to be shown only change)

**Decision:** The document was **revised to S6-202020**.

**S6-202020 Pseudo-CR on key issue x: UAS Identification management**

*Type: pCR For: Approval  
 23.755 v0.10.0  
 Source: Tencent, InterDigital*

(Replaces S6-201886)

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

**S6-201794 Pseudo-CR on key issue x: UAS media application session management**

*Type: pCR For: Approval  
 23.755 v0.10.0  
 Source: Tencent*

**Abstract:**

This proposal identifies a new KI relating to UAS media application session management

**Discussion:**

Tencent presented the doc S6-201794, during the ICC3.

Deutsche Telekom did not understand the goal of supporting RTP.

Qualcomm suggested clarifying what problem actually is being solved.

**Decision:** The document was **revised to S6-201887**.

**S6-201887 Pseudo-CR on key issue x: UAS media application session management**

*Type: pCR For: Approval  
 23.755 v0.10.0  
 Source: Tencent*

(Replaces S6-201794)

**Discussion:**

Draft revision reviewed and approved during the closing call.

Deutsche Telekom raised concerns related to the scope.

Huawei suggested deleting "The following gaps.." including all bullets beneath.

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

**S6-201849 Assisting discovery of USS/UTM**

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

**Abstract:**

Proposal for Assisting discovery of USS/UTM

**Discussion:**

Huawei presented the doc S6-201849, during the ICC3.

Qualcomm was of the view that the proposal was out of scope for SA6.

Also Deutsche Telekom and Interdigital had concerns related to the proposed contribution.

**Decision:** The document was **revised to S6-201996**.

**S6-201996 Assisting discovery of USS/UTM**

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

(Replaces S6-201849)

**Discussion:**

Document reviewed during the closing call, but concerns remained.

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

**S6-201851 Support for on-demand pairing of UAV-C with UAV**

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

**Abstract:**

Proposal for Support for on-demand pairing of UAV-C with UAV

**Discussion:**

Huawei presented the doc S6-201851, during the ICC3.

Qualcomm was of the view that the proposal was clearly out of scope of Rel-17.

**Decision:** The document was **revised to S6-201998**.

**S6-201998 Support for on-demand pairing of UAV-C with UAV**

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

(Replaces S6-201851)

**Discussion:**

Document reviewed during the closing call, but concerns remained.

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

**S6-201875 Pseudo-CR on Key issue on monitor flight path**

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

**Abstract:**

According to the requirements [R-5.1-012] and [R-5.1-013] of TS 22.125, one of the key functionalities of the UTM is to track the UAV/UAV-C location. This contribution proposes new key issue to track the flight path of the UAV.

**Discussion:**

Samsung presented the doc S6-201875, during the ICC3.

Airbus was of the view that a similar key issue existed in SA2.

InterDigital noted that they were not aware of the key issue referred to by Airbus, but thought that these topics clearly would be within the SA6 scope.

Huawei suggested to generalise the solution.

From offline discussions Deutsche Telekom still had concerns.

**Decision:** The document was **revised to S6-201942**.

**S6-201942 Pseudo-CR on Key issue on monitor flight path**

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

(Replaces S6-201875)

**Discussion:**

Document reviewed during the closing call, but Deutsche Telekom concerns remained as they suggested awaiting SA2 concluding their study on the subject.

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

**S6-201877 Pseudo-CR on Solution to monitor UAV flight path**

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

**Abstract:**

This contribution proposes a solution to the key issue on tracking a UAV’s pre-scheduled flight path. The solution fetches UAV’s location periodically and processes it confirm the UAV’s location adherence to the flight path.

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

**S6-201876 Pseudo-CR on Key Issue - Detection of problematic UAV**

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

**Abstract:**

This pCR to proposes new key issue to study on detection of problematic UAVs.

**Discussion:**

Samsung presented the doc S6-201876, during the ICC3.

InterDigital wished to have more information on what was meant with "problematic UAV(s)".

**Decision:** The document was **revised to S6-201943**.

**S6-201943 Pseudo-CR on Key Issue - Detection of problematic UAV**

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

(Replaces S6-201876)

**Discussion:**

Document reviewed during the closing call but concerns from Deutsche Telekom remained.

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

**S6-201878 Pseudo-CR on Solution to detection of problematic UAV**

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

**Abstract:**

This pCR proposes solution to key issue on detection of problematic UAV. The solution proposes UAE layer mechanism for detection of problematic UAV.

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

**S6-201744 pCR: Key issues to Solutions Mapping**

*Type: pCR For: Approval  
 23.755 v0.10.0  
 Source: Tencent*

**Abstract:**

Contribution providing a KI to solutions mappings.

**Decision:** The document was **revised to S6-201885**.

**S6-201885 pCR: Key issues to Solutions Mapping**

*Type: pCR For: Approval  
 23.755 v0.10.0  
 Source: Tencent*

(Replaces S6-201744)

**Discussion:**

Draft revision (editorial) reviewed and approved during the closing call.

**Decision:** The document was **revised to S6-202021**.

**S6-202021 pCR: Key issues to Solutions Mapping**

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

(Replaces S6-201885)

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

### 8.6 FS\_5GMARCH – Study on support of the 5GMSG Service

**S6-201819 FS\_5GMARCH nomenclature alignment**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Convida Wireless LLC*

**Abstract:**

The contribution proposes corrections to important misalignments in nomenclature for fundamental architectural entities and central concepts present in TR 23.700-24 V1.0.0.

**Discussion:**

Convida presented, during the ICC5 the current status.

**Decision:** The document was **revised to S6-201975**.

**S6-201975 FS\_5GMARCH nomenclature alignment**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Convida Wireless LLC*

(Replaces S6-201819)

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

**S6-201880 Pseudo-CR on pCR based on SA1 clarifications**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Samsung*

**Abstract:**

SA1 has provided clarifications on support of priority and communication modes in S6-201698. This contribution takes SA1 response into account to address the related Editor's notes.

**Discussion:**

Samsung presented, during the ICC5 the current status.

E.g. some new editor's notes had been worked on the request of AT&T.

**Decision:** The document was **revised to S6-201944**.

**S6-201944 Pseudo-CR on pCR based on SA1 clarifications**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Samsung*

(Replaces S6-201880)

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

**S6-201865 Pseudo-CR on MSGin5G Segment Recovery procedure**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Samsung*

**Abstract:**

This contribution provides procedure to recover missing segments.

**Discussion:**

Samsung updated, during the ICC5, of the current status.

It seemed that comments given so far have been resolved in R1.

**Decision:** The document was **revised to S6-201945**.

**S6-201945 Pseudo-CR on MSGin5G Segment Recovery procedure**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Samsung*

(Replaces S6-201865)

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

**S6-201719 Pseudo-CR on FS 5GMARCH Clarifications on solution about interworking with SMS**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Huawei, Hisilicon*

**Abstract:**

This pCR is for clarification on interworking with SMS.

**Discussion:**

Huawei updated, during the ICC5, of the current status.

Some comments had been given and taken on board.

**Decision:** The document was **revised to S6-201927**.

**S6-201927 Pseudo-CR on FS 5GMARCH Clarifications on solution about interworking with SMS**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Huawei, Hisilicon*

(Replaces S6-201719)

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

**S6-201717 Pseudo-CR on capabilities of UE without 5GMSGS client**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: one2many B.V.*

**Abstract:**

The present key issue studies UE capabilities in case a 5GMSGS client is not present (i.e. a legacy UE). It notably studies if such a UE can send a 5GMSGS message.

**Discussion:**

The meeting discussed during ICC5 the current status of the contribution.

Huawei was of the view that lots of the proposal could be left for the implementation.

Samsung clarified that the contribution went far beyond the actual key issue.

**Decision:** The document was **revised to S6-201898**.

**S6-201898 Pseudo-CR on capabilities of UE without 5GMSGS client**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: one2many B.V.*

(Replaces S6-201717)

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

**S6-201821 Pseudo-CR on FS\_5GMARCH deliver message to Application Client**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: China Mobile Com. Corporation*

**Abstract:**

This document proposes a new key issue that MSGin5G Service shall support delivery of a message to a specific application in the terminated UE. The terminated UE may or may not support a 5GMSGS client.

**Discussion:**

The meeting discussed, during the ICC5, the status of the contribution.

**Decision:** The document was **revised to S6-201977**.

**S6-201977 Pseudo-CR on FS\_5GMARCH deliver message to Application Client**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: China Mobile Com. Corporation*

(Replaces S6-201821)

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

**S6-201723 Pseudo-CR on FS 5GMARCH KI on using CAPIF**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Huawei, Hisilicon*

**Abstract:**

This pCR is the KI of using CAPIF.

**Discussion:**

The meeting discussed, during the ICC5, the status of the contribution.

**Decision:** The document was **revised to S6-201931**.

**S6-201931 Pseudo-CR on FS 5GMARCH KI on using CAPIF**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Huawei, Hisilicon*

(Replaces S6-201723)

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

**S6-201724 Pseudo-CR on FS 5GMARCH Solution on using CAPIF**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Huawei, Hisilicon*

**Abstract:**

The solution addresses the solution on using CAPIF.

**Discussion:**

Huawei presented, during the ICC5, the status of the contribution. For the moment there seemed to be no outstanding issues.

**Decision:** The document was **revised to S6-201932**.

**S6-201932 Pseudo-CR on FS 5GMARCH Solution on using CAPIF**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Huawei, Hisilicon*

(Replaces S6-201724)

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

**S6-201881 Support of multiple delivery mechanisms**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Convida Wireless LLC*

**Abstract:**

Introduce high-level solution for the Key Issue on exposure of multiple delivery mechanisms.

**Discussion:**

The meeting discussed, during ICC5, the status of the contribution.

AT&T was of the view the proposal concentrating on transport layers, was not within the scope of SA6, but agreed with the 6.x part of the contribution.

Convida suggested to clarify within SA6 (i.e. the current meeting) whether the following services are supported by SA6 5GMSG service: device triggering, small data transfer, and Non IP Data Delivery (NIDD).

The meeting further discussed the status during ICC#7.

AT&T had concerns referring to "..IP based delivery.." and "..translates payload..".

Convida was of the view IP based delivery was just an option and preferred it to stay.

**Decision:** The document was **revised to S6-201976**.

**S6-201976 Support of multiple delivery mechanisms**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Convida Wireless LLC, Samsung*

(Replaces S6-201881)

**Discussion:**

During the closing call two options were discussed (rev1 option 1 vs option2).

AT&T noted they preferred having the box C to be removed from the figure and step.

The only changes are removal of the:

- 4.a.iii and

- the related box from the figure (option 2).

**Decision:** The document was **revised to S6-202017**.

**S6-202017 Support of multiple delivery mechanisms**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Convida Wireless LLC, Samsung*

(Replaces S6-201976)

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

**S6-201818 MSGin5G Store and Forward Solution**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Convida Wireless LLC*

**Abstract:**

The current MSGin5G Service is not able to support store-and-forwarding of non-IMS messages. By supporting store-and-forwarding of messages, the MSGin5G Service can improve the overall performance and efficiency of the system. With the proposed solution m

**Discussion:**

The meeting discussed, during ICC5, the status of the contribution.

**Decision:** The document was **revised to S6-201974**.

**S6-201974 MSGin5G Store and Forward Solution**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Convida Wireless LLC*

(Replaces S6-201818)

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

**S6-201720 Pseudo-CR on FS 5GMARCH Solution on message reply from Non-3GPP UE to 5GMSGS UE**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Huawei, Hisilicon*

**Abstract:**

The solution addresses the identified gaps(in KI#5) about message delivery from Non-3GPP UE.

**Discussion:**

The meeting discussed, during ICC5, the status of the contribution. There seemed to be no outstanding issues at this moment.

**Decision:** The document was **revised to S6-201928**.

**S6-201928 Pseudo-CR on FS 5GMARCH Solution on message reply from Non-3GPP UE to 5GMSGS UE**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Huawei, Hisilicon*

(Replaces S6-201720)

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

**S6-201721 Pseudo-CR on FS 5GMARCH Solution on message reply from UE to App Server**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Huawei, Hisilicon*

**Abstract:**

The solution addresses the identified gaps(in KI#5 and KI#23) about message delivery from UEs.

**Discussion:**

The meeting discussed, during ICC5, the status of the contribution.

Samsung raised some concern with regard to the steps 2 and 3 in Figure 6.Z.1-1 (doc R1).

**Decision:** The document was **revised to S6-201929**.

**S6-201929 Pseudo-CR on FS 5GMARCH Solution on message reply from UE to App Server**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Huawei, Hisilicon*

(Replaces S6-201721)

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

**S6-201722 Pseudo-CR on FS 5GMARCH solution on APIs provided by MSGin5G server**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Huawei, Hisilicon*

**Abstract:**

The solution addresses the identified issues and gap in Key Issue #9.

**Discussion:**

The meeting discussed, during ICC5, the status of the contribution.

One2many mad a remark that there was no requirement for application server support (request) of Group messaging.

Samsung was of the view that there was no explicit requirement, but the assumption was that the group messaging should be supported.

**Decision:** The document was **revised to S6-201930**.

**S6-201930 Pseudo-CR on FS 5GMARCH solution on APIs provided by MSGin5G server**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Huawei, Hisilicon*

(Replaces S6-201722)

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

**S6-201822 Pseudo-CR on FS\_5GMARCH solution 5GMSGS messaging when contact is unknown (non-IMS)**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: China Mobile Com. Corporation*

**Abstract:**

In all message scenarios, when message sender sends messages to receiver(s), the contact information of the receiver(s) is needed. But in MIoT scenario, many devices are capability limited and may not know contact information of every receiver.

**Discussion:**

The meeting was updated, during the ICC5, of the current status.

E.g. a modification to the title had been proposed.

Motorola Solutions raised a concern with regard to the messaging based on topic as there seemed to be no requirement for this. Convida and one2many had also raised similar concerns.

**Decision:** The document was **revised to S6-201978**.

**S6-201978 Pseudo-CR on FS\_5GMARCH solution 5GMSGS messaging when contact is unknown (non-IMS)**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: China Mobile Com. Corporation*

(Replaces S6-201822)

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

**S6-201824 Pseudo-CR on FS\_5GMARCH KI18 solution MSGin5G Roaming**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: China Mobile Com. Corporation*

**Abstract:**

solution addresses the two identified gaps in KI18, including:

- Application layer architecture to support roaming of 5GMSGS UEs and the related procedures for roaming UEs are needed to be studied and

- If MSGin5G Roaming is needed to be supported by

**Discussion:**

The meeting discussed, during ICC5, the status of of the contribution. The contributor was of the view all comments had been taken on board in the current version (R1) of the contribution.

**Decision:** The document was **revised to S6-201979**.

**S6-201979 Pseudo-CR on FS\_5GMARCH KI18 solution MSGin5G Roaming**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: China Mobile Com. Corporation*

(Replaces S6-201824)

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

**S6-201860 Pseudo-CR on Solution for group list fetch**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Samsung*

**Abstract:**

This contribution provides solution where the 5GMSGS Client can fetch the list of groups in which it is member with help of group management client.

**Discussion:**

The meeting discussed, during ICC5, the status of the contribution. The contributor considered all comments had been resolved in the current version (R1) of the document.

**Decision:** The document was **revised to S6-201946**.

**S6-201946 Pseudo-CR on Solution for group list fetch**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Samsung*

(Replaces S6-201860)

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

**S6-201869 Pseudo-CR on Solution for group notification**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Samsung*

**Abstract:**

This contribution provides solution where the MSGin5G Server sends group notification to the legacy 3GPP UEs and non-3GPP UEs, which are members of newly created group.

**Discussion:**

The meeting discussed, during ICC5, the status of the contribution.

It was noted that there was one outstanding issue related to AS service ID.

**Decision:** The document was **revised to S6-201947**.

**S6-201947 Pseudo-CR on Solution for group notification**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Samsung*

(Replaces S6-201869)

**Discussion:**

Draft revision reviewed and approved during the closing call.

**Decision:** The document was **revised to S6-202018**.

**S6-202018 Pseudo-CR on Solution for group notification**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Samsung*

(Replaces S6-201947)

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

**S6-201716 Pseudo-CR on End-to-end acknowledgement in 5GMARCH**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: one2many B.V.*

**Abstract:**

Most other End-to-end acknowledgement solutions in the TR contain an acknowledgement step that is problematic when the message is stored because the recipient UE is unavailable.

The present solution describes an application layer end-to-end acknowledgement

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

**S6-201868 Pseudo-CR on delivery report aggregation**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Samsung*

**Abstract:**

This contribution provides solution where the MSGin5G Server aggregates the delivery reports to support the delivery reports arriving in a sporadic fashion.

**Discussion:**

The contribution was discussed during ICC#7.

one2many was of the view that the step 1 was rather unreliable and suggested improving the solution including a response.

**Decision:** The document was **revised to S6-201948**.

**S6-201948 Pseudo-CR on delivery report aggregation**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Samsung, one2many*

(Replaces S6-201868)

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

**S6-201725 Pseudo-CR on FS 5GMARCH Conclusions**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: Huawei, Hisilicon*

**Abstract:**

Contribution proposes some conclusions.

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

**S6-201825 Pseudo-CR on FS\_5GMARCH Conclusions and recommendations: KIs and solutions**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: China Mobile Com. Corporation*

**Abstract:**

This paper contributes a part of conclusion which contains all KIs until now and the related solutions.

**Discussion:**

The contribution was discussed during ICC#7.

Samsung was of the view that the conclusions would need further update (especially bullets 3, 4 and 5) as it seemed that it was a copy of the conclusions of another contribution (that was merged) without taking into account the original comments to that contribution.

Furthermore, some of the material (e.g. table) in the contribution should go into the solution evaluation clause 9.

**Decision:** The document was **revised to S6-201980**.

**S6-201980 Pseudo-CR on FS\_5GMARCH Conclusions and recommendations: KIs and solutions**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: China Mobile Com. Corporation, Huawei, Hisilicon*

(Replaces S6-201825)

**Decision:** The document was **revised to S6-202019**.

**S6-202019 Pseudo-CR on FS\_5GMARCH Conclusions and recommendations: KIs and solutions**

*Type: pCR For: Approval  
 23.700-24 v1.0.0  
 Source: China Mobile Com. Corporation, Huawei, Hisilicon*

(Replaces S6-201980)

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

### 8.7 FS\_MCGWUE – Study of Gateway UE function for Mission Critical Communication

**S6-201738 Pseudo-CR on terminology alignment**

*Type: pCR For: Approval  
 23.700-79 v0.1.0  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

The current version of the TR uses the term "gateway UE function" without offering a proper definition what it is. On the other side there exist a definition for an "MC gateway UE". It is suggested to go with MC gateway UE only.

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

**S6-201739 Pseudo-CR on functional architecture**

*Type: pCR For: Approval  
 23.700-79 v0.1.0  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

This contribution describes and aims to add a functional architecture for using a MC gateway UE to connect MC service clients residing on non-3GPP devices to the MC system.

**Decision:** The document was **revised to S6-201888**.

**S6-201888 Pseudo-CR on functional architecture**

*Type: pCR For: Approval  
 23.700-79 v0.1.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S6-201739)

**Discussion:**

Document reviewed and approved during the closing call (editorial to be corrected by rapporteur).

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

**S6-201704 Pseudo-CR on key issue on mission critical traffic routing function of gateway UE**

*Type: pCR For: Approval  
 23.700-79 v0.1.0  
 Source: CALTTA*

**Discussion:**

The contribution was discussed during ICC#7.

The contributor noted that Motorola Solutions still had concerns over the contribution.

L3Harris made a remark that they agreed with Motorola Solutions and had some concerns with the contribution in its current state.

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

**S6-201705 Pseudo-CR on key issue on mission critical capabilities exposure of gateway UE**

*Type: pCR For: Approval  
 23.700-79 v0.1.0  
 Source: CALTTA*

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

**S6-201740 Pseudo-CR on connection authorisation**

*Type: pCR For: Approval  
 23.700-79 v0.1.0  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

Adding a solution for authorisation for connection of non-3GPP devices with an MC gateway UE.

**Decision:** The document was **revised to S6-201889**.

**S6-201889 Pseudo-CR on connection authorisation**

*Type: pCR For: Approval  
 23.700-79 v0.1.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S6-201740)

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

**S6-201741 Pseudo-CR on combined connection and service authorisation**

*Type: pCR For: Approval  
 23.700-79 v0.1.0  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

Adding a solution for combined service authorisation and connection of non-3GPP devices with an MC gateway UE.

**Decision:** The document was **revised to S6-201890**.

**S6-201890 Pseudo-CR on combined connection and service authorisation**

*Type: pCR For: Approval  
 23.700-79 v0.1.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S6-201741)

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

**S6-201742 Pseudo-CR on using IMS identities**

*Type: pCR For: Approval  
 23.700-79 v0.1.0  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

This solution addresses the key issue 3 on identification of MC service users behind an MC gateway UE residing on non-3GPP devices.

**Discussion:**

Draft revision reviewed and approved during the closing call.

**Decision:** The document was **revised to S6-202022**.

**S6-202022 Pseudo-CR on using IMS identities**

*Type: pCR For: Approval  
 23.700-79 v0.1.0  
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S6-201742)

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

## 9 Future work / New WIDs (including related contributions)

**S6-201783 Discussion of new work leveraging 5GS Location Service**

*Type: discussion For: Endorsement  
 Source: CATT*

**Abstract:**

This contribution discusses conducting the new work to leverage 5GS location services.

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

**S6-201785 New SID on study on location management service supporting 5G location services**

*Type: SID new For: Agreement  
 Source: CATT*

**Abstract:**

New SID on study on location management service supporting 5G location services

**Decision:** The document was **revised to S6-201905**.

**S6-201905 New SID on study on location management service supporting 5G location services**

*Type: SID new For: Agreement  
 Source: CATT*

(Replaces S6-201785)

**Discussion:**

Document reviewed during the closing call, but concerns remained.

Motorola Solutions was of the view that the topics were already covered by existing studies.

Ericsson also raised concern, not the study as such but thought it could be covered within existing studies.

Home Office as well as InterDigital (especially on scoping) also raised concerns against the proposed study in its current form.

Qualcomm was of the view that the current proposal would seem to overcomplicate things.

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

**S6-201870 Discussion regarding enhancements to SEAL**

*Type: discussion For: Endorsement  
 Source: Samsung*

**Abstract:**

Discussion paper regarding enhancements to SEAL

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

**S6-201871 New WID for enhanced Service Enabler Architecture Layer for Verticals**

*Type: WID new For: Agreement  
 Source: Samsung*

**Abstract:**

New WID for enhanced Service Enabler Architecture Layer for Verticals

**Decision:** The document was **revised to S6-201949**.

**S6-201949 New WID for enhanced Service Enabler Architecture Layer for Verticals**

*Type: WID new For: Agreement  
 Source: Samsung*

(Replaces S6-201871)

**Discussion:**

Draft revision reviewed and approved during the closing call.

**Decision:** The document was **revised to S6-202036**.

**S6-202036 New WID for enhanced Service Enabler Architecture Layer for Verticals**

*Type: WID new For: Agreement  
 Source: Samsung*

(Replaces S6-201949)

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

## 10 Work Plan review

**S6-202005 SA6#39 BIS-e Work Plan discussion**

*Type: discussion For: Discussion  
 Source: SA6 Chair*

**Discussion:**

Document reviewed during the closing call.

There were different views presented with regard to whether FS\_enhMCLoc should be considered 100% complete.

Motorola Solutions proposed to still keep the study open.

Huawei did not see any value in keeping it open.

Qualcomm suggested it would be closed by next meeting latest.

It was agreed to review the situation during SA6#40.

With regard to FS\_5GMARCH Convida had some concern with the indicated completion as they thought SA6 was even struggling with the actual scope of the work. They also thought the approval date would need to be delayed (until March 2021).

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

## 11 Future meetings

## 12 AOB

## 13 Close of the meeting

Report prepared by: Bernt Mattsson

## Annex A: Contribution documents and status

### A1: List of TDocs

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Document | Title | Source | Decision | Replaces | Replaced by |
| S6-201689 | SA6 Meeting 39-bis-e Agenda | SA6 Chairman | noted |  |  |
| S6-201690 | SA6 Meeting 39-e Report | MCC | approved |  |  |
| S6-201691 | SA6 Meeting #39-bis-e - Agenda with Tdocs allocation after submission deadline | SA6 Chairman | noted |  |  |
| S6-201692 | SA6 Meeting #39-bis-e - Agenda with Tdocs allocation at start of the meeting | SA6 Chairman | approved |  |  |
| S6-201693 | SA6 Meeting #39-bis-e - Chairman's notes at end of the meeting | SA6 Chairman | noted |  |  |
| S6-201694 | LS on ETSI Plugtest reports | CT1 | noted |  |  |
| S6-201695 | LS on clarifications for authorised user learning about the users whose floor requests are queued | CT1 | replied to |  |  |
| S6-201696 | LS on application layer impact of FS\_enh\_EC solution #16 | SA2 | revised |  | S6-201882 |
| S6-201697 | LS on IP address to GPSI translation | SA2 | replied to |  |  |
| S6-201698 | Response LS on 5GMSG requirement clarifications | SA1 | noted |  |  |
| S6-201699 | LS on 5GMSG store and forward | SA1 | noted |  |  |
| S6-201700 | Reply LS on security procedures for Edge Applications | SA3 | noted |  |  |
| S6-201701 | Reply LS on Key Management procedure in SEAL | SA3 | noted |  |  |
| S6-201702 | LS on Rel-17 schedule | SA | noted |  |  |
| S6-201703 | Subscription to Group Location | Motorola Solutions UK Ltd. | revised |  | S6-201951 |
| S6-201704 | Pseudo-CR on key issue on mission critical traffic routing function of gateway UE | CALTTA | postponed |  |  |
| S6-201705 | Pseudo-CR on key issue on mission critical capabilities exposure of gateway UE | CALTTA | postponed |  |  |
| S6-201706 | Improvements for IP connectivity point-to-point MCData service | Kontron Transportation France | noted |  |  |
| S6-201707 | Enhancement to IP connectivity point-to-point MCData service to allow optionally a direct connection between the involved clients | Kontron Transportation France | not pursued |  |  |
| S6-201708 | Pseudo CR on Alignment of the definition of UAS | InterDigital | revised |  | S6-201950 |
| S6-201709 | Report on SA6 related topics at SA#89-e | SA6 Chairman | noted |  |  |
| S6-201710 | Align Annex B with changes to “auto-send” | AT&T GNS Belgium SPRL | revised |  | S6-201899 |
| S6-201711 | Correction to the transmission control configuration parameters | AT&T GNS Belgium SPRL | revised |  | S6-201900 |
| S6-201712 | Align Annex B with changes to “auto-send” | AT&T GNS Belgium SPRL | revised |  | S6-201901 |
| S6-201713 | Correction to the transmission control configuration parameters | AT&T GNS Belgium SPRL | revised |  | S6-201902 |
| S6-201714 | Support of UAVs in 3GPP system and interfacing with USS/UTM | ACJA (GSMA and GUTMA) | noted |  |  |
| S6-201715 | Pseudo CR on Update solution#6 switching C2 between UAV-UAV-C and USS-UTM navigated | InterDigital | revised |  | S6-201955 |
| S6-201716 | Pseudo-CR on End-to-end acknowledgement in 5GMARCH | one2many B.V. | merged |  | S6-201868 |
| S6-201717 | Pseudo-CR on capabilities of UE without 5GMSGS client | one2many B.V. | revised |  | S6-201898 |
| S6-201718 | Dynamic availability of Edge Application Server | ETRI | merged |  | S6-201797 |
| S6-201719 | Pseudo-CR on FS 5GMARCH Clarifications on solution about interworking with SMS | Huawei, Hisilicon | revised |  | S6-201927 |
| S6-201720 | Pseudo-CR on FS 5GMARCH Solution on message reply from Non-3GPP UE to 5GMSGS UE | Huawei, Hisilicon | revised |  | S6-201928 |
| S6-201721 | Pseudo-CR on FS 5GMARCH Solution on message reply from UE to App Server | Huawei, Hisilicon | revised |  | S6-201929 |
| S6-201722 | Pseudo-CR on FS 5GMARCH solution on APIs provided by MSGin5G server | Huawei, Hisilicon | revised |  | S6-201930 |
| S6-201723 | Pseudo-CR on FS 5GMARCH KI on using CAPIF | Huawei, Hisilicon | revised |  | S6-201931 |
| S6-201724 | Pseudo-CR on FS 5GMARCH Solution on using CAPIF | Huawei, Hisilicon | revised |  | S6-201932 |
| S6-201725 | Pseudo-CR on FS 5GMARCH Conclusions | Huawei, Hisilicon | merged |  | S6-201825 |
| S6-201726 | EDGEAPP: Proposal to modify the API service operation names | ETRI | revised |  | S6-201893 |
| S6-201727 | Add new UE ID | China Mobile Com. Corporation | noted |  |  |
| S6-201728 | Pseudo-CR on < Add new UE ID > | China Mobile Com. Corporation | postponed |  |  |
| S6-201729 | Authorized user being notified about other users floor queue status | Samsung R&D Institute India | revised |  | S6-201910 |
| S6-201730 | Reply LS on clarifications for authorised user learning about the users whose floor requests are queued | Samsung R&D Institute India | revised |  | S6-201911 |
| S6-201731 | Pseudo CR on Solution #x: QoS requirement provisioning during C2 connectivity establishment | InterDigital | revised |  | S6-201956 |
| S6-201732 | Progress and completion of FS\_UASAPP | InterDigital | noted |  |  |
| S6-201733 | Update to EEC executed application context relocation | InterDigital | revised |  | S6-201957 |
| S6-201734 | Clarifications on Source EAS decided application context relocation | InterDigital | revised |  | S6-201958 |
| S6-201735 | Device Onboarding support | ZTE Corporation | postponed |  |  |
| S6-201736 | Constrained devices supporting | ZTE Corporation | merged |  | S6-201788 |
| S6-201737 | OPC-UA integration | ZTE Corporation | merged |  | S6-201842 |
| S6-201738 | Pseudo-CR on terminology alignment | Nokia, Nokia Shanghai Bell | approved |  |  |
| S6-201739 | Pseudo-CR on functional architecture | Nokia, Nokia Shanghai Bell | revised |  | S6-201888 |
| S6-201740 | Pseudo-CR on connection authorisation | Nokia, Nokia Shanghai Bell | revised |  | S6-201889 |
| S6-201741 | Pseudo-CR on combined connection and service authorisation | Nokia, Nokia Shanghai Bell | revised |  | S6-201890 |
| S6-201742 | Pseudo-CR on using IMS identities | Nokia, Nokia Shanghai Bell | revised |  | S6-202022 |
| S6-201743 | Various corrections | AT&T | agreed |  |  |
| S6-201744 | pCR: Key issues to Solutions Mapping | Tencent | revised |  | S6-201885 |
| S6-201745 | Pseudo-CR on key issue x: UAS Identification management | Tencent | revised |  | S6-201886 |
| S6-201746 | Clarification to Edge Configuration Server discovery | vivo, OPPO, Xiaomi | revised |  | S6-201959 |
| S6-201747 | Way forward of providing ECS information/IP address to UE | vivo | noted |  |  |
| S6-201748 | LS Reply on application layer impact of FS\_enh\_EC solution #16 | vivo | merged |  | S6-201777 |
| S6-201749 | Clarification on UP path management event API | Samsung | revised |  | S6-201912 |
| S6-201750 | EEC detection in application context relocation | Samsung | revised |  | S6-201913 |
| S6-201751 | Network Capability Exposure information transfer over EDGE-9 | Samsung | postponed |  |  |
| S6-201752 | Pseudo-CR on Determination of common application context transfer solutions | Apple, Intel | revised |  | S6-201892 |
| S6-201753 | T-EES executed application context relocation procedure | Samsung | postponed |  |  |
| S6-201754 | UE NAS mode and interaction with 3GPP network | Samsung | postponed |  |  |
| S6-201755 | User plane connectivity modification in S-EES executed ACR | Samsung | revised |  | S6-201914 |
| S6-201756 | Pseudo-CR on ECS Discovery from 5GC | Sony | revised |  | S6-201906 |
| S6-201757 | Pseudo-CR on EEC ID in Service provisioning | Sony | revised |  | S6-201907 |
| S6-201758 | Pseudo-CR on Service Continuity Support Indication | Sony | revised |  | S6-201908 |
| S6-201759 | Pseudo-CR on Application Context Relocation Decision Making | Sony | revised |  | S6-201909 |
| S6-201760 | Add EAS discovery in EDGE-3 | Ericsson | revised |  | S6-201920 |
| S6-201761 | MC service emergency alert clarifications | FirstNet | revised |  | S6-201895 |
| S6-201762 | Remove location EN | Ericsson | revised |  | S6-201921 |
| S6-201763 | MCPTT in-progress emergency group state cancel modification | FirstNet | revised |  | S6-201896 |
| S6-201764 | AF influence in Application Context Relocation | Ericsson, Intel | revised |  | S6-201917 |
| S6-201765 | EAS DNAI in EES profile and selected EAS | Ericsson | revised |  | S6-201919 |
| S6-201766 | Support AEF location and API invoker interface for edge application | Ericsson | revised |  | S6-201918 |
| S6-201767 | Application Context: Transfer or Relocation? | Apple | revised |  | S6-201891 |
| S6-201768 | Separation between geographical and topological location | Intel Deutschland GmbH, InterDigital, Convida Wireless, Samsung, Apple | revised |  | S6-201915 |
| S6-201769 | UE internal movement detection | Intel Deutschland GmbH, Apple | revised |  | S6-201916 |
| S6-201770 | Support group-based location exposure | Ericsson | approved |  |  |
| S6-201771 | Support more UE IDs in QoS exposure | Ericsson | postponed |  |  |
| S6-201772 | Proposal of solution for assisting dynamic C2 mode switching | Lenovo, Motorola Mobility | revised | S6-201598 | S6-201952 |
| S6-201773 | Updated Solution on FFAE layer support for network slicing | Lenovo, Motorola Mobility | revised |  | S6-201953 |
| S6-201774 | PC5 Provisioning in multi-operator V2X scenarios | Lenovo, Motorola Mobility | revised |  | S6-201954 |
| S6-201775 | Source EAS decided application context relocation | InterDigital | postponed |  |  |
| S6-201776 | Pseudo-CR on deduplication of application context relocation | Qualcomm Technologies Int | noted |  |  |
| S6-201777 | LS Reply on application layer impact of FS\_enh\_EC solution #16 | Qualcomm Technologies Int | revised |  | S6-201903 |
| S6-201778 | Fixing media resources request procedure from MC service server | Ericsson | not pursued |  |  |
| S6-201779 | Fixing media resources request procedure from MC service server | Ericsson | revised |  | S6-201923 |
| S6-201780 | Access resource information in MCPTT information flows | Ericsson | not pursued |  |  |
| S6-201781 | Access resource information in MCPTT information flows | Ericsson | revised |  | S6-201924 |
| S6-201782 | Request for network resources at session establishment from the MC service server | Ericsson | revised |  | S6-201925 |
| S6-201783 | Discussion of new work leveraging 5GS Location Service | CATT | noted |  |  |
| S6-201784 | MCVideo pull and push corrections | Ericsson | agreed |  |  |
| S6-201785 | New SID on study on location management service supporting 5G location services | CATT | revised |  | S6-201905 |
| S6-201786 | Minor changes to information elements and procedures | Samsung R&D Institute India | revised |  | S6-201933 |
| S6-201787 | Discussion on Constrained devices - CoAP | Ericsson | noted |  |  |
| S6-201788 | SEAL support for CoAP | Ericsson | revised |  | S6-201926 |
| S6-201789 | IP connectivity, SDS and FD functional model correction | Union Inter. Chemins de Fer | revised |  | S6-201894 |
| S6-201790 | IP connectivity, SDS and FD functional model correction | Union Inter. Chemins de Fer | revised |  | S6-201934 |
| S6-201791 | TS 23.289 Skeleton | Union Inter. Chemins de Fer | approved |  |  |
| S6-201792 | Pseudo-CR on MCOver5GS normative work | Union Inter. Chemins de Fer | approved |  |  |
| S6-201793 | Pseudo-CR on TS 23.289 Clause 4 multiple access and session connectivity | Union Inter. Chemins de Fer | revised |  | S6-201897 |
| S6-201794 | Pseudo-CR on key issue x: UAS media application session management | Tencent | revised |  | S6-201887 |
| S6-201795 | Application information optionality | Samsung Electronics | revised |  | S6-201960 |
| S6-201796 | EAS discovery filters flag | Samsung Electronics | revised |  | S6-201961 |
| S6-201797 | EAS discovery and dynamic information subscription | Samsung Electronics | revised |  | S6-201962 |
| S6-201798 | EEC context | Samsung Electronics, Convida, Sony | revised |  | S6-201963 |
| S6-201799 | EDGE-1 and EDGE-4 APIs | Samsung Electronics, AT&T, Deutsche Telekom, Intel | revised |  | S6-201964 |
| S6-201800 | Relation between DNAIs of EAS, EES and EDN | Samsung Electronics | revised |  | S6-201965 |
| S6-201801 | AC's associated EASs | Samsung Electronics | approved |  |  |
| S6-201802 | EEC ID and UE ID | Samsung Electronics | merged |  | S6-201757 |
| S6-201803 | Registering EAS instances | Samsung Electronics | merged |  | S6-201830 |
| S6-201804 | UE Identifier API | Samsung Electronics, Intel | revised |  | S6-201966 |
| S6-201805 | Intra-EDN mobility and load balancers | Samsung Electronics | postponed |  |  |
| S6-201806 | Target EES and target EAS selection | Samsung Electronics | revised |  | S6-201967 |
| S6-201807 | EN related to UE location | Samsung Electronics | merged |  | S6-201762 |
| S6-201808 | Duplicate ENs in Session with QoS API | Samsung Electronics | approved |  |  |
| S6-201809 | Update to capability exposure clause | Samsung Electronics | revised |  | S6-201968 |
| S6-201810 | Aligning API nomenclature with CAPIF | Samsung Electronics | merged |  | S6-201726 |
| S6-201811 | EAS, EES registration APIs | Samsung Electronics | revised |  | S6-201969 |
| S6-201812 | Informing EES of the selected EAS | Samsung Electronics | revised |  | S6-201970 |
| S6-201813 | LS reply on UE IP address to GPSI translation | Samsung Electronics | revised |  | S6-201971 |
| S6-201814 | UE ID API and UE IP address to GPSI translation | Samsung Electronics | revised |  | S6-201972 |
| S6-201815 | Discussion on Provisioning ECS Address Information via the 5GC | Convida Wireless LLC, ATT, Samsung | noted |  |  |
| S6-201816 | [DRAFT] Reply LS on application layer impact of FS\_enh\_EC solution #16 | Convida Wireless LLC, ATT, Samsung | merged |  | S6-201777 |
| S6-201817 | ACR indicator for EAS discovery requests | Convida Wireless LLC | noted |  |  |
| S6-201818 | MSGin5G Store and Forward Solution | Convida Wireless LLC | revised |  | S6-201974 |
| S6-201819 | FS\_5GMARCH nomenclature alignment | Convida Wireless LLC | revised |  | S6-201975 |
| S6-201820 | Pseudo-CR on update to solution #16 | CATT | revised |  | S6-201904 |
| S6-201821 | Pseudo-CR on FS\_5GMARCH deliver message to Application Client | China Mobile Com. Corporation | revised |  | S6-201977 |
| S6-201822 | Pseudo-CR on FS\_5GMARCH solution 5GMSGS messaging when contact is unknown (non-IMS) | China Mobile Com. Corporation | revised |  | S6-201978 |
| S6-201823 | Evaluation of solution #15 | CATT | agreed |  |  |
| S6-201824 | Pseudo-CR on FS\_5GMARCH KI18 solution MSGin5G Roaming | China Mobile Com. Corporation | revised |  | S6-201979 |
| S6-201825 | Pseudo-CR on FS\_5GMARCH Conclusions and recommendations: KIs and solutions | China Mobile Com. Corporation | revised |  | S6-201980 |
| S6-201826 | Decoupling EEC registration with EAS discovery | Huawei, Hisilicon, Ericsson, Nokia, Nokia Shanghai Bell | approved |  |  |
| S6-201827 | Service provisioning without Application Client profile(s) | Huawei, Hisilicon, Qualcomm, CATT, China Mobile | revised |  | S6-201982 |
| S6-201828 | EAS discovery without Discovery filters | Huawei, Hisilicon, Qualcomm, CATT, China Mobile | revised |  | S6-201983 |
| S6-201829 | Alignment between functionalities of functional entities and Reference Points | Huawei, Hisilicon | approved |  |  |
| S6-201830 | Clarification on Edge Application Server Registration | Huawei, Hisilicon | revised |  | S6-201984 |
| S6-201831 | Editorial changes to Application layer architecture | Huawei, Hisilicon | revised |  | S6-201985 |
| S6-201832 | Trigger the EAS instantiation by ECS | Huawei, Hisilicon | revised |  | S6-201986 |
| S6-201833 | ACR with full operations at edge enabler layer | Huawei, Hisilicon | revised |  | S6-201987 |
| S6-201834 | Application relocation information notification | Huawei, Hisilicon | revised |  | S6-201988 |
| S6-201835 | User Plane Path Management event information flow update | Huawei, Hisilicon | postponed |  |  |
| S6-201836 | User Plane Path Management event and notification enhancement | Huawei, Hisilicon | revised |  | S6-201989 |
| S6-201837 | User Plane Path Management event enhancement with application context availability | Huawei, Hisilicon | revised |  | S6-201990 |
| S6-201838 | User Plane Path Management event enhancement with available target EAS | Huawei, Hisilicon | revised |  | S6-201991 |
| S6-201839 | DNAI clarifications | Huawei, Hisilicon | revised |  | S6-201992 |
| S6-201840 | LS on DNAI clarification and enhancements | Huawei, Hisilicon | postponed |  |  |
| S6-201841 | Editorial correction to solution#2 | Huawei, Hisilicon | approved |  |  |
| S6-201842 | Supporting OPC UA | Huawei, Hisilicon | revised |  | S6-201993 |
| S6-201843 | Location management mechanism backward compatibility | Huawei, Hisilicon | revised |  | S6-201994 |
| S6-201844 | Call restrictions for normal private calls | Huawei, Hisilicon | agreed |  |  |
| S6-201845 | FA controlling role description in MCVideo | Huawei, Hisilicon | revised |  | S6-201995 |
| S6-201846 | FA controlling role description in MCVideo | Huawei, Hisilicon | agreed |  |  |
| S6-201847 | FA management procedure in MCVideo | Huawei, Hisilicon | agreed |  |  |
| S6-201848 | FA management procedure in MCVideo | Huawei, Hisilicon | agreed |  |  |
| S6-201849 | Assisting discovery of USS/UTM | Huawei, Hisilicon | revised |  | S6-201996 |
| S6-201850 | Relationship of SA2 and SA6 UAS architecture | Huawei, Hisilicon | revised |  | S6-201997 |
| S6-201851 | Support for on-demand pairing of UAV-C with UAV | Huawei, Hisilicon | revised |  | S6-201998 |
| S6-201852 | Discussion on UASAPP progress update considering SA2 and SA6 work | Huawei, Hisilicon | noted |  |  |
| S6-201853 | V2X application layer architecture enhancement | Huawei, Hisilicon | revised |  | S6-201999 |
| S6-201854 | Business relationships between V2X service providers | Huawei, Hisilicon | revised |  | S6-202000 |
| S6-201855 | V2X service discovery across multiple V2X service providers | Huawei, Hisilicon | revised |  | S6-202001 |
| S6-201856 | Support for HD map dynamic information | Huawei, Hisilicon | revised |  | S6-202002 |
| S6-201857 | Tracking UE and obtaining dynamic UE information | Huawei, Hisilicon | revised |  | S6-202003 |
| S6-201858 | Editorial corrections | Huawei, Hisilicon | agreed |  |  |
| S6-201859 | Missing solution evaluations | Huawei, Hisilicon | agreed |  |  |
| S6-201860 | Pseudo-CR on Solution for group list fetch | Samsung | revised |  | S6-201946 |
| S6-201861 | Pseudo-CR on Solution for positioning method negotiation | Samsung | revised |  | S6-201937 |
| S6-201862 | Pseudo-CR on new key issue to support message communication | Samsung | revised |  | S6-201938 |
| S6-201863 | Pseudo-CR on solution to the key issue to support message communication | Samsung | postponed |  |  |
| S6-201864 | Pseudo-CR on solution for the group communication | Samsung | postponed |  |  |
| S6-201865 | Pseudo-CR on MSGin5G Segment Recovery procedure | Samsung | revised |  | S6-201945 |
| S6-201866 | Updates to group creation notification | Samsung | not pursued |  |  |
| S6-201867 | Clarification on group join notification | Samsung | revised |  | S6-201935 |
| S6-201868 | Pseudo-CR on delivery report aggregation | Samsung | revised |  | S6-201948 |
| S6-201869 | Pseudo-CR on Solution for group notification | Samsung | revised |  | S6-201947 |
| S6-201870 | Discussion regarding enhancements to SEAL | Samsung | noted |  |  |
| S6-201871 | New WID for enhanced Service Enabler Architecture Layer for Verticals | Samsung | revised |  | S6-201949 |
| S6-201872 | Resolution of ENs on security aspects | Samsung | revised |  | S6-201936 |
| S6-201873 | Pseudo-CR Enable FFAP for 5G CN capabilities | Samsung | revised |  | S6-201939 |
| S6-201874 | Pseudo-CR New Solution to enable FFAP for 5G CN capabilities | Samsung | revised |  | S6-201940 |
| S6-201875 | Pseudo-CR on Key issue on monitor flight path | Samsung | revised |  | S6-201942 |
| S6-201876 | Pseudo-CR on Key Issue - Detection of problematic UAV | Samsung | revised |  | S6-201943 |
| S6-201877 | Pseudo-CR on Solution to monitor UAV flight path | Samsung | postponed |  |  |
| S6-201878 | Pseudo-CR on Solution to detection of problematic UAV | Samsung | postponed |  |  |
| S6-201879 | Pseudo-CR on Update to Solution #1 | Samsung | revised |  | S6-201941 |
| S6-201880 | Pseudo-CR on pCR based on SA1 clarifications | Samsung | revised |  | S6-201944 |
| S6-201881 | Support of multiple delivery mechanisms | Convida Wireless LLC | revised |  | S6-201976 |
| S6-201882 | LS on application layer impact of FS\_enh\_EC solution #16 | SA2 | replied to | S6-201696 |  |
| S6-201883 | Reply LS on ETSI Plugtest reports | UPV/EHU (ETSI MCX Plugtests) | postponed | - | - |
| S6-201884 | APIs in EDGEAPP | SA6 | revised | - | S6-201973 |
| S6-201885 | pCR: Key issues to Solutions Mapping | Tencent | revised | S6-201744 | S6-202021 |
| S6-201886 | Pseudo-CR on key issue x: UAS Identification management | Tencent | revised | S6-201745 | S6-202020 |
| S6-201887 | Pseudo-CR on key issue x: UAS media application session management | Tencent | postponed | S6-201794 | - |
| S6-201888 | Pseudo-CR on functional architecture | Nokia, Nokia Shanghai Bell | approved | S6-201739 | - |
| S6-201889 | Pseudo-CR on connection authorisation | Nokia, Nokia Shanghai Bell | approved | S6-201740 | - |
| S6-201890 | Pseudo-CR on combined connection and service authorisation | Nokia, Nokia Shanghai Bell | approved | S6-201741 | - |
| S6-201891 | Application Context: Transfer or Relocation? | Apple | approved | S6-201767 | - |
| S6-201892 | Pseudo-CR on Determination of common application context transfer solutions | Apple, Intel | approved | S6-201752 | - |
| S6-201893 | EDGEAPP: Proposal to modify the API service operation names | ETRI, Samsung | approved | S6-201726 | - |
| S6-201894 | IP connectivity, SDS and FD functional model correction | Union Inter. Chemins de Fer | agreed | S6-201789 | - |
| S6-201895 | MC service emergency alert clarifications | FirstNet | agreed | S6-201761 | - |
| S6-201896 | MCPTT in-progress emergency group state cancel modification | FirstNet | agreed | S6-201763 | - |
| S6-201897 | Pseudo-CR on TS 23.289 Clause 4 multiple access and session connectivity | Union Inter. Chemins de Fer | revised | S6-201793 | S6-201981 |
| S6-201898 | Pseudo-CR on capabilities of UE without 5GMSGS client | one2many B.V. | approved | S6-201717 | - |
| S6-201899 | Align Annex B with changes to “auto-send” | AT&T, FirstNet | agreed | S6-201710 | - |
| S6-201900 | Correction to the transmission control configuration parameters | AT&T GNS Belgium SPRL | revised | S6-201711 | S6-202011 |
| S6-201901 | Align Annex B with changes to “auto-send” | AT&T, FirstNet | agreed | S6-201712 | - |
| S6-201902 | Correction to the transmission control configuration parameters | AT&T GNS Belgium SPRL | revised | S6-201713 | S6-202010 |
| S6-201903 | LS Reply on application layer impact of FS\_enh\_EC solution #16 | Qualcomm Technologies Int | revised | S6-201777 | S6-202025 |
| S6-201904 | Pseudo-CR on update to solution #16 | CATT | agreed | S6-201820 | - |
| S6-201905 | New SID on study on location management service supporting 5G location services | CATT | postponed | S6-201785 | - |
| S6-201906 | Pseudo-CR on ECS Discovery from 5GC | Sony | revised | S6-201756 | S6-202024 |
| S6-201907 | Pseudo-CR on EEC ID in Service provisioning | Sony, Samsung | approved | S6-201757 | - |
| S6-201908 | Pseudo-CR on Service Continuity Support Indication | Sony | revised | S6-201758 | S6-202031 |
| S6-201909 | Pseudo-CR on Application Context Relocation Decision Making | Sony | revised | S6-201759 | S6-202032 |
| S6-201910 | Authorized user being notified about other users floor queue status | Samsung R&D Institute India | revised | S6-201729 | S6-202006 |
| S6-201911 | Reply LS on clarifications for authorised user learning about the users whose floor requests are queued | Samsung R&D Institute India | revised | S6-201730 | S6-202007 |
| S6-201912 | Clarification on UP path management event API | Samsung | revised | S6-201749 | S6-202029 |
| S6-201913 | EEC detection in application context relocation | Samsung | revised | S6-201750 | S6-202033 |
| S6-201914 | User plane connectivity modification in S-EES executed ACR | Samsung | revised | S6-201755 | S6-202034 |
| S6-201915 | Separation between geographical and topological location | Intel Deutschland GmbH, InterDigital, Convida Wireless, Samsung, Apple | revised | S6-201768 | S6-202027 |
| S6-201916 | UE internal movement detection | Intel Deutschland GmbH, Apple | approved | S6-201769 | - |
| S6-201917 | AF influence in Application Context Relocation | Ericsson, Intel | approved | S6-201764 | - |
| S6-201918 | Support AEF location and API invoker interface for edge application | Ericsson | revised | S6-201766 | S6-202035 |
| S6-201919 | EAS DNAI in EES profile and selected EAS | Ericsson | merged | S6-201765 | S6-201965 |
| S6-201920 | Add EAS discovery in EDGE-3 | Ericsson | approved | S6-201760 | - |
| S6-201921 | Remove location EN | Ericsson, Samsung | approved | S6-201762 | - |
| S6-201922 | context maintained on EES | Ericsson | noted | - | - |
| S6-201923 | Fixing media resources request procedure from MC service server | Ericsson | postponed | S6-201779 | - |
| S6-201924 | Access resource information in MCPTT information flows | Ericsson | postponed | S6-201781 | - |
| S6-201925 | Request for network resources at session establishment from the MC service server | Ericsson | agreed | S6-201782 | - |
| S6-201926 | SEAL support for CoAP | Ericsson, ZTE Corporation | approved | S6-201788 | - |
| S6-201927 | Pseudo-CR on FS 5GMARCH Clarifications on solution about interworking with SMS | Huawei, Hisilicon | approved | S6-201719 | - |
| S6-201928 | Pseudo-CR on FS 5GMARCH Solution on message reply from Non-3GPP UE to 5GMSGS UE | Huawei, Hisilicon | approved | S6-201720 | - |
| S6-201929 | Pseudo-CR on FS 5GMARCH Solution on message reply from UE to App Server | Huawei, Hisilicon | approved | S6-201721 | - |
| S6-201930 | Pseudo-CR on FS 5GMARCH solution on APIs provided by MSGin5G server | Huawei, Hisilicon | approved | S6-201722 | - |
| S6-201931 | Pseudo-CR on FS 5GMARCH KI on using CAPIF | Huawei, Hisilicon | approved | S6-201723 | - |
| S6-201932 | Pseudo-CR on FS 5GMARCH Solution on using CAPIF | Huawei, Hisilicon | approved | S6-201724 | - |
| S6-201933 | Minor changes to information elements and procedures | Samsung R&D Institute India | agreed | S6-201786 | - |
| S6-201934 | IP connectivity, SDS and FD functional model correction | Union Inter. Chemins de Fer | agreed | S6-201790 | - |
| S6-201935 | Clarification on group join notification | Samsung | agreed | S6-201867 | - |
| S6-201936 | Resolution of ENs on security aspects | Samsung | agreed | S6-201872 | - |
| S6-201937 | Pseudo-CR on Solution for positioning method negotiation | Samsung | approved | S6-201861 | - |
| S6-201938 | Pseudo-CR on new key issue to support message communication | Samsung | postponed | S6-201862 | - |
| S6-201939 | Pseudo-CR Enable FFAP for 5G CN capabilities | Samsung | revised | S6-201873 | S6-202015 |
| S6-201940 | Pseudo-CR New Solution to enable FFAP for 5G CN capabilities | Samsung | revised | S6-201874 | S6-202016 |
| S6-201941 | Pseudo-CR on Update to Solution #1 | Samsung | approved | S6-201879 | - |
| S6-201942 | Pseudo-CR on Key issue on monitor flight path | Samsung | postponed | S6-201875 | - |
| S6-201943 | Pseudo-CR on Key Issue - Detection of problematic UAV | Samsung | postponed | S6-201876 | - |
| S6-201944 | Pseudo-CR on pCR based on SA1 clarifications | Samsung | approved | S6-201880 | - |
| S6-201945 | Pseudo-CR on MSGin5G Segment Recovery procedure | Samsung | approved | S6-201865 | - |
| S6-201946 | Pseudo-CR on Solution for group list fetch | Samsung | approved | S6-201860 | - |
| S6-201947 | Pseudo-CR on Solution for group notification | Samsung | revised | S6-201869 | S6-202018 |
| S6-201948 | Pseudo-CR on delivery report aggregation | Samsung, one2many | approved | S6-201868 | - |
| S6-201949 | New WID for enhanced Service Enabler Architecture Layer for Verticals | Samsung | revised | S6-201871 | S6-202036 |
| S6-201950 | Pseudo CR on Alignment of the definition of UAS | InterDigital | approved | S6-201708 | - |
| S6-201951 | Subscription to Group Location | Motorola Solutions UK Ltd. | postponed | S6-201703 | - |
| S6-201952 | Proposal of solution for assisting dynamic C2 mode switching | Lenovo, Motorola Mobility | approved | S6-201772 | - |
| S6-201953 | Updated Solution on FFAE layer support for network slicing | Lenovo, Motorola Mobility | approved | S6-201773 | - |
| S6-201954 | PC5 Provisioning in multi-operator V2X scenarios | Lenovo, Motorola Mobility | revised | S6-201774 | S6-202012 |
| S6-201955 | Pseudo CR on Update solution#6 switching C2 between UAV-UAV-C and USS-UTM navigated | InterDigital | approved | S6-201715 | - |
| S6-201956 | Pseudo CR on Solution #x: QoS requirement provisioning during C2 connectivity establishment | InterDigital | revised | S6-201731 | S6-202004 |
| S6-201957 | Update to EEC executed application context relocation | InterDigital | approved | S6-201733 | - |
| S6-201958 | Clarifications on Source EAS decided application context relocation | InterDigital | approved | S6-201734 | - |
| S6-201959 | Clarification to Edge Configuration Server discovery | vivo, OPPO, Xiaomi | revised | S6-201746 | S6-202023 |
| S6-201960 | Application information optionality | Samsung Electronics | postponed | S6-201795 | - |
| S6-201961 | EAS discovery filters flag | Samsung Electronics | postponed | S6-201796 | - |
| S6-201962 | EAS discovery and dynamic information subscription | Samsung Electronics, ETRI, UANGEL | revised | S6-201797 | S6-202026 |
| S6-201963 | EEC context | Samsung Electronics, Convida, Sony | postponed | S6-201798 | - |
| S6-201964 | EDGE-1 and EDGE-4 APIs | Samsung Electronics, AT&T, Deutsche Telekom, Intel | approved | S6-201799 | - |
| S6-201965 | Relation between DNAIs of EAS, EES and EDN | Samsung Electronics | revised | S6-201800 | S6-202028 |
| S6-201966 | UE Identifier API | Samsung Electronics, Intel | postponed | S6-201804 | - |
| S6-201967 | Target EES and target EAS selection | Samsung Electronics | postponed | S6-201806 | - |
| S6-201968 | Update to capability exposure clause | Samsung Electronics | approved | S6-201809 | - |
| S6-201969 | EAS, EES registration APIs | Samsung Electronics | approved | S6-201811 | - |
| S6-201970 | Informing EES of the selected EAS | Samsung Electronics | postponed | S6-201812 | - |
| S6-201971 | LS reply on UE IP address to GPSI translation | Samsung Electronics | revised | S6-201813 | S6-202008 |
| S6-201972 | UE ID API and UE IP address to GPSI translation | Samsung Electronics | endorsed | S6-201814 | - |
| S6-201973 | APIs in EDGEAPP | SA6 | revised | S6-201884 | S6-202009 |
| S6-201974 | MSGin5G Store and Forward Solution | Convida Wireless LLC | approved | S6-201818 | - |
| S6-201975 | FS\_5GMARCH nomenclature alignment | Convida Wireless LLC | approved | S6-201819 | - |
| S6-201976 | Support of multiple delivery mechanisms | Convida Wireless LLC, Samsung | revised | S6-201881 | S6-202017 |
| S6-201977 | Pseudo-CR on FS\_5GMARCH deliver message to Application Client | China Mobile Com. Corporation | approved | S6-201821 | - |
| S6-201978 | Pseudo-CR on FS\_5GMARCH solution 5GMSGS messaging when contact is unknown (non-IMS) | China Mobile Com. Corporation | approved | S6-201822 | - |
| S6-201979 | Pseudo-CR on FS\_5GMARCH KI18 solution MSGin5G Roaming | China Mobile Com. Corporation | approved | S6-201824 | - |
| S6-201980 | Pseudo-CR on FS\_5GMARCH Conclusions and recommendations: KIs and solutions | China Mobile Com. Corporation, Huawei, Hisilicon | revised | S6-201825 | S6-202019 |
| S6-201981 | Pseudo-CR on TS 23.289 Clause 4 multiple access and session connectivity | Union Inter. Chemins de Fer | approved | S6-201897 | - |
| S6-201982 | Service provisioning without Application Client profile(s) | Huawei, Hisilicon, Qualcomm, CATT, China Mobile | postponed | S6-201827 | - |
| S6-201983 | EAS discovery without Discovery filters | Huawei, Hisilicon, Qualcomm, CATT, China Mobile | postponed | S6-201828 | - |
| S6-201984 | Clarification on Edge Application Server Registration | Huawei, Hisilicon, Samsung | approved | S6-201830 | - |
| S6-201985 | Editorial changes to Application layer architecture | Huawei, Hisilicon | approved | S6-201831 | - |
| S6-201986 | Trigger the EAS instantiation by ECS | Huawei, Hisilicon | postponed | S6-201832 | - |
| S6-201987 | ACR with full operations at edge enabler layer | Huawei, Hisilicon | postponed | S6-201833 | - |
| S6-201988 | Application relocation information notification | Huawei, Hisilicon | merged | S6-201834 | S6-201912 |
| S6-201989 | User Plane Path Management event and notification enhancement | Huawei, Hisilicon | revised | S6-201836 | S6-202030 |
| S6-201990 | User Plane Path Management event enhancement with application context availability | Huawei, Hisilicon | postponed | S6-201837 | - |
| S6-201991 | User Plane Path Management event enhancement with available target EAS | Huawei, Hisilicon | postponed | S6-201838 | - |
| S6-201992 | DNAI clarifications | Huawei, Hisilicon | merged | S6-201839 | S6-201965 |
| S6-201993 | Supporting OPC UA | Huawei, Hisilicon | revised | S6-201842 | S6-202014 |
| S6-201994 | Location management mechanism backward compatibility | Huawei, Hisilicon | postponed | S6-201843 | - |
| S6-201995 | FA controlling role description in MCVideo | Huawei, Hisilicon | agreed | S6-201845 | - |
| S6-201996 | Assisting discovery of USS/UTM | Huawei, Hisilicon | postponed | S6-201849 | - |
| S6-201997 | Relationship of SA2 and SA6 UAS architecture | Huawei, Hisilicon | approved | S6-201850 | - |
| S6-201998 | Support for on-demand pairing of UAV-C with UAV | Huawei, Hisilicon | postponed | S6-201851 | - |
| S6-201999 | V2X application layer architecture enhancement | Huawei, Hisilicon | agreed | S6-201853 | - |
| S6-202000 | Business relationships between V2X service providers | Huawei, Hisilicon | agreed | S6-201854 | - |
| S6-202001 | V2X service discovery across multiple V2X service providers | Huawei, Hisilicon | agreed | S6-201855 | - |
| S6-202002 | Support for HD map dynamic information | Huawei, Hisilicon | agreed | S6-201856 | - |
| S6-202003 | Tracking UE and obtaining dynamic UE information | Huawei, Hisilicon | revised | S6-201857 | S6-202013 |
| S6-202004 | Pseudo CR on Solution #x: QoS requirement provisioning during C2 connectivity establishment | InterDigital | approved | S6-201956 | - |
| S6-202005 | SA6#39 BIS-e Work Plan discussion | SA6 Chair | noted | - | - |
| S6-202006 | Authorized user being notified about other users floor queue status | Samsung R&D Institute India | agreed | S6-201910 | - |
| S6-202007 | Reply LS on clarifications for authorised user learning about the users whose floor requests are queued | Samsung R&D Institute India | approved | S6-201911 | - |
| S6-202008 | Reply LS on IP address to GPSI translation | SA6 | approved | S6-201971 | - |
| S6-202009 | LS on APIs in EDGEAPP | SA6 | approved | S6-201973 | - |
| S6-202010 | Correction to the transmission control configuration parameters | AT&T GNS Belgium SPRL | agreed | S6-201902 | - |
| S6-202011 | Correction to the transmission control configuration parameters | AT&T GNS Belgium SPRL | agreed | S6-201900 | - |
| S6-202012 | PC5 Provisioning in multi-operator V2X scenarios | Lenovo, Motorola Mobility | agreed | S6-201954 | - |
| S6-202013 | Tracking UE and obtaining dynamic UE information | Huawei, Hisilicon | agreed | S6-202003 | - |
| S6-202014 | Communicating FF application service requirements with 3GPP system | Huawei, Hisilicon, ZTE | approved | S6-201993 | - |
| S6-202015 | Pseudo-CR Enable FFAP for 5G CN capabilities | Samsung | approved | S6-201939 | - |
| S6-202016 | Pseudo-CR New Solution to enable FFAP for 5G CN capabilities | Samsung | approved | S6-201940 | - |
| S6-202017 | Support of multiple delivery mechanisms | Convida Wireless LLC, Samsung | approved | S6-201976 | - |
| S6-202018 | Pseudo-CR on Solution for group notification | Samsung | approved | S6-201947 | - |
| S6-202019 | Pseudo-CR on FS\_5GMARCH Conclusions and recommendations: KIs and solutions | China Mobile Com. Corporation, Huawei, Hisilicon | approved | S6-201980 | - |
| S6-202020 | Pseudo-CR on key issue x: UAS Identification management | Tencent, InterDigital | approved | S6-201886 | - |
| S6-202021 | pCR: Key issues to Solutions Mapping | Tencent, Huawei, Hisilicon | approved | S6-201885 | - |
| S6-202022 | Pseudo-CR on using IMS identities | Nokia, Nokia Shanghai Bell | approved | S6-201742 | - |
| S6-202023 | Clarification to Edge Configuration Server discovery | vivo, OPPO, Xiaomi, Spreadtrum | approved | S6-201959 | - |
| S6-202024 | Pseudo-CR on ECS Discovery from 5GC | Sony | approved | S6-201906 | - |
| S6-202025 | LS Reply on application layer impact of FS\_enh\_EC solution #16 | SA6 | approved | S6-201903 | - |
| S6-202026 | EAS discovery and dynamic information subscription | Samsung Electronics, ETRI, UANGEL | approved | S6-201962 | - |
| S6-202027 | Separation between geographical and topological location | Intel, InterDigital, Convida Wireless, Samsung, Apple | approved | S6-201915 | - |
| S6-202028 | Relation between DNAIs of EAS, EES and EDN | Samsung Electronics | approved | S6-201965 | - |
| S6-202029 | Clarification on UP path management event API | Samsung, Huawei, Hisilicon | approved | S6-201912 | - |
| S6-202030 | User Plane Path Management event and notification enhancement | Huawei, Hisilicon | approved | S6-201989 | - |
| S6-202031 | Pseudo-CR on Service Continuity Support Indication | Sony | approved | S6-201908 | - |
| S6-202032 | Pseudo-CR on Application Context Relocation Decision Making | Sony | approved | S6-201909 | - |
| S6-202033 | EEC detection in application context relocation | Samsung, InterDigital | approved | S6-201913 | - |
| S6-202034 | User plane connectivity modification in S-EES executed ACR | Samsung | approved | S6-201914 | - |
| S6-202035 | Support AEF location and API invoker interface for edge application | Ericsson | approved | S6-201918 | - |
| S6-202036 | New WID for enhanced Service Enabler Architecture Layer for Verticals | Samsung | agreed | S6-201949 | - |

## Annex B: List of change requests

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Document | Title | Source | Spec | CR | Rev | Rel | Cat | WI | Decision |
| S6-201766 | Support AEF location and API invoker interface for edge application | Ericsson | 23.222 | 0078 | - | Rel-17 | B | EDGEAPP | revised |
| S6-201918 | Support AEF location and API invoker interface for edge application | Ericsson | 23.222 | 0078 | 1 | Rel-17 | B | EDGEAPP | revised |
| S6-202035 | Support AEF location and API invoker interface for edge application | Ericsson | 23.222 | 0078 | 2 | Rel-17 | B | EDGEAPP | approved |
| S6-201703 | Subscription to Group Location | Motorola Solutions UK Ltd. | 23.280 | 0274 | - | Rel-17 | B | enh3MCPTT | revised |
| S6-201951 | Subscription to Group Location | Motorola Solutions UK Ltd. | 23.280 | 0274 | 1 | Rel-17 | B | enh3MCPTT | postponed |
| S6-201761 | MC service emergency alert clarifications | FirstNet | 23.280 | 0275 | - | Rel-17 | C | enh3MCPTT | revised |
| S6-201895 | MC service emergency alert clarifications | FirstNet | 23.280 | 0275 | 1 | Rel-17 | C | enh3MCPTT | agreed |
| S6-201778 | Fixing media resources request procedure from MC service server | Ericsson | 23.280 | 0276 | - | Rel-16 | F | enh2MCPTT | not pursued |
| S6-201779 | Fixing media resources request procedure from MC service server | Ericsson | 23.280 | 0277 | - | Rel-17 | A | enh2MCPTT | revised |
| S6-201923 | Fixing media resources request procedure from MC service server | Ericsson | 23.280 | 0277 | 1 | Rel-17 | A | enh2MCPTT | postponed |
| S6-201782 | Request for network resources at session establishment from the MC service server | Ericsson | 23.280 | 0278 | - | Rel-17 | B | enh3MCPTT | revised |
| S6-201925 | Request for network resources at session establishment from the MC service server | Ericsson | 23.280 | 0278 | 1 | Rel-17 | B | enh3MCPTT | agreed |
| S6-201784 | MCVideo pull and push corrections | Ericsson | 23.281 | 0152 | - | Rel-17 | F | TEI17 | agreed |
| S6-201844 | Call restrictions for normal private calls | Huawei, Hisilicon | 23.281 | 0153 | - | Rel-17 | C | eMONASTERY2 | agreed |
| S6-201845 | FA controlling role description in MCVideo | Huawei, Hisilicon | 23.281 | 0154 | - | Rel-16 | F | MONASTERY2 | revised |
| S6-201995 | FA controlling role description in MCVideo | Huawei, Hisilicon | 23.281 | 0154 | 1 | Rel-16 | F | MONASTERY2 | agreed |
| S6-201846 | FA controlling role description in MCVideo | Huawei, Hisilicon | 23.281 | 0155 | - | Rel-17 | A | MONASTERY2 | agreed |
| S6-201847 | FA management procedure in MCVideo | Huawei, Hisilicon | 23.281 | 0156 | - | Rel-16 | F | MONASTERY2 | agreed |
| S6-201848 | FA management procedure in MCVideo | Huawei, Hisilicon | 23.281 | 0157 | - | Rel-17 | A | MONASTERY2 | agreed |
| S6-201707 | Enhancement to IP connectivity point-to-point MCData service to allow optionally a direct connection between the involved clients | Kontron Transportation France | 23.282 | 0241 | - | Rel-17 | B | eMONASTERY2 | not pursued |
| S6-201710 | Align Annex B with changes to “auto-send” | AT&T GNS Belgium SPRL | 23.282 | 0242 | - | Rel-17 | F | eMCData3 | revised |
| S6-201899 | Align Annex B with changes to “auto-send” | AT&T, FirstNet | 23.282 | 0242 | 1 | Rel-17 | A | eMCData2 | agreed |
| S6-201711 | Correction to the transmission control configuration parameters | AT&T GNS Belgium SPRL | 23.282 | 0243 | - | Rel-17 | F | eMCData3 | revised |
| S6-201900 | Correction to the transmission control configuration parameters | AT&T GNS Belgium SPRL | 23.282 | 0243 | 1 | Rel-17 | A | eMCData2 | revised |
| S6-202011 | Correction to the transmission control configuration parameters | AT&T GNS Belgium SPRL | 23.282 | 0243 | 2 | Rel-17 | A | eMCData2 | agreed |
| S6-201712 | Align Annex B with changes to “auto-send” | AT&T GNS Belgium SPRL | 23.282 | 0244 | - | Rel-16 | F | eMCData3 | revised |
| S6-201901 | Align Annex B with changes to “auto-send” | AT&T, FirstNet | 23.282 | 0244 | 1 | Rel-16 | F | eMCData2 | agreed |
| S6-201713 | Correction to the transmission control configuration parameters | AT&T GNS Belgium SPRL | 23.282 | 0245 | - | Rel-16 | F | eMCData3 | revised |
| S6-201902 | Correction to the transmission control configuration parameters | AT&T GNS Belgium SPRL | 23.282 | 0245 | 1 | Rel-16 | F | eMCData3 | revised |
| S6-202010 | Correction to the transmission control configuration parameters | AT&T GNS Belgium SPRL | 23.282 | 0245 | 2 | Rel-16 | F | eMCData3 | agreed |
| S6-201743 | Various corrections | AT&T | 23.282 | 0246 | - | Rel-17 | F | eMCData3 | agreed |
| S6-201789 | IP connectivity, SDS and FD functional model correction | Union Inter. Chemins de Fer | 23.282 | 0247 | - | Rel-16 | F | eMCData2 | revised |
| S6-201894 | IP connectivity, SDS and FD functional model correction | Union Inter. Chemins de Fer | 23.282 | 0247 | 1 | Rel-16 | F | eMCData2 | agreed |
| S6-201790 | IP connectivity, SDS and FD functional model correction | Union Inter. Chemins de Fer | 23.282 | 0248 | - | Rel-17 | A | eMCData3 | revised |
| S6-201934 | IP connectivity, SDS and FD functional model correction | Union Inter. Chemins de Fer | 23.282 | 0248 | 1 | Rel-17 | A | eMCData2 | agreed |
| S6-201774 | PC5 Provisioning in multi-operator V2X scenarios | Lenovo, Motorola Mobility | 23.286 | 0021 | - | Rel-17 | B | eV2XAPP | revised |
| S6-201954 | PC5 Provisioning in multi-operator V2X scenarios | Lenovo, Motorola Mobility | 23.286 | 0021 | 1 | Rel-17 | B | eV2XAPP | revised |
| S6-202012 | PC5 Provisioning in multi-operator V2X scenarios | Lenovo, Motorola Mobility | 23.286 | 0021 | 2 | Rel-17 | B | eV2XAPP | agreed |
| S6-201853 | V2X application layer architecture enhancement | Huawei, Hisilicon | 23.286 | 0022 | - | Rel-17 | B | eV2XAPP | revised |
| S6-201999 | V2X application layer architecture enhancement | Huawei, Hisilicon | 23.286 | 0022 | 1 | Rel-17 | B | eV2XAPP | agreed |
| S6-201854 | Business relationships between V2X service providers | Huawei, Hisilicon | 23.286 | 0023 | - | Rel-17 | B | eV2XAPP | revised |
| S6-202000 | Business relationships between V2X service providers | Huawei, Hisilicon | 23.286 | 0023 | 1 | Rel-17 | B | eV2XAPP | agreed |
| S6-201855 | V2X service discovery across multiple V2X service providers | Huawei, Hisilicon | 23.286 | 0024 | - | Rel-17 | B | eV2XAPP | revised |
| S6-202001 | V2X service discovery across multiple V2X service providers | Huawei, Hisilicon | 23.286 | 0024 | 1 | Rel-17 | B | eV2XAPP | agreed |
| S6-201856 | Support for HD map dynamic information | Huawei, Hisilicon | 23.286 | 0025 | - | Rel-17 | B | eV2XAPP | revised |
| S6-202002 | Support for HD map dynamic information | Huawei, Hisilicon | 23.286 | 0025 | 1 | Rel-17 | B | eV2XAPP | agreed |
| S6-201729 | Authorized user being notified about other users floor queue status | Samsung R&D Institute India | 23.379 | 0279 | - | Rel-17 | B | enh3MCPTT | revised |
| S6-201910 | Authorized user being notified about other users floor queue status | Samsung R&D Institute India | 23.379 | 0279 | 1 | Rel-17 | B | enh3MCPTT | revised |
| S6-202006 | Authorized user being notified about other users floor queue status | Samsung R&D Institute India | 23.379 | 0279 | 2 | Rel-17 | B | enh3MCPTT | agreed |
| S6-201763 | MCPTT in-progress emergency group state cancel modification | FirstNet | 23.379 | 0280 | - | Rel-17 | C | enh3MCPTT | revised |
| S6-201896 | MCPTT in-progress emergency group state cancel modification | FirstNet | 23.379 | 0280 | 1 | Rel-17 | C | enh3MCPTT | agreed |
| S6-201780 | Access resource information in MCPTT information flows | Ericsson | 23.379 | 0281 | - | Rel-16 | F | enh2MCPTT | not pursued |
| S6-201781 | Access resource information in MCPTT information flows | Ericsson | 23.379 | 0282 | - | Rel-17 | A | enh2MCPTT | revised |
| S6-201924 | Access resource information in MCPTT information flows | Ericsson | 23.379 | 0282 | 1 | Rel-17 | A | enh2MCPTT | postponed |
| S6-201786 | Minor changes to information elements and procedures | Samsung R&D Institute India | 23.379 | 0283 | - | Rel-17 | D | enh3MCPTT | revised |
| S6-201933 | Minor changes to information elements and procedures | Samsung R&D Institute India | 23.379 | 0283 | 1 | Rel-17 | D | enh3MCPTT | agreed |
| S6-201843 | Location management mechanism backward compatibility | Huawei, Hisilicon | 23.379 | 0284 | - | Rel-17 | B | enh3MCPTT | revised |
| S6-201994 | Location management mechanism backward compatibility | Huawei, Hisilicon | 23.379 | 0284 | 1 | Rel-17 | B | enh3MCPTT | postponed |
| S6-201857 | Tracking UE and obtaining dynamic UE information | Huawei, Hisilicon | 23.434 | 0027 | - | Rel-17 | B | eV2XAPP | revised |
| S6-202003 | Tracking UE and obtaining dynamic UE information | Huawei, Hisilicon | 23.434 | 0027 | 1 | Rel-17 | B | eV2XAPP | revised |
| S6-202013 | Tracking UE and obtaining dynamic UE information | Huawei, Hisilicon | 23.434 | 0027 | 2 | Rel-17 | B | eV2XAPP | agreed |
| S6-201866 | Updates to group creation notification | Samsung | 23.434 | 0028 | - | Rel-16 | F | SEAL | not pursued |
| S6-201867 | Clarification on group join notification | Samsung | 23.434 | 0029 | - | Rel-16 | F | SEAL | revised |
| S6-201935 | Clarification on group join notification | Samsung | 23.434 | 0029 | 1 | Rel-16 | F | SEAL | agreed |
| S6-201872 | Resolution of ENs on security aspects | Samsung | 23.434 | 0030 | - | Rel-16 | F | SEAL | revised |
| S6-201936 | Resolution of ENs on security aspects | Samsung | 23.434 | 0030 | 1 | Rel-16 | F | SEAL | agreed |
| S6-201820 | Pseudo-CR on update to solution #16 | CATT | 23.764 | 0001 | - | Rel-17 | F | FS\_eV2XAPP | revised |
| S6-201904 | Pseudo-CR on update to solution #16 | CATT | 23.764 | 0001 | 1 | Rel-17 | F | FS\_eV2XAPP | agreed |
| S6-201823 | Evaluation of solution #15 | CATT | 23.764 | 0002 | - | Rel-17 | F | FS\_eV2XAPP | agreed |
| S6-201858 | Editorial corrections | Huawei, Hisilicon | 23.764 | 0003 | - | Rel-17 | D | FS\_eV2XAPP | agreed |
| S6-201859 | Missing solution evaluations | Huawei, Hisilicon | 23.764 | 0004 | - | Rel-17 | F | FS\_eV2XAPP | agreed |

## Annex C: Lists of liaisons

### C1: Incoming liaison statements

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Document | Original | Title | From | Decision | Reply TDoc |
| S6-201694 | C1-204693 | LS on ETSI Plugtest reports | CT1 | noted | (none) |
| S6-201695 | C1-205510 | LS on clarifications for authorised user learning about the users whose floor requests are queued | CT1 | replied to | S6-202007 |
| S6-201696 | S2-2005963 | LS on application layer impact of FS\_enh\_EC solution #16 | SA2 | revised as  S6-201882 | (none) |
| S6-201697 | S2-2005923 | LS on IP address to GPSI translation | SA2 | replied to | S6-202008 |
| S6-201698 | S1-203273 | Response LS on 5GMSG requirement clarifications | SA1 | noted | (none) |
| S6-201699 | S1-203275 | LS on 5GMSG store and forward | SA1 | noted | (none) |
| S6-201700 | S3-202087 | Reply LS on security procedures for Edge Applications | SA3 | noted | (none) |
| S6-201701 | S3-202177 | Reply LS on Key Management procedure in SEAL | SA3 | noted | (none) |
| S6-201702 | SP-200888 | LS on Rel-17 schedule | SA | noted | (none) |
| S6-201714 |  | Support of UAVs in 3GPP system and interfacing with USS/UTM | ACJA (GSMA and GUTMA) | noted | (none) |
| S6-201882 | S2-2005963 | LS on application layer impact of FS\_enh\_EC solution #16 | SA2 | replied to | S6-202025 |
| S6-201883 |  | Reply LS on ETSI Plugtest reports | UPV/EHU (ETSI MCX Plugtests) | postponed | (none) |

### C2: Outgoing liaison statements

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Document | Title | To | Cc | reply to i/c LS |
| S6-202007 | Reply LS on clarifications for authorised user learning about the users whose floor requests are queued | CT1 | - | S6-201695 |
| S6-202008 | Reply LS on IP address to GPSI translation | SA2, SA3 | - | S6-201697 |
| S6-202009 | LS on APIs in EDGEAPP | CT1, CT3 | CT4 | - |
| S6-202025 | LS Reply on application layer impact of FS\_enh\_EC solution #16 | SA2 | - | S6-201882 |

## Annex D: List of agreed/approved new and revised Work Items

|  |  |  |  |
| --- | --- | --- | --- |
| Document | Title | Source | new/revised |
| S6-202036 | New WID for enhanced Service Enabler Architecture Layer for Verticals | Samsung | WID new |

## Annex E: List of draft Technical Specifications and Reports

n/a

## Annex F: List of action items

n/a

## Annex G: List of decisions

n/a

## Annex H: List of participants

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Representing | Status (OP) | |
| ÅKESSON, Joakim | Ericsson France S.A.S | | 3GPPMEMBER (ETSI) |
| ALEKSIEV, Vasil | Deutsche Telekom AG | | 3GPPMEMBER (ETSI) |
| ALNÅS, Svante | Sony Europe B.V. | | 3GPPMEMBER (ETSI) |
| AMOGH, Niranth | Huawei Telecommunication India | | 3GPPMEMBER (TSDSI) |
| ARORA, Saurav | ETSI | | 3GPPORG\_REP (ETSI) |
| BAI, kunai | TD Tech Ltd | | 3GPPMEMBER (CCSA) |
| BEICHT, Peter | Kontron Transportation France | | 3GPPMEMBER (ETSI) |
| CHATER-LEA, David | Motorola Solutions Poland | | 3GPPMEMBER (ETSI) |
| CHEN, Xiao | ZTE Corporation | | 3GPPMEMBER (CCSA) |
| CHITTURI, Suresh | Samsung Electronics Co., Ltd | | 3GPPMEMBER (TTA) |
| DAWES, Peter | Vodafone España SA | | 3GPPMEMBER (ETSI) |
| EL ESSAILI, Ali | Ericsson GmbH, Eurolab | | 3GPPMEMBER (ETSI) |
| ELLOUMI, Omar | Nokia France | | 3GPPMEMBER (ETSI) |
| FERDI, Samir | InterDigital Belgium. LLC | | 3GPPMEMBER (ETSI) |
| FLANDER, Andreas | BDBOS | | 3GPPMEMBER (ETSI) |
| GABIN, Frederic | Dolby Laboratories Inc. | | 3GPPMEMBER (ETSI) |
| GUPTA, Nishant | BEIJING SAMSUNG TELECOM R&D | | 3GPPMEMBER (CCSA) |
| HALL, Edward | Qualcomm Technologies Int | | 3GPPMEMBER (ETSI) |
| HAO, Hongxia | HUAWEI Technologies Japan K.K. | | 3GPPMEMBER (ARIB) |
| HARTNETT, Daniel | DECT Forum | | 3GPPMEMBER (ETSI) |
| JANKY, William | FirstNet | | 3GPPMEMBER (ATIS) |
| JIAO, Jerry | CALTTA | | 3GPPMEMBER (CCSA) |
| KAPALE, Kiran | Samsung Electronics Benelux BV | | 3GPPMEMBER (ETSI) |
| KILGOUR, Kit | Sepura Ltd | | 3GPPMEMBER (ETSI) |
| KIM, Hyesung | Samsung Electronics Romania | | 3GPPMEMBER (ETSI) |
| LAZARA, Dominic | Motorola Solutions Danmark A/S | | 3GPPMEMBER (ETSI) |
| LEE, Jicheol | SAMSUNG R&D INSTITUTE JAPAN | | 3GPPMEMBER (ARIB) |
| LEE, Seungik | ETRI | | 3GPPMEMBER (TTA) |
| LEVINE, Anatoli | Softil Ltd | | 3GPPMEMBER (ETSI) |
| LIBERAL, Fidel | UPV/EHU | | 3GPPMEMBER (ETSI) |
| LIBUNAO, Gerardo | Verizon UK Ltd | | 3GPPMEMBER (ETSI) |
| LIU, Yue | China Mobile Com. Corporation | | 3GPPMEMBER (CCSA) |
| LUO, Ke | China Mobile Com. Corporation | | 3GPPMEMBER (CCSA) |
| LYU, Huazhang | vivo Mobile Communication Co., | | 3GPPMEMBER (CCSA) |
| MADDEN, Helen | Verizon Denmark | | 3GPPMEMBER (ETSI) |
| MARIOTTE, Hubert | Orange | | 3GPPMEMBER (ETSI) |
| MATTSSON, Bernt | ETSI | | 3GPPORG\_REP (ETSI) |
| MAZZA, Tania | Comtech Telecommunications Cor | | 3GPPMEMBER (ATIS) |
| MERRICK, Robert | HOME OFFICE | | 3GPPMEMBER (ETSI) |
| MLADIN, Catalina | Convida Wireless | | 3GPPMEMBER (ETSI) |
| MOHAJERI, Shahram | AT&T GNS Belgium SPRL | | 3GPPMEMBER (ETSI) |
| MONNES, Peter | Perspecta Labs Inc. | | 3GPPMEMBER (ATIS) |
| MONRAD, Atle | InterDigital, Europe, Ltd. | | 3GPPMEMBER (ETSI) |
| MOSES, Danny | Intel Deutschland GmbH | | 3GPPMEMBER (ETSI) |
| MUSTAPHA, Mona | Apple France | | 3GPPMEMBER (ETSI) |
| NERLIKAR, Rohit | Motorola Solutions UK Ltd. | | 3GPPMEMBER (ETSI) |
| OETTL, Martin | Nokia Corporation | | 3GPPMEMBER (ETSI) |
| OPRESCU, Val | AT&T | | 3GPPMEMBER (ATIS) |
| PATEROMICHELAKIS, Emmanouil | Motorola Mobility UK Ltd. | | 3GPPMEMBER (ETSI) |
| PATTAN, Basavaraj (Basu) | Samsung Research America | | 3GPPMEMBER (ATIS) |
| PIROARD, Francois | Airbus | | 3GPPMEMBER (ETSI) |
| PISON, Laurent | Bull SAS | | 3GPPMEMBER (ETSI) |
| RAMAMOORTHY, Arunprasath | Samsung R&D Institute India | | 3GPPMEMBER (TSDSI) |
| RURAINSKY, Juergen | BDBOS | | 3GPPMEMBER (ETSI) |
| SANDERS, Peter | one2many B.V. | | 3GPPMEMBER (ETSI) |
| SCARRONE, Enrico | TELECOM ITALIA S.p.A. | | 3GPPMEMBER (ETSI) |
| SHAH, Sapan | Samsung Guangzhou Mobile R&D | | 3GPPMEMBER (CCSA) |
| SHAO, Weixiang | ZTE Corporation | | 3GPPMEMBER (CCSA) |
| SHI, Xiaonan | China Mobile Com. Corporation | | 3GPPMEMBER (CCSA) |
| SHIH, Jerry | AT&T GNS Belgium SPRL | | 3GPPMEMBER (ETSI) |
| SOLANO, Camilo | Ericsson LM | | 3GPPMEMBER (ETSI) |
| SOLOWAY, Alan | Qualcomm Incorporated | | 3GPPMEMBER (ATIS) |
| SUZUKI, Yuji | NTT DOCOMO INC. | | 3GPPMEMBER (TTC) |
| TANGUDU, Narendranath Durga | Harman GmbH | | 3GPPMEMBER (ETSI) |
| TENIOU, Gilles | Tencent | | 3GPPMEMBER (CCSA) |
| TRAKINAT, Jean | T-Mobile USA Inc. | | 3GPPMEMBER (ATIS) |
| VERWEIJ, Kees | The Police of the Netherlands | | 3GPPMEMBER (ETSI) |
| VIALEN, Jukka | Airbus | | 3GPPMEMBER (ETSI) |
| WELLS, Derek | L3Harris Technologies | | 3GPPMEMBER (ATIS) |
| WENDLER, Ingo | Union Inter. Chemins de Fer | | 3GPPMEMBER (ETSI) |
| XU, Wenliang | Ericsson India Private Limited | | 3GPPMEMBER (TSDSI) |
| YI, Jong-Hwa | ETRI | | 3GPPMEMBER (TTA) |
| ZAUS, Robert | Apple GmbH | | 3GPPMEMBER (ETSI) |
| ZHANG, Ling | CATT | | 3GPPMEMBER (CCSA) |
| ZHAO, Shuai | Tencent | | 3GPPMEMBER (CCSA) |

## Annex I: List of future meetings

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Title** | **Start date** | **End date (OP)** | **Town** | **Country** | **Reference** |
| 3GPPSA6#40 | 16/11/2020 09:00:00 | 20/11/2020 17:30:00 | TBD | NA | S6-40 |
| 3GPPSA6#41 | 18/01/2021 09:00:00 | 22/01/2021 17:30:00 | TBD | NA | S6-41 |
| 3GPPSA6#42 | 01/03/2021 09:00:00 | 05/03/2021 17:30:00 | TBD | NA | S6-42 |
| 3GPPSA6#43 | 03/05/2021 09:00:00 | 07/05/2021 17:30:00 | TBD | NA | S6-43 |
| 3GPPSA6#44 | 12/07/2021 09:00:00 | 16/07/2021 17:30:00 | TBD | NA | S6-44 |
| 3GPPSA6#45 | 30/08/2021 09:00:00 | 03/09/2021 17:30:00 | TBD | NA | S6-45 |
| 3GPPSA6#Adhoc | 11/10/2021 09:00:00 | 15/10/2021 17:30:00 | TBD | NA | - |
| 3GPPSA6#46 | 15/11/2021 09:00:00 | 19/11/2021 17:30:00 | TBD | NA | S6-46 |