**3GPP TSG-SA WG6 Meeting #35 S6-200002**

**Hyderabad, India, 13th – 17th Nov 2020**

Source: MCC

Title: SA6 Meeting 34 Report

Agenda Item: 3

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*Abstract: Meeting report of 3GPP SA6 meeting #34*

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

 **DRAFT Meeting Report
for
TSG SA WG6
meeting: 34**

**Reno, US, 11/11/2019 to 15/11/2019**

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## 1 Opening of the meeting

### 1.1 Welcome speech

The chairman of SA6, Suresh Chitturi (Samsung), opened the SA6#34 meeting. Dominic Lazara (Motorola Solutions) welcomed the delegates, on behalf on North American Friends of 3GPP, to Reno.

### 1.2 IPR and antitrust policy reminders

**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.

### 1.3 EAR statement

The chairman of the meeting read out load the following EAR statement:

**Statement Regarding Engagement with Companies Added to the U.S. Export Administration Regulations (EAR) Entity List in 3GPP Activities** <https://www.3gpp.org/about-3gpp/legal-matters>

1. Public Information is Not Subject to EAR

3GPP is an open platform where all contributions (including technology protected or not by patent) made by the different Individual Members under the membership of each respective Organizational Partner are publicly available. Indeed, contributions by all and any Individual Members are uploaded to a public file server when received and then the documents are effectively in the public domain.

In addition, since membership of email distribution lists is open to all, documents and emails distributed by that means are considered to be publicly available.

As a result, information contained in 3GPP contributions, documents, and emails distributed at 3GPP meetings or by 3GPP email distribution lists, because it is made available to the public without restrictions upon its further dissemination, is not subject to the export restrictions of the EAR.

Meeting minutes are maintained for 3GPP meetings. Such meeting minutes for 3GPP meetings are made available to the public without restrictions upon its further dissemination. As a result, information, including information conveyed orally, contained in 3GPP meetings is not subject to the export restriction of the EAR; this would include information conveyed during side meetings that may occur during the main meetings, if these meetings are open to any participants and the results of all said meetings are publicly available without restrictions upon their further dissemination.

2. Non-Public Information

Non-public information refers to the information not contained or not intended to be contained in 3GPP contributions, documents or emails. Such non-public information may be disclosed during informal meetings, exchanges, discussions or any form of other communication outside the 3GPP meetings and email distribution lists, and may be subject to the EAR.

3. Other Information

Certain encryption software controlled under the International Traffic in Arms Regulations (ITAR), even if publicly available, may still be subject to US export controls other than the EAR.

4. Conduct of Meetings

The situation should be considered as "business as usual" during all the meetings called by 3GPP.

5. Responsibility of Individual Members

It should be remembered that contributions, meetings, exchanges, discussions or any form of other communication in or outside the 3GPP meetings are of the accountability, integrity and the responsibility of each Individual Member. In addition, Individual Members remain responsible for ensuring their compliance with all applicable export control regulations, including but not limited to EAR.

Individual Members with questions regarding the impact of laws and regulations on their participation in 3GPP should contact their companies’ legal counsels.

### 1.4 Reminder for check-in at the meeting and for wearing badges

Delegates were reminded to wear badges.

## 2 Agenda and Chairman’s notes

**S6-192005 SA6 Meeting 34 Agenda**

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

**Abstract:**

Agenda for the SA6#34 meeting

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

**S6-192007 SA6 Meeting #34 - Agenda with Tdocs allocation after submission deadline**

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

**Abstract:**

The SA6#34 meeting agenda with Tdocs allocation after submission deadline

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

**S6-192008 SA6 Meeting #34 - Agenda with Tdocs allocation at start of the meeting**

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

**Abstract:**

The SA6#34 meeting agenda with Tdocs allocation at the start of the meeting

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

**S6-192009 SA6 Meeting #34 - Chairman's notes at end of the meeting**

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

**Abstract:**

Chairman's notes at end of the SA6#34 meeting

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

## 3 Report from previous meetings

**S6-192006 SA6 Meeting 33 Report**

 *Type: report For: Approval
 Source: MCC*

**Abstract:**

The report of the SA6#33 meeting.

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

**S6-192069 Report on SA6 related topics at SA#85**

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

**Abstract:**

This document contains a brief report from SA#85 on matters relating to SA6 WG activities

**Discussion:**

The chairman presented the SA6 report from SA#85 available as S6-192069.

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

## 4 Liaison statements

### 4.1 Incoming LSs

**S6-192010 NGMN 5G End-to-End Architecture Framework**

 *Type: LS in For: Action
 Original outgoing LS: 190916, to 3GPP SA, SAG2, SA5, SA6, RAN, ETSI ISG PDL, ZSM, ITU-T SG13 and TM Forum, cc -
 Source: NGMN Alliance Project E2E Architecture Framework*

**Abstract:**

1. About the NGMN Alliance

The NGMN Alliance is an industry organization of leading world-wide Telecom Operators, Vendors and Research Institutes (see www.ngmn.org) and was founded by international network operators in 2006. Its objective is to ensure that the functionality and performance of next generation mobile network infrastructure, service platforms and devices will meet the requirements of operators and, ultimately, will satisfy end user demand and expectations. The NGMN Alliance will drive and guide the development of all future mobile broadband technology enhancements with a focus on 5G. The targets of these activities are supported by the strong and well-established partnership of worldwide leading operators, vendors, universities, and successful co-operations with other industry organisations.

2. NGMN 5G Work-Programme, Requirements and Architecture

In September 2017 and in February 2018, the first version and the second version of the NGMN End-to-End Architecture Framework was published, building on and developing end-to-end architecture principles from the 2015 5G White Paper, which can support the standardisation and subsequent availability of 5G for 2020 and beyond.

3. Intention of the LS and required actions

NGMN is pleased to inform the recipient of this liaison statement for information sharing on the deliverable for Phase-2 (v3.0.8) of the NGMN 5G End-to-End Architecture Framework that includes requirements together with descriptions and concepts associated with new topics.

The new topics include:

 Autonomic management and control

 Distributed Ledger Technology

 Minimization or avoidance of tunnelling

 Network automation

This NGMN liaison is intended for information sharing in terms of the new topics that have been introduced in the attached document. Please take this into account in the 5G architecture considerations.

References

None.

**Discussion:**

The chairman presented the LS available as S6-192010.

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

**S6-192011 LS reply to A-190116 3GPP SA6 application layer support for V2X services**

 *Type: LS in For: Discussion
 Original outgoing LS: S-190183, to SA2, SA6, cc -
 Source: 5GAA WG2*

**Abstract:**

1. Overall Description:

5GAA WG2 would like to thank 3GPP SA6 for LS on application layer support for V2X services.

The following work items in 5GAA may be related to the work in 3GPP SA6 :

• V2XSRA (V2X Application Layer Reference Architecture) WI in 5GAA WG2: analyzes requirements on reference points between application layer and network layer for V2X use cases.

• MEC4AUTO: shows the benefits and capabilities of MEC for multiple automotive use cases and services in a multi-OEM, multi-MNO and multi-vendor environments.

• STiCAD (Safety Treatment in Connected Automated Driving Functions): is intended to detect, propose and evaluate possibilities for telecommunication operators, vendors, and any further identified stakeholders to provide what is necessary in order to enable the car OEM to better treat safety.

• ToD (Tele-operated driving): investigates network requirements to assist tele-operated driving.

The work items may result in requirements for V2X Application to coordination with network to ensure the corresponding use cases. 5GAA will interact with 3GPP SA6 on any further requirements.

The abovementioned work items are for information to 3GPP SA6. More interactions are expected based on progress from 5GAA.

2. Actions:

ACTION: None

**Discussion:**

Huawei presented the LS available as S6-192011 and noted that more interaction is expected in the future on this topic.

Qualcomm noted that some further clarification may be required to e.g. clarify the roles of SA2 and SA6. They further noted that SA6 already once had sent an LS resulting in no reaction.

Motorola Solutions was not sure it was the role of 3GPP to explain the various roles but did not oppose the idea of an LS reply.

Ericsson pointed they had drafted an LS to 5GAA.

It was noted the draft Ericsson LS to 5GAA would be treated separately and not as a reply to the present LS.

**Decision:** The document was **replied to in S6-192395**.

**S6-192012 LS on clarifications regarding V2XAPP services**

 *Type: LS in For: Action
 Original outgoing LS: C3-193621, to SA6, cc -
 Source: CT3*

**Abstract:**

**1 Overall description**

**1. Service Names Suggestion:**

As the V2X APIs are to be used by application developers which are outside the 3GPP community, we think we should be extra cautious about producing specifications that are as clear as possible. In that respect, we think it is useful to use service naming conventions that apply to all V2X services. We also think that it is important that Stage 2 and Stage 3 specifications have the same service API names.

For CAPIF service operation we (both Stage-2 and Stage-3) adopted a convention of: verb-xxx. We would like to propose the same convention for V2X.

We kindly ask SA6 to agree to this goal and modify the Stage 2 specification accordingly.

**2. Message Delivery:**

CT3 has some questions for the message delivery API:

1. The message delivery API includes UL and DL message delivery. If the UL message delivery occurs before any DL message delivery, how does the VAE server discover the V2X AF? Is it via local configuration or should the V2X AF initially send the end point address for receiving UL messages to the VAE server?
2. For DL message delivery, can the V2X AF request to receive the DL message delivery status report?
3. For DL message delivery, can the V2X AF request to replace or recall the DL message delivery like SMS, or is the message delivery nature “fire and forget”?

**2 Actions**

**To SA6 group.**

**ACTION:**

1. CT3 kindly asks SA6 to consider the following naming modification in the V2XAPP stage 2 specification (see details below).
2. CT3 kindly asks SA6 to provide answers to the Message Delivery questions.

Suggested changes to Service Names:

Modify **VAE\_V2X\_Message\_Delivery** to **VAE\_MessageDelivery** (The V in VAE stands for V2X)

Modify **VAE\_File\_Distribution** to **VAE\_FileDistribution**

Modify **VAE\_V2X\_Application\_Requirement** to **VAE\_ApplicationRequirement**

Suggested changes to Service Operation:

Modify **V2X\_Message\_Delivery** to **Deliver\_DL\_Message**

Add **Deliver\_UL\_Message**

Modify **Initiate\_File\_Distribution** to **Distribute\_File**

Modify **V2X\_Application\_Requirement** to **Reserve\_NetworkResource**

See suggested modified table below:

|  |  |  |  |
| --- | --- | --- | --- |
| API Name | API Operations | Known Consumer(s) | Communication Type |
| VAE\_MessageDelivery | Deliver\_DL\_Message | V2X application specific server | Request/ Response |
| Deliver\_UL\_Message | Subscribe/Notify ?? |
| VAE\_FileDistribution | Distribute\_File | V2X application specific server | Request/ Response |
| VAE\_ApplicationRequirement | Reserve\_NetworkResource | V2X application specific server | Subscribe/notify |

**Discussion:**

Huawei presented the LS available as S6-192012.

**Decision:** The document was **replied to in S6-192185**.

**S6-192013 LS on O-RAN Alliance & 3GPP Coordination on O-RAN Alliance Outputs**

 *Type: LS in For: Action
 Original outgoing LS: ORAN\_3GPP\_Liaison\_Statement\_final, to SA, CT, RAN, SA1, SA2, SA3, SA5, SA6, RAN1, RAN2, RAN3, cc 3GPP PCG
 Source: O-RAN Alliance*

**Discussion:**

The chairman briefly presented the document available as S6-192013.

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

**S6-192014 LS on SG11 activities related to improvement of the SS7 security including for digital financial services**

 *Type: LS in For: Information
 Original outgoing LS: SG11-LS99, to GSMA, 3GPP; ITU FIGI SIT WG, cc -
 Source: ITU SG11*

**Abstract:**

ITU-T SG11 would like to inform GSMA and 3GPP about current ITU-T SG11 activities related to the improvement of the SS7 security.

Presently, there are plenty of cases when SS7 vulnerabilities are used for different hackers’ attacks. Currently, more and more stakeholders are using SS7-based ICT networks for over the top services including digital finance services (DFS). Therefore, the vulnerabilities of SS7 increase the risk of illegal interception of messages, calls and location to be used in different ICT applications.

At present, ITU-T SG11 is working on different aspects of how to improve the situation. Among the achieved outcomes and ongoing activities are:

- Revised ITU-T Q.731.3, Q.731.4, Q.731.5 and Q.731.6 (04/2019).

In order to accommodate some Member States’ urgent demand dealing with the spoofing of calling party number problem, the revised ITU-T Q.731.3 specifies an exceptional procedure for transit exchange connected to CPE (Customer Premises Equipment) in purpose of providing predefined calling party number by the originating operator. The exceptional procedure applies the same principle of providing calling party number as defined in the original texts in subclause 3.5.2.1.1 of ITU-T Q.731.3. Some editorial work has been done for ITU-T Q.731.4, Q.731.5, and Q.731.6 to align it with this series Recommendation;

- Ongoing ITU-T Q.SR-Trust: “signalling requirements and architecture for interconnection between trustable network entities” (TD37/WP1)

This draft Recommendation defines the signalling architecture and requirement for interconnection between trustable network entities in support of existing and emerging networks. Based on the architecture, it specifies the interfaces and signalling requirements between the functional entities. It also presents procedures to be applied for the signalling, security consideration, etc.;

- Ongoing Technical Report ITU-T TR-SS7-DFS “SS7 vulnerabilities and mitigation measures for digital financial services transactions” (TD31/WP1).

In most developing countries where DFS is popular, most of the end-users do not have reliable and accessible means to connect to Internet and thus rely heavily on the mobile communications infrastructure. The communication channels in which the end-user communicates with the DFS provider are mostly Unstructured Supplementary Service Data (USSD), Short Messaging Service (SMS). USSD and SMS have long been known as “broken” and have many published vulnerabilities, some over 20 years old, which enables attackers to commit fraud and steal funds.

The core issue that inhibits the mitigation of these vulnerabilities is a misalignment of interests and misplaced liability between the telecom and the financial regulators.

The goal of the new Technical Report is to advance the implementation of countermeasures and mitigation strategies within the telcos by advancing regulation and standardization of such measures both for telcos and for financial institutions.

ITU-T SG11 invites all interested stakeholders in the telecommunication, regulatory and financial sectors to join our effort to improve the SS7 security including for digital financial services. The WP1/11 meeting (26 June 2019) decided to arrange a special brainstorming session on SS7 security as a kind of Workshop during the next SG11 meeting (16-25 October 2019). At the moment, the meeting is scheduled for 22 October 2019. The event will be confirmed at the later date, reflected on the SG11 web page (www.itu.int/go/tsg11) and it will be open to all interested parties.

The links to the published revised Recommendations can be found above and the outputs of the ongoing work items are attached for your convenience.

ITU-T SG11 is looking forward to cooperating with you on this subject.

Attachments: 2

- SG11-TD37/WP1 “Output – draft Recommendation ITU-T Q.SR-Trust “Signalling requirements and architecture for interconnection between trustable network entities”(Geneva, 17-26 June 2019)”;

- SG11-TD31/WP1 “Output – the baseline text of the new draft Technical report ITU-T TR-SS7-DFS “SS7 vulnerabilities and mitigation measures for digital financial services transactions”.

**Discussion:**

The chairman briefly presented the document available as S6-192014.

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

**S6-192015 Reply LS to “O-RAN Alliance & 3GPP Coordination on O-RAN Alliance Outputs”**

 *Type: LS in For: Information
 Original outgoing LS: SP-190947, to O-RAN Alliance, cc CT, RAN, SA1, SA2, SA3, SA5, SA6, RAN1, RAN2, RAN3
 Source: SA*

**Abstract:**

1. Overall description:

3GPP TSG SA thanks O-RAN Alliance for their Liaison Statement on “O-RAN Alliance & 3GPP Coordination on O-RAN Alliance Outputs”.

3GPP has a well-defined process and successful track record in delivering global standards to meet market requirements for multivendor interoperation (see http://www.3gpp.org/about-3gpp/about-3gpp).

3GPP TSG SA is of the opinion that there is synergy between the 3GPP and O-RAN Alliance activities. 3GPP TSG SA welcomes co-ordination with O-RAN Alliance and would welcome further input in relevant areas via 3GPP individual members in accordance with 3GPP working procedures.

2. Actions:

To O-RAN Alliance

ACTION: O-RAN Alliance is kindly requested to take the above information into account.

**Discussion:**

The chairman briefly presented the document available as S6-192015.

Nokia noted it was not fully clear how to take this into consideration.

It was however noted no specific action in SA6 was required at this stage

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

**S6-192020 LS on how the IWF obtains key material for interworking group and private communications**

 *Type: LS in For: Action
 Original outgoing LS: -, to SA3, SA6, cc -
 Source: CT1*

**Abstract:**

1 . Overall description

CT1 has been defining interworking for MCPTT and MCData in the MCCI\_CT work item for Release 16.

As part of this work the draft specifications, 3GPP TS 29.379 (for MCPTT) and 3GPP TS 29.582 (for MCData) call control interworking with LMR systems have been created. These CT1 LMR interworking specifications rely on 3GPP TS 23.283 from SA6 for the stage 2 architecture as well as 3GPP TS 33.180 for security.

According to current 3GPP TS 23.283, the IWF does not have a KMS as part of its internal security domain. Also, the IWF does not have an interface to a KMS in the MCPTT/MCData server’s security domain.

During the course of our work in CT1 we have arrived at the following questions:

Q1. For LMR interworking, how can 3GPP MCPTT call control signalling security be applied between an IWF and an MCPTT server when the MCPTT server exists in another security domain apart from the IWF.

Q2. For LMR interworking, how can 3GPP MCData call control signalling security be applied between an IWF and an MCData server when the MCData server exists in another security domain apart from the IWF.

Q3. For LMR interworking, how can 3GPP MCPTT group call media plane security be applied between an IWF and an MCPTT server when the MCPTT server exists in another security domain apart from the IWF.

Q4. For LMR interworking, how can 3GPP MCData one-to-one SDS media plane security be applied between an IWF and an MCData server when the MCData server exists in another security domain apart from the IWF.

For questions Q1 through Q4 above CT1 kindly asks SA3 and SA6 to reply with a coordinated answer. Based on your reply please provide any clarifications to the referenced stage 2 specifications.

2. Actions

To SA3 and SA6

ACTION: CT1 kindly asks SA3 and SA6 to consider the above information and respond accordingly.

**Discussion:**

Motorola Solutions presented the LS available as S6-192020. They suggested to leave the LS open and see if any clarification could be given as it was probably not possible to produce CRs during the present meeting.

Motorola Solutions suggested to try to produce at least an initial reply based on TS 23.283 and indicating possible additional work required.

It was agreed to prepare a reply in S6-192194.

**Decision:** The document was **replied to in S6-192194**.

**S6-192023 LS on clarifications regarding SEAL services**

 *Type: LS in For: Action
 Original outgoing LS: -, to -, cc -
 Source: CT3*

**Abstract:**

**1 Overall description**

CT3 has reviewed the SEAL APIs currently under development by SA6 and has the following comments for consideration:

1. CT3 has a naming convention that is well established in CAPIF service operation, as adopted by both Stage-2 TS 23.222 and Stage-3 TS 29.222. A common naming convention with SEAL would make the API easier for application developers to use.
2. Also, CT3 observed that some group management service APIs (as quoted below from TS 23.434) can be grouped into one service API due to functional similarity. A service API consumer can configure the group data (including group service data and group membership) and later on query the group configuration.

Table 10.4.1-1: List of SEAL APIs for group management

|  |  |  |  |
| --- | --- | --- | --- |
| API Name | API Operations | Known Consumer(s) | Communication Type |
| SS\_Query\_Group\_Info | Query\_Group\_Info | VAL server | Request /Response |
| SS\_Obtain\_Group\_Configuration | Obtain\_Group\_Configuration\_API | VAL server | Request /Response |
| SS\_Store\_Group\_Membership\_Configuration | Group\_Membership\_Configuration | VAL server | Request /Response |
| SS\_Group\_Management\_Events | Group\_Info\_Modification\_Subscribe\_Event | VAL server | Request /Response |
| Group\_Info\_Modification\_Notify\_Event | VAL server | Notify |
| Group\_Creation\_Notify\_Event | VAL server | Notify |

1. In addition, CT3 suggests to change operation semantics for some service APIs related to event subscription to follow the convention used in subclause 5.2 of TS 23.502 (see yellow marked text below).

Suggested service API table:

|  |  |  |  |
| --- | --- | --- | --- |
| Service Name | Service Operations | Operation Semantics | Consumer(s) |
| SS\_LocationReporting | Trigger\_Location\_Reporting | Request/ Response | VAL server |
| SS\_LocationInfoEvent | Subscribe\_Location\_Info | Subscribe/Notify | VAL server |
| Notifiy\_Location\_Info | VAL server |
| SS\_LocationInfoRetrieval | Obtain\_Location\_Info | Request/ Response | VAL server |
| SS\_GroupManagement | Query\_Group\_Info | Request/ Response | VAL server |
| Obtain\_Group\_Configuration | Request/ Response | VAL server |
| Configure\_Group\_Membership | Request/ Response | VAL server |
| SS\_GroupManagementEvent | Subscribe\_ Group\_Info\_Modification | Subscribe/Notify | VAL server |
| Notify\_Group\_Info\_Modification | VAL server |
| Notify\_Group\_Creation | VAL server |
| SS\_UserProfileRetrieval | Obtain\_User\_Profile | Request/ Response | VAL server |
| SS\_UserProfileEvent | Subscribe\_User\_Profile\_Update | Subscribe/Notify | VAL server |
| Notify\_User\_Profile\_Update | VAL server |
| SS\_NetworkResourceAdaptation | Reserve\_Network\_Resource | Request/Response | VAL server |
| SS\_Events | Subscribe\_Event | Subscribe/Notify | VAL server |
| Notify\_Event | VAL server |
| Unsubscribe\_Event | VAL server |

**2 Actions**

**To SA6 group.**

**ACTION:**

CT3 kindly asks SA6 to consider the above suggested modifications to Service Names, Service Operations and Operation Semantics, in the SEAL stage 2 specification.

**Discussion:**

Ericsson presented the LS available as S6-192023.

Samsung noted that there is a related CR and related draft LS out (S6-192149) on this specific topic.

**Decision:** The document was **replied to in S6-192318**.

**S6-192187 LS reply from 3GPP SA5 to NGMN on 5G End-to-End Architecture Framework**

 *Type: LS in For: Information
 Original outgoing LS: -, to NGMN, cc RAN, SA, SA2, SA3, SA6
 Source: SA5*

**Abstract:**

1. Overall Description:

3GPP SA5 would like to thank NGMN for the LS “LS from NGMN to SA5 on NGMN 5G End-to-End Architecture Framework”.

SA5 work is related with the new topic “Autonomic management and control” and “network automation” mentioned in the NGMN LS. SA5 adopted the service based management architecture for the 5G network management and captured in Rel-16 TS 28.533 “Management and orchestration; Architecture framework”. SA5 also provided “Management service deployment based on ZSM framework” in TS 28.533 section 5.3 which contains 3GPP cross domain loop and domain loop.

SA5 would like also to inform NGMN that there are the following ongoing SA5 WIDs/SIDs which are related to “Autonomic management and control” and “network automation”:

1. Management automation:

1.1 Study on Self-Organizing Networks (SON) for 5G (SP-180827)

1.2 New SID on levels of autonomous network (SP-190928)

1.3 New WID on Self-Organizing Networks (SON) for 5G networks (SP-190785)

2. Management data analytics:

2.1 New SID Study on Management Data Analytics Service (SP-190930)

2.2 New WID on Closed loop SLS assurance (SP-190781)

3. Intent driven management:

3.1 Intent driven management services for mobile network (SP-180899)

4. Data reporting

4.1 Enhancement of performance assurance for 5G networks including network slicing (SP-190247)

4.2 Trace Management in the context of Services Based Management Architecture (SP-181073)

4.3 Management of QoE measurement collection (SP-181069)

4.4 KPI reporting (SP-190881)

4.5 Streaming trace reporting (SP-190782)

3GPP SA5 is very happy to work together and address the management requirements from NGMN and update the SA5 work progress in the future.

2. Actions:

3GPP SA5 would like to ask NGMN to take the above information into consideration.

**Discussion:**

The chairman presented the LS available as S6-192187.

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

**S6-192192 LS on Testing and Certification of 3GPP Mission Critical features A GCF-TCCA Joint Approach to Develop and Manage MC Certification**

 *Type: LS in For: Information
 Original outgoing LS: -, to GCF SG, cc SA6, CT1, RAN5, ETSI CTI, ETSI STF160, ETSI MCX Plugtests team, GSMA
 Source: TCCA*

**Abstract:**

1. Summary:

TCCA would like to request GCF to set up a joint GCF-TCCA taskforce to investigate and develop a testing & certification scheme for mission critical products.

2. Background

In February 2017 TCCA and GCF signed an MoU. GCF has since included MCPTT conformance test cases in its work program and has further engaged with the mission critical community at TCCA events to encourage the use of GCF certified products in mission critical deployments. TCCA is grateful for this support which goes in the right direction and would like to thank GCF for the support so far.

However, we believe that further steps are now needed in order to ensure the adoption of certification by the mission critical industry to meet the specific needs of the critical communications community.

On top of the certification which GCF currently carries out for consumer devices there are specific requirements which mission critical users have. Mission Critical users heavily rely on the availability and reliability of the critical communications services, many of the users trust their lives to this communication.

The specific mission critical requirements need to be explored, understood and agreed in the context of certification. These issues include:

 • Ensuring the availability of suitable conformance test equipment for Mission Critical products.

 • Enabling a certification to be developed with inputs from the mission critical vendors, user and operators of mission critical networks.

 • Ensuring end to end interoperability of mission critical products (devices and servers), applications, services and networks

 • Ensuring the security of mission critical products

 • Investigating the need to define mission critical device profile(s)

 • How would a developed mission critical certification be managed and governed?

3. Purpose of the proposed new joint GCF-TCCA working group

TCCA would like to build on the very fruitful and existing collaboration with GCF.

Specifically, we believe that with the creation of a joint GCF-TCCA task force we can combine the expertise of both organisations to investigate and develop a suitable testing and certification scheme for the mission critical community.

This would enable key stakeholders from both GCF and TCCA to collaborate in this special field and would be a valuable next step towards a trusted certification which fits the purposes of both organisations. Possible topics for inclusion in the terms of reference of any new group could include:

 • Scope of the Mission Critical Certification (which elements, which interfaces)

 • Required types of Testing (Conformance, Interoperability, Field, Performance)

 • Organisation, Management and Governance of an ongoing scheme

4. Support for this approach

TCCA, with the support of the GCF office, held a first workshop on 30 Oct 2019 with its members regarding testing and certification strategies. A summary of the workshop results was presented in the CCBG (Critical Communications Broadband Group) on 6 Nov 2019 and received very positive feedback and wide support from the TCCA members.

TCCA would welcome support from GCF members and active participation in the proposed joint GCF-TCCA working group.

5. Request to GCF SG

TCCA politely requests GCF SG to consider setting up a joint GCF-TCCA taskforce to investigate and develop certification for mission critical products. TCCA believes this would be a valuable extension to our existing MoU and would be to the benefit of both, the mission critical and the mobile industries, that are represented by our respective members.

TCCA thanks GCF for the existing collaboration and looks forward to ongoing future collaboration.

**Discussion:**

Airbus presented the LS available as S6-192192.

Motorola Solutions made remark that it might have been good to send this LS also to SA2.

Airbus noted that it was probably just an oversight but did not think it was necessary to forward the LS to SA2, as RAN5 was the most important target group anyway.

FirstNet noted this was a really interesting and important topic.

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

### 4.2 Outgoing LSs

**S6-192149 Reply LS on clarifications regarding SEAL services**

 *Type: LS out For: Approval
 to CT3
 Source: Samsung*

**Discussion:**

Samsung presented the draft LS available as S6-192149.

It was pointed out that the attachment needs to be changed due to the revised CR.

**Decision:** The document was **revised to S6-192203**.

**S6-192203 Reply LS on clarifications regarding SEAL services**

 *Type: LS out For: Approval
 to CT3
 Source: Samsung*

(Replaces S6-192149)

**Discussion:**

Samsung presented the draft LS available as S6-192203.

Motorola Solutions suggested CC CT1.

The only changes are:

 - adding CT1 in CC and

 - replacing the attachment ref to S6-192317 and

 - replacing the attachment.

With the above changes the revised contribution, S6-192318, is considered pre-approved.

**Decision:** The document was **revised to S6-192318**.

**S6-192318 Reply LS (S6-192023) on clarifications regarding SEAL services**

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

(Replaces S6-192203)

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

**S6-192185 Reply LS on clarifications regarding V2XAPP services**

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

**Abstract:**

Reply LS on clarifications regarding V2XAPP services

**Discussion:**

Huawei presented the draft LS available as S6-192185.

The references for attachments need to be corrected.

**Decision:** The document was **revised to S6-192368**.

**S6-192368 Reply LS on clarifications regarding V2XAPP services**

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

(Replaces S6-192185)

**Discussion:**

Huawei presented the draft LS available as S6-192368.

The only change is to add the attachments.

With the above change the revised contribution, S6-192385, is considered pre-approved.

**Decision:** The document was **revised to S6-192385**.

**S6-192385 Reply LS on clarifications regarding V2XAPP services**

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

(Replaces S6-192368)

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

**S6-192189 LS on Application Architecture for enabling Edge Applications**

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

**Abstract:**

LS on Application Architecture for enabling Edge Applications

**Discussion:**

Huawei presented the draft LS available as S6-192189.

Qualcomm raised an issue that the LS seemed to assume completed work on the study.

Samsung suggested deleting "As SA6 will progress this topic into normative phase after the completion of the study,"

**Decision:** The document was **revised to S6-192369**.

**S6-192369 LS on Application Architecture for enabling Edge Applications**

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

(Replaces S6-192189)

**Discussion:**

Huawei presented the draft LS available as S6-192369.

Qualcomm suggested replacing "the enhancement to edge computing" with "the enhancement to 5GS for edge computing".

It was also suggested to rephrase 2nd sentence of 2nd paragraph as "Coordination between SA6 and SA2 is expected in order to progress the application architecture and related solutions in the normative phase."

It was also suggested to CC groups SA3 and SA5.

The only changes are:

 - rephrasing the 2nd paragraph to read "Dependency on SA2 has been identified for the architecture and solutions. It is understood that SA2 is also studying the enhancement to 5GS for edge computing and have some common objectives. Coordination between SA6 and SA2 is expected in order to progress the application architecture and related solutions in the normative phase." and

 - CC groups SA3 and SA5.

With the above change the revised contribution, S6-192399, is considered pre-approved.

**Decision:** The document was **revised to S6-192399**.

**S6-192399 LS on Application Architecture for enabling Edge Applications**

 *Type: LS out For: Approval
 to SA2, cc SA3, SA5
 Source: SA6*

(Replaces S6-192369)

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

**S6-192058 LS on further aspects of Mission Critical Services over 5MBS**

 *Type: LS out For: Approval
 to SA, RAN, SA2, RAN2, RAN3, cc SA1
 Source: AT&T*

**Discussion:**

AT&T presented the draft LS available as S6-192058.

Qualcomm was of the view that one should not send this kind of LS while the study is still in progress.

FirstNet understood the point of Qualcomm but noted that it easily becomes too late to provide RAN with information only once the study is completed, so they suggested to tone down the language.

Nokia did not see the value of sending the LS.

The Police of Netherlands suggested concentrating on specific areas where particular attention is required.

**Decision:** The document was **revised to S6-192389**.

**S6-192389 LS on further aspects of Mission Critical Services over 5MBS**

 *Type: LS out For: Approval
 to SA, RAN, SA2, RAN2, RAN3, cc SA1
 Source: AT&T*

(Replaces S6-192058)

**Discussion:**

AT&T presented the draft LS available as S6-192389.

Qualcomm suggested replacing "..would like to bring some of our solutions.." with "..would like to bring some aspects of our solutions.."

They also suggested rephrasing the action to read "SA6 kindly encourages all involved groups to select solutions that would enable the functionality envisioned by SA6".

The only changes are:

 - replacing in the second paragraph "..would like to bring some of our solutions.." with "..would like to bring some aspects of our solutions.." and

 - rephrasing the action to read "SA6 kindly encourages all involved groups to select solutions that would enable the functionality envisioned by SA6".

With the above change the revised contribution, S6-192404, is considered pre-approved.

**Decision:** The document was **revised to S6-192404**.

**S6-192404 LS on further aspects of Mission Critical Services over 5MBS**

 *Type: LS out For: Approval
 to SA, RAN, SA2, RAN2, RAN3, cc SA1
 Source: SA6*

(Replaces S6-192389)

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

**S6-192363 LS on UE types in TS 22.262**

 *Type: LS out For: Approval
 to SA1
 Source: Convida Wireless*

**Discussion:**

Convida Wireless presented the draft LS available as S6-192363.

It was suggested to number the bullets.

**Decision:** The document was **revised to S6-192394**.

**S6-192394 LS on UE types in TS 22.262**

 *Type: LS out For: Approval
 to SA1
 Source: SA6*

(Replaces S6-192363)

**Discussion:**

Convida Wireless presented the draft LS available as S6-192394.

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

**S6-192079 LS reply to S6-192011 on tele-operated driving**

 *Type: LS out For: Approval
 to 5GAA WG2, Work Item Tele-operated Driving
 Source: Ericsson GmbH, Eurolab*

**Abstract:**

LS to 5GAA

**Discussion:**

Ericsson presented the draft LS available as S6-192079.

The only change is to replace "attached draft study" with "3GPP SA6 TR 23.764".

With the above change the revised contribution, S6-192395, is considered pre-approved.

**Decision:** The document was **revised to S6-192395**.

**S6-192395 LS reply to S6-192011 on tele-operated driving**

 *Type: LS out For: Approval
 to 5GAA WG2, Work Item Tele-operated Driving
 Source: SA6*

(Replaces S6-192079)

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

**S6-192194 Reply LS on how the IWF obtains key material for interworking group and private communications**

 *Type: LS out For: discussion
 to CT1, SA3
 Source: SA6*

**Discussion:**

Motorola Solutions presented the draft LS available as S6-192194.

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

## 5 Items for early consideration

### 5.1 Working Agreements

The SA6 Chairman declared during the SA6#34 meeting that the Rel-16 Change Request in TDoc S6-192217 be agreed as a working agreement due to objections from only 2 companies while 12 companies were in favour of the CR. The CR removes the ‘temporary re-group procedures’ from Rel-16 due to no progress on corresponding security solution. As a compromise, the procedures have been included in Rel-17 to allow for potential resolution during Rel-17 timeframe.

### 5.2 Others

none

## 6 Rel-13 Maintenance

none

## 7 Rel-14 Maintenance

none

## 8 Rel-15 Maintenance

none

## 9 Rel-16 Work Items

**S6-192180 Correction on usage of service API information in access control message**

 *Type: CR For: Agreement
 23.222 v16.5.0 CR-0065 Cat: F (Rel-16)

 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for Correction on usage of service API information in access control message

**Discussion:**

Huawei presented the document available as S6-192180.

Ericsson raised the question whether this should be corrected in Rel-15.

Motorola Solutions did not think it was necessary to correct this in Rel-15.

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

**S6-192078 CR Message Delivery**

 *Type: CR For: Agreement
 23.286 v16.1.0 CR-0010 Cat: F (Rel-16)

 Source: Ericsson GmbH, Eurolab*

**Abstract:**

CR to message delivery in response to CT3 comments.

**Discussion:**

Ericsson presented the document available as S6-192078.

Motorola Solutions was of the view that the CR category should be either C or B. They also thought it might suffice to address this in Rel-17.

Qualcomm did not understand why there was a transport layer validation needed.

Ericsson was of the view that this would be helpful for the functionality in question.

Huawei pointed out they had a different proposal available in S6-192184.

**Decision:** The document was **revised to S6-192195**.

**S6-192195 CR Message Delivery**

 *Type: CR For: Agreement
 23.286 v16.1.0 CR-0010 rev 1 Cat: F (Rel-16)

 Source: Ericsson GmbH, Eurolab*

(Replaces S6-192078)

**Discussion:**

Ericsson presented the document available as S6-192195.

The only change is to replace "9.4.5.3" with "9.4.x" in the precondition 4 clause 9.4.3.2.

With the above change the revised contribution, S6-192384, is considered pre-agreed.

**Decision:** The document was **revised to S6-192384**.

**S6-192384 CR Message Delivery**

 *Type: CR For: Agreement
 23.286 v16.1.0 CR-0010 rev 2 Cat: F (Rel-16)

 Source: Ericsson GmbH, Eurolab*

(Replaces S6-192195)

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

**S6-192184 Update to uplink message delivery procedure**

 *Type: CR For: Agreement
 23.286 v16.1.0 CR-0012 Cat: F (Rel-16)

 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for Update to uplink message delivery procedure

**Discussion:**

Huawei presented the document available as S6-192184.

Samsung was of the view that the intent of the two contributions (the present contribution and S6-192078) seemed to be different.

Motorola Solutions was of the view that it was different to imagine how this could be merged with the S6-192078.

Qualcomm made the remark that if the intent of both contributions is to address the uplink message delivery then these should be merged.

**Decision:** The document was **revised to S6-192196**.

**S6-192196 Update to uplink message delivery procedure**

 *Type: CR For: Agreement
 23.286 v16.1.0 CR-0012 rev 1 Cat: F (Rel-16)

 Source: Huawei, Hisilicon, Ericsson*

(Replaces S6-192184)

**Discussion:**

Huawei presented the document available as S6-192196.

Huawei pointed out that some modifications had been omitted hence a further revision was needed.

**Decision:** The document was **revised to S6-192335**.

**S6-192335 Update to uplink message delivery procedure**

 *Type: CR For: Agreement
 23.286 v16.1.0 CR-0012 rev 2 Cat: F (Rel-16)

 Source: Huawei, Hisilicon, Ericsson*

(Replaces S6-192196)

**Discussion:**

Huawei pointed out that some modifications had been omitted hence a further revision was needed.

The only changes are

 - replacing clause number 9.4.5.3 with 9.4.x

 - replacing "delivry" with "delivery" in step 1 (clause 9.4.5.3)

With the above change the revised contribution, S6-192358, is considered pre-agreed.

**Decision:** The document was **revised to S6-192358**.

**S6-192358 Update to uplink message delivery procedure**

 *Type: CR For: Agreement
 23.286 v16.1.0 CR-0012 rev 3 Cat: F (Rel-16)

 Source: Huawei, Hisilicon, Ericsson*

(Replaces S6-192335)

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

**S6-192183 Update API names**

 *Type: CR For: Agreement
 23.286 v16.1.0 CR-0011 Cat: F (Rel-16)

 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for Update API names

**Discussion:**

Huawei presented the document available as S6-192183.

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

**S6-192016 Editorial modifications**

 *Type: CR For: Agreement
 23.434 v16.1.0 CR-0009 Cat: F (Rel-16)

 Source: one2many B.V.*

**Abstract:**

Addition and removal of abbreviations, correction of inconsistencies and typos.

**Discussion:**

one2many presented the document available as S6-192016.

Motorola Solutions suggested rephrasing the title.

Huawei suggested slight modification to the note in 14.3.2.11-1.

Qualcomm suggested to use the term retrieve.

The chairman pointed out that he WI code TEI16 should be removed.

**Decision:** The document was **revised to S6-192197**.

**S6-192197 Corrections to naming and other fixes**

 *Type: CR For: Agreement
 23.434 v16.1.0 CR-0009 rev 1 Cat: F (Rel-16)

 Source: one2many B.V.*

(Replaces S6-192016)

**Discussion:**

one2many presented the document available as S6-192197.

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

**S6-192017 Result element missing**

 *Type: CR For: Agreement
 23.434 v16.1.0 CR-0010 Cat: F (Rel-16)

 Source: one2many B.V.*

**Abstract:**

Addition of Result IE in various tables.

**Discussion:**

one2many presented the document available as S6-192017.

Motorola Solutions was of the view that the reference to the note (in table 9.3.2.6-1) was inserted to the wrong information element.

Airbus suggested modifying the note in table 11.3.2.4-1.

**Decision:** The document was **revised to S6-192198**.

**S6-192198 Result element missing**

 *Type: CR For: Agreement
 23.434 v16.1.0 CR-0010 rev 1 Cat: F (Rel-16)

 Source: one2many B.V.*

(Replaces S6-192017)

**Discussion:**

one2many presented the document available as S6-192198.

Motorola Solutions was of the view that there was no need for the note in table 10.3.2.7-1.

**Decision:** The document was **revised to S6-192319**.

**S6-192319 Result element missing**

 *Type: CR For: Agreement
 23.434 v16.1.0 CR-0010 rev 2 Cat: F (Rel-16)

 Source: one2many B.V.*

(Replaces S6-192198)

**Discussion:**

one2many presented the document available as S6-192319.

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

**S6-192018 Anonymous requests and notifications**

 *Type: CR For: Agreement
 23.434 v16.1.0 CR-0011 Cat: F (Rel-16)

 Source: one2many B.V.*

**Abstract:**

Addition of requester identity to requests and notifier identity to notifications that don't contain such identity and removal of identity in a response.

**Discussion:**

one2many presented the document available as S6-192018.

Motorola Solutions was of the view that the proposed change to table 10.3.2.3-1 was not needed.

Huawei suggested rephrasing the proposed information element.

The Police of Netherlands was of the view that if this way forward was agreed then maybe also 23.280 should have similar changes done.

Motorola Solutions was of the view that the two specifications were completely independent and hence no corresponding changes would be required.

**Decision:** The document was **revised to S6-192199**.

**S6-192199 Anonymous requests**

 *Type: CR For: Agreement
 23.434 v16.1.0 CR-0011 rev 1 Cat: F (Rel-16)

 Source: one2many B.V.*

(Replaces S6-192018)

**Discussion:**

one2many presented the document available as S6-192199.

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

**S6-192025 Resource management over MB2 and or xMB**

 *Type: discussion For: Agreement
 23.434 v..
 Source: one2many B.V.*

**Abstract:**

TS 23.434 mentions the use of MB2 and of xMB for multicast resource management. This paper discusses the usage of both interfaces.

**Discussion:**

one2many presented the document available as S6-192025.

Motorola Solutions was of the view that both MB2 and of xMB were supported and that both were needed.

Qualcomm supported the view of Motorola Solutions as did Samsung and Huawei.

Huawei was however of the view that the topic might need some further studying and clarifications.

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

**S6-192019 No multicast resource management in 5GS**

 *Type: CR For: Agreement
 23.434 v16.1.0 CR-0012 Cat: F (Rel-16)

 Source: one2many B.V.*

**Abstract:**

Multicast has not been specified for Release-16; hence managing multicast resources cannot be in scope of Resource Management. Hence it is proposed to add a note in relation to this.

**Discussion:**

one2many presented the document available as S6-192019.

Motorola Solutions suggested rephrasing the proposed Note.

The only changes are:

 - removing work item code TEI16 and

 - rephrasing the note to read "In the present document the multicast services offered by SEAL are only applicable for EPS."

With the above changes the revised contribution, S6-192200, is considered pre-agreed.

**Decision:** The document was **revised to S6-192200**.

**S6-192200 No multicast resource management in 5GS**

 *Type: CR For: Agreement
 23.434 v16.1.0 CR-0012 rev 1 Cat: F (Rel-16)

 Source: one2many B.V.*

(Replaces S6-192019)

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

**S6-192024 Mention of SA3 responsibility in a published TS is not relevant.**

 *Type: CR For: Agreement
 23.434 v16.1.0 CR-0013 Cat: F (Rel-16)

 Source: one2many B.V.*

**Abstract:**

Remove mention of SA3; add the TS number in the References section and in the notes.

**Discussion:**

one2many presented the document available as S6-192024.

Motorola Solutions was of the view that it was premature to agree to the proposed change at this stage. Also, they did not agree to removing the "is responsibility of SA3" in the note of clause 6.5.2.9.2.

Samsung was of the view the SA3 responsibility can be deleted.

It was remarked that maybe the SA3 responsibility should be moved into the editor's note.

**Decision:** The document was **revised to S6-192201**.

**S6-192201 Mention of SA3 responsibility in a published TS is not relevant.**

 *Type: CR For: Agreement
 23.434 v16.1.0 CR-0013 rev 1 Cat: F (Rel-16)

 Source: one2many B.V.*

(Replaces S6-192024)

**Discussion:**

one2many presented the document available as S6-192201.

Motorola Solutions noted that the 2nd editor's noted in clause 6.5.2.9.2 did not read well and suggested replacing "..adding SA3 TS reference.." with "..adding SA3 TS subclause reference..".

**Decision:** The document was **revised to S6-192320**.

**S6-192320 Mention of SA3 responsibility in a published TS is not relevant.**

 *Type: CR For: Agreement
 23.434 v16.1.0 CR-0013 rev 2 Cat: F (Rel-16)

 Source: one2many B.V.*

(Replaces S6-192201)

**Discussion:**

one2many presented the document available as S6-192320.

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

**S6-192148 SEAL APIs corrections**

 *Type: CR For: Agreement
 23.434 v16.1.0 CR-0014 Cat: F (Rel-16)

 Source: Samsung*

**Abstract:**

CR proposes the following updates in TS 23.434 aligned to the suggestions in CT3 LS:

1. "verb-xxx" naming convention of all API names and corresponding changes to API Operations

2. Grouping of group management service APIs into one service API due to similar functionality.

3. Operation semantics for some service APIs related to event subscription to follow the convention used in subclause 5.2 of TS 23.502.

**Discussion:**

Samsung presented the document available as S6-192148.

There was lengthy discussion on whether to keep or not the voided subclauses.

Samsung pointed out that there was a need to update the tables.

There was also a related draft LS to the present meeting (S6-192149).

**Decision:** The document was **revised to S6-192202**.

**S6-192202 SEAL APIs corrections**

 *Type: CR For: Agreement
 23.434 v16.1.0 CR-0014 rev 1 Cat: F (Rel-16)

 Source: Samsung*

(Replaces S6-192148)

**Discussion:**

Samsung presented the document available as S6-192202.

The only change is to add Rel-16 in the release field.

With the above change the revised contribution, S6-192317, is considered pre-agreed.

**Decision:** The document was **revised to S6-192317**.

**S6-192317 SEAL APIs corrections**

 *Type: CR For: Agreement
 23.434 v16.1.0 CR-0014 rev 2 Cat: F (Rel-16)

 Source: Samsung*

(Replaces S6-192202)

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

**S6-192182 Update to location configuration procedure**

 *Type: CR For: Agreement
 23.434 v16.1.0 CR-0015 Cat: F (Rel-16)

 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for Update to location configuration procedure

**Discussion:**

Huawei presented the document available as S6-192182.

Qualcomm strongly objected changing the application protocol due to a transport mechanism problem, and hence did not agree to the proposal (this in relation to subscription part).

**Decision:** The document was **revised to S6-192204**.

**S6-192204 Update to location configuration procedure**

 *Type: CR For: Agreement
 23.434 v16.1.0 CR-0015 rev 1 Cat: F (Rel-16)

 Source: Huawei, Hisilicon*

(Replaces S6-192182)

**Discussion:**

Huawei presented the document available as S6-192204.

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

**S6-192026 Corrections to preconfigured regroup procedures**

 *Type: CR For: Agreement
 23.379 v16.4.0 CR-0236 Cat: F (Rel-16)

 Source: FirstNet*

**Abstract:**

There is inconsistent terminology and some minor technical errors in the new preconfigured group and user regroup procedures

**Discussion:**

FirstNet presented the document available as S6-192026.

**Decision:** The document was **revised to S6-192215**.

**S6-192215 Corrections to preconfigured regroup procedures**

 *Type: CR For: Agreement
 23.379 v16.4.0 CR-0236 rev 1 Cat: F (Rel-16)

 Source: FirstNet*

(Replaces S6-192026)

**Discussion:**

FirstNet presented the document available as S6-192215.

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

**S6-192027 Corrections to preconfigured regroup procedures**

 *Type: CR For: Agreement
 23.379 v17.0.0 CR-0237 Cat: A (Rel-17)

 Source: FirstNet*

**Abstract:**

There is inconsistent terminology and some minor technical errors in the new preconfigured group and user regroup procedures - mirror CR.

**Discussion:**

FirstNet presented the document available as S6-192027.

**Decision:** The document was **revised to S6-192216**.

**S6-192216 Corrections to preconfigured regroup procedures**

 *Type: CR For: Agreement
 23.379 v17.0.0 CR-0237 rev 1 Cat: A (Rel-17)

 Source: FirstNet*

(Replaces S6-192027)

**Discussion:**

FirstNet presented the document available as S6-192016.

The meeting pre-agreed to the mirror CR.

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

**S6-192088 Receiving a private call from any other user**

 *Type: CR For: Agreement
 23.379 v16.4.0 CR-0242 Cat: F (Rel-16)

 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

A new parameter is added to allow an authorised MCPTT user to be configured such that the MCPTT user can receive a private call from any other user.

**Discussion:**

Nokia presented the document available as S6-192088.

**Decision:** The document was **revised to S6-192220**.

**S6-192220 Receiving a private call from any other user**

 *Type: CR For: Agreement
 23.379 v16.4.0 CR-0242 rev 1 Cat: F (Rel-16)

 Source: Nokia, Nokia Shanghai Bell*

(Replaces S6-192088)

**Discussion:**

Nokia presented the document available as S6-192220.

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

**S6-192089 Receiving a private call from any other user**

 *Type: CR For: Agreement
 23.379 v17.0.0 CR-0243 Cat: A (Rel-17)

 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

Rel-17 mirror CR.

**Discussion:**

Nokia presented the document available as S6-192089.

**Decision:** The document was **revised to S6-192221**.

**S6-192221 Receiving a private call from any other user**

 *Type: CR For: Agreement
 23.379 v17.0.0 CR-0243 rev 1 Cat: A (Rel-17)

 Source: Nokia, Nokia Shanghai Bell*

(Replaces S6-192089)

**Discussion:**

Nokia presented the document available as S6-192220.

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

**S6-192121 Removal of temporary regroup procedures**

 *Type: CR For: Agreement
 23.379 v16.4.0 CR-0244 Cat: F (Rel-16)

 Source: FirstNet*

**Abstract:**

Remove procedures for 'temporary group call – user regroup' and 'Temporary group – broadcast group call', and remove relevant parameters in information flows.

**Discussion:**

FirstNet presented the document available as S6-192121.

**Decision:** The document was **revised to S6-192217**.

**S6-192217 Removal of temporary regroup procedures**

 *Type: CR For: Agreement
 23.379 v16.4.0 CR-0244 rev 1 Cat: F (Rel-16)

 Source: FirstNet*

(Replaces S6-192121)

**Discussion:**

FirstNet presented the document available as S6-192217.

CATT did not agree with the deletion of the procedure.

Softil noted that the topic had already been in debated in length in the breakout session and was of the view that only right thing would be to agree to the proposed CR.

Huawei suggested keeping the procedure in the Rel-16 specification for the time being.

The Police of Netherlands was of the opinion that it was waste of time to debate this topic and supported the proposed CR.

The chairman asked for a show of hands to have an indication of the support for the proposed CR. This gave 12 members in favour vs 2 against. CATT and Huawei being the companies opposing the proposal.

The chairman declared as working agreemen the agreement of the present contribution (see clause 5.1).

The working agreement will be entered into the 3GPP working agreements page on the 3GPP web site. After which the window for challenging the working agreement will be open.

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

**S6-192141 File repair with the content storage function**

 *Type: CR For: Agreement
 23.282 v16.4.0 CR-0195 Cat: F (Rel-16)

 Source: ENENSYS*

**Abstract:**

Achieving file repair after delivery over MBMS with the content storage function

**Discussion:**

ENENSYS presented the document available as S6-192141.

Rel-17 mirror required

Off-line discussion needed. Potential topic for a conference call if not agreed this week.

**Decision:** The document was **revised to S6-192218**.

**S6-192218 File repair with the content storage function**

 *Type: CR For: Agreement
 23.282 v16.4.0 CR-0195 rev 1 Cat: F (Rel-16)

 Source: ENENSYS*

(Replaces S6-192141)

**Discussion:**

ENENSYS presented the document available as S6-192218.

AT&T suggested reducing the first change to "The media storage function supports partial download" and removing "on the media storage function" from the table 7.5.2.1.21-1.

Samsung suggested adding an editor's note on content sharing.

Motorola Solutions suggested removing the Group management server from figure 7.5.2.10.2-1.

It was also decided to create a mirror CR for Rel-17.

**Decision:** The document was **revised to S6-192382**.

**S6-192382 File repair with the content storage function**

 *Type: CR For: Agreement
 23.282 v16.4.0 CR-0195 rev 2 Cat: F (Rel-16)

 Source: ENENSYS*

(Replaces S6-192218)

**Discussion:**

ENENSYS presented the document available as S6-192382.

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

**S6-192383 File repair with the content storage function**

 *Type: CR For: Agreement
 23.282 v17.0.0 CR-0196 Cat: A (Rel-17)

 Source: ENENSYS*

**Discussion:**

ENENSYS presented the document available as S6-192383.

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

**S6-192151 Clarifications for location management**

 *Type: CR For: Agreement
 23.280 v16.4.1 CR-0227 Cat: F (Rel-16)

 Source: CATT*

**Abstract:**

Clarify that location management server can be provided with the location information from LCS network.

**Discussion:**

CATT presented the document available as S6-192151.

**Decision:** The document was **revised to S6-192214**.

**S6-192214 Clarifications for location management**

 *Type: CR For: Agreement
 23.280 v16.4.1 CR-0227 rev 1 Cat: F (Rel-16)

 Source: CATT*

(Replaces S6-192151)

**Discussion:**

CATT presented the document available as S6-192214.

Motorola Solutions did not agree with the change proposed in particular the reference to the specification.

**Decision:** The document was **revised to S6-192321**.

**S6-192321 Clarifications for location management**

 *Type: CR For: Agreement
 23.280 v16.4.1 CR-0227 rev 2 Cat: F (Rel-16)

 Source: CATT*

(Replaces S6-192214)

**Discussion:**

CATT presented the document available as S6-192321.

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

**S6-192322 Clarifications for location management**

 *Type: CR For: Agreement
 23.280 v17.0.0 CR-0228 Cat: A (Rel-17)

 Source: CATT*

**Abstract:**

Clarify that location management server can be provided with the location information from LCS network.

**Discussion:**

CATT presented the document available as S6-192322.

The only change is correcting the current version on the cover page to read 17.0.0.

With the above change the revised contribution, S6-192357, is considered pre-agreed.

**Decision:** The document was **revised to S6-192357**.

**S6-192357 Clarifications for location management**

 *Type: CR For: Agreement
 23.280 v17.0.0 CR-0228 rev 1 Cat: A (Rel-17)

 Source: CATT*

(Replaces S6-192322)

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

**S6-192219 Corrections to preconfigured regroup procedures – alternative proposal**

 *Type: discussion For: Discussion
 23.379 v17.0.0 CR-0246 Cat: F (Rel-17)

 Source: Motorola Solutions*

**Discussion:**

The present TDoc was created as a result of the discussion of S6-192026. Initially intended to become a CR.

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

## 10 Rel-17 Work Items

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

**S6-192081 Status of eMONASTERY2**

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

**Abstract:**

The paper shows the CR implementation status for the normative work on MONASTERY2 (Rel-16) and eMONASTERY2 (Rel-17).

**Discussion:**

Nokia presented the document available as S6-192081.

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

**S6-192082 (e)MONASTERY requirements and status in stage 2**

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

**Abstract:**

The discussion paper identifies those stage 1 requirements not yet covered by stage 2.

**Discussion:**

Nokia presented the document available as S6-192082.

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

**S6-192083 Correcting stage 1 reference on maximum number of simultaneously received group calls**

 *Type: CR For: Agreement
 23.379 v17.0.0 CR-0241 Cat: F (Rel-17)

 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

The related stage 1 requirement on maximum number of simultaneously received group calls (Nc5) is corrected.

**Discussion:**

Nokia presented the document available as S6-192083.

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

**S6-192084 Corrections on functional alias to group binding**

 *Type: CR For: Agreement
 23.280 v17.0.0 CR-0223 Cat: F (Rel-17)

 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

The information flows on functional alias to group binding are moved to the correct clause.

**Discussion:**

Nokia presented the document available as S6-192084.

**Decision:** The document was **revised to S6-192205**.

**S6-192205 Corrections on functional alias to group binding**

 *Type: CR For: Agreement
 23.280 v17.0.0 CR-0223 rev 1 Cat: F (Rel-17)

 Source: Nokia, Nokia Shanghai Bell*

(Replaces S6-192084)

**Discussion:**

Nokia presented the document available as S6-192084.

The contribution had been endorsed by the Track 1 breakout session.

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

**S6-192041 Handling origination side of functional alias for group calls**

 *Type: CR For: Agreement
 23.379 v17.0.0 CR-0238 Cat: B (Rel-17)

 Source: Kapsch CarrierCom France S.A.S*

**Abstract:**

Proposal for adding details on how to handle origination side of functional alias for group call requests

**Discussion:**

Kapsch CarrierCom France S.A.S presented the document available as S6-192041.

**Decision:** The document was **revised to S6-192206**.

**S6-192206 Handling origination side of functional alias for group calls**

 *Type: CR For: Agreement
 23.379 v17.0.0 CR-0238 rev 1 Cat: B (Rel-17)

 Source: Kapsch CarrierCom France S.A.S*

(Replaces S6-192041)

**Discussion:**

Kapsch CarrierCom France S.A.S presented the document available as S6-192206.

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

**S6-192040 Functional alias in group call interconnect and interworking**

 *Type: discussion For: Discussion
 Source: Kapsch CarrierCom France S.A.S*

**Abstract:**

This paper discusses the concept of binding functional aliases to MC service groups, and the related aspects for group call interconnect and interworking.

**Discussion:**

Kapsch CarrierCom France S.A.S presented the document available as S6-192040.

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

**S6-192042 Include functional alias in group call interconnect**

 *Type: CR For: Agreement
 23.379 v17.0.0 CR-0239 Cat: B (Rel-17)

 Source: Kapsch CarrierCom France S.A.S*

**Abstract:**

Proposal for adding calling party functional alias to server to server information flows.

**Discussion:**

Kapsch CarrierCom France S.A.S presented the document available as S6-192042.

Title and Summary do not reflect the actual changes in this CR.

10.6.2.2.3 – remove participating/controlling.

(Procedures also need to be updated (a separate CR for next meeting)).

**Decision:** The document was **revised to S6-192207**.

**S6-192207 Add missing server to server information flows for group calls**

 *Type: CR For: Agreement
 23.379 v17.0.0 CR-0239 rev 1 Cat: B (Rel-17)

 Source: Kapsch CarrierCom France S.A.S*

(Replaces S6-192042)

**Abstract:**

Proposal for adding missing server to server information flows for group calls.

**Discussion:**

Kapsch CarrierCom France S.A.S presented the document available as S6-192207.

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

**S6-192043 Add enhancements for interworking of MCPTT group calls with GSM-R**

 *Type: CR For: Agreement
 23.283 v17.0.0 CR-0049 rev 2 Cat: B (Rel-17)

 Source: Kapsch CarrierCom*

(Replaces S6-191679)

**Abstract:**

Modifying existing interworking of MCPTT group call procedures and information flows to support the use of a functional alias for originating party.

**Discussion:**

Kapsch CarrierCom France S.A.S presented the document available as S6-192043.

The only changes are, in the first change, to remove word ‘optional’.

With the above change the revised contribution, S6-192208, is considered pre-agreed.

**Decision:** The document was **revised to S6-192208**.

**S6-192208 Add enhancements for interworking of MCPTT group calls with GSM-R**

 *Type: CR For: Agreement
 23.283 v17.0.0 CR-0049 rev 3 Cat: B (Rel-17)

 Source: Kapsch CarrierCom*

(Replaces S6-192043)

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

**S6-192087 Editorial changes related to functional alias interworking**

 *Type: CR For: Agreement
 23.283 v17.0.0 CR-0052 Cat: F (Rel-17)

 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

Correcting the user profile configuration data in table A.3-2 (on-network).

**Discussion:**

Nokia presented the document available as S6-192087.

**Decision:** The document was **revised to S6-192209**.

**S6-192209 Text improvements related to functional alias interworking**

 *Type: CR For: Agreement
 23.283 v17.0.0 CR-0052 rev 1 Cat: F (Rel-17)

 Source: Nokia, Nokia Shanghai Bell*

(Replaces S6-192087)

**Discussion:**

Nokia presented the document available as S6-192209.

The contribution had been endorsed by the Track 1 breakout session.

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

**S6-192039 Communication urgency handling in the MC service system**

 *Type: discussion For: Discussion
 23.280 v..
 Source: Union Inter. Chemins de Fer*

**Abstract:**

Discussion paper about 3GPP TS 22.280 priority requirements and resulting different priority types in stage 2.

**Discussion:**

UIC presented the document available as S6-192039.

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

**S6-192048 Introducing descriptive text describing the urgency handling in the MC service system**

 *Type: CR For: Agreement
 23.280 v17.0.0 CR-0221 rev 2 Cat: F (Rel-17)

 Source: Union Inter. Chemins de Fer*

(Replaces S6-191763)

**Abstract:**

Descriptive text about priority handling in the MC service system

**Discussion:**

UIC presented the document available as S6-192048.

**Decision:** The document was **revised to S6-192210**.

**S6-192210 Introducing descriptive text describing the urgency handling in the MC service system**

 *Type: CR For: Agreement
 23.280 v17.0.0 CR-0221 rev 3 Cat: F (Rel-17)

 Source: Union Inter. Chemins de Fer*

(Replaces S6-192048)

**Discussion:**

UIC presented the document available as S6-192210.

Ericsson suggested making a new Annex for the proposal.

The only change is replacing "Annex B.2" with "Informative Annex X".

With the above change the revised contribution, S6-192345, is considered pre-agreed.

**Decision:** The document was **revised to S6-192345**.

**S6-192345 Introducing descriptive text describing the urgency handling in the MC service system**

 *Type: CR For: Agreement
 23.280 v17.0.0 CR-0221 rev 4 Cat: F (Rel-17)

 Source: Union Inter. Chemins de Fer*

(Replaces S6-192210)

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

**S6-192049 Requested Priority in IP connectivity point to point communication**

 *Type: CR For: Agreement
 23.282 v17.0.0 CR-0190 Cat: F (Rel-17)

 Source: Union Inter. Chemins de Fer*

**Abstract:**

The CR applies the correct terminology to the concerned flows.

**Discussion:**

UIC presented the document available as S6-192049.

**Decision:** The document was **revised to S6-192211**.

**S6-192211 Requested Priority in IP connectivity point to point communication**

 *Type: CR For: Agreement
 23.282 v17.0.0 CR-0190 rev 1 Cat: F (Rel-17)

 Source: Union Inter. Chemins de Fer*

(Replaces S6-192049)

**Discussion:**

UIC presented the document available as S6-192211.

The only changes are adding “or not accepted by the MCData server” to NOTE 3 under table Table 7.14.2.1.1-1 and to NOTE 2 under Table 7.14.2.1.3-1.

**Decision:** The document was **revised to S6-192225**.

**S6-192225 Requested Priority in IP connectivity point to point communication**

 *Type: CR For: Agreement
 23.282 v17.0.0 CR-0190 rev 2 Cat: F (Rel-17)

 Source: Union Inter. Chemins de Fer*

(Replaces S6-192211)

**Discussion:**

UIC presented the document available as S6-192225.

The contribution had been endorsed by the Track 1 breakout session.

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

**S6-192050 Enhancing SDS data requests with application priority capabilities in on-network mode**

 *Type: CR For: Agreement
 23.282 v17.0.0 CR-0191 Cat: B (Rel-17)

 Source: Union Inter. Chemins de Fer*

**Abstract:**

The CR adds the missing requested priority to these SDS data flows which does not encompass the application priority.

**Discussion:**

UIC presented the document available as S6-192050.

**Decision:** The document was **revised to S6-192212**.

**S6-192212 Enhancing SDS data requests with application priority capabilities in on-network mode**

 *Type: CR For: Agreement
 23.282 v17.0.0 CR-0191 rev 1 Cat: B (Rel-17)

 Source: Union Inter. Chemins de Fer*

(Replaces S6-192050)

**Discussion:**

UIC presented the document available as S6-192212.

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

**S6-192051 Enhancing FD data requests with application priority capabilities in on-network mode**

 *Type: CR For: Agreement
 23.282 v17.0.0 CR-0192 Cat: B (Rel-17)

 Source: Union Inter. Chemins de Fer*

**Abstract:**

The CR adds the missing requested priority to these FD data flows which does not encompass the application priority.

**Discussion:**

UIC presented the document available as S6-192051.

**Decision:** The document was **revised to S6-192213**.

**S6-192213 Enhancing FD data requests with application priority capabilities in on-network mode**

 *Type: CR For: Agreement
 23.282 v17.0.0 CR-0192 rev 1 Cat: B (Rel-17)

 Source: Union Inter. Chemins de Fer*

(Replaces S6-192051)

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

**S6-192052 Priority of the user for initiating/receiving communications**

 *Type: CR For: Agreement
 23.282 v17.0.0 CR-0193 Cat: B (Rel-17)

 Source: Union Inter. Chemins de Fer*

**Abstract:**

The CFR adds the field “Priority for the user initiating and receiving calls” to resolve requirement [R-5.1.7-002], [R-6.8.7.2-007] and [R-6.8.7.2-008] of 3GPP TS 22.280.

**Discussion:**

UIC presented the document available as S6-192052.

Remove the note, invent a better name for the parameter.

**Decision:** The document was **revised to S6-192222**.

**S6-192222 Priority of the user**

 *Type: CR For: Agreement
 23.282 v17.0.0 CR-0193 rev 1 Cat: B (Rel-17)

 Source: Union Inter. Chemins de Fer*

(Replaces S6-192052)

**Discussion:**

UIC presented the document available as S6-192222.

**Decision:** The document was **revised to S6-192346**.

**S6-192346 Priority of the user**

 *Type: CR For: Agreement
 23.282 v17.0.0 CR-0240 rev 2 Cat: B (Rel-17)

 Source: Union Inter. Chemins de Fer*

(Replaces S6-192222)

**Discussion:**

UIC presented the document available as S6-192346.

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

**S6-192053 Priority of the user for initiating/receiving calls**

 *Type: CR For: Agreement
 23.379 v17.0.0 CR-0240 Cat: B (Rel-17)

 Source: Union Inter. Chemins de Fer*

**Abstract:**

Add a NOTE that clarifies that the priority may contain a range with minimum and maximum value. The minimum value may apply if no other application priority is requested during the communication establishment.

**Discussion:**

UIC presented the document available as S6-192053.

Remove the note, invent a better name for the parameter.

**Decision:** The document was **revised to S6-192223**.

**S6-192223 Priority of the user for initiating/receiving calls**

 *Type: CR For: Agreement
 23.379 v17.0.0 CR-0240 rev 1 Cat: B (Rel-17)

 Source: Union Inter. Chemins de Fer*

(Replaces S6-192053)

**Discussion:**

UIC presented the document available as S6-192223.

**Decision:** The document was **revised to S6-192347**.

**S6-192347 Priority of the user for initiating/receiving calls**

 *Type: CR For: Agreement
 23.379 v17.0.0 CR-0240 rev 2 Cat: B (Rel-17)

 Source: Union Inter. Chemins de Fer*

(Replaces S6-192223)

**Discussion:**

UIC presented the document available as S6-192347.

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

**S6-192054 Priority of the user for initiating/receiving calls**

 *Type: CR For: Agreement
 23.281 v17.0.0 CR-0137 Cat: B (Rel-17)

 Source: Union Inter. Chemins de Fer*

**Abstract:**

The CFR adds the field “Priority for the user initiating and receiving calls” to resolve requirement [R-5.1.7-002], [R-6.8.7.2-007] and [R-6.8.7.2-008] of 3GPP TS 22.280.

**Discussion:**

UIC presented the document available as S6-192054.

Remove the note, invent a better name for the parameter

**Decision:** The document was **revised to S6-192224**.

**S6-192224 Priority of the user for initiating/receiving calls**

 *Type: CR For: Agreement
 23.281 v17.0.0 CR-0137 rev 1 Cat: B (Rel-17)

 Source: Union Inter. Chemins de Fer*

(Replaces S6-192054)

**Discussion:**

UIC presented the document available as S6-192224.

**Decision:** The document was **revised to S6-192348**.

**S6-192348 Priority of the user for initiating/receiving calls**

 *Type: CR For: Agreement
 23.281 v17.0.0 CR-0137 rev 2 Cat: B (Rel-17)

 Source: Union Inter. Chemins de Fer*

(Replaces S6-192224)

**Discussion:**

UIC presented the document available as S6-192348.

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

**S6-192085 Resolving EN on functional alias to group binding impacts**

 *Type: CR For: Agreement
 23.280 v17.0.0 CR-0224 Cat: C (Rel-17)

 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

The editor’s note is suggested to be deleted.

**Discussion:**

Nokia presented the document available as S6-192085.

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

**S6-192086 Functional alias used for private communications**

 *Type: CR For: Agreement
 23.280 v17.0.0 CR-0225 Cat: B (Rel-17)

 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

Procedures and information flows for assigning/unassigning a functional alias for private communications are added.

**Discussion:**

Nokia presented the document available as S6-192086.

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

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

**S6-192123 Additional MCData service requirement**

 *Type: pCR For: Approval
 23.180 v0.1.0
 Source: AT&T GNS Belgium SPRL*

**Abstract:**

Additional MCData service requirement

**Discussion:**

AT&T presented the document available as S6-192123.

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

**S6-192100 Pseudo-CR on General user authentication in IOPS**

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

**Abstract:**

An MC user should be authenticated by the IOPS MC system for the support MC services in the IOPS mode of operation. The present contribution introduces the general user authentication procedure in the IOPS mode of operation.

**Discussion:**

Ericsson presented the document available as S6-192100.

**Decision:** The document was **revised to S6-192226**.

**S6-192226 Pseudo-CR on General user authentication in IOPS**

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

(Replaces S6-192100)

**Discussion:**

Ericsson presented the document available as S6-192226.

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

**S6-192096 Pseudo-CR on Architectural requirements on the IP connectivity functionality support**

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

**Discussion:**

Ericsson presented the document available as S6-192096.

**Decision:** The document was **revised to S6-192227**.

**S6-192227 Pseudo-CR on Architectural requirements on the IP connectivity functionality support**

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

(Replaces S6-192096)

**Discussion:**

Ericsson presented the document available as S6-192227.

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

**S6-192101 Pseudo-CR on IOPS identities**

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

**Abstract:**

Specific IOPS identities can be defined to be used by the MC users in the IOPS mode of operation.

**Discussion:**

Ericsson presented the document available as S6-192101.

**Decision:** The document was **revised to S6-192228**.

**S6-192228 Pseudo-CR on IOPS identities**

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

(Replaces S6-192101)

**Discussion:**

Ericsson presented the document available as S6-192228.

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

**S6-192102 Pseudo-CR on IOPS discovery for the IP connectivity functionality**

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

**Abstract:**

Definition of the IOPS discovery procedure to be used for the MC services support based on the IP connectivity functionality in the IOPS mode of operation.

**Discussion:**

Ericsson presented the document available as S6-192102.

**Decision:** The document was **revised to S6-192229**.

**S6-192229 Pseudo-CR on IOPS discovery for the IP connectivity functionality**

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

(Replaces S6-192102)

**Discussion:**

Ericsson presented the document available as S6-192229.

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

**S6-192104 Pseudo-CR on IOPS subscription and notification for the IP connectivity functionality**

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

**Abstract:**

Definition of the IOPS subscription and notification procedures to be used for the MC services support based on IP connectivity in the IOPS mode of operation.

**Discussion:**

Ericsson presented the document available as S6-192104.

**Decision:** The document was **revised to S6-192230**.

**S6-192230 Pseudo-CR on IOPS subscription and notification for the IP connectivity functionality**

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

(Replaces S6-192104)

**Discussion:**

Ericsson presented the document available as S6-192230.

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

**S6-192105 Pseudo-CR on IOPS announcement for the IP connectivity functionality**

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

**Abstract:**

Definition of the IOPS announcement procedures to be used for the MC services support based on the IP connectivity functionality in the IOPS mode of operation.

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

**S6-192106 Pseudo-CR on Use of MBMS transmissions in IOPS**

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

**Abstract:**

The use of MBMS transmissions are introduced in the IOPS mode of operation.

**Discussion:**

Ericsson presented the document available as S6-192106.

**Decision:** The document was **revised to S6-192231**.

**S6-192231 Pseudo-CR on Use of MBMS transmissions in IOPS**

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

(Replaces S6-192106)

**Discussion:**

Ericsson presented the document available as S6-192231.

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

**S6-192107 Pseudo-CR on MCPTT group call in IOPS – Call setup based on the IP connectivity functionality**

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

**Abstract:**

The present contribution defines the group call general section, information flows and the group call setup based on the IP connectivity functionality.

**Discussion:**

Ericsson presented the document available as S6-192107.

**Decision:** The document was **revised to S6-192232**.

**S6-192232 Pseudo-CR on MCPTT group call in IOPS – Call setup based on the IP connectivity functionality**

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

(Replaces S6-192107)

**Discussion:**

Ericsson presented the document available as S6-192232.

Motorola Solutions suggested adding a note stating that step 6 is optional in the case of multicast.

The only change is adding an editor's note under step 6 stating "The confirm mode indication for a group call over MBMS is FFS"

With the above change the revised contribution, S6-192349, is considered pre-approved.

**Decision:** The document was **revised to S6-192349**.

**S6-192349 Pseudo-CR on MCPTT group call in IOPS – Call setup based on the IP connectivity functionality**

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

(Replaces S6-192232)

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

**S6-192108 Pseudo-CR on MCPTT private call in IOPS – Call setup based on the IP connectivity functionality**

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

**Abstract:**

The present contribution defines the private call general section, information flows and the private call setup in automatic commencement mode based on the IP connectivity functionality.

**Discussion:**

Ericsson presented the document available as S6-192108.

**Decision:** The document was **revised to S6-192233**.

**S6-192233 Pseudo-CR on MCPTT private call in IOPS – Call setup based on the IP connectivity functionality**

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

(Replaces S6-192108)

**Discussion:**

Ericsson presented the document available as S6-192233.

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

**S6-192143 Pseudo-CR on Floor control for MCPTT in IOPS (IP connectivity functionality)**

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

**Abstract:**

The floor control general section, information flows and procedure based on the IP connectivity functionality are defined in this contribution.

**Discussion:**

Ericsson presented the document available as S6-192143.

**Decision:** The document was **revised to S6-192234**.

**S6-192234 Pseudo-CR on Floor control for MCPTT in IOPS (IP connectivity functionality)**

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

(Replaces S6-192143)

**Discussion:**

Ericsson presented the document available as S6-192234.

The only change

With the above change the revised contribution, S6-19250, is considered pre-approved.

**Decision:** The document was **revised to S6-192350**.

**S6-192350 Pseudo-CR on Floor control for MCPTT in IOPS (IP connectivity functionality)**

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

(Replaces S6-192234)

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

### 10.3 TEI17 – Technical Enhancements and Improvements

**S6-192028 Addition of preconfigured regroup procedures**

 *Type: CR For: Agreement
 23.280 v17.0.0 CR-0222 Cat: B (Rel-17)

 Source: FirstNet*

**Abstract:**

This CR adds common procedures for group and user regroup using preconfigured groups to the CFA specification.

**Discussion:**

FirstNet presented the document available as S6-192028.

**Decision:** The document was **revised to S6-192235**.

**S6-192235 Addition of preconfigured regroup procedures**

 *Type: CR For: Agreement
 23.280 v17.0.0 CR-0222 rev 1 Cat: B (Rel-17)

 Source: FirstNet*

(Replaces S6-192028)

**Discussion:**

FirstNet presented the document available as S6-192235.

CATT raised the question whether there was a plan to delete the original procedure.

FirstNet stated there was no such plan as that procedure probably has been used in implementations.

CATT was of the view that this procedure would violate the current architecture.

FirstNet stated that the procedure was note violating the present architecture.

There was a suggestion addressing the concerns by introducing an editor's note along the lines of "The utilization of these procedures in MCPTT (as specified in 3GPP TS 23.379 [x] is FFS)"

**Decision:** The document was **revised to S6-192351**.

**S6-192351 Addition of preconfigured regroup procedures**

 *Type: CR For: Agreement
 23.280 v17.0.0 CR-0222 rev 2 Cat: B (Rel-17)

 Source: FirstNet*

(Replaces S6-192235)

**Discussion:**

FirstNet presented the document available as S6-192351.

Huawei was of the opinion that the proposal should have a dedicated WID and suggested hence to postpone the CR until a WID is available.

Motorola Solutions did not see a need to postpone the agreement.

The Police of Netherlands agreed that a maintenance WID would be helpful but did not see a need to postpone the agreement of proposed CR.

Huawei stated that if this is agreed then SA6 should be prepared to see CRs under TEI17 to be proposed as well under same conditions as this case will set precedence.

Motorola Solutions noted this was not setting presedence for bringing any new improvements.

The chairman noted that if significant amount of work is anticipated then this should be done under dedicated WID in normal manner.

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

**S6-192128 Alignment on MCX emergency alert procedures**

 *Type: CR For: Agreement
 23.379 v17.0.0 CR-0245 Cat: D (Rel-17)

 Source: AT&T GNS Belgium SPRL*

**Abstract:**

Alignment of the text with other MCX services on emergency alert procedures by referencing the relevant procedures in Common Core spec.

**Discussion:**

AT&T presented the document available as S6-192128.

**Decision:** The document was **revised to S6-192237**.

**S6-192237 Alignment on MCX emergency alert procedures**

 *Type: CR For: Agreement
 23.379 v17.0.0 CR-0245 rev 1 Cat: F (Rel-17)

 Source: AT&T GNS Belgium SPRL*

(Replaces S6-192128)

**Discussion:**

AT&T presented the document available as S6-192237.

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

**S6-192129 Alignment on MCX emergency alert procedures**

 *Type: CR For: Agreement
 23.280 v17.0.0 CR-0226 Cat: C (Rel-17)

 Source: AT&T GNS Belgium SPRL*

**Abstract:**

Alignment of emergency alert procedures for all MCX services.

**Discussion:**

AT&T presented the document available as S6-192129.

The only changes are:

 - editorial corrections in the cover page

 - remove the word “service” from 10.10.1.1 and 10.10.2.1:

 - MCVideo service

 - MCData service

With the above change the revised contribution, S6-192236, is considered pre-agreed.

**Decision:** The document was **revised to S6-192236**.

**S6-192236 Alignment on MCX emergency alert procedures**

 *Type: CR For: Agreement
 23.280 v17.0.0 CR-0226 rev 1 Cat: C (Rel-17)

 Source: AT&T GNS Belgium SPRL*

(Replaces S6-192129)

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

**S6-192130 Alignment on MCX emergency alert procedures**

 *Type: CR For: Agreement
 23.281 v17.0.0 CR-0138 Cat: D (Rel-17)

 Source: AT&T GNS Belgium SPRL*

**Abstract:**

Alignment on MCX emergency alert procedures

**Discussion:**

AT&T presented the document available as S6-192130.

The only changes are to:

-change category to F

-under 7.1.2.6, remove the text “and 10.1.2”.

With the above change the revised contribution, S6-192238, is considered pre-agreed.

**Decision:** The document was **revised to S6-192238**.

**S6-192238 Alignment on MCX emergency alert procedures**

 *Type: CR For: Agreement
 23.281 v17.0.0 CR-0138 rev 1 Cat: D (Rel-17)

 Source: AT&T GNS Belgium SPRL*

(Replaces S6-192130)

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

**S6-192131 Alignment on MCX emergency alert procedures**

 *Type: CR For: Agreement
 23.282 v17.0.0 CR-0194 Cat: D (Rel-17)

 Source: AT&T GNS Belgium SPRL*

**Abstract:**

Alignment on MCX emergency alert procedures

**Discussion:**

AT&T presented the document available as S6-192131.

CR category to be checked.

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

## 11 Study Items

### 11.1 FS\_MCOver5GS – Study on Mission Critical Services support over 5G System

**S6-192154 Pseudo-CR on key issue update on resource control**

 *Type: pCR For: Approval
 23.783 v0.7.0
 Source: CATT*

**Abstract:**

This contribution adds the key issues for resource control.

**Discussion:**

CATT presented the document available as S6-192154.

**Decision:** The document was **revised to S6-192245**.

**S6-192245 Pseudo-CR on key issue update on resource control**

 *Type: pCR For: Approval
 23.783 v0.7.0
 Source: CATT*

(Replaces S6-192154)

**Discussion:**

CATT presented the document available as S6-192245.

The only change is replacing "EPS bearer, bearer" with "EPS bearer".

With the above change the revised contribution, SS6-192352, is considered pre-approved.

**Decision:** The document was **revised to S6-192352**.

**S6-192352 Pseudo-CR on key issue update on resource control**

 *Type: pCR For: Approval
 23.783 v0.7.0
 Source: CATT*

(Replaces S6-192245)

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

**S6-192155 Pseudo-CR on key issue update of ProSe**

 *Type: pCR For: Approval
 23.783 v0.7.0
 Source: CATT*

**Abstract:**

This contribution provides clarification on key issue of ProSe.

**Discussion:**

CATT presented the document available as S6-192155.

The only change is to change “Rel-17” to “Rel-16” in the new NOTE.

With the above change the revised contribution, S6-192246, is considered pre-approved.

**Decision:** The document was **revised to S6-192246**.

**S6-192246 Pseudo-CR on key issue update of ProSe**

 *Type: pCR For: Approval
 23.783 v0.7.0
 Source: CATT*

(Replaces S6-192155)

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

### 11.2 FS\_enhMCLoc – Study on location enhancements for mission critical services

**S6-192070 Pseudo-CR on solution 14 - functional model enhancement**

 *Type: pCR For: Approval
 23.744 v1.2.0
 Source: BDBOS*

**Abstract:**

This pCR adds enhancements to solution #14 in 3GPP TR 23.744 and refer to key issue 5: Sharing of location information.

c. Location information of one MC user at home MC system is shared with other MC users at partner MC system;

The solution described with this pCR introduces enhancements to the functional model for sharing location information across MC systems on which procedures and information flows will be based.

**Discussion:**

BDBOS presented the document available as S6-192070.

**Decision:** The document was **revised to S6-192239**.

**S6-192239 Pseudo-CR on solution 14 - functional model enhancement**

 *Type: pCR For: Approval
 23.744 v1.2.0
 Source: BDBOS*

(Replaces S6-192070)

**Discussion:**

BDBOS presented the document available as S6-192239.

The only changes are

 - replacing (in clause 6.14.2.2) "..signalling in the same different.." with "..signalling in the same different ..",

 - deleting from clause 6.14.2.3 "..and temporary location configuration changes..",

 - replacing clause number 7.5.2.22 with 6.14.X and

 - making the new clause shown in revision marks.

With the above change the revised contribution, S6-192366, is considered pre-approved.

**Decision:** The document was **revised to S6-192366**.

**S6-192366 Pseudo-CR on solution 14 - functional model enhancement**

 *Type: pCR For: Approval
 23.744 v1.2.0
 Source: BDBOS*

(Replaces S6-192239)

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

**S6-192071 Pseudo-CR on solution sharing location information on interconnected MC systems - configuration**

 *Type: pCR For: Approval
 23.744 v1.2.0
 Source: BDBOS*

**Abstract:**

This pCR adds a use case and solution to 3GPP TR 23.744 and refers to key issue 5: Sharing of location information.

**Discussion:**

BDBOS presented the document available as S6-192071.

**Decision:** The document was **revised to S6-192240**.

**S6-192240 Pseudo-CR on solution sharing location information on interconnected MC systems - configuration**

 *Type: pCR For: Approval
 23.744 v1.2.0
 Source: BDBOS*

(Replaces S6-192071)

**Discussion:**

BDBOS presented the document available as S6-192240.

**Decision:** The document was **revised to S6-192353**.

**S6-192353 Pseudo-CR on solution sharing location information on interconnected MC systems - configuration**

 *Type: pCR For: Approval
 23.744 v1.2.0
 Source: BDBOS*

(Replaces S6-192240)

**Discussion:**

BDBOS presented the document available as S6-192353.

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

**S6-192072 Discussion on common service core configuration**

 *Type: discussion For: Discussion
 23.744 v..
 Source: BDBOS*

**Abstract:**

A method is required to configure common service core servers, e.g. the location management server as currently described in 3GPP TS 23.280 clause 10.9.3.2, 10.9.3.3, 10.9.3.8.1 and 10.9.3.8.2 for the authorization check by the location management server. CR0211 is introducing an authorization check by location management server for 3GPP TS 23.280 clause 10.9.3.5 and 10.9.3.6.2.

**Discussion:**

BDBOS presented the document available as S6-192072.

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

**S6-192073 Pseudo-CR on solution sharing location information on interconnected MC systems - authorization**

 *Type: pCR For: Approval
 23.744 v1.2.0
 Source: BDBOS*

**Abstract:**

This pCR adds a use case and solution to 3GPP TR 23.744 and refers to key issue 5: Sharing of location information.

**Discussion:**

BDBOS presented the document available as S6-192073.

**Decision:** The document was **revised to S6-192241**.

**S6-192241 Pseudo-CR on solution sharing location information on interconnected MC systems - authorization**

 *Type: pCR For: Approval
 23.744 v1.2.0
 Source: BDBOS*

(Replaces S6-192073)

**Discussion:**

BDBOS presented the document available as S6-192241.

The only change is deleting the 2nd parameter in all three tables.

With the above change the revised contribution, S6-192354, is considered pre-approved.

**Decision:** The document was **revised to S6-192354**.

**S6-192354 Pseudo-CR on solution sharing location information on interconnected MC systems - authorization**

 *Type: pCR For: Approval
 23.744 v1.2.0
 Source: BDBOS*

(Replaces S6-192241)

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

**S6-192074 Pseudo-CR on overall evaluation**

 *Type: pCR For: Approval
 23.744 v1.2.0
 Source: BDBOS*

**Abstract:**

This pCR adds the outline of clause 7 Overall Evaluation at 3GPP TR 23.744 as well as solution evaluations

**Discussion:**

BDBOS presented the document available as S6-192074.

**Decision:** The document was **revised to S6-192242**.

**S6-192242 Pseudo-CR on overall evaluation**

 *Type: pCR For: Approval
 23.744 v1.2.0
 Source: BDBOS*

(Replaces S6-192074)

**Discussion:**

BDBOS presented the document available as S6-192242.

The only changes are:

 - rewording the paragraph 7.1 to read "The following clauses contain an overall evaluation of the solutions presented in this technical report, and their applicability to the key issues raised. Clause 7.2 provides the mapping of key issues and described solutions." and

 - deleting the sentence beneath the table 7.2-1.

With the above change the revised contribution, S6-192355, is considered pre-approved.

**Decision:** The document was **revised to S6-192355**.

**S6-192355 Pseudo-CR on overall evaluation**

 *Type: pCR For: Approval
 23.744 v1.2.0
 Source: BDBOS*

(Replaces S6-192242)

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

**S6-192075 Pseudo-CR on solution past location service**

 *Type: pCR For: Approval
 23.744 v1.2.0
 Source: BDBOS*

**Abstract:**

This pCR adds solution details, in order to handle not only the latest or current location information and is addressing the following objective:

“… 4. Handling of location sharing or privacy across services; …”.

**Discussion:**

BDBOS presented the document available as S6-192075.

**Decision:** The document was **revised to S6-192243**.

**S6-192243 Pseudo-CR on solution past location service**

 *Type: pCR For: Approval
 23.744 v1.2.0
 Source: BDBOS*

(Replaces S6-192075)

**Discussion:**

BDBOS presented the document available as S6-192243.

The only change is to replacing "..from whom past location information requesting is permitted" with "..by whom past location information can be queried" in all three tables.

With the above change the revised contribution, S6-192356, is considered pre-approved.

**Decision:** The document was **revised to S6-192356**.

**S6-192356 Pseudo-CR on solution past location service**

 *Type: pCR For: Approval
 23.744 v1.2.0
 Source: BDBOS*

(Replaces S6-192243)

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

**S6-192076 Discussion on sharing location information in off-network and IOPS mode**

 *Type: discussion For: Approval
 23.744 v..
 Source: BDBOS*

**Abstract:**

Discussion paper on sharing location information in off-network and IOPS mode.

**Discussion:**

BDBOS presented the document available as S6-192076.

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

**S6-192077 Pseudo-CR on solution for off-network mode**

 *Type: pCR For: Approval
 23.744 v1.2.0
 Source: BDBOS*

**Abstract:**

This pCR adds a solution, in order to handle the location information management during off-network mode of operation.

**Discussion:**

BDBOS presented the document available as S6-192077.

**Decision:** The document was **revised to S6-192244**.

**S6-192244 Pseudo-CR on solution for off-network mode**

 *Type: pCR For: Approval
 23.744 v1.2.0
 Source: BDBOS*

(Replaces S6-192077)

**Discussion:**

BDBOS presented the document available as S6-192244.

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

### 11.3 FS\_FFAPP – Study on application layer support for Factories of the Future in 5G network

**S6-192044 Discussion on FFAPP work in SA6**

 *Type: discussion For: Discussion
 Source: ZTE Corporation*

**Abstract:**

Discussion paper on FFAPP work in SA6:

Key issue development discussion

Relationship with 5G-ACIA, SA1, SA2 and SA5

Architecture development discussion

Relationship with SEAL

Solution related development discussion

 Relationship with EDGE

**Discussion:**

ZTE presented the document available as S6-192044.

Qualcomm supported in principle the proposal but noted that with regard to the Summary bullet 1 we should follow normal process i.e. service level requirements being performed by SA1. They were fine with the two other bullets though.

Huawei made a remark that there needs to be a mutual agreement with 5G-ACIA before starting to use their material.

Airbus noted that SA1 is currently working closely with 5G-ACIA.

There seemed to be general support for the topic.

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

**S6-192045 Key issue - local approach for the communication service on the network side**

 *Type: pCR For: Approval
 23.745 v0.5.0
 Source: ZTE Corporation*

**Abstract:**

This contribution is to add a key issue - local approach for the communication service on the network side.

**Discussion:**

ZTE presented the document available as S6-192045.

It was suggested to rename the title along the line of "Key issue x - local approach for the communication service on the Edge deployment"

and rephrase the open issues along the lines:

How to support a FFAPP communications over edge deployment?

How to support privacy for sensitive data (e.g. geographical or Firewall)

**Decision:** The document was **revised to S6-192259**.

**S6-192259 Key issue - local approach for the communication service on the network side**

 *Type: pCR For: Approval
 23.745 v0.5.0
 Source: ZTE Corporation*

(Replaces S6-192045)

**Discussion:**

ZTE presented the document available as S6-192259.

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

**S6-192046 FF application layer functional model**

 *Type: pCR For: Approval
 23.745 v0.5.0
 Source: ZTE Corporation*

**Abstract:**

This contribution is to add solution for FF application layer functional model.

**Discussion:**

ZTE presented the document available as S6-192046.

It was noted that in notes "..the FF application specific server and FAE server.." should read "..the FF application specific client and FAE client..".

Ericsson however raised the question whether the note correct i.e. whether it should be out of scope. They further noted that the interface N58 was not needed.

Qualcomm was of the view that the N6 interface should be included.

**Decision:** The document was **revised to S6-192260**.

**S6-192260 FF application layer functional model**

 *Type: pCR For: Approval
 23.745 v0.5.0
 Source: ZTE Corporation*

(Replaces S6-192046)

**Discussion:**

ZTE presented the document available as S6-192260.

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

**S6-192171 Pseudo-CR on Key Issue for Operation Technology Integration**

 *Type: pCR For: Decision
 23.745 v0.5.0
 Source: QUALCOMM JAPAN LLC.*

**Abstract:**

This contribution proposes a key issue related for Operation Technology (OT) Integration.

**Discussion:**

Qualcomm presented the document available as S6-192171.

Huawei indicated support for the proposal.

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

**S6-192172 Key issue on QoS coordination**

 *Type: pCR For: Approval
 23.745 v0.5.0
 Source: Huawei, Hisilicon*

**Abstract:**

The contribution provides a proposal for key issue on QoS coordination.

**Discussion:**

Huawei presented the document available as S6-192172.

It was suggested rephrasing the "device-to-device" in "While, for the device-to-device type of FFAPP application.." with something like "between devices".

**Decision:** The document was **revised to S6-192261**.

**S6-192261 Key issue on QoS coordination**

 *Type: pCR For: Approval
 23.745 v0.5.0
 Source: Huawei, Hisilicon*

(Replaces S6-192172)

**Discussion:**

Huawei presented the document available as S6-192261.

The only change is replacing the last sentence "Hence, it is required to study the QoS coordination method to support QoS based communications for one or more FFAPP applications between the devices." with "Hence, it is required to study the QoS coordination method to support QoS based communications for one or more FFAPP applications between the devices when not using TSN."

With the above change the revised contribution, S6-192364, is considered pre-approved.

**Decision:** The document was **revised to S6-192364**.

**S6-192364 Key issue on QoS coordination**

 *Type: pCR For: Approval
 23.745 v0.5.0
 Source: Huawei, Hisilicon*

(Replaces S6-192261)

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

**S6-192173 Solution to establish communications with FFAPP requirements**

 *Type: pCR For: Approval
 23.745 v0.5.0
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for Solution to establish communications with FFAPP requirements

**Discussion:**

Huawei presented the document available as S6-192173.

Samsung suggested aligning of terminology.

**Decision:** The document was **revised to S6-192262**.

**S6-192262 Solution to establish communications with FFAPP requirements**

 *Type: pCR For: Approval
 23.745 v0.5.0
 Source: Huawei, Hisilicon*

(Replaces S6-192173)

**Discussion:**

Huawei presented the document available as S6-192262.

communication amongst the FF application UEs.

The only change is replacing at the end of the 2nd paragraph (clause 7.X.1 )the last sentence "..communication amongst the FF application UEs." with "..communication amongst the FF application UEs when not using TSN."

With the above change the revised contribution, S6-192365, is considered pre-approved.

**Decision:** The document was **revised to S6-192365**.

**S6-192365 Solution to establish communications with FFAPP requirements**

 *Type: pCR For: Approval
 23.745 v0.5.0
 Source: Huawei, Hisilicon*

(Replaces S6-192262)

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

**S6-192174 Update of Key Issue #4 on TSN supporting**

 *Type: pCR For: Approval
 23.745 v0.5.0
 Source: Huawei, Hisilicon*

**Abstract:**

Proposal for Update of Key Issue #4 on TSN supporting

**Discussion:**

Huawei presented the document available as S6-192174.

Qualcomm did not support the proposal as presented.

**Decision:** The document was **revised to S6-192263**.

**S6-192263 Update of Key Issue #4 on TSN supporting**

 *Type: pCR For: Approval
 23.745 v0.5.0
 Source: Huawei, Hisilicon*

(Replaces S6-192174)

**Discussion:**

Huawei presented the document available as S6-192263.

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

### 11.4 FS\_UASAPP – Study on application layer support for Unmanned Aerial System (UAS)

**S6-192097 Key issue for UAV flight authorisation**

 *Type: pCR For: Approval
 23.755 v0.4.0
 Source: Motorola Mobility, Lenovo*

**Abstract:**

This contribution provides a new key issue to enable UAV flight authorisation

**Discussion:**

Lenovo presented the document available as S6-192097.

Qualcomm requested to be pointed to the SA1 requirements corresponding to the last bullet point, the others being covered by SA2.

Airbus supported the view of Qualcomm and noted that this was out of scope of 3GPP.

InterDigital was of the view that there could be some room for further discussion on the topic.

A debate followed on the actual framework that SA6 can work on in relation to SA2.

**Decision:** The document was **revised to S6-192254**.

**S6-192254 Key issue for UAV flight authorisation**

 *Type: pCR For: Approval
 23.755 v0.4.0
 Source: Motorola Mobility, Lenovo*

(Replaces S6-192097)

**Discussion:**

Lenovo presented the document available as S6-192254.

Qualcomm suggested defining what was meant with UAV flight authorisation.

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

**S6-192098 Solution for UAV flight authorisation**

 *Type: pCR For: Approval
 23.755 v0.4.0
 Source: Motorola Mobility, Lenovo*

**Abstract:**

This contribution provides a solution to address the key issue for UAV flight authorisation.

**Discussion:**

Lenovo presented the document available as S6-192098.

Qualcomm pointed out that there was no key issue in relation to this contribution.

Airbus agreed with the view of Qualcomm.

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

**S6-192059 KI#3: Solution on network assisted positioning for USS/UTM**

 *Type: pCR For: Approval
 23.755 v0.4.0
 Source: InterDigital*

**Abstract:**

This contribution proposes a new solution for Key Issue #3 "UAV location information".

**Discussion:**

InterDigital presented the document available as S6-192059.

Qualcomm suggested clarifying "..enable UAS and USS/UTM to consume 3GPP Location Services.". They also pointed out that it would have been helpful to see an analysis why the existing location services exposing functions cannot be utilized. They further clarification on whether trusted or untrusted model was used.

**Decision:** The document was **revised to S6-192255**.

**S6-192255 KI#3: Solution on network assisted positioning for USS/UTM**

 *Type: pCR For: Approval
 23.755 v0.4.0
 Source: InterDigital*

(Replaces S6-192059)

**Discussion:**

InterDigital presented the document available as S6-192255.

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

**S6-192060 KI#3 Solution Network assisted positioning for UAV**

 *Type: pCR For: Approval
 23.755 v0.4.0
 Source: InterDigital*

**Abstract:**

This contribution proposes a new solution for Key Issue #3 "UAV location information".

**Discussion:**

InterDigital presented the document available as S6-192060.

It was noted that many of the comments for S6-192059 were valid also for the present contribution.

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

**S6-192181 Architecture for UAS application layer**

 *Type: pCR For: Approval
 23.755 v0.4.0
 Source: Huawei, Hisilicon*

**Abstract:**

The contribution provides a proposal for architecture for UAS application layer.

**Discussion:**

Huawei presented the document available as S6-192181.

Qualcomm suggested awaiting the architecture definition in SA2 before proceeding with the contribution.

**Decision:** The document was **revised to S6-192256**.

**S6-192256 Architecture for UAS application layer**

 *Type: pCR For: Approval
 23.755 v0.4.0
 Source: Huawei, Hisilicon*

(Replaces S6-192181)

**Discussion:**

Huawei presented the document available as S6-192256.

Qualcomm suggested rephrasing the notes with regard to the SA2 responsibility.

**Decision:** The document was **revised to S6-192390**.

**S6-192390 Architecture for UAS application layer**

 *Type: pCR For: Approval
 23.755 v0.4.0
 Source: Huawei, Hisilicon*

(Replaces S6-192256)

**Discussion:**

Huawei presented the document available as S6-192390.

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

### 11.5 FS\_EDGEAPP – Study on Application Architecture for enabling Edge Applications

**S6-192029 pCR on Scope adjustments**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

**Abstract:**

This pCR adjusts the text in the ‘Scope’ clause to include two types of applications i.e. • Edge-unaware applications and

 • Edge aware applications.

**Discussion:**

Intel presented the document available as S6-192029.

Qualcomm suggested replacing "Standard added" with "Standardised".

Samsung suggested to replace in the first bullet "minimal impact" with "no impact".

Sony suggested starting the second bullet "With minimal impact to..".

**Decision:** The document was **revised to S6-192265**.

**S6-192265 pCR on Scope adjustments**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

(Replaces S6-192029)

**Discussion:**

Intel presented the document available as S6-192265.

It was suggested to change the bulleted list in to a regular text block.

With the above change the revised contribution, S6-192323, is considered pre-approved.

**Decision:** The document was **revised to S6-192323**.

**S6-192323 pCR on Scope adjustments**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

(Replaces S6-192265)

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

**S6-192030 pCR on Abbreviations**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

**Abstract:**

Proposal for list of abbreviations that are specific to this study in the ‘Abbreviations’ clause.

**Discussion:**

Intel presented the document available as S6-192030.

Few typos were pointed out like "Regerence" and "Enaabler".

Qualcomm suggested removing the dash in "EDN-CS" and possibly elsewhere.

**Decision:** The document was **revised to S6-192266**.

**S6-192266 pCR on Abbreviations**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH, Samsung Electronics*

(Replaces S6-192030)

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

**S6-192156 Abbreviations**

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

**Abstract:**

Contribution adds the abbreviations used in the TR under the abbreviations clause, and proposes removal of clause 3.2 Symbols as no symbol applies to the TR.

**Discussion:**

Samsung presented the document available as S6-192156.

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

**S6-192091 Requirement clean up**

 *Type: pCR For: (not specified)
 23.758 v1.0.0
 Source: Ericsson*

**Abstract:**

This contribution proposes updates to the requirements mostly intended to avoid the requirements include solution specific aspects.

**Discussion:**

Ericsson presented the document available as S6-192091.

Vodafone suggested being careful when referring to 5GS if we in fact mean 5GC.

Samsung suggested separating the "edge computing service provider" from AR-5.7.2-a as a separate requirement.

Convida Wireless raised concern over the proposed deletion of clause 5.3.

Qualcomm objected using the term 5GC, while it should be 5GS. They also did not see the need for the proposed NOTE 2 in clause 5.1.2.

Huawei suggested some rewording as hosting environment was out of the scope.

The chairman noted that there seemed to be comments to most part of the document, apart from the [AR-5.1.2-b].

**Decision:** The document was **revised to S6-192267**.

**S6-192267 Requirement clean up**

 *Type: pCR For: -
 23.758 v1.0.0
 Source: Ericsson*

(Replaces S6-192091)

**Discussion:**

Ericsson presented the document available as S6-192267.

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

**S6-192099 Architecture Update with new Reference Point**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Motorola Mobility, Lenovo*

**Abstract:**

This pCR proposes to add a new RP (EDGE-8) to the architecture.

**Discussion:**

Lenovo presented the document available as S6-192099.

Intel did not object to the proposal adding a reference point as such, but did not agree with the example for inefficiency, and suggested hence removing of this example.

AT&T was of the view that a step between 2 and 3 (in the diagram in the introduction) was needed.

Qualcomm was of the view that the deployment scenario in figure 7.2.1.3-x was completely different to what has been considered previously in particular with regard to the role of the EDN CS.

**Decision:** The document was **revised to S6-192268**.

**S6-192268 Architecture Update with new Reference Point**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Motorola Mobility, Lenovo*

(Replaces S6-192099)

**Discussion:**

Lenovo presented the document available as S6-192268.

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

**S6-192112 Architecture clean-up**

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

**Abstract:**

It is proposed to clean up the architecture by removing Editor's Notes.

**Discussion:**

Samsung presented the document available as S6-192112.

Ericsson did not see a value in the NOTE suggested in clause 6.4.8.

Huawei raised concern with the removal of the Editor's Note in clause 6.2, they also suggested replacing "i.e." with "e.g." in 6.4.3. Furthermore, they suggested deleting the "based on" from the proposed text in clause 6.4.8.

Qualcomm suggested rephrasing the NOTE in clause 6.4.8 (if not deleted).

**Decision:** The document was **revised to S6-192269**.

**S6-192269 Architecture clean-up**

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

(Replaces S6-192112)

**Discussion:**

Samsung presented the document available as S6-192269.

Qualcomm suggested wording the both bullets in clause 6.4.3 in the similar manner.

Huawei suggested reverting the deletion of the editor's note in clause 6.2.

**Decision:** The document was **revised to S6-192324**.

**S6-192324 Architecture clean-up**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Samsung, CATT*

(Replaces S6-192269)

**Discussion:**

Samsung presented the document available as S6-192324.

The only changes are:

 - replacing "operator run EDN-CS" with "operator deploys EDN-CS",

 - extend the EDGE-4 line to the EDN CC box and

 - replacing "can" to "may" in NOTE 7

With the above change the revised contribution, S6-192370, is considered pre-approved.

**Decision:** The document was **revised to S6-192370**.

**S6-192370 Architecture clean-up**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Samsung, CATT*

(Replaces S6-192324)

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

**S6-192152 Pseudo-CR on architecture update**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: CATT*

**Abstract:**

This contribution adds the reference point between Edge Data Network Configuration Server and 3GPP CN, and the logical function of Edge Data Network Configuration Client in the UE.

**Discussion:**

CATT presented the document available as S6-192152.

Ericsson was of the view that the need for the proposed interface was dependent on SA3.

Qualcomm made a remark that SA6 should have done a more careful job when defining the cardinality of the architecture, hence it is difficult to take a position on contributions like the present one.

Huawei indicated the principal support for the contribution.

Samsung disagreed with the view of Qualcomm and was of the view that cardinality had been considered and defined.

Convida Wireless suggested contributions related to deployment scenarios might help in moving forward with the present contribution.

**Decision:** The document was **revised to S6-192270**.

**S6-192270 Pseudo-CR on architecture update**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: CATT*

(Replaces S6-192152)

**Discussion:**

CATT presented the document available as S6-192270.

Qualcomm did not support breaking down the architecture, showing the Edge Data Network Configuration Client at this stage as proposed in figure 6.2-1.

**Decision:** The document was **revised to S6-192325**.

**S6-192325 Pseudo-CR on architecture update**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: CATT*

(Replaces S6-192270)

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

**S6-192022 Pseudo-CR on proposed resolution of Editor’s note in KI-2**

 *Type: pCR For: Agreement
 23.758 v1.0.0
 Source: Vodafone*

**Abstract:**

This pCR has been discussed and improved on the 10th October and 24th October EDGEAPP conference calls by inclusion of comments and updates received. On the 24th October call only one comment was received. The pCR should not discuss the UE registering on an EDN, or registering to more than one Edge Application Server for the same Application Client, as registration is a lower layer process. This version of the pCR therefore uses connect instead.

**Discussion:**

Vodafone presented the document available as S6-192022.

Sony was of the view that the first proposed bullet in clause 4.9 was not related to service continuity.

There was also a suggestion to replace Edge Application Server with Edge Enabler Server.

There was also a proposal to separate as new key issue.

**Decision:** The document was **revised to S6-192271**.

**S6-192271 Pseudo-CR on proposed resolution of Editor’s note in KI-2**

 *Type: pCR For: Agreement
 23.758 v1.0.0
 Source: Vodafone*

(Replaces S6-192022)

**Discussion:**

Revised prior to presentation.

**Decision:** The document was **revised to S6-192276**.

**S6-192276 Pseudo-CR on proposed resolution of Editor’s note in KI-2**

 *Type: pCR For: Agreement
 23.758 v1.0.0
 Source: Vodafone*

(Replaces S6-192271)

**Discussion:**

Revised prior to presentation.

**Decision:** The document was **revised to S6-192258**.

**S6-192258 Discovery of suitable Edge Application Server based on underlying Edge Data Network performance**

 *Type: pCR For: Agreement
 23.758 v1.0.0
 Source: Vodafone, Convida Wireless LLC*

(Replaces S6-192276)

**Discussion:**

Vodafone presented the document available as S6-192258.

The only change is renaming the title to read "Consolidation of KPI-related open issues in to a new key issue".

With the above change the revised contribution, S6-192326, is considered pre-approved.

**Decision:** The document was **revised to S6-192326**.

**S6-192326 Consolidation of KPI-related open issues in to a new key issue**

 *Type: pCR For: Agreement
 23.758 v1.0.0
 Source: Vodafone, Convida Wireless LLC*

(Replaces S6-192258)

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

**S6-192133 Pseudo-CR on Update of Key Issue 6**

 *Type: pCR For: Approval
 23.758 v0.4.0
 Source: Sony*

**Abstract:**

Update of Key Issue 6

**Discussion:**

Sony presented the document available as S6-192133.

Ericsson did not understand the key issue.

**Decision:** The document was **revised to S6-192303**.

**S6-192303 Pseudo-CR on Update of Key Issue 6**

 *Type: pCR For: Approval
 23.758 v0.4.0
 Source: Sony, Qualcomm*

(Replaces S6-192133)

**Discussion:**

Sony presented the document available as S6-192303.

The only changes are:

 - rephrase the 3rd bullet in clause 4.6 to read "How to enable the Edge Enabler Client to authenticate with the Edge Data Network Configuration Server?

 - combine the NOTE and Editor's note in clause 7.2.1.2 to read "How to verify the legitimacy of the Edge Enabler Client and enable EEC to authenticate with the Edge Data Network Configuration Server is FFS."

With the above changes the revised contribution, S6-192327, is considered pre-approved.

**Decision:** The document was **revised to S6-192327**.

**S6-192327 Pseudo-CR on Update of Key Issue 6**

 *Type: pCR For: Approval
 23.758 v0.4.0
 Source: Sony, Qualcomm*

(Replaces S6-192303)

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

**S6-192134 Pseudo-CR on Update of Key Issue 9**

 *Type: pCR For: Approval
 23.758 v0.4.0
 Source: Sony*

**Abstract:**

Update of Key Issue 9

**Discussion:**

Sony presented the document available as S6-192134.

Qualcomm was interested to hear a real example of when this functionality would be needed.

Huawei was of the view this was a pure application level problem.

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

**S6-192144 Pseudo-CR on Update of Solution 2**

 *Type: pCR For: Approval
 23.758 v0.4.0
 Source: Sony*

**Abstract:**

Update of Solution 2

**Discussion:**

Sony presented the document available as S6-192144.

Qualcomm suggested to simply delete everything within the brackets "(e.g. http://edgeconfiguration.<……. MNC)"

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

**S6-192153 Pseudo-CR on solution of initial provisioning with authorization**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: CATT*

**Abstract:**

This contribution provides a new solution for initial Edge Data Network configuration provisioning based on UE authorization.

**Discussion:**

CATT presented the document available as S6-192153.

Ericsson was of the view that the requirement [AR-5.7.2-f] was in fact a SA3 requirement.

Samsung was of the view that the two proposed requirements were already covered by the requirement [AR-5.7.2-c].

Qualcomm did not agree with the views of Ericsson and Samsung, and supported the proposed requirements.

**Decision:** The document was **revised to S6-192272**.

**S6-192272 Pseudo-CR on solution of initial provisioning with authorization**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: CATT*

(Replaces S6-192153)

**Discussion:**

CATT presented the document available as S6-192272.

Qualcomm did not agree with including "that authorizes the UE to access to EDNCS for initial EDN configuration provisioning" in step 3.

The only changes are:

 - rephrasing step 3 to read "The UE has performed subscription authentication in 3GPP network".

 - replacing in the note "..may need to verify the UE’s authentication." with "..may need to verify the UE’s authentication/authorization."

With the above change the revised contribution, S6-192359, is considered pre-approved.

**Decision:** The document was **revised to S6-192359**.

**S6-192359 Pseudo-CR on solution of initial provisioning with authorization**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: CATT*

(Replaces S6-192272)

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

**S6-192021 Pseudo-CR on proposed resolution of Editor’s note in KI-1**

 *Type: pCR For: Agreement
 23.758 v1.0.0
 Source: Vodafone*

**Abstract:**

It is proposed to replace the Editor’s note in KI-1 with a statement that the range of requirements KPIs in the UE may be obtained from the application package, as part of that package when it is onboarded and subsequently instantiated in the EDN, if they are present. That principle is widely used in our industry and can also be found in ETSI NFV (VNF Package/VNF Descriptor (VNFD)) and ETSI MEC (Application Package/Application Descriptor (AppD)).

**Discussion:**

Vodafone presented the document available as S6-192021.

Samsung suggested a new key issue was created for the proposal in clause 7.2.1.2.

Qualcomm was of the view that the editor's note in clause 4.1 could be deleted without adding any related text.

**Decision:** The document was **revised to S6-192273**.

**S6-192273 Pseudo-CR on proposed resolution of Editor’s note in KI-1**

 *Type: pCR For: Agreement
 23.758 v1.0.0
 Source: Vodafone*

(Replaces S6-192021)

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

**S6-192193 UE Authentication and UEId**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: AT&T*

**Abstract:**

This discussion paper clarifies the need for UE (EEC) authentication and authorization as the first step which should result in the required UE ID (EEC ID) and access token assignment by the Authentication/authorization server. UE ID uniquely identifies the EEC and the access token is used in EEC API calls onto various Edge DN enablers to prove both EEC’s identity and its authorization for accessing the requested resource over the API. Also, Further clarification regarding the usage of UE ID and EEC ID is needed. As a result, this discussion paper proposes changes to various existing solutions accordingly. The paper also proposes changes to the way Edge Application Profile information is shared over APIs.

**Discussion:**

AT&T presented the document available as S6-192193.

**Decision:** The document was **revised to S6-192274**.

**S6-192274 UE Authentication and UEId**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: AT&T*

(Replaces S6-192193)

**Discussion:**

AT&T presented the document available as S6-192274.

Motorola Solutions noted that the proposal in various places went too far into the SA3 purview.

**Decision:** The document was **revised to S6-192360**.

**S6-192360 UE Authentication and UEId**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: AT&T*

(Replaces S6-192274)

**Discussion:**

AT&T presented the document available as S6-192360.

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

**S6-192136 Pseudo-CR on Evaluation of Solution #2**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

**Abstract:**

This contribution attempts to add some details that are missing in the current evaluation subclause of solution #2.

**Discussion:**

Intel presented the document available as S6-192136.

Qualcomm suggested deleting the "But this correlation is not trivial".

Convida Wireless agreed with Qualcomm's remark and suggested working offline to reword the second paragraph. They further did not think it was the place to make a comparison between solutions.

**Decision:** The document was **revised to S6-192275**.

**S6-192275 Pseudo-CR on Evaluation of Solution #2**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

(Replaces S6-192136)

**Discussion:**

Intel presented the document available as S6-192275.

Convida Wireless suggested deleting the 3rd paragraph of clause 7.2.2.

Qualcomm suggested rephrasing the 4th paragraph to read "This solution may rely on the Edge Data Network Configuration Server to identify the Edge Application Server(s) for each Application Client, based on the Application Client Profile provided by the Edge Enabler Client."

The only changes are:

 - deleting the 3rd paragraph from clause 7.2.2 and

 - rephrasing the 4th paragraph to read "This solution may rely on the Edge Data Network Configuration Server to identify the Edge Application Server(s) for each Application Client, based on the Application Client Profile provided by the Edge Enabler Client."

With the above changes the revised contribution, S6-192328, is considered pre-approved.

**Decision:** The document was **revised to S6-192328**.

**S6-192328 Pseudo-CR on Evaluation of Solution #2**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

(Replaces S6-192275)

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

**S6-192113 Solution 2 update and conclusion for Key Issue #1 and #7**

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

**Abstract:**

It is proposed to update the solution #2 and conclude it for Key Issue #1

**Discussion:**

Samsung presented the document available as S6-192113.

AT&T was of the view that the Edge Enabler Client ID information element in table 7.2.1.2-1 should be optional.

Convida Wireless made a remark that it was difficult to agree to a solution, while the key issue was not yet defined (i.e. the change to table 7.2.1.2-2).

Qualcomm suggested not to use the "e.g." (but i.e.) in pre-condition 1 in clause 7.2.1.2. They also suggested rephrasing the "For such a case, the URSP takes precedence…" in table 7.2.1.2-2.

Verizon pointed out that if the Edge Enabler Client ID was change to optional then the whole of table 7.2.1.2-1 becomes optional.

**Decision:** The document was **revised to S6-192277**.

**S6-192277 Solution 2 update and conclusion for Key Issue #1 and #7**

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

(Replaces S6-192113)

**Discussion:**

Samsung presented the document available as S6-192277.

Qualcomm suggested rewording the sentence "The EEC derives the address of the EDN-CS of the serving PLMN as follow:" in clause 7.2.1.4. to read

"The EEC derives the address of the EDN-CS of the serving PLMN.

An example of how to derive is as follows:"

The only changes are:

 - rewording and splitting the sentence "The EEC derives the address of the EDN-CS of the serving PLMN as follow:" in clause 7.2.1.4. to read

"The EEC derives the address of the EDN-CS of the serving PLMN.

An example of how to derive is as follows:"

 - replacing all occurrences of "EDN-CS" to "EDNCS".

With the above changes the revised contribution, S6-192329, is considered pre-approved.

**Decision:** The document was **revised to S6-192329**.

**S6-192329 Solution 2 update and conclusion for Key Issue #1 and #7**

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

(Replaces S6-192277)

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

**S6-192137 Pseudo-CR on Evaluation of Solution #3**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

**Abstract:**

This contribution attempts to add some details that are missing in the current evaluation subclause of solution #3.

**Discussion:**

Intel presented the document available as S6-192137.

Qualcomm suggested deleting the "..it assumes that each Edge Data Network hosts all the required Edge Application Server(s)..".

The only change is to rephrase the second paragraph (in clause 7.3.2) to read "This solution uses only the UE location to identify the appropriate serving Edge Data Network."

With the above change the revised contribution, S6-192278, is considered pre-approved.

**Decision:** The document was **revised to S6-192278**.

**S6-192278 Pseudo-CR on Evaluation of Solution #3**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

(Replaces S6-192137)

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

**S6-192140 pCR on Evaluation of Solution #8**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

**Abstract:**

This contribution attempts to add some details that are missing in the current evaluation subclause of solution #8.

**Discussion:**

Intel presented the document available as S6-192140.

Samsung supported the proposal in principle but suggested rewording the proposal.

Qualcomm suggested removing the "or for the case of an abnormal disconnect" and to cover this in a separate statement.

**Decision:** The document was **revised to S6-192279**.

**S6-192279 pCR on Evaluation of Solution #8**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

(Replaces S6-192140)

**Discussion:**

Intel presented the document available as S6-192279.

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

**S6-192061 Solutions 8 and 17 clean-up and conclusion to KI#2 Edge Data Network discovery and registration**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: Convida Wireless*

**Abstract:**

Proposed changes to address the Editor’s Notes in clauses 7.8 and 7.17, corresponding to two solutions proposed for KI #2. A new clause 11.3.x with an evaluation of the current solutions proposed for KI #2 is proposed, editorials and corrections addressed

**Discussion:**

Convida Wireless presented the document available as S6-192061.

Intel pointed out a typo "toto".

Samsung suggested removing the abbreviations as well as clause 11.3.1.

Verizon suggested trying making terminology more unified.

There was also a discussion on the need of the note and content of the note beneath the table 7.8.1-1.

Qualcomm suggested adding a disclaimer stating that the solution does not detail the procedure to address the change of registration.

Huawei was not convinced the change to the precondition in clause 7.8.1 was needed.

**Decision:** The document was **revised to S6-192280**.

**S6-192280 Solutions 8 and 17 clean-up and conclusion to KI#2 Edge Data Network discovery and registration**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: Convida Wireless*

(Replaces S6-192061)

**Discussion:**

Convida Wireless presented the document available as S6-192280.

Samsung suggested removing the 4th change.

The only change is removing the 4th change.

With the above change the revised contribution, S6-192330, is considered pre-approved.

**Decision:** The document was **revised to S6-192330**.

**S6-192330 Solutions 8 and 17 clean-up and conclusion to KI#2 Edge Data Network discovery and registration**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: Convida Wireless*

(Replaces S6-192280)

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

**S6-192161 Conclusion on KI#2**

 *Type: discussion For: Endorsement
 23.758 v..
 Source: Samsung Electronics*

**Abstract:**

This discussion paper discusses the solutions captured for Key Issue #2; and proposes to endorse recommendations for the normative work.

**Discussion:**

Samsung presented the document available as S6-192161.

There was a suggestion to include the following in clause 12 Conclusions.

Solution #8 corresponding to key issue #2 along with solution #2 and solution #3 as supplementary to Solution #8 for the normative work.

Qualcomm indicated support for solution #8 but not #3.

A lengthy discussion followed on how to deal with clause 12 Conclusions.

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

**S6-192146 Pseudo-CR on EAS enablement using CAPIF**

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

**Abstract:**

This contribution proposes new solutions to Key Issue #3, using CAPIF as follows:

 1. Edge Application Server Registration using CAPIF

 2. Edge Application Server De-registration using CAPIF

**Discussion:**

Samsung presented the document available as S6-192146.

Huawei suggested rephrasing the step 4 of the procedure in clause 7.12.1.6.

**Decision:** The document was **revised to S6-192281**.

**S6-192281 Pseudo-CR on EAS enablement using CAPIF**

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

(Replaces S6-192146)

**Discussion:**

Samsung presented the document available as S6-192281.

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

**S6-192062 Solution clean-up and conclusion for KI#3 Edge Application Server enablement on the Edge Hosting Environment**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: Convida Wireless*

**Abstract:**

This contribution proposes changes to several clauses related to KI #3:

• In clause 7.12: Description of Edge Enabler Server-initiated Edge Application Server de-registration procedure, which addresses a related editor’s note; Parameter clarifications/corrections.

**Discussion:**

Convida Wireless presented the document available as S6-192062.

Qualcomm suggested rewording the "..Edge Application Server that it is no longer available for service.." in clause 7.12.1.4 and to split the De-Registration Request Notification procedure (figure 7.12.1.4-1) or use different terminology.

Samsung did not agree with the wording of the NOTE in clause 7.12.1.1.

Huawei was of the view that the step 4 of the procedure in clause 7.12.1.4 was out of scope and suggested further simplifying the figure 7.12.1.4-1.

**Decision:** The document was **revised to S6-192282**.

**S6-192282 Solution clean-up and conclusion for KI#3 Edge Application Server enablement on the Edge Hosting Environment**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: Convida Wireless*

(Replaces S6-192062)

**Discussion:**

Convida Wireless presented the document available as S6-192282.

Samsung suggested splitting the EAS ID in to two separate information elements.

The only changes are:

 - adding Samsung as co-signer,

 - removing NOTE 4 and 5 from clause 7.12.1.2,

 - undoing changes to the 3rd IE table 7.12.1.2-1 and

 - adding a new mandatory IE "EAS ID" with the description "The identifier of the Edge Application Server" and

 - removing 2nd change from the pCR.

With the above changes the revised contribution, S6-192336, is considered pre-approved.

**Decision:** The document was **revised to S6-192336**.

**S6-192336 Solution clean-up and conclusion for KI#3 Edge Application Server enablement on the Edge Hosting Environment**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: Convida Wireless, Samsung*

(Replaces S6-192282)

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

**S6-192142 Update of Solution 1**

 *Type: pCR For: Approval
 23.758 v0.4.0
 Source: Sony*

**Abstract:**

Update of Solution 1

**Discussion:**

Sony suggested merging the document S6-192142 into S6-192133.

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

**S6-192169 Edge Application Server Discovery based on Route**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: QUALCOMM JAPAN LLC.*

**Abstract:**

This contribution provides text for enhancing the following solutions with the ability to factor in a known route in the discovery processes for Edge Data Networks and Edge Application Servers: solutions #1, #2, #8.

**Discussion:**

Qualcomm presented the document available as S6-192169.

Samsung raised a concern with the proposal.

Ericsson also raised a concern in particular with regard to source of the routing information.

Huawei indicated support for the proposal.

Vodafone indicated support for the contribution and that this was essential with regard to the underlying enabler.

Intel indicate support in principle but suggested some refinement.

Verizon noted that there should be some information on how the information is exposed and suggested an LS to SA2 and SA5 on the topic.

The only change is replacing the first proposed changes in tables 7.2.1.2-2 Table 7.8.1-1 "The expected location or route.." with "The expected locations (e.g. route).."

With the above changes the revised contribution, S6-192283, is considered pre-agreed.

**Decision:** The document was **revised to S6-192283**.

**S6-192283 Edge Application Server Discovery based on Route**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: QUALCOMM JAPAN LLC.*

(Replaces S6-192169)

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

**S6-192170 Edge Computing platform capability discovery**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: QUALCOMM JAPAN LLC.*

**Abstract:**

This contribution provides text for enhancing the following solutions with the ability for a UE to discover the compute capabilities of an Edge Application Server: solutions #1, #13.

**Discussion:**

Qualcomm presented the document available as S6-192170.

Intel raised the question whether a server should expose sensitive information like available resources.

Ericsson suggested making the available computing resources more general.

Verizon pointed out that the resource information is probably not needed e.g. when an application is instantiating for a first time.

There seemed to be hesitance towards the presented use case.

**Decision:** The document was **revised to S6-192284**.

**S6-192284 Edge Computing platform capability discovery**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: QUALCOMM JAPAN LLC.*

(Replaces S6-192170)

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

**S6-192031 Pseudo-CR on Solution for EEC request for EAS provisioning**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

**Abstract:**

This is a proposal for a solution for the Edge Enabler Client (EEC) requesting information about Edge Server Applications (EASes) from the Edge Data Network Configuration Server (EDN-CS).

**Discussion:**

Intel presented the document available as S6-192031.

A lengthy discussion followed on the viability of the proposal.

Huawei indicated general support for the proposal, but noted e.g. that Edge Enabler Server instances should read Edge Application Server instances (third paragraph in clause 7.x1.1.1). Furthermore, they noted that steps 5 and 7 in figure 7.x1.1.2-1 were redundant.

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

**S6-192176 Solution to Key issue#1 on EAS discovery from EDNCS**

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

**Abstract:**

Proposal for Solution to Key issue#1 on EAS discovery from EDNCS

**Discussion:**

Huawei presented the document available as S6-192176.

Qualcomm stated the proposed topology was not realistic.

**Decision:** The document was **revised to S6-192286**.

**S6-192286 Solution to Key issue#4 on EAS discovery from EDNCS**

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

(Replaces S6-192176)

**Discussion:**

Huawei presented the document available as S6-192286.

Samsung suggested clarifying the "source IP address".

**Decision:** The document was **revised to S6-192371**.

**S6-192371 Solution to Key issue#4 on EAS discovery from EDNCS**

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

(Replaces S6-192286)

**Discussion:**

Huawei presented the document available as S6-192371.

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

**S6-192047 Pseudo-CR on Single EDNCS per Application Client**

 *Type: pCR For: Approval
 23.758 v0.4.0
 Source: Sony*

**Abstract:**

New solution for Single EDNCS per Application Client

**Discussion:**

Sony presented the document available as S6-192047.

Huawei did not think step 3 was needed.

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

**S6-192117 New solution X - detailed examples**

 *Type: discussion For: (not specified)
 Source: Ericsson*

**Discussion:**

Revised prior to initial presentation.

**Decision:** The document was **revised to S6-192191**.

**S6-192191 New solution X – detailed examples**

 *Type: discussion For: (not specified)
 Source: Ericsson*

(Replaces S6-192117)

**Abstract:**

This discussion paper includes several detailed example information flows as a supplement to the new solution proposed in S6-192093.

**Discussion:**

Ericsson presented the document available as S6-192191.

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

**S6-192093 pCR 23.758 – New solution**

 *Type: pCR For: (not specified)
 23.758 v1.0.0
 Source: Ericsson*

**Abstract:**

This pCR proposes a solution where the discovery of the optimal Edge Application server is done on a per need basis, that is at the moment the Application Client requires it. With this proposal, the UE connects to the Edge DN only when the Edge DN applications servers are going to be used, and the Edge Application Server discovery can take into account the latest network status.

**Discussion:**

Ericsson presented the document available as S6-192093.

Qualcomm was of the view that this proposed architecture has already been done in SA2 and if this would be adopted all work in SA6 could be terminated, hence they did not support the proposal.

Huawei made a number of remarks, they did not e.g. agree to the first paragraph of the pre-requisites in clause 7.x.1.2.

Samsung had a number of comments but suggested providing these offline. They also pointed out that the terminology should be aligned with the one used in the TR.

**Decision:** The document was **revised to S6-192285**.

**S6-192285 pCR 23.758 – New solution**

 *Type: pCR For: -
 23.758 v1.0.0
 Source: Ericsson*

(Replaces S6-192093)

**Discussion:**

Ericsson presented the document available as S6-192285.

Samsung noted that only key issue #4 should be referred to in clause 7.X and that 2nd paragraph in clause 7.x.1.1 could be deleted.

It was also pointed out that 7.x was a hanging paragraph.

**Decision:** The document was **revised to S6-192373**.

**S6-192373 pCR 23.758 – New solution**

 *Type: pCR For: -
 23.758 v1.0.0
 Source: Ericsson*

(Replaces S6-192285)

**Discussion:**

Ericsson presented the document available as S6-192373.

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

**S6-192157 Pseudo-CR on Distributing Edge Application Server information**

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

**Abstract:**

The proposal in this contribution is to distribute the Edge Application Server information across relevant Edge Enabler Servers in different Edge Data Networks, based on the requirements of the Edge Application Servers. With that, the Edge Enabler Client will be able to discover information of all available Edge Application Servers while maintaining connection with only one Edge Enabler Server (responsible for the location of the UE).

**Discussion:**

Samsung presented the document available as S6-192157.

Convida Wireless made a remark that various clarifications were required e.g. on the step 1 of figure 7.x.1-1.

**Decision:** The document was **revised to S6-192290**.

**S6-192290 Pseudo-CR on Distributing Edge Application Server information**

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

(Replaces S6-192157)

**Discussion:**

Samsung presented the document available as S6-192290.

The only change is to remove the last change from the PCR (change to table in clause 11.3).

With the above change the revised contribution, S6-192372, is considered pre-approved.

**Decision:** The document was **revised to S6-192372**.

**S6-192372 Pseudo-CR on Distributing Edge Application Server information**

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

(Replaces S6-192290)

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

**S6-192122 EAS discovery using DNS**

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

**Abstract:**

It discusses EAS discovery using DNS and proposes an application layer solution

**Discussion:**

Samsung presented the document available as S6-192122.

After lengthy discussion to understand the proposal it was considered that the proposal in 7.X.1.3 can be removed as it is not a solution but describes what is currently happening.

**Decision:** The document was **revised to S6-192287**.

**S6-192287 EAS discovery using DNS**

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

(Replaces S6-192122)

**Discussion:**

Samsung presented the document available as S6-192287.

Huawei pointed out a typo "operator system".

Qualcomm did not see the need for the assumption '..Local DN is deployed with a certain IP address range..".

**Decision:** The document was **revised to S6-192361**.

**S6-192361 EAS discovery using DNS**

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

(Replaces S6-192287)

**Discussion:**

Samsung presented the document available as S6-192361.

The only change is to replace in clause 7.X.2 "..that the ECSP run its.." with "..that the ECSP deploys its…" in clause.

With the above change the revised contribution, S6-192374, is considered pre-approved.

**Decision:** The document was **revised to S6-192374**.

**S6-192374 EAS discovery using DNS**

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

(Replaces S6-192361)

**Discussion:**

Samsung presented the document available as S6-192374.

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

**S6-192135 Pseudo-CR on Evaluation of Solution #1**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

**Abstract:**

This contribution proposes adding some details that are missing in the current evaluation subclause of solution #1.

**Discussion:**

Intel presented the document available as S6-192135.

It was pointed out that the proposal was dependent on contribution S6-192157 and hence needs to be revised.

**Decision:** The document was **revised to S6-192288**.

**S6-192288 Pseudo-CR on Evaluation of Solution #1**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

(Replaces S6-192135)

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

**S6-192063 Solution Evaluation for Key Issue#4 Edge Application Server Discovery**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: Convida Wireless*

**Abstract:**

Proposes a new clause 11.3.x with an evaluation of the current solutions proposed for Key Issue #4

**Discussion:**

Convida Wireless presented the document available as S6-192063.

Sony suggested moving the last paragraph.

It was finally suggested to reword the last paragraph to read "In addition, a solution based on solution #1 may include optionally the Application Client Information described in Solution #13."

**Decision:** The document was **revised to S6-192289**.

**S6-192289 Solution Evaluation for Key Issue#4 Edge Application Server Discovery**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: Convida Wireless*

(Replaces S6-192063)

**Discussion:**

Convida Wireless presented the document available as S6-192289.

**Decision:** The document was **revised to S6-192398**.

**S6-192398 Solution Evaluation for Key Issue#4 Edge Application Server Discovery**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: Convida Wireless*

(Replaces S6-192289)

**Discussion:**

Convida Wireless presented the document available as S6-192398.

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

**S6-192162 Conclusion on KI#4**

 *Type: discussion For: Endorsement
 23.758 v..
 Source: Samsung Electronics*

**Abstract:**

This discussion paper discusses the solutions captured for Key Issue #4; and proposes to endorse recommendations for the normative work.

**Discussion:**

Samsung presented the document available as S6-192162.

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

**S6-192064 New solution for Key Issue#5**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: Convida Wireless*

**Abstract:**

This contribution presents a solution addressing the following open issues identified in this KI:

- How the Edge Enabler Server service API(s) are used to provide Edge Application Servers with information about the capabilities of Edge Enabler Clients that host the Edge Application Server's Application Client(s).

- How Edge Enabler Server service API(s) facilitate communication between Application Client(s) and Edge Application Server(s).

**Discussion:**

Convida Wireless presented the document available as S6-192064.

Ericsson raised a concern about exposing UE application information.

Qualcomm indicated general support for the proposal.

**Decision:** The document was **revised to S6-192291**.

**S6-192291 New solution for Key Issue#5**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: Convida Wireless*

(Replaces S6-192064)

**Discussion:**

Convida Wireless presented the document available as S6-192291.

The only change is adding note after second paragraph clause 7.x.1 stating "The exact information of the AC and EEC to be shared is to be determined" after second paragraph clause 7.x.1.

With the above change the revised contribution, S6-192337, is considered pre-approved.

**Decision:** The document was **revised to S6-192337**.

**S6-192337 New solution for Key Issue#5**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: Convida Wireless*

(Replaces S6-192291)

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

**S6-192145 Pseudo-CR on EDGE Centralized CAPIF**

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

**Abstract:**

This contribution proposes resolution to following editor's note in subclause 7.15.1.2 Centralized CAPIF for Edge application server's service APIs publish and discovery:

Editor's note: The description of this clause is FFS

**Discussion:**

Samsung presented the document available as S6-192145.

Ericsson raised the question whether not the Edge Data Network Configuration Server can be integrated with CAPIF Core Function and suggested adding a note stating that the present deployment was one option and one could have EDN 1, 2 ..3.

**Decision:** The document was **revised to S6-192292**.

**S6-192292 Pseudo-CR on EDGE Centralized CAPIF**

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

(Replaces S6-192145)

**Discussion:**

Samsung presented the document available as S6-192292.

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

**S6-192177 Solution to KI5 with enhancement to CAPIF**

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

**Abstract:**

This pCR is proposed to introduce a new solution to solve the Key Issue #5 with enhancement to CAPIF.

**Discussion:**

Huawei presented the document available as S6-192177.

Ericsson raised a question why so many Service APIs were impacted.

**Decision:** The document was **revised to S6-192293**.

**S6-192293 Solution to KI5 with enhancement to CAPIF**

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

(Replaces S6-192177)

**Discussion:**

Huawei presented the document available as S6-192293.

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

**S6-192188 Update to solution#10**

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

**Abstract:**

The contribution provides a proposal for update to solution#10.

**Discussion:**

Huawei presented the document available as S6-192188.

Qualcomm made a remark that the statement "It is the responsibility of SA2 to define the behaviour for EDGE-7.." was incorrect.

**Decision:** The document was **revised to S6-192294**.

**S6-192294 Update to solution#10**

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

(Replaces S6-192188)

**Discussion:**

Huawei presented the document available as S6-192294.

The only changes are replacing in the notes of clauses 6.4.3.and 6.4.8 "EDGE-2 reference point is an instance of .." with "EDGE-2 reference point reuses ..".

With the above changes the revised contribution, S6-192338, is considered pre-approved.

**Decision:** The document was **revised to S6-192338**.

**S6-192338 Update to solution#10**

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

(Replaces S6-192294)

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

**S6-192138 Pseudo-CR on Evaluation of Solution #5**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

**Abstract:**

This contribution attempts to add some details that are missing in the current evaluation subclause of solution #5.

**Discussion:**

Intel presented the document available as S6-192138.

Qualcomm suggested deleting the sentence "These details are crucial for the feasibility of this solution." as well as the "such as".

The only change is rephrasing the last paragraph (i.e. the proposal) to read "This solutions relies on the Edge Enabler Server to be able to identify a UE based information, but it does not describe how this translation table is created and maintained in the Edge Enabler Server.

With the above change the revised contribution, S6-192295, is considered pre-approved.

**Decision:** The document was **revised to S6-192295**.

**S6-192295 Pseudo-CR on Evaluation of Solution #5**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

(Replaces S6-192138)

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

**S6-192178 Solution 14 evaluation**

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

**Abstract:**

This contribution proposes adding solution evaluation for Solution #14: User plane management event API.

**Discussion:**

Huawei presented the document available as S6-192178.

The only change is to rephrase the last paragraph to read "This is a viable solution for key issue #5 on Capability Exposure to Edge Application Server and supports the solution#9 for the application context relocation."

With the above change the revised contribution, S6-192296, is considered pre-approved.

**Decision:** The document was **revised to S6-192296**.

**S6-192296 Solution 14 evaluation**

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

(Replaces S6-192178)

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

**S6-192179 Solution 18 evaluation**

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

**Abstract:**

Proposal for Solution 18 evaluation

**Discussion:**

Huawei presented the document available as S6-192179.

Samsung suggested rewording the last paragraph as they did not consider this solution as a viable solution.

**Decision:** The document was **revised to S6-192297**.

**S6-192297 Solution 18 evaluation**

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

(Replaces S6-192179)

**Discussion:**

Huawei presented the document available as S6-192297.

Samsung pointed out to an issue with the deleted RFC references.

**Decision:** The document was **revised to S6-192339**.

**S6-192339 Solution 18 evaluation**

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

(Replaces S6-192297)

**Discussion:**

Huawei presented the document available as S6-192339.

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

**S6-192147 EDGE Conclusion on KI#5**

 *Type: discussion For: Endorsement
 23.758 v..
 Source: Samsung*

**Abstract:**

This contribution attempts to conclude the solutions on key issue 5 on the recommendations for the normative work.

**Discussion:**

Samsung presented the document available as S6-192147.

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

**S6-192114 Solution #6 update and conclusion for KI#6**

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

**Abstract:**

It is proposed to update solution #6 and conclude the key issue #6

**Discussion:**

Samsung presented the document available as S6-192114.

Huawei was of the view that the definition of the profile information (table 7.6.1-1) should be assigned to SA2. They further suggested replacing "Whether and how the Authentication/Authorization .." with "The interaction between Authentication/Authorization..".

CATT did not agree with Huawei with regard to the SA2 responsibility.

**Decision:** The document was **revised to S6-192298**.

**S6-192298 Solution #6 update and conclusion for KI#6**

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

(Replaces S6-192114)

**Discussion:**

Samsung presented the document available as S6-192298.

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

**S6-192065 Solution #2 clean-up and conclusion to KI#7 Dynamic availability of Edge Application Servers**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: Convida Wireless*

**Abstract:**

Proposes changes to address the Editor’s Notes in clause 7.2 corresponding to a solution proposed for this KI#7 and a new clause 11.3.x with solution evaluation for KI#7.

**Discussion:**

Convida Wireless presented the document available as S6-192065.

Qualcomm suggested keeping the editor's note beneath the table 7.2.1.2-2.

It was suggested to reduce the proposal to change 2 and 3. It was also suggested to indicate SA2 dependency for "Flexible deployment (11.3.x)" in table 11.3.1-1.

The only changes are:

 - not to include the first change

 - indicate SA2, dependency i.e. replace FFS with SA2 for "Flexible deployment (11.3.x)" (key issue#7) in table 11.3.1-1.

With the above changes the revised contribution, S6-192299, is considered pre-approved.

**Decision:** The document was **revised to S6-192299**.

**S6-192299 Solution #2 clean-up and conclusion to KI#7 Dynamic availability of Edge Application Servers**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: Convida Wireless*

(Replaces S6-192065)

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

**S6-192066 Solutions 20, 21 clean-up and conclusion to Key Issue#9 Preserving Service Continuity**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: Convida Wireless*

**Abstract:**

Proposes changes to address the Editor’s Notes in clauses 7.20 and 7.21, corresponding to two solutions proposed for KI#9. Clause 7.9, corresponding to a third solution, has no Editor’s Notes.

Proposes a new clause 11.3.x with an evaluation of the current

**Discussion:**

Convida Wireless presented the document available as S6-192066.

Qualcomm suggested deleting the second paragraph of clause 7.21.2.

Huawei suggested to indicated that the #9 and #16 are network initiated and #20 and #21 client initiated.

Qualcomm pointed out that no solution had been identified for case of EDGE to cloud and vice versa.

**Decision:** The document was **revised to S6-192300**.

**S6-192300 Solutions 20, 21 clean-up and conclusion to Key Issue#9 Preserving Service Continuity**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Convida Wireless, Samsung*

(Replaces S6-192066)

**Discussion:**

Convida Wireless presented the document available as S6-192300.

Huawei suggested retaining the editor's note below step 12 in clause 7.12.1.

Qualcomm suggested adding a note stating, "None of the proposed solutions address the ability to relocate the application context between the cloud and the edge."

The only changes are:

 - adding sentence at the end of clause 11.3.x reading "None of the proposed solutions address the ability to relocate the application context between the cloud and the edge.",

 - removing 4th change and

 - retaining the editor's note below step 12 in clause 7.12.1.

With the above changes the revised contribution, S6-192340, is considered pre-approved.

**Decision:** The document was **revised to S6-192340**.

**S6-192340 Solutions 20, 21 clean-up and conclusion to Key Issue#9 Preserving Service Continuity**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Convida Wireless, Samsung*

(Replaces S6-192300)

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

**S6-192094 Pseudo-CR on Solution #16 Evaluation**

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

**Abstract:**

This pCR is proposed to evaluate solution #16 relocation of application context.

**Discussion:**

Samsung presented the document available as S6-192094.

Huawei suggested some changes.

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

**S6-192095 Pseudo-CR on Solution #21 Evaluation**

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

**Abstract:**

This contribution provides evaluation of solution #21 and resolves the editor’s notes. Editorial changes are also provided.

**Discussion:**

Samsung presented the document available as S6-192095.

It was noted that the contribution overlaps with S6-192066.

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

**S6-192111 Pseudo-CR - evaluation and conclusion on KI #9**

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

**Abstract:**

This contribution attempts to evaluate the solutions for key issue #9 (solution #9, #16, #20, and #21) and to conclude the solutions for normative work.

**Discussion:**

Samsung presented the document available as S6-192111.

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

**S6-192109 Pseudo-CR on solution to Key Issues 9 with an alternative flow**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

This document provides a text proposal to TR 23.758 for an alternative flow to the solution for Key Issue 9.

**Discussion:**

Nokia presented the document available as S6-192109.

Huawei noted that as this proposal introduces a new element it should become a new solution. They further request for some clarification with regard to the "..the cost of the radio access capacity increase due to the service migration..".

Qualcomm asked for clarification on the rationale in moving functionality (already assigned to EES) to the MAS.

**Decision:** The document was **revised to S6-192301**.

**S6-192301 Pseudo-CR on solution to Key Issues 9 with an alternative flow**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S6-192109)

**Discussion:**

Nokia presented the document available as S6-192301.

Changes to the step 3 were proposed.

Huawei suggested adding few editor's notes, one of the stating that "How MAS acquires the information from EDNCS is FFS".

It was also noted that all text should have revision marks as it is new text.

**Decision:** The document was **revised to S6-192341**.

**S6-192341 Pseudo-CR on solution to Key Issues 9 with an alternative flow**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S6-192301)

**Discussion:**

Nokia presented the document available as S6-192341.

Samsung suggested removing the APIs i.e. clause 7.23.1.2 and its subclauses.

Huawei suggested rephrasing the editor's noted above step 4 to read something along the lines "MAS can also be realized as an AF outside EDN, but this is FFS."

**Decision:** The document was **revised to S6-192375**.

**S6-192375 Pseudo-CR on solution to Key Issues 9 with an alternative flow**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S6-192341)

**Discussion:**

Nokia presented the document available as S6-192375.

It was noted that part of the proposal was not shown with revision marks. It was agreed that the rapporteur would consider all text as new regardless of missing revision marks when implementing the pCR.

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

**S6-192139 Pseudo-CR on Evaluation of Solution #7**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

**Abstract:**

This contribution attempts to add some details that are missing in the current evaluation subclause of solution #7.

**Discussion:**

Intel presented the document available as S6-192139.

Samsung suggested removing the first new paragraph in clause 7.7.2.

Qualcomm made a remark that the second new paragraph was dealt by within another contribution and can hence be removed. The third paragraph was a comparison that also could be removed.

The only change is to keep only the last sentence.

With the above change the revised contribution, S6-192302, is considered pre-approved.

**Decision:** The document was **revised to S6-192302**.

**S6-192302 Pseudo-CR on Evaluation of Solution #7**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

(Replaces S6-192139)

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

**S6-192032 Pseudo-CR on Solution for EEC subscription for EAS provisioning events**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

**Abstract:**

This is a proposal for a solution for Edge Enabler Clients (EEC) subscribing for events with the Edge Data Network Configuration Server. With this solution, Edge Enabler Clients can subscribe for events, update/cancel existing subscriptions and be notified by the Edge Data Network Configuration Server upon occurrence of those events.

**Discussion:**

Intel presented the document available as S6-192032.

Samsung was of the view that the solution corresponds to #10 only (see clause 7.x2.1.1).

Convida Wireless made a remark that the proposal seemed to be about centralising the control which was going against the intent of the WID.

**Decision:** The document was **revised to S6-192331**.

**S6-192331 Pseudo-CR on Solution for EEC subscription for configuration notifications**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

(Replaces S6-192032)

**Discussion:**

Intel presented the document available as S6-192331.

The only change is to rephrase the clause 7.x2 title to read "Solution #s2: EEC subscription for EDNCS events"

With the above change the revised contribution, S6-192376, is considered pre-approved.

**Decision:** The document was **revised to S6-192376**.

**S6-192376 Pseudo-CR on Solution for EEC subscription for configuration notifications**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

(Replaces S6-192331)

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

**S6-192163 Conclusion on KI#10**

 *Type: discussion For: Endorsement
 23.758 v..
 Source: Samsung Electronics*

**Abstract:**

This discussion paper discusses the solutions captured for Key Issue #10; and proposes to endorse recommendations for the normative work.

**Discussion:**

Samsung presented the document available as S6-192163.

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

**S6-192103 Pseudo-CR on solution to Key Issue 12 (lifecycle management)**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

This document provides a Text Proposal to TR 23.758 for a solution to key issue 12 on lifecycle management.

**Discussion:**

Nokia presented the document available as S6-192103.

Qualcomm was unclear on what was really in the scope of SA6 and e.g. whether OSS was an EAS.

Vodafone indicated that they were fine with this going in to the TR as it was an important topic.

It was also noted there was a evident dependency with SA5.

Huawei raised a concern with the EES role as defined in step 1 of the procedure in clause 7.22.1.1.

**Decision:** The document was **revised to S6-192304**.

**S6-192304 Pseudo-CR on solution to Key Issue 12 (lifecycle management)**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Nokia, Nokia Shanghai Bell, Vodafone*

(Replaces S6-192103)

**Discussion:**

Nokia presented the document available as S6-192304.

It was suggested to remove the word application from "The OSS application.." step 1.

Huawei suggested renaming the Edge Enabler Server in figure X.Y.Z.1 as the figure suggests the Edge Enabler Server acts orchestrator.

**Decision:** The document was **revised to S6-192342**.

**S6-192342 Pseudo-CR on solution to Key Issue 12 (lifecycle management)**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Nokia, Nokia Shanghai Bell, Vodafone*

(Replaces S6-192304)

**Discussion:**

Nokia presented the document available as S6-192342.

Samsung suggested to clarify the term "Application package".

**Decision:** The document was **revised to S6-192377**.

**S6-192377 Pseudo-CR on solution to Key Issue 12 (lifecycle management)**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Nokia, Nokia Shanghai Bell, Vodafone*

(Replaces S6-192342)

**Discussion:**

Nokia presented the document available as S6-192377.

It was noted that there was still one occurrence of "installed Application package".

The only change is replacing the "installed Application package" with

"installed Edge Application server".

With the above change the revised contribution, S6-192397, is considered pre-approved.

**Decision:** The document was **revised to S6-192397**.

**S6-192397 Pseudo-CR on solution to Key Issue 12 (lifecycle management)**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Nokia, Nokia Shanghai Bell, Vodafone*

(Replaces S6-192377)

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

**S6-192124 Pseudo-CR on Update and Evaluation for Solution #11**

 *Type: pCR For: Agreement
 23.758 v1.0.0
 Source: Vodafone*

**Abstract:**

An evaluation is needed before the TR can be completed and sent for approval. This contribution proposes such an evaluation of the updated solution. It uses the details of SA2 procedures to demonstrate how all three open issues under Key Issue #13 could be solved.

**Discussion:**

Vodafone presented the document available as S6-192124.

Ericsson suggested rephrasing the "..receive notifications of current QoS levels from the 3GPP network." to introduce corresponding spec. reference.

**Decision:** The document was **revised to S6-192305**.

**S6-192305 Pseudo-CR on Update and Evaluation for Solution #11**

 *Type: pCR For: Agreement
 23.758 v1.0.0
 Source: Vodafone*

(Replaces S6-192124)

**Discussion:**

Revised prior to presentation.

**Decision:** The document was **revised to S6-192311**.

**S6-192311 Pseudo-CR on Update and Evaluation for Solution #11**

 *Type: pCR For: Agreement
 23.758 v1.0.0
 Source: Vodafone*

(Replaces S6-192305)

**Discussion:**

Vodafone presented the document available as S6-192311.

Qualcomm made a remark that both EES and EAS shall not modify the same session.

The only change is adding a sentence at the end of the clause 7.11.2 reading "Both EES and EAS shall not modify the same session".

With the above change the revised contribution, S6-192343, is considered pre-approved.

**Decision:** The document was **revised to S6-192343**.

**S6-192343 Pseudo-CR on Update and Evaluation for Solution #11**

 *Type: pCR For: Agreement
 23.758 v1.0.0
 Source: Vodafone*

(Replaces S6-192311)

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

**S6-192033 Pseudo-CR on Solution for Application Client installation**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

**Abstract:**

This solution is for the update of the Edge Enabler clients upon installation or uninstallation of Application Clients.

**Discussion:**

Intel presented the document available as S6-192033.

Qualcomm did not agree a proposal utilizing EDGE-5 prior to it being fully defined.

Samsung did not agree with the list of corresponding key issues.

As a result of how to deal with the EDGE-5 it was decided to merge contributions S6-192034, S6-192035 and S6-192036 in to S6-192306 (the revision of the present contribution).

**Decision:** The document was **revised to S6-192306**.

**S6-192306 Pseudo-CR on Additions to EDGE-5 requirements**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

(Replaces S6-192033)

**Abstract:**

This contribution adds requirements to the EDGE-5 reference point.

**Discussion:**

Intel presented the document available as S6-192306.

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

**S6-192034 Pseudo-CR on Solution for Application Client launch**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

**Abstract:**

This solution is for enabling Application Clients to interact with the Edge Enabler Client during launch and while in execution. It includes procedures for the following scenarios:

1. The Edge Enabler Client caches information about Edge Application Server instances and can respond to requests from launching Application Clients.

2. The Edge Enabler Client needs to query the Edge Data Network Configuration Server for Edge Application Server instances information to respond to requests from launching Application Clients.

3. Application Clients upon launch, subscribe for receiving notifications as well as receiving initial Edge Application Server instances information

4. Application Clients cancels subscriptions for notifications.

5. Edge Enabler Client cancels subscription to non-responding Application Clients.

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

**S6-192035 Pseudo-CR on Solution for EEC notifications to Application Client**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

**Abstract:**

When the EEC discovers that there are changes that influence some of the Application Clients that are hosted on the same UE, it will notify the ones that had subscribed for such notifications.

This solution is for handling such notifications.

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

**S6-192036 Pseudo-CR on Solution for EAS change event to Application Clients**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Intel Deutschland GmbH*

**Abstract:**

This solution is for handling the EAS switching procedure.

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

**S6-192067 Updates to Edge Deployment options figures and description corrections**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: Convida Wireless*

**Abstract:**

This contribution proses updates to the deployment figures for clarity and accuracy. Text changes to the deployment options descriptions are proposed also for clarity.

Editor’s notes clean-up is proposed by transforming their text into a note.

Text in Option 4 is highlighted for discussion, as it is proposed that it needs to be further clarified.

**Discussion:**

Convida Wireless presented the document available as S6-192067.

Huawei indicated they supported the contribution but proposed some changes to the option 4.

Qualcomm pointed out that the proposal seemed to suggest the EDGE Data Network and Local Data Network one to one relation i.e. singular.

Huawei suggested removing the "geographically" from the Local Data Network definition.

**Decision:** The document was **revised to S6-192307**.

**S6-192307 Updates to Edge Deployment options figures and description corrections**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: Convida Wireless LLC, Samsung, Huawei?, Hisilicon? Ericsson*

(Replaces S6-192067)

**Discussion:**

Convida Wireless presented the document available as S6-192307.

Samsung suggested in clause 9.2.1 3rd paragraph add "and EDN service area" after "..a corresponding DNAI". and reword "..e.g. if KPIs are not met".

Huawei suggested to simplify and reduce the text and refer to SA2 specifications. There should also be an editor's note stating that terminology alignment is needed.

**Decision:** The document was **revised to S6-192380**.

**S6-192380 Updates to Edge Deployment options figures and description corrections**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: Convida Wireless LLC, Samsung, Huawei, Hisilicon, Ericsson, Sony*

(Replaces S6-192307)

**Discussion:**

Convida Wireless presented the document available as S6-192380.

A discussion followed in relation to the note of the Edge Data Network definition.

The only change is to rephrase the note under Edge Data Network definition to read "The use of the Edge Data Network or Local Data Network to be used in the normative phase is FFS".

With the above change the revised contribution, S6-192401, is considered pre-approved.

**Decision:** The document was **revised to S6-192401**.

**S6-192401 Updates to Edge Deployment options figures and description corrections**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: Convida Wireless LLC, Samsung, Huawei, Hisilicon, Ericsson, Sony*

(Replaces S6-192380)

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

**S6-192092 pCR 23.758 – updating the architecture**

 *Type: pCR For: (not specified)
 23.758 v1.0.0
 Source: Ericsson*

**Abstract:**

This contribution proposes updates to the architecture in 23.758

**Discussion:**

Ericsson presented the document available as S6-192092.

It was noted there were some overlap with contribution S6-192067 (revised in S6-192307).

Huawei made some remarks and asked clarifying e.g. what was meant with "..enablers may be used on a per PDU session.". They further were of the view that option 5 was same as option 1, and hence not needed.

Qualcomm noted they did not agree with the proposal as a whole as it seemed to push for a single deployment scenario. Furthermore, they suggested aligning language and terminology with SA2.

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

**S6-192115 Deployment options clean-up**

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

**Abstract:**

It is proposed to clean up the deployment options by removing the Editor's Notes.

**Discussion:**

Samsung presented the document available as S6-192115.

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

**S6-192175 Update to deployment option 4**

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

**Abstract:**

The contribution provides a proposal for update to deployment option 4.

**Discussion:**

Huawei presented the document available as S6-192175.

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

**S6-192132 Pseudo-CR on Deployment Options for EDNCS**

 *Type: pCR For: Approval
 23.758 v0.4.0
 Source: Sony*

**Abstract:**

This proposal clarifies in the deployment options that there are two different trust relationship options for the Client Application to trust Edge Application Servers that is available via the Edge Data Network Configuration Server. One model is that the Client Application only trust a pre-configured Edge Data Network Configuration Server that it already has a trust relationship with. The other option is when the Client Application connects to the local Edge Data Network Configuration Server and trust all Edge Application Servers that is offered via the Edge Data Network Configuration Server.

**Discussion:**

Sony presented the document available as S6-192132.

**Decision:** The document was **revised to S6-192308**.

**S6-192308 Pseudo-CR on Deployment Options for EDNCS**

 *Type: pCR For: Agreement
 23.758 v0.4.0
 Source: Sony*

(Replaces S6-192132)

**Discussion:**

Sony presented the document available as S6-192308.

Huawei suggested to make clear in the text that there was currently no solution for which EDNCS takes precedence.

**Decision:** The document was **revised to S6-192344**.

**S6-192344 Pseudo-CR on Deployment Options for EDNCS**

 *Type: pCR For: Agreement
 23.758 v0.4.0
 Source: Sony*

(Replaces S6-192308)

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

**S6-192080 Pseudo-CR on Key Issue and Solution for Security Policy Management for 5G Edge Applications**

 *Type: pCR For: Agreement
 23.758 v1.0.0
 Source: Alibaba Group*

**Abstract:**

This contribution proposes a key issue and solution on Security Policy Management for Edge Application Servers

**Discussion:**

Revised prior to initial presentation.

**Decision:** The document was **revised to S6-192190**.

**S6-192190 Pseudo-CR on Key Issue and Solution for Security Policy Management for 5G Edge Applications**

 *Type: pCR For: Agreement
 23.758 v1.0.0
 Source: Alibaba Group*

(Replaces S6-192080)

**Discussion:**

Vodafone presented the document available as S6-192190 on behalf of Alibaba.

Qualcomm made a remark that it was not possible to change the security policy as proposed.

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

**S6-192110 Pseudo-CR additional Key Issue – alternative transport at the Edge Data Network**

 *Type: pCR For: Agreement
 23.758 v1.0.0
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

This document proposes the addition of a key issue on alternative transport at the Edge Data Network.

**Discussion:**

Nokia presented the document available as S6-192110.

Samsung was of the view that the issue was more of an stage 3 issue than an architectural issue.

Qualcomm made a remark that nothing in the architecture will change in order to support the solution.

Convida Wireless noted that it might be a stage 2 issue but maybe more related to SEAL.

**Decision:** The document was **revised to S6-192332**.

**S6-192332 Pseudo-CR additional Key Issue – alternative transport at the Edge Data Network**

 *Type: pCR For: Agreement
 23.758 v1.0.0
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S6-192110)

**Discussion:**

Nokia presented the document available as S6-192332.

Huawei suggested rephrasing the proposed open issue to read "How the Edge Enabler Server can distribute EDN messages efficiently to a set of subscribed Edge Application Servers? "

With the above change the revised contribution, S6-192379, is considered pre-approved.

**Decision:** The document was **revised to S6-192379**.

**S6-192379 Pseudo-CR additional Key Issue – alternative transport at the Edge Data Network**

 *Type: pCR For: Agreement
 23.758 v1.0.0
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S6-192332)

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

**S6-192120 p-CR - Alternative transport for hight throughput and low latency communications**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

Proposal for Alternative transport for high throughput and low latency communications within the Edge Data Network (also application for EDGE-3)

**Discussion:**

Nokia presented the document available as S6-192120.

**Decision:** The document was **revised to S6-192333**.

**S6-192333 p-CR - Alternative transport for hight throughput and low latency communications**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S6-192120)

**Discussion:**

Nokia presented the document available as S6-192333.

Samsung suggested rephrasing the NOTE to read "NOTE: To optimize the notification of events across the EDGE-3 interface, a broker-based transport mechanism may be considered during stage 3."

Further discussion followed on the right wording.

The only change is rephrasing the NOTE to read "NOTE: The optimized distribution of events across the EDGE-3 interface, is the responsibility of CT groups."

With the above change the revised contribution, S6-192378, is considered pre-approved.

**Decision:** The document was **revised to S6-192378**.

**S6-192378 p-CR - Alternative transport for hight throughput and low latency communications**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S6-192333)

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

**S6-192166 Pseudo-CR on Key Issue for EES Cleanup of EEC and EAS Resources**

 *Type: pCR For: Decision
 23.758 v0.5.0
 Source: QUALCOMM JAPAN LLC.*

**Abstract:**

This contribution proposes a key issue for cleaning up the EEC and EAS resources within the EES when normal deregistration processes are not executed.

**Discussion:**

Qualcomm presented the document available as S6-192166.

Ericsson was of the view that this issue did not belong to SA6 (but stage 3), neither was it an EDGE issue.

Huawei did not see any key issue that would be of interest to SA6.

Vodafone indicated interest in the proposal and was of the view that it would seem to be related to lifecycle management.

**Decision:** The document was **revised to S6-192309**.

**S6-192309 Pseudo-CR on Key Issue for EES Cleanup of EEC and EAS Resources**

 *Type: pCR For: Decision
 23.758 v0.5.0
 Source: QUALCOMM JAPAN LLC.*

(Replaces S6-192166)

**Discussion:**

Qualcomm presented the document available as S6-192309.

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

**S6-192167 Pseudo-CR on Solution for EES Cleanup of EEC and EAS Resources**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: QUALCOMM JAPAN LLC.*

**Abstract:**

This contribution proposes solution for the key issue for cleaning up the EEC and EAS resources within the EES when normal deregistration processes are not executed.

**Discussion:**

Qualcomm presented the document available as S6-192167.

Various comments were provided.

Further offline discussion needed.

**Decision:** The document was **revised to S6-192310**.

**S6-192310 Pseudo-CR on Solution for EES Cleanup of EEC and EAS Resources**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: QUALCOMM JAPAN LLC.*

(Replaces S6-192167)

**Discussion:**

Qualcomm presented the document available as S6-192310.

Ericsson suggested that only The Edge Enabler client can a lifetime value.

The only changes are to:

 - in step 1 (clause 7.8.1) replace "(New or Update Indication, Application Client Profile(s))" with "(New or Update Indication, Application Client Profile(s), proposed lifetime)" and

 - in step 2 (clause 7.12.1.2) replace "(New or Update Indication, Service Profile) " with "(New or Update Indication, Service Profile, proposed lifetime)".

With the above change the revised contribution, S6-192362, is considered pre-approved.

**Decision:** The document was **revised to S6-192362**.

**S6-192362 Pseudo-CR on Solution for EES Cleanup of EEC and EAS Resources**

 *Type: pCR For: Decision
 23.758 v1.0.0
 Source: QUALCOMM JAPAN LLC.*

(Replaces S6-192310)

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

**S6-192168 Pseudo-CR on Solution Evaluation for EES Cleanup of EEC and EAS Resources**

 *Type: pCR For: Agreement
 23.758 v1.0.0
 Source: QUALCOMM JAPAN LLC.*

**Abstract:**

This contribution proposes solution for the key issue for cleaning up the EEC and EAS resources within the EES when normal deregistration processes are not executed.

**Discussion:**

Qualcomm presented the document available as S6-192168.

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

**S6-192116 Application Client ID clarification**

 *Type: pCR For: Agreement
 23.758 v1.0.0
 Source: Samsung*

**Abstract:**

Current commercial UEs are running an mobile operation system such as android and application clients are running in an execution environment provided by the mobile operating system. In order to identify the application client, SA2 already discussed, defined and used the terminologies referring the application client. Therefore, it is proposed to use those terminologies in TR 23.758 as well.

The terminologies referring the application clients are as follows:

Operating System (OS): Collection of UE software that provides common services for applications.

Operating System Identifier (OSId): An identifier identifying the operating system.

OS specific Application Identifier (OSAppId): An identifier associated with a given application and uniquely identifying the application within the UE for a given operating system.

**Discussion:**

Samsung presented the document available as S6-192116.

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

**S6-192118 p-CR - Update to solution evaluation table**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

This document provides a Text Proposal to TR 23.758 updating the table in 11.3 – Solution evaluations.

**Discussion:**

Nokia presented the document available as S6-192118.

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

**S6-192158 Pseudo-CR on Overall evaluations**

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

**Abstract:**

The contribution updates the overall evaluation clause and closes the following Editor's Note:

Editor's Note: the following clauses are based on version 0.3.0 of the TR and should be updated.

**Discussion:**

Samsung presented the document available as S6-192158.

**Decision:** The document was **revised to S6-192312**.

**S6-192312 Pseudo-CR on Overall evaluations**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Samsung Electronics, Nokia, Nokia Shanghai Bell*

(Replaces S6-192158)

**Discussion:**

Samsung presented the document available as S6-192312.

Huawei suggested adding solution #7 to key issue#4 in table 11.3.1-1.

The was also a suggestion adding SA2 dependency for the key issue #9 solutions #20 and #21.

**Decision:** The document was **revised to S6-192381**.

**S6-192381 Pseudo-CR on Overall evaluations**

 *Type: pCR For: Approval
 23.758 v1.0.0
 Source: Samsung Electronics, Nokia, Nokia Shanghai Bell*

(Replaces S6-192312)

**Discussion:**

Samsung presented the document available as S6-192381.

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

**S6-192159 Pseudo-CR on Solution evaluation - Architecture**

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

**Abstract:**

For the study on application architecture for enabling Edge Applications, the group decided to work on a common architecture. Clause 6 captures the consensus of the group. This contribution attempts to evaluate the architecture in clause 6 against the architecture principles, the architectural requirements and the identified key issues.

**Discussion:**

Samsung presented the document available as S6-192159.

CATT did not see the value for an architecture evaluation.

**Decision:** The document was **revised to S6-192313**.

**S6-192313 Pseudo-CR on Solution evaluation - Architecture**

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

(Replaces S6-192159)

**Discussion:**

Samsung presented the document available as S6-192313.

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

**S6-192160 Pseudo-CR on Conclusions**

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

**Abstract:**

This contribution provides text for the conclusions section of the study.

**Discussion:**

Samsung presented the document available as S6-192160.

Ericsson suggested adding a note stating that also new solutions can be considered in the normative work (this in particular in relation to bullets 5 and 6).

It was suggested to replace baseline with candidate.

**Decision:** The document was **revised to S6-192314**.

**S6-192314 Pseudo-CR on Conclusions**

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

(Replaces S6-192160)

**Discussion:**

Samsung presented the document available as S6-192314.

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

### 11.6 FS\_eV2XAPP – Study on Enhancements to application layer support for V2X services

**S6-192186 Solution on PC5 QoS aspects**

 *Type: pCR For: Approval
 23.764 v0.2.0
 Source: Huawei, Hisilicon*

**Abstract:**

This contribution discusses a solution to the key issue for the interaction between eV2X application and 3GPP systems for PC5 QoS monitoring and negotiation.

**Discussion:**

Huawei presented the document available as S6-192186.

**Decision:** The document was **revised to S6-192257**.

**S6-192257 Solution on PC5 QoS aspects**

 *Type: pCR For: Approval
 23.764 v0.2.0
 Source: Huawei, Hisilicon*

(Replaces S6-192186)

**Discussion:**

Huawei presented the document available as S6-192257.

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

### 11.7 FS\_5GMARCH – Study on support of the 5GMSG Service

**S6-192037 Pseudo-CR on editorial edits**

 *Type: pCR For: Approval
 23.700-24 v0.2.0
 Source: one2many B.V.*

**Abstract:**

Correction for typos and style errors.

**Discussion:**

one2many B.V. presented the document available as S6-192037.

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

**S6-192038 Pseudo-CR on Scenario 2**

 *Type: pCR For: Approval
 23.700-24 v0.2.0
 Source: one2many B.V.*

**Abstract:**

New text for the application-to-point message scenario.

**Discussion:**

one2many B.V. presented the document available as S6-192038.

**Decision:** The document was **revised to S6-192250**.

**S6-192250 Pseudo-CR on Scenario 2**

 *Type: pCR For: Approval
 23.700-24 v0.2.0
 Source: one2many B.V.*

(Replaces S6-192038)

**Discussion:**

one2many B.V. presented the document available as S6-192250.

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

**S6-192125 Framework for MSGin5G Service Architecture**

 *Type: pCR For: Decision
 23.700-24 v0.2.0
 Source: Convida Wireless*

**Abstract:**

Proposing a new clause to the TR that provides a framework for the application architecture of the MSGin5G Service, including functional elements and reference points.

Providing this framework will enable the solutions within the TR to be defined using a

**Discussion:**

Convida Wireless presented the document available as S6-192125.

**Decision:** The document was **revised to S6-192251**.

**S6-192251 Framework for MSGin5G Service Architecture**

 *Type: pCR For: Decision
 23.700-24 v0.2.0
 Source: Convida Wireless*

(Replaces S6-192125)

**Discussion:**

Convida Wireless presented the document available as S6-192251.

The only changes are converting the notes in clauses X.3.7 and X.3.8 into editor's notes.

With the above change the revised contribution, S6-192391, is considered pre-approved.

**Decision:** The document was **revised to S6-192391**.

**S6-192391 Framework for MSGin5G Service Architecture**

 *Type: pCR For: Decision
 23.700-24 v0.2.0
 Source: Convida Wireless*

(Replaces S6-192251)

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

**S6-192126 New Solution for Key Issue #3**

 *Type: pCR For: Decision
 23.700-24 v0.2.0
 Source: Convida Wireless*

**Abstract:**

This document proposes a new solution for Key Issue #3 regarding how to uniquely identify a UE with respect to the MSGin5G Service

**Discussion:**

Convida Wireless presented the document available as S6-192126.

**Decision:** The document was **revised to S6-192252**.

**S6-192252 New Solution for Key Issue #3**

 *Type: pCR For: Decision
 23.700-24 v0.2.0
 Source: Convida Wireless*

(Replaces S6-192126)

**Discussion:**

Convida Wireless presented the document available as S6-192252.

The only changes are removing changes on changes.

With the above change the revised contribution, S6-192392, is considered pre-approved.

**Decision:** The document was **revised to S6-192392**.

**S6-192392 New Solution for Key Issue #3**

 *Type: pCR For: Decision
 23.700-24 v0.2.0
 Source: Convida Wireless*

(Replaces S6-192252)

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

**S6-192127 FS\_5GMARCH KI4 solution**

 *Type: pCR For: Decision
 23.700-24 v0.2.0
 Source: Convida Wireless*

**Abstract:**

This document proposes a new solution for Key Issue #4 specifying a MSGin5G trigger procedure on top of 5GS.

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

**S6-192150 Pseudo-CR on 5GMARCH KI8 group management**

 *Type: pCR For: Approval
 23.700-24 v0.2.0
 Source: Samsung*

**Discussion:**

Samsung presented the document available as S6-192150.

**Decision:** The document was **revised to S6-192253**.

**S6-192253 Pseudo-CR on 5GMARCH KI8 group management**

 *Type: pCR For: Approval
 23.700-24 v0.2.0
 Source: Samsung*

(Replaces S6-192150)

**Discussion:**

Samsung presented the document available as S6-192253.

The only change is replacing "3GPP TS 23.434 [x]" with "3GPP TS 23.434 [9]" (all occurrences).

With the above change the revised contribution, S6-192393, is considered pre-approved.

**Decision:** The document was **revised to S6-192393**.

**S6-192393 Pseudo-CR on 5GMARCH KI8 group management**

 *Type: pCR For: Approval
 23.700-24 v0.2.0
 Source: Samsung*

(Replaces S6-192253)

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

### 11.8 FS\_MC5MBS - Study on Mission Critical services over 5G multicast-broadcast system

**S6-192055 Notifications-based solution for KI #1 in 23.774**

 *Type: pCR For: Approval
 23.774 v0.1.0
 Source: AT&T*

**Abstract:**

This solution proposes that the mission critical application servers (AS) receive notifications of certain events and/or conditions occurring in other subsystems (e.g. network entities within the RAN and the Core Network), process the received information and application specific information that they already have, and decide on an optimal response that is sensitive to the time constraints of the application.

**Discussion:**

AT&T presented the document available as S6-192055.

**Decision:** The document was **revised to S6-192247**.

**S6-192247 Notifications-based solution for KI #1 in 23.774**

 *Type: pCR For: Approval
 23.774 v0.1.0
 Source: AT&T*

(Replaces S6-192055)

**Discussion:**

AT&T presented the document available as S6-192247.

Qualcomm was of the view that there was a mismatch between the solutions description and the solution and raised a concern in relation to "Signalling between RAN and MC AS ".

Samsung suggested modifying the clause 7.1 heading along the lines of

"Monitoring of events from RAN/Core network".

**Decision:** The document was **revised to S6-192386**.

**S6-192386 Notifications-based solution for KI #1 in 23.774**

 *Type: pCR For: Approval
 23.774 v0.1.0
 Source: AT&T*

(Replaces S6-192247)

**Discussion:**

AT&T presented the document available as S6-192386.

Qualcomm suggested deleting "external" from "Examples of external events".

The only changes are:

 - replacing "Examples of external events.." with "Examples of events.. ".

 - deleting the sentence "Consequently, the communication between MC AS and RAN is indirect, through the Core Network." from clause 7.1.1.

 - replacing in clause 7.1.2 the first "they" with "RAN" and the second "they" with "SA2".

With the above change the revised contribution, S6-192402, is considered pre-approved.

**Decision:** The document was **revised to S6-192402**.

**S6-192402 Notifications-based solution for KI #1 in 23.774**

 *Type: pCR For: Approval
 23.774 v0.1.0
 Source: AT&T*

(Replaces S6-192386)

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

**S6-192056 Resource optimized group call mode for KI #2 in 23.774**

 *Type: pCR For: Approval
 23.774 v0.1.0
 Source: AT&T*

**Abstract:**

This solution proposes an optimized operating mode that takes advantage of the resource utilizations pattern used in the traffic model for group calls. The starting point is the current use of resources by the mission critical servers which is based in part on the traffic model for individual “commercial” calls. The solution looks separately at the downlink and uplink for optimal per link use, and recommends that optimizations identified for each link be used together for a combined effect on overall resource utilization.

**Discussion:**

AT&T presented the document available as S6-192056.

**Decision:** The document was **revised to S6-192248**.

**S6-192248 Resource optimized group call mode for KI #2 in 23.774**

 *Type: pCR For: Approval
 23.774 v0.1.0
 Source: AT&T*

(Replaces S6-192056)

**Discussion:**

AT&T presented the document available as S6-192248.

one2many suggested clarifying "is already available via interfaces to the mission critical servers" and rephrasing "they".

**Decision:** The document was **revised to S6-192387**.

**S6-192387 Resource optimized group call mode for KI #2 in 23.774**

 *Type: pCR For: Approval
 23.774 v0.1.0
 Source: AT&T*

(Replaces S6-192248)

**Discussion:**

AT&T presented the document available as S6-192387.

The only change is combining the text starting "According to 3GPP TR 36.868.." with the note.

With the above change the revised contribution, S6-192403, is considered pre-approved.

**Decision:** The document was **revised to S6-192403**.

**S6-192403 Resource optimized group call mode for KI #2 in 23.774**

 *Type: pCR For: Approval
 23.774 v0.1.0
 Source: AT&T*

(Replaces S6-192387)

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

**S6-192057 Handling large number of UEs in a cell for KI #3 in 23.774**

 *Type: pCR For: Approval
 23.774 v0.1.0
 Source: AT&T*

**Abstract:**

This solution proposes a way for providing service within a cell to more UEs than the RAN can normally admit for service, when those UEs are engaged in mission critical group calls.

**Discussion:**

AT&T presented the document available as S6-192057.

**Decision:** The document was **revised to S6-192249**.

**S6-192249 Handling large number of UEs in a cell for KI #3 in 23.774**

 *Type: pCR For: Approval
 23.774 v0.1.0
 Source: AT&T*

(Replaces S6-192057)

**Discussion:**

AT&T presented the document available as S6-192249.

Motorola Solutions noted that SA6 should not propose solutions to RAN but requirement.

One2many noted that "..and still be able to meet the public safety KPIs.." should read "..and still not be able to meet the public safety KPIs..".

The Police of Netherlands noted that what might be useful would be providing some key figures and requirements to allow e.g. RAN to develop a suitable solution meeting these.

**Decision:** The document was **revised to S6-192388**.

**S6-192388 Handling large number of UEs in a cell for KI #3 in 23.774**

 *Type: pCR For: Approval
 23.774 v0.1.0
 Source: AT&T*

(Replaces S6-192249)

**Discussion:**

AT&T presented the document available as S6-192388.

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

## 12 Future work / New WIDs (including related contributions)

**S6-192090 Revised WID on Enhancements to Application Architecture for the Mobile Communication System for Railways Phase 2**

 *Type: WID revised For: Agreement
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

Revision of SP-190565 providing a Revised WID on Enhancements to Application Architecture for the Mobile Communication System for Railways Phase 2.

**Discussion:**

Nokia presented the document available as S6-192090.

Motorola Solutions suggested removing the bullets k. and l. from the list of objectives, k not being in the SA6 purview and l could be covered by MONASTERY.

It was also suggested replacing ".., Stage 1 is developing.." with ".., Stage 1 is developed..".

The only changes are:

 - deleting last row in the table in clause 2.3 and

 - deleting bullets k. and l. from the list of objectives.

With the above changes the revised contribution, S6-192264, is considered pre-agreed.

**Decision:** The document was **revised to S6-192264**.

**S6-192264 Revised WID on Enhancements to Application Architecture for the Mobile Communication System for Railways Phase 2**

 *Type: WID revised For: Agreement
 Source: Nokia, Nokia Shanghai Bell*

(Replaces S6-192090)

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

**S6-192068 New WID on enhancements for functional architecture and information flows for Mission Critical Data**

 *Type: WID new For: Agreement
 Source: AT&T GNS Belgium SPRL*

**Abstract:**

The contribution proposes a New WID on enhancements for functional architecture and information flows for Mission Critical Data.

**Discussion:**

AT&T presented the document available as S6-192068.

Motorola Solutions indicated their support for the work, but suggested deleting the bullets "f. Etc." and "g." from the objectives. They also suggested to remove dependencies.

Nokia also indicated their support for the work as did the Police of the Netherlands and Softil.

It was suggested to add the stage 1 work as Parent work item.

**Decision:** The document was **revised to S6-192315**.

**S6-192315 New WID on enhancements for functional architecture and information flows for Mission Critical Data**

 *Type: WID new For: Agreement
 Source: AT&T GNS Belgium SPRL*

(Replaces S6-192068)

**Discussion:**

AT&T presented the document available as S6-192315.

The only change is moving the reference to stage 1 WID from clause 2.3 to 2.2.

With the above change the revised contribution, S6-192367, is considered pre-agreed.

**Decision:** The document was **revised to S6-192367**.

**S6-192367 New WID on enhancements for functional architecture and information flows for Mission Critical Data**

 *Type: WID new For: Agreement
 Source: AT&T GNS Belgium SPRL*

(Replaces S6-192315)

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

**S6-192165 New WID on Application Architecture for enabling Edge Applications**

 *Type: WID new For: Approval
 Source: Samsung Electronics*

**Abstract:**

The contribution proposes a New WID on Application Architecture for enabling Edge Applications.

**Discussion:**

Samsung presented the document available as S6-192165.

Vodafone suggested adding a line for considering work done in other SDOs (e.g. ETSI MEC).

Nokia suggested clarifying the bullet 2 of the objective, given that is taken on board Nokia is willing to support the work.

AT&T asked whether the WID should mention co-operation with SA5. It was pointed out that this was already included.

Qualcomm suggested mentioning NEF APIs in the NOTE 1 in the Objectives clause.

CATT suggested delaying start of the work by one quarter in order to ensure alignment with SA2 work.

**Decision:** The document was **revised to S6-192316**.

**S6-192316 New WID on Architecture for enabling Edge Applications**

 *Type: WID new For: Approval
 Source: Samsung Electronics*

(Replaces S6-192165)

**Discussion:**

Samsung presented the document available as S6-192316.

Samsung noted that the proposal needs revising to include more supporters.

Ericsson raised concern with regard to the first bullet that it might restrict the normative work solely to 3GPP TR 23.758 based solutions.

A lengthy discussion followed on whether to include a term, based on 3GPP TR 23.758, but not limited to.."

It seemed that the discussion converged into "..with potential enhancements (including new solutions)."

The only changes are:

 - replacing "..with potential enhancements." with"..with potential enhancements (including new solutions)." and

 - addition of more supporting companies.

With the above change the revised contribution, S6-192396, is considered pre-agreed.

**Decision:** The document was **revised to S6-192396**.

**S6-192396 New WID on Architecture for enabling Edge Applications**

 *Type: WID new For: Approval
 Source: Samsung Electronics*

(Replaces S6-192316)

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

**S6-192334 Work Plan review**

 *Type: other For: discussion
 Source: Qualcomm*

**Discussion:**

The meeting reviewed the work plan and work items status.

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

## 13 Work Plan review

**S6-192164 Presentation of Report to TSG:**

**TR 23.758, Version 1.1.0**

**Study on application architecture for enabling Edge Applications**

 *Type: TS or TR cover For: Approval
 23.758 v1.0.0
 Source: Samsung Electronics*

**Discussion:**

Samsung presented the document available as S6-192164.

The only change is to update the list of key issues.

With the above change the revised contribution, S6-192400, is considered pre-approved.

**Decision:** The document was **revised to S6-192400**.

**S6-192400 Presentation of Report to TSG:**

**TR 23.758, Version 1.1.0**

**Study on application architecture for enabling Edge Applications**

 *Type: TS or TR cover For: Approval
 23.758 v1.0.0
 Source: Samsung Electronics*

(Replaces S6-192164)

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

## 14 Future meetings

**S6-192119 SA6 future meetings 2021**

 *Type: discussion For: Endorsement
 Source: SA6 Chairman*

**Abstract:**

This input provides discussion material, and a proposal for SA6 meeting calendar for year 2021

**Discussion:**

The chairman presented the document available as S6-192119 with the planning of SA6 future meetings in 2021.

The meeting endorsed the proposal for 2021 meeting schedule in S6-192119.

Qualcomm suggested that companies may want to consider a possible adhoc meeting e.g. between SA6#38 and SA6#39.

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

## 15 AOB

## 16 Close of the meeting

The chairman Suresh Chitturi (Samsung ) thanked the vice chairmen Jukka Vialen (Airbus) and Alan Soloway (Qualcomm) for their assistance.

The chairman further thanked the

- North American friends of 3GPP for the excellent location of the meeting,

- rapporteurs and delegates for their hard work during and

- the MCC for the support.

Report prepared by: MCC

## Annex A: List of contribution documents

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Document | Title | Source | Decision | Replaces | Replaced by |
| S6-192005 | SA6 Meeting 34 Agenda | SA6 Chairman | noted |  |  |
| S6-192006 | SA6 Meeting 33 Report | MCC | approved |  |  |
| S6-192007 | SA6 Meeting #34 - Agenda with Tdocs allocation after submission deadline | SA6 Chairman | noted |  |  |
| S6-192008 | SA6 Meeting #34 - Agenda with Tdocs allocation at start of the meeting | SA6 Chairman | approved |  |  |
| S6-192009 | SA6 Meeting #34 - Chairman's notes at end of the meeting | SA6 Chairman | noted |  |  |
| S6-192010 | NGMN 5G End-to-End Architecture Framework | NGMN Alliance Project E2E Architecture Framework | noted |  |  |
| S6-192011 | LS reply to A-190116 3GPP SA6 application layer support for V2X services | 5GAA WG2 | replied to |  |  |
| S6-192012 | LS on clarifications regarding V2XAPP services | CT3 | replied to |  |  |
| S6-192013 | LS on O-RAN Alliance & 3GPP Coordination on O-RAN Alliance Outputs | O-RAN Alliance | noted |  |  |
| S6-192014 | LS on SG11 activities related to improvement of the SS7 security including for digital financial services | ITU SG11 | noted |  |  |
| S6-192015 | Reply LS to “O-RAN Alliance & 3GPP Coordination on O-RAN Alliance Outputs” | SA | noted |  |  |
| S6-192016 | Editorial modifications | one2many B.V. | revised |  | S6-192197 |
| S6-192017 | Result element missing | one2many B.V. | revised |  | S6-192198 |
| S6-192018 | Anonymous requests and notifications | one2many B.V. | revised |  | S6-192199 |
| S6-192019 | No multicast resource management in 5GS | one2many B.V. | revised |  | S6-192200 |
| S6-192020 | LS on how the IWF obtains key material for interworking group and private communications | CT1 | replied to |  |  |
| S6-192021 | Pseudo-CR on proposed resolution of Editor’s note in KI-1 | Vodafone  | revised |  | S6-192273 |
| S6-192022 | Pseudo-CR on proposed resolution of Editor’s note in KI-2 | Vodafone | revised |  | S6-192271 |
| S6-192023 | LS on clarifications regarding SEAL services | CT3 | replied to |  |  |
| S6-192024 | Mention of SA3 responsibility in a published TS is not relevant. | one2many B.V. | revised |  | S6-192201 |
| S6-192025 | Resource management over MB2 and or xMB | one2many B.V. | noted |  |  |
| S6-192026 | Corrections to preconfigured regroup procedures | FirstNet | revised |  | S6-192215 |
| S6-192027 | Corrections to preconfigured regroup procedures | FirstNet | revised |  | S6-192216 |
| S6-192028 | Addition of preconfigured regroup procedures | FirstNet | revised |  | S6-192235 |
| S6-192029 | pCR on Scope adjustments | Intel Deutschland GmbH | revised |  | S6-192265 |
| S6-192030 | pCR on Abbreviations | Intel Deutschland GmbH | revised |  | S6-192266 |
| S6-192031 | Pseudo-CR on Solution for EEC request for EAS provisioning | Intel Deutschland GmbH | merged |  | S6-192286 |
| S6-192032 | Pseudo-CR on Solution for EEC subscription for EAS provisioning events | Intel Deutschland GmbH | revised |  | S6-192331 |
| S6-192033 | Pseudo-CR on Solution for Application Client installation | Intel Deutschland GmbH | revised |  | S6-192306 |
| S6-192034 | Pseudo-CR on Solution for Application Client launch | Intel Deutschland GmbH | merged |  | S6-192306 |
| S6-192035 | Pseudo-CR on Solution for EEC notifications to Application Client | Intel Deutschland GmbH | merged |  | S6-192306 |
| S6-192036 | Pseudo-CR on Solution for EAS change event to Application Clients | Intel Deutschland GmbH | merged |  | S6-192306 |
| S6-192037 | Pseudo-CR on editorial edits | one2many B.V. | approved |  |  |
| S6-192038 | Pseudo-CR on Scenario 2 | one2many B.V. | revised |  | S6-192250 |
| S6-192039 | Communication urgency handling in the MC service system | Union Inter. Chemins de Fer | noted |  |  |
| S6-192040 | Functional alias in group call interconnect and interworking | Kapsch CarrierCom France S.A.S | noted |  |  |
| S6-192041 | Handling origination side of functional alias for group calls | Kapsch CarrierCom France S.A.S | revised |  | S6-192206 |
| S6-192042 | Include functional alias in group call interconnect | Kapsch CarrierCom France S.A.S | revised |  | S6-192207 |
| S6-192043 | Add enhancements for interworking of MCPTT group calls with GSM-R | Kapsch CarrierCom | revised | S6-191679 | S6-192208 |
| S6-192044 | Discussion on FFAPP work in SA6 | ZTE Corporation | noted |  |  |
| S6-192045 | Key issue - local approach for the communication service on the network side | ZTE Corporation | revised |  | S6-192259 |
| S6-192046 | FF application layer functional model | ZTE Corporation | revised |  | S6-192260 |
| S6-192047 | Pseudo-CR on Single EDNCS per Application Client | Sony | merged |  | S6-192286 |
| S6-192048 | Introducing descriptive text describing the urgency handling in the MC service system | Union Inter. Chemins de Fer | revised | S6-191763 | S6-192210 |
| S6-192049 | Requested Priority in IP connectivity point to point communication | Union Inter. Chemins de Fer | revised |  | S6-192211 |
| S6-192050 | Enhancing SDS data requests with application priority capabilities in on-network mode | Union Inter. Chemins de Fer | revised |  | S6-192212 |
| S6-192051 | Enhancing FD data requests with application priority capabilities in on-network mode | Union Inter. Chemins de Fer | revised |  | S6-192213 |
| S6-192052 | Priority of the user for initiating/receiving communications | Union Inter. Chemins de Fer | revised |  | S6-192222 |
| S6-192053 | Priority of the user for initiating/receiving calls | Union Inter. Chemins de Fer | revised |  | S6-192223 |
| S6-192054 | Priority of the user for initiating/receiving calls | Union Inter. Chemins de Fer | revised |  | S6-192224 |
| S6-192055 | Notifications-based solution for KI #1 in 23.774 | AT&T | revised |  | S6-192247 |
| S6-192056 | Resource optimized group call mode for KI #2 in 23.774 | AT&T | revised |  | S6-192248 |
| S6-192057 | Handling large number of UEs in a cell for KI #3 in 23.774 | AT&T | revised |  | S6-192249 |
| S6-192058 | LS on further aspects of Mission Critical Services over 5MBS | AT&T | revised |  | S6-192389 |
| S6-192059 | KI#3: Solution on network assisted positioning for USS/UTM | InterDigital | revised |  | S6-192255 |
| S6-192060 | KI#3 Solution Network assisted positioning for UAV | InterDigital | noted |  |  |
| S6-192061 | Solutions 8 and 17 clean-up and conclusion to KI#2 Edge Data Network discovery and registration | Convida Wireless | revised |  | S6-192280 |
| S6-192062 | Solution clean-up and conclusion for KI#3 Edge Application Server enablement on the Edge Hosting Environment | Convida Wireless | revised |  | S6-192282 |
| S6-192063 | Solution Evaluation for Key Issue#4 Edge Application Server Discovery | Convida Wireless | revised |  | S6-192289 |
| S6-192064 | New solution for Key Issue#5 | Convida Wireless | revised |  | S6-192291 |
| S6-192065 | Solution #2 clean-up and conclusion to KI#7 Dynamic availability of Edge Application Servers | Convida Wireless | revised |  | S6-192299 |
| S6-192066 | Solutions 20, 21 clean-up and conclusion to Key Issue#9 Preserving Service Continuity | Convida Wireless | revised |  | S6-192300 |
| S6-192067 | Updates to Edge Deployment options figures and description corrections | Convida Wireless | revised |  | S6-192307 |
| S6-192068 | New WID on enhancements for functional architecture and information flows for Mission Critical Data | AT&T GNS Belgium SPRL | revised |  | S6-192315 |
| S6-192069 | Report on SA6 related topics at SA#85 | SA6 Chairman | noted |  |  |
| S6-192070 | Pseudo-CR on solution 14 - functional model enhancement | BDBOS | revised |  | S6-192239 |
| S6-192071 | Pseudo-CR on solution sharing location information on interconnected MC systems - configuration | BDBOS | revised |  | S6-192240 |
| S6-192072 | Discussion on common service core configuration | BDBOS | noted |  |  |
| S6-192073 | Pseudo-CR on solution sharing location information on interconnected MC systems - authorization | BDBOS | revised |  | S6-192241 |
| S6-192074 | Pseudo-CR on overall evaluation | BDBOS | revised |  | S6-192242 |
| S6-192075 | Pseudo-CR on solution past location service | BDBOS | revised |  | S6-192243 |
| S6-192076 | Discussion on sharing location information in off-network and IOPS mode | BDBOS | noted |  |  |
| S6-192077 | Pseudo-CR on solution for off-network mode | BDBOS | revised |  | S6-192244 |
| S6-192078 | CR Message Delivery | Ericsson GmbH, Eurolab | revised |  | S6-192195 |
| S6-192079 | LS reply to S6-192011 on tele-operated driving | Ericsson GmbH, Eurolab | revised |  | S6-192395 |
| S6-192080 | Pseudo-CR on Key Issue and Solution for Security Policy Management for 5G Edge Applications | Alibaba Group | revised |  | S6-192190 |
| S6-192081 | Status of eMONASTERY2 | Nokia, Nokia Shanghai Bell | noted |  |  |
| S6-192082 | (e)MONASTERY requirements and status in stage 2 | Nokia, Nokia Shanghai Bell | noted |  |  |
| S6-192083 | Correcting stage 1 reference on maximum number of simultaneously received group calls | Nokia, Nokia Shanghai Bell | agreed |  |  |
| S6-192084 | Corrections on functional alias to group binding | Nokia, Nokia Shanghai Bell | revised |  | S6-192205 |
| S6-192085 | Resolving EN on functional alias to group binding impacts | Nokia, Nokia Shanghai Bell | agreed |  |  |
| S6-192086 | Functional alias used for private communications | Nokia, Nokia Shanghai Bell | postponed |  |  |
| S6-192087 | Editorial changes related to functional alias interworking | Nokia, Nokia Shanghai Bell | revised |  | S6-192209 |
| S6-192088 | Receiving a private call from any other user | Nokia, Nokia Shanghai Bell | revised |  | S6-192220 |
| S6-192089 | Receiving a private call from any other user | Nokia, Nokia Shanghai Bell | revised |  | S6-192221 |
| S6-192090 | Revised WID on Enhancements to Application Architecture for the Mobile Communication System for Railways Phase 2 | Nokia, Nokia Shanghai Bell | revised |  | S6-192264 |
| S6-192091 | Requirement clean up | Ericsson | revised |  | S6-192267 |
| S6-192092 | pCR 23.758 – updating the architecture | Ericsson | merged |  | S6-192307 |
| S6-192093 | pCR 23.758 – New solution | Ericsson | revised |  | S6-192285 |
| S6-192094 | Pseudo-CR on Solution #16 Evaluation | Samsung | merged |  | S6-192300 |
| S6-192095 | Pseudo-CR on Solution #21 Evaluation | Samsung | merged |  | S6-192300 |
| S6-192096 | Pseudo-CR on Architectural requirements on the IP connectivity functionality support | Ericsson | revised |  | S6-192227 |
| S6-192097 | Key issue for UAV flight authorisation | Motorola Mobility, Lenovo | revised |  | S6-192254 |
| S6-192098 | Solution for UAV flight authorisation | Motorola Mobility, Lenovo | postponed |  |  |
| S6-192099 | Architecture Update with new Reference Point | Motorola Mobility, Lenovo | revised |  | S6-192268 |
| S6-192100 | Pseudo-CR on General user authentication in IOPS | Ericsson | revised |  | S6-192226 |
| S6-192101 | Pseudo-CR on IOPS identities | Ericsson | revised |  | S6-192228 |
| S6-192102 | Pseudo-CR on IOPS discovery for the IP connectivity functionality | Ericsson | revised |  | S6-192229 |
| S6-192103 | Pseudo-CR on solution to Key Issue 12 (lifecycle management) | Nokia, Nokia Shanghai Bell | revised |  | S6-192304 |
| S6-192104 | Pseudo-CR on IOPS subscription and notification for the IP connectivity functionality | Ericsson | revised |  | S6-192230 |
| S6-192105 | Pseudo-CR on IOPS announcement for the IP connectivity functionality | Ericsson | postponed |  |  |
| S6-192106 | Pseudo-CR on Use of MBMS transmissions in IOPS | Ericsson | revised |  | S6-192231 |
| S6-192107 | Pseudo-CR on MCPTT group call in IOPS – Call setup based on the IP connectivity functionality | Ericsson | revised |  | S6-192232 |
| S6-192108 | Pseudo-CR on MCPTT private call in IOPS – Call setup based on the IP connectivity functionality | Ericsson | revised |  | S6-192233 |
| S6-192109 | Pseudo-CR on solution to Key Issues 9 with an alternative flow | Nokia, Nokia Shanghai Bell | revised |  | S6-192301 |
| S6-192110 | Pseudo-CR additional Key Issue – alternative transport at the Edge Data Network | Nokia, Nokia Shanghai Bell | revised |  | S6-192332 |
| S6-192111 | Pseudo-CR - evaluation and conclusion on KI #9 | Samsung | merged |  | S6-192300 |
| S6-192112 | Architecture clean-up | Samsung | revised |  | S6-192269 |
| S6-192113 | Solution 2 update and conclusion for Key Issue #1 and #7 | Samsung | revised |  | S6-192277 |
| S6-192114 | Solution #6 update and conclusion for KI#6 | Samsung | revised |  | S6-192298 |
| S6-192115 | Deployment options clean-up | Samsung | merged |  | S6-192307 |
| S6-192116 | Application Client ID clarification | Samsung | approved |  |  |
| S6-192117 | New solution X - detailed examples | Ericsson | revised |  | S6-192191 |
| S6-192118 | p-CR - Update to solution evaluation table | Nokia, Nokia Shanghai Bell | merged |  | S6-192312 |
| S6-192119 | SA6 future meetings 2021 | SA6 Chairman | endorsed |  |  |
| S6-192120 | p-CR - Alternative transport for hight throughput and low latency communications | Nokia, Nokia Shanghai Bell | revised |  | S6-192333 |
| S6-192121 | Removal of temporary regroup procedures | FirstNet | revised |  | S6-192217 |
| S6-192122 | EAS discovery using DNS | Samsung | revised |  | S6-192287 |
| S6-192123 | Additional MCData service requirement | AT&T GNS Belgium SPRL | noted |  |  |
| S6-192124 | Pseudo-CR on Update and Evaluation for Solution #11 | Vodafone | revised |  | S6-192305 |
| S6-192125 | Framework for MSGin5G Service Architecture | Convida Wireless | revised |  | S6-192251 |
| S6-192126 | New Solution for Key Issue #3 | Convida Wireless | revised |  | S6-192252 |
| S6-192127 | FS\_5GMARCH KI4 solution | Convida Wireless | postponed |  |  |
| S6-192128 | Alignment on MCX emergency alert procedures | AT&T GNS Belgium SPRL | revised |  | S6-192237 |
| S6-192129 | Alignment on MCX emergency alert procedures | AT&T GNS Belgium SPRL | revised |  | S6-192236 |
| S6-192130 | Alignment on MCX emergency alert procedures | AT&T GNS Belgium SPRL | revised |  | S6-192238 |
| S6-192131 | Alignment on MCX emergency alert procedures | AT&T GNS Belgium SPRL | withdrawn |  |  |
| S6-192132 | Pseudo-CR on Deployment Options for EDNCS | Sony | revised |  | S6-192308 |
| S6-192133 | Pseudo-CR on Update of Key Issue 6 | Sony | revised |  | S6-192303 |
| S6-192134 | Pseudo-CR on Update of Key Issue 9 | Sony | noted |  |  |
| S6-192135 | Pseudo-CR on Evaluation of Solution #1 | Intel Deutschland GmbH | revised |  | S6-192288 |
| S6-192136 | Pseudo-CR on Evaluation of Solution #2 | Intel Deutschland GmbH | revised |  | S6-192275 |
| S6-192137 | Pseudo-CR on Evaluation of Solution #3 | Intel Deutschland GmbH | revised |  | S6-192278 |
| S6-192138 | Pseudo-CR on Evaluation of Solution #5 | Intel Deutschland GmbH | revised |  | S6-192295 |
| S6-192139 | Pseudo-CR on Evaluation of Solution #7 | Intel Deutschland GmbH | revised |  | S6-192302 |
| S6-192140 | pCR on Evaluation of Solution #8 | Intel Deutschland GmbH | revised |  | S6-192279 |
| S6-192141 | File repair with the content storage function | ENENSYS | revised |  | S6-192218 |
| S6-192142 | Update of Solution 1 | Sony | merged |  | S6-192133 |
| S6-192143 | Pseudo-CR on Floor control for MCPTT in IOPS (IP connectivity functionality) | Ericsson | revised |  | S6-192234 |
| S6-192144 | Pseudo-CR on Update of Solution 2 | Sony | merged |  | S6-192133 |
| S6-192145 | Pseudo-CR on EDGE Centralized CAPIF | Samsung | revised |  | S6-192292 |
| S6-192146 | Pseudo-CR on EAS enablement using CAPIF | Samsung | revised |  | S6-192281 |
| S6-192147 | EDGE Conclusion on KI#5 | Samsung | merged |  | S6-192160 |
| S6-192148 | SEAL APIs corrections | Samsung | revised |  | S6-192202 |
| S6-192149 | Reply LS on clarifications regarding SEAL services | Samsung | revised |  | S6-192203 |
| S6-192150 | Pseudo-CR on 5GMARCH KI8 group management | Samsung | revised |  | S6-192253 |
| S6-192151 | Clarifications for location management | CATT | revised |  | S6-192214 |
| S6-192152 | Pseudo-CR on architecture update | CATT | revised |  | S6-192270 |
| S6-192153 | Pseudo-CR on solution of initial provisioning with authorization | CATT | revised |  | S6-192272 |
| S6-192154 | Pseudo-CR on key issue update on resource control | CATT | revised |  | S6-192245 |
| S6-192155 | Pseudo-CR on key issue update of ProSe | CATT | revised |  | S6-192246 |
| S6-192156 | Abbreviations | Samsung Electronics | merged |  | S6-192266 |
| S6-192157 | Pseudo-CR on Distributing Edge Application Server information | Samsung Electronics | revised |  | S6-192290 |
| S6-192158 | Pseudo-CR on Overall evaluations | Samsung Electronics | revised |  | S6-192312 |
| S6-192159 | Pseudo-CR on Solution evaluation - Architecture | Samsung Electronics | revised |  | S6-192313 |
| S6-192160 | Pseudo-CR on Conclusions | Samsung Electronics | revised |  | S6-192314 |
| S6-192161 | Conclusion on KI#2 | Samsung Electronics | merged |  | S6-192160 |
| S6-192162 | Conclusion on KI#4 | Samsung Electronics | merged |  | S6-192160 |
| S6-192163 | Conclusion on KI#10 | Samsung Electronics | merged |  | S6-192160 |
| S6-192164 | Presentation of Report to TSG:TR 23.758, Version 1.1.0Study on application architecture for enabling Edge Applications | Samsung Electronics | revised |  | S6-192400 |
| S6-192165 | New WID on Application Architecture for enabling Edge Applications | Samsung Electronics | revised |  | S6-192316 |
| S6-192166 | Pseudo-CR on Key Issue for EES Cleanup of EEC and EAS Resources | QUALCOMM JAPAN LLC. | revised |  | S6-192309 |
| S6-192167 | Pseudo-CR on Solution for EES Cleanup of EEC and EAS Resources | QUALCOMM JAPAN LLC. | revised |  | S6-192310 |
| S6-192168 | Pseudo-CR on Solution Evaluation for EES Cleanup of EEC and EAS Resources | QUALCOMM JAPAN LLC. | merged |  | S6-192310 |
| S6-192169 | Edge Application Server Discovery based on Route | QUALCOMM JAPAN LLC. | revised |  | S6-192283 |
| S6-192170 | Edge Computing platform capability discovery | QUALCOMM JAPAN LLC. | revised |  | S6-192284 |
| S6-192171 | Pseudo-CR on Key Issue for Operation Technology Integration | QUALCOMM JAPAN LLC. | approved |  |  |
| S6-192172 | Key issue on QoS coordination | Huawei, Hisilicon | revised |  | S6-192261 |
| S6-192173 | Solution to establish communications with FFAPP requirements | Huawei, Hisilicon | revised |  | S6-192262 |
| S6-192174 | Update of Key Issue #4 on TSN supporting | Huawei, Hisilicon | revised |  | S6-192263 |
| S6-192175 | Update to deployment option 4 | Huawei, Hisilicon | merged |  | S6-192307 |
| S6-192176 | Solution to Key issue#1 on EAS discovery from EDNCS | Huawei, Hisilicon | revised |  | S6-192286 |
| S6-192177 | Solution to KI5 with enhancement to CAPIF | Huawei, Hisilicon | revised |  | S6-192293 |
| S6-192178 | Solution 14 evaluation | Huawei, Hisilicon | revised |  | S6-192296 |
| S6-192179 | Solution 18 evaluation | Huawei, Hisilicon | revised |  | S6-192297 |
| S6-192180 | Correction on usage of service API information in access control message | Huawei, Hisilicon | agreed |  |  |
| S6-192181 | Architecture for UAS application layer | Huawei, Hisilicon | revised |  | S6-192256 |
| S6-192182 | Update to location configuration procedure | Huawei, Hisilicon | revised |  | S6-192204 |
| S6-192183 | Update API names | Huawei, Hisilicon | agreed |  |  |
| S6-192184 | Update to uplink message delivery procedure | Huawei, Hisilicon | revised |  | S6-192196 |
| S6-192185 | Reply LS on clarifications regarding V2XAPP services | Huawei | revised |  | S6-192368 |
| S6-192186 | Solution on PC5 QoS aspects | Huawei, Hisilicon | revised |  | S6-192257 |
| S6-192187 | LS reply from 3GPP SA5 to NGMN on 5G End-to-End Architecture Framework | SA5 | noted |  |  |
| S6-192188 | Update to solution#10 | Huawei, Hisilicon | revised |  | S6-192294 |
| S6-192189 | LS on Application Architecture for enabling Edge Applications | Huawei, Hisilicon | revised |  | S6-192369 |
| S6-192190 | Pseudo-CR on Key Issue and Solution for Security Policy Management for 5G Edge Applications | Alibaba Group | noted | S6-192080 |  |
| S6-192191 | New solution X – detailed examples | Ericsson | noted | S6-192117 |  |
| S6-192192 | LS on Testing and Certification of 3GPP Mission Critical features A GCF-TCCA Joint Approach to Develop and Manage MC Certification | TCCA | noted |  |  |
| S6-192193 | UE Authentication and UEId | AT&T | revised | - | S6-192274 |
| S6-192194 | Reply LS on how the IWF obtains key material for interworking group and private communications | SA6 | approved | - | - |
| S6-192195 | CR Message Delivery | Ericsson GmbH, Eurolab | revised | S6-192078 | S6-192384 |
| S6-192196 | Update to uplink message delivery procedure | Huawei, Hisilicon, Ericsson | revised | S6-192184 | S6-192335 |
| S6-192197 | Corrections to naming and other fixes | one2many B.V. | agreed | S6-192016 | - |
| S6-192198 | Result element missing | one2many B.V. | revised | S6-192017 | S6-192319 |
| S6-192199 | Anonymous requests | one2many B.V. | agreed | S6-192018 | - |
| S6-192200 | No multicast resource management in 5GS | one2many B.V. | agreed | S6-192019 | - |
| S6-192201 | Mention of SA3 responsibility in a published TS is not relevant. | one2many B.V. | revised | S6-192024 | S6-192320 |
| S6-192202 | SEAL APIs corrections | Samsung | revised | S6-192148 | S6-192317 |
| S6-192203 | Reply LS on clarifications regarding SEAL services | Samsung | revised | S6-192149 | S6-192318 |
| S6-192204 | Update to location configuration procedure | Huawei, Hisilicon | agreed | S6-192182 | - |
| S6-192205 | Corrections on functional alias to group binding | Nokia, Nokia Shanghai Bell | agreed | S6-192084 | - |
| S6-192206 | Handling origination side of functional alias for group calls | Kapsch CarrierCom France S.A.S | agreed | S6-192041 | - |
| S6-192207 | Add missing server to server information flows for group calls | Kapsch CarrierCom France S.A.S | agreed | S6-192042 | - |
| S6-192208 | Add enhancements for interworking of MCPTT group calls with GSM-R | Kapsch CarrierCom | agreed | S6-192043 | - |
| S6-192209 | Text improvements related to functional alias interworking | Nokia, Nokia Shanghai Bell | agreed | S6-192087 | - |
| S6-192210 | Introducing descriptive text describing the urgency handling in the MC service system | Union Inter. Chemins de Fer | revised | S6-192048 | S6-192345 |
| S6-192211 | Requested Priority in IP connectivity point to point communication | Union Inter. Chemins de Fer | revised | S6-192049 | S6-192225 |
| S6-192212 | Enhancing SDS data requests with application priority capabilities in on-network mode | Union Inter. Chemins de Fer | agreed | S6-192050 | - |
| S6-192213 | Enhancing FD data requests with application priority capabilities in on-network mode | Union Inter. Chemins de Fer | withdrawn | S6-192051 | - |
| S6-192214 | Clarifications for location management | CATT | revised | S6-192151 | S6-192321 |
| S6-192215 | Corrections to preconfigured regroup procedures | FirstNet | agreed | S6-192026 | - |
| S6-192216 | Corrections to preconfigured regroup procedures | FirstNet | agreed | S6-192027 | - |
| S6-192217 | Removal of temporary regroup procedures | FirstNet | agreed | S6-192121 | - |
| S6-192218 | File repair with the content storage function | ENENSYS | revised | S6-192141 | S6-192382 |
| S6-192219 | Corrections to preconfigured regroup procedures – alternative proposal | Motorola Solutions | withdrawn | - | - |
| S6-192220 | Receiving a private call from any other user | Nokia, Nokia Shanghai Bell | agreed | S6-192088 | - |
| S6-192221 | Receiving a private call from any other user | Nokia, Nokia Shanghai Bell | agreed | S6-192089 | - |
| S6-192222 | Priority of the user | Union Inter. Chemins de Fer | revised | S6-192052 | S6-192346 |
| S6-192223 | Priority of the user for initiating/receiving calls | Union Inter. Chemins de Fer | revised | S6-192053 | S6-192347 |
| S6-192224 | Priority of the user for initiating/receiving calls | Union Inter. Chemins de Fer | revised | S6-192054 | S6-192348 |
| S6-192225 | Requested Priority in IP connectivity point to point communication | Union Inter. Chemins de Fer | agreed | S6-192211 | - |
| S6-192226 | Pseudo-CR on General user authentication in IOPS | Ericsson | approved | S6-192100 | - |
| S6-192227 | Pseudo-CR on Architectural requirements on the IP connectivity functionality support | Ericsson | approved | S6-192096 | - |
| S6-192228 | Pseudo-CR on IOPS identities | Ericsson | approved | S6-192101 | - |
| S6-192229 | Pseudo-CR on IOPS discovery for the IP connectivity functionality | Ericsson | approved | S6-192102 | - |
| S6-192230 | Pseudo-CR on IOPS subscription and notification for the IP connectivity functionality | Ericsson | approved | S6-192104 | - |
| S6-192231 | Pseudo-CR on Use of MBMS transmissions in IOPS | Ericsson | approved | S6-192106 | - |
| S6-192232 | Pseudo-CR on MCPTT group call in IOPS – Call setup based on the IP connectivity functionality | Ericsson | revised | S6-192107 | S6-192349 |
| S6-192233 | Pseudo-CR on MCPTT private call in IOPS – Call setup based on the IP connectivity functionality | Ericsson | approved | S6-192108 | - |
| S6-192234 | Pseudo-CR on Floor control for MCPTT in IOPS (IP connectivity functionality) | Ericsson | revised | S6-192143 | S6-192350 |
| S6-192235 | Addition of preconfigured regroup procedures | FirstNet | revised | S6-192028 | S6-192351 |
| S6-192236 | Alignment on MCX emergency alert procedures | AT&T GNS Belgium SPRL | agreed | S6-192129 | - |
| S6-192237 | Alignment on MCX emergency alert procedures | AT&T GNS Belgium SPRL | agreed | S6-192128 | - |
| S6-192238 | Alignment on MCX emergency alert procedures | AT&T GNS Belgium SPRL | agreed | S6-192130 | - |
| S6-192239 | Pseudo-CR on solution 14 - functional model enhancement | BDBOS | revised | S6-192070 | S6-192366 |
| S6-192240 | Pseudo-CR on solution sharing location information on interconnected MC systems - configuration | BDBOS | revised | S6-192071 | S6-192353 |
| S6-192241 | Pseudo-CR on solution sharing location information on interconnected MC systems - authorization | BDBOS | revised | S6-192073 | S6-192354 |
| S6-192242 | Pseudo-CR on overall evaluation | BDBOS | revised | S6-192074 | S6-192355 |
| S6-192243 | Pseudo-CR on solution past location service | BDBOS | revised | S6-192075 | S6-192356 |
| S6-192244 | Pseudo-CR on solution for off-network mode | BDBOS | approved | S6-192077 | - |
| S6-192245 | Pseudo-CR on key issue update on resource control | CATT | revised | S6-192154 | S6-192352 |
| S6-192246 | Pseudo-CR on key issue update of ProSe | CATT | approved | S6-192155 | - |
| S6-192247 | Notifications-based solution for KI #1 in 23.774 | AT&T | revised | S6-192055 | S6-192386 |
| S6-192248 | Resource optimized group call mode for KI #2 in 23.774 | AT&T | revised | S6-192056 | S6-192387 |
| S6-192249 | Handling large number of UEs in a cell for KI #3 in 23.774 | AT&T | revised | S6-192057 | S6-192388 |
| S6-192250 | Pseudo-CR on Scenario 2 | one2many B.V. | approved | S6-192038 | - |
| S6-192251 | Framework for MSGin5G Service Architecture | Convida Wireless | revised | S6-192125 | S6-192391 |
| S6-192252 | New Solution for Key Issue #3 | Convida Wireless | revised | S6-192126 | S6-192392 |
| S6-192253 | Pseudo-CR on 5GMARCH KI8 group management | Samsung | revised | S6-192150 | S6-192393 |
| S6-192254 | Key issue for UAV flight authorisation | Motorola Mobility, Lenovo | postponed | S6-192097 | - |
| S6-192255 | KI#3: Solution on network assisted positioning for USS/UTM | InterDigital | approved | S6-192059 | - |
| S6-192256 | Architecture for UAS application layer | Huawei, Hisilicon | revised | S6-192181 | S6-192390 |
| S6-192257 | Solution on PC5 QoS aspects | Huawei, Hisilicon | approved | S6-192186 | - |
| S6-192258 | Discovery of suitable Edge Application Server based on underlying Edge Data Network performance | Vodafone, Convida Wireless LLC | revised | S6-192276 | S6-192326 |
| S6-192259 | Key issue - local approach for the communication service on the network side | ZTE Corporation | approved | S6-192045 | - |
| S6-192260 | FF application layer functional model | ZTE Corporation | approved | S6-192046 | - |
| S6-192261 | Key issue on QoS coordination | Huawei, Hisilicon | revised | S6-192172 | S6-192364 |
| S6-192262 | Solution to establish communications with FFAPP requirements | Huawei, Hisilicon | revised | S6-192173 | S6-192365 |
| S6-192263 | Update of Key Issue #4 on TSN supporting | Huawei, Hisilicon | approved | S6-192174 | - |
| S6-192264 | Revised WID on Enhancements to Application Architecture for the Mobile Communication System for Railways Phase 2 | Nokia, Nokia Shanghai Bell | agreed | S6-192090 | - |
| S6-192265 | pCR on Scope adjustments | Intel Deutschland GmbH | revised | S6-192029 | S6-192323 |
| S6-192266 | pCR on Abbreviations | Intel Deutschland GmbH, Samsung Electronics | approved | S6-192030 | - |
| S6-192267 | Requirement clean up | Ericsson | approved | S6-192091 | - |
| S6-192268 | Architecture Update with new Reference Point | Motorola Mobility, Lenovo | approved | S6-192099 | - |
| S6-192269 | Architecture clean-up | Samsung | revised | S6-192112 | S6-192324 |
| S6-192270 | Pseudo-CR on architecture update | CATT | revised | S6-192152 | S6-192325 |
| S6-192271 | Pseudo-CR on proposed resolution of Editor’s note in KI-2 | Vodafone | revised | S6-192022 | S6-192276 |
| S6-192272 | Pseudo-CR on solution of initial provisioning with authorization | CATT | revised | S6-192153 | S6-192359 |
| S6-192273 | Pseudo-CR on proposed resolution of Editor’s note in KI-1 | Vodafone  | noted | S6-192021 | - |
| S6-192274 | UE Authentication and UEId | AT&T | revised | S6-192193 | S6-192360 |
| S6-192275 | Pseudo-CR on Evaluation of Solution #2 | Intel Deutschland GmbH | revised | S6-192136 | S6-192328 |
| S6-192276 | Pseudo-CR on proposed resolution of Editor’s note in KI-2 | Vodafone | revised | S6-192271 | S6-192258 |
| S6-192277 | Solution 2 update and conclusion for Key Issue #1 and #7 | Samsung | revised | S6-192113 | S6-192329 |
| S6-192278 | Pseudo-CR on Evaluation of Solution #3 | Intel Deutschland GmbH | approved | S6-192137 | - |
| S6-192279 | pCR on Evaluation of Solution #8 | Intel Deutschland GmbH | approved | S6-192140 | - |
| S6-192280 | Solutions 8 and 17 clean-up and conclusion to KI#2 Edge Data Network discovery and registration | Convida Wireless | revised | S6-192061 | S6-192330 |
| S6-192281 | Pseudo-CR on EAS enablement using CAPIF | Samsung | approved | S6-192146 | - |
| S6-192282 | Solution clean-up and conclusion for KI#3 Edge Application Server enablement on the Edge Hosting Environment | Convida Wireless | revised | S6-192062 | S6-192336 |
| S6-192283 | Edge Application Server Discovery based on Route | QUALCOMM JAPAN LLC. | approved | S6-192169 | - |
| S6-192284 | Edge Computing platform capability discovery | QUALCOMM JAPAN LLC. | postponed | S6-192170 | - |
| S6-192285 | pCR 23.758 – New solution | Ericsson | revised | S6-192093 | S6-192373 |
| S6-192286 | Solution to Key issue#4 on EAS discovery from EDNCS | Huawei, Hisilicon | revised | S6-192176 | S6-192371 |
| S6-192287 | EAS discovery using DNS | Samsung | revised | S6-192122 | S6-192361 |
| S6-192288 | Pseudo-CR on Evaluation of Solution #1 | Intel Deutschland GmbH | withdrawn | S6-192135 | - |
| S6-192289 | Solution Evaluation for Key Issue#4 Edge Application Server Discovery | Convida Wireless | revised | S6-192063 | S6-192398 |
| S6-192290 | Pseudo-CR on Distributing Edge Application Server information | Samsung Electronics | revised | S6-192157 | S6-192372 |
| S6-192291 | New solution for Key Issue#5 | Convida Wireless | revised | S6-192064 | S6-192337 |
| S6-192292 | Pseudo-CR on EDGE Centralized CAPIF | Samsung | approved | S6-192145 | - |
| S6-192293 | Solution to KI5 with enhancement to CAPIF | Huawei, Hisilicon | approved | S6-192177 | - |
| S6-192294 | Update to solution#10 | Huawei, Hisilicon | revised | S6-192188 | S6-192338 |
| S6-192295 | Pseudo-CR on Evaluation of Solution #5 | Intel Deutschland GmbH | approved | S6-192138 | - |
| S6-192296 | Solution 14 evaluation | Huawei, Hisilicon | approved | S6-192178 | - |
| S6-192297 | Solution 18 evaluation | Huawei, Hisilicon | revised | S6-192179 | S6-192339 |
| S6-192298 | Solution #6 update and conclusion for KI#6 | Samsung | approved | S6-192114 | - |
| S6-192299 | Solution #2 clean-up and conclusion to KI#7 Dynamic availability of Edge Application Servers | Convida Wireless | approved | S6-192065 | - |
| S6-192300 | Solutions 20, 21 clean-up and conclusion to Key Issue#9 Preserving Service Continuity | Convida Wireless, Samsung | revised | S6-192066 | S6-192340 |
| S6-192301 | Pseudo-CR on solution to Key Issues 9 with an alternative flow | Nokia, Nokia Shanghai Bell | revised | S6-192109 | S6-192341 |
| S6-192302 | Pseudo-CR on Evaluation of Solution #7 | Intel Deutschland GmbH | approved | S6-192139 | - |
| S6-192303 | Pseudo-CR on Update of Key Issue 6 | Sony, Qualcomm | revised | S6-192133 | S6-192327 |
| S6-192304 | Pseudo-CR on solution to Key Issue 12 (lifecycle management) | Nokia, Nokia Shanghai Bell, Vodafone | revised | S6-192103 | S6-192342 |
| S6-192305 | Pseudo-CR on Update and Evaluation for Solution #11 | Vodafone | revised | S6-192124 | S6-192311 |
| S6-192306 | Pseudo-CR on Additions to EDGE-5 requirements | Intel Deutschland GmbH | approved | S6-192033 | - |
| S6-192307 | Updates to Edge Deployment options figures and description corrections | Convida Wireless LLC, Samsung, Huawei?, Hisilicon? Ericsson | revised | S6-192067 | S6-192380 |
| S6-192308 | Pseudo-CR on Deployment Options for EDNCS | Sony | revised | S6-192132 | S6-192344 |
| S6-192309 | Pseudo-CR on Key Issue for EES Cleanup of EEC and EAS Resources | QUALCOMM JAPAN LLC. | approved | S6-192166 | - |
| S6-192310 | Pseudo-CR on Solution for EES Cleanup of EEC and EAS Resources | QUALCOMM JAPAN LLC. | revised | S6-192167 | S6-192362 |
| S6-192311 | Pseudo-CR on Update and Evaluation for Solution #11 | Vodafone | revised | S6-192305 | S6-192343 |
| S6-192312 | Pseudo-CR on Overall evaluations | Samsung Electronics, Nokia, Nokia Shanghai Bell | revised | S6-192158 | S6-192381 |
| S6-192313 | Pseudo-CR on Solution evaluation - Architecture | Samsung Electronics | approved | S6-192159 | - |
| S6-192314 | Pseudo-CR on Conclusions | Samsung Electronics | approved | S6-192160 | - |
| S6-192315 | New WID on enhancements for functional architecture and information flows for Mission Critical Data | AT&T GNS Belgium SPRL | revised | S6-192068 | S6-192367 |
| S6-192316 | New WID on Architecture for enabling Edge Applications | Samsung Electronics | revised | S6-192165 | S6-192396 |
| S6-192317 | SEAL APIs corrections | Samsung | agreed | S6-192202 | - |
| S6-192318 | Reply LS (S6-192023) on clarifications regarding SEAL services | SA6 | approved | S6-192203 | - |
| S6-192319 | Result element missing | one2many B.V. | agreed | S6-192198 | - |
| S6-192320 | Mention of SA3 responsibility in a published TS is not relevant. | one2many B.V. | agreed | S6-192201 | - |
| S6-192321 | Clarifications for location management | CATT | agreed | S6-192214 | - |
| S6-192322 | Clarifications for location management | CATT | revised | - | S6-192357 |
| S6-192323 | pCR on Scope adjustments | Intel Deutschland GmbH | approved | S6-192265 | - |
| S6-192324 | Architecture clean-up | Samsung, CATT | revised | S6-192269 | S6-192370 |
| S6-192325 | Pseudo-CR on architecture update | CATT | merged | S6-192270 | S6-192324 |
| S6-192326 | Consolidation of KPI-related open issues in to a new key issue | Vodafone, Convida Wireless LLC | approved | S6-192258 | - |
| S6-192327 | Pseudo-CR on Update of Key Issue 6 | Sony, Qualcomm | approved | S6-192303 | - |
| S6-192328 | Pseudo-CR on Evaluation of Solution #2 | Intel Deutschland GmbH | approved | S6-192275 | - |
| S6-192329 | Solution 2 update and conclusion for Key Issue #1 and #7 | Samsung | approved | S6-192277 | - |
| S6-192330 | Solutions 8 and 17 clean-up and conclusion to KI#2 Edge Data Network discovery and registration | Convida Wireless | approved | S6-192280 | - |
| S6-192331 | Pseudo-CR on Solution for EEC subscription for configuration notifications | Intel Deutschland GmbH | revised | S6-192032 | S6-192376 |
| S6-192332 | Pseudo-CR additional Key Issue – alternative transport at the Edge Data Network | Nokia, Nokia Shanghai Bell | revised | S6-192110 | S6-192379 |
| S6-192333 | p-CR - Alternative transport for hight throughput and low latency communications | Nokia, Nokia Shanghai Bell | revised | S6-192120 | S6-192378 |
| S6-192334 | Work Plan review | Qualcomm | noted | - | - |
| S6-192335 | Update to uplink message delivery procedure | Huawei, Hisilicon, Ericsson | revised | S6-192196 | S6-192358 |
| S6-192336 | Solution clean-up and conclusion for KI#3 Edge Application Server enablement on the Edge Hosting Environment | Convida Wireless, Samsung | approved | S6-192282 | - |
| S6-192337 | New solution for Key Issue#5 | Convida Wireless | approved | S6-192291 | - |
| S6-192338 | Update to solution#10 | Huawei, Hisilicon | approved | S6-192294 | - |
| S6-192339 | Solution 18 evaluation | Huawei, Hisilicon | approved | S6-192297 | - |
| S6-192340 | Solutions 20, 21 clean-up and conclusion to Key Issue#9 Preserving Service Continuity | Convida Wireless, Samsung | approved | S6-192300 | - |
| S6-192341 | Pseudo-CR on solution to Key Issues 9 with an alternative flow | Nokia, Nokia Shanghai Bell | revised | S6-192301 | S6-192375 |
| S6-192342 | Pseudo-CR on solution to Key Issue 12 (lifecycle management) | Nokia, Nokia Shanghai Bell, Vodafone | revised | S6-192304 | S6-192377 |
| S6-192343 | Pseudo-CR on Update and Evaluation for Solution #11 | Vodafone | approved | S6-192311 | - |
| S6-192344 | Pseudo-CR on Deployment Options for EDNCS | Sony | withdrawn | S6-192308 | - |
| S6-192345 | Introducing descriptive text describing the urgency handling in the MC service system | Union Inter. Chemins de Fer | agreed | S6-192210 | - |
| S6-192346 | Priority of the user | Union Inter. Chemins de Fer | agreed | S6-192222 | - |
| S6-192347 | Priority of the user for initiating/receiving calls | Union Inter. Chemins de Fer | agreed | S6-192223 | - |
| S6-192348 | Priority of the user for initiating/receiving calls | Union Inter. Chemins de Fer | agreed | S6-192224 | - |
| S6-192349 | Pseudo-CR on MCPTT group call in IOPS – Call setup based on the IP connectivity functionality | Ericsson | approved | S6-192232 | - |
| S6-192350 | Pseudo-CR on Floor control for MCPTT in IOPS (IP connectivity functionality) | Ericsson | approved | S6-192234 | - |
| S6-192351 | Addition of preconfigured regroup procedures | FirstNet | agreed | S6-192235 | - |
| S6-192352 | Pseudo-CR on key issue update on resource control | CATT | approved | S6-192245 | - |
| S6-192353 | Pseudo-CR on solution sharing location information on interconnected MC systems - configuration | BDBOS | approved | S6-192240 | - |
| S6-192354 | Pseudo-CR on solution sharing location information on interconnected MC systems - authorization | BDBOS | approved | S6-192241 | - |
| S6-192355 | Pseudo-CR on overall evaluation | BDBOS | approved | S6-192242 | - |
| S6-192356 | Pseudo-CR on solution past location service | BDBOS | approved | S6-192243 | - |
| S6-192357 | Clarifications for location management | CATT | agreed | S6-192322 | - |
| S6-192358 | Update to uplink message delivery procedure | Huawei, Hisilicon, Ericsson | agreed | S6-192335 | - |
| S6-192359 | Pseudo-CR on solution of initial provisioning with authorization | CATT | approved | S6-192272 | - |
| S6-192360 | UE Authentication and UEId | AT&T | approved | S6-192274 | - |
| S6-192361 | EAS discovery using DNS | Samsung, Ericsson | revised | S6-192287 | S6-192374 |
| S6-192362 | Pseudo-CR on Solution for EES Cleanup of EEC and EAS Resources | QUALCOMM JAPAN LLC. | approved | S6-192310 | - |
| S6-192363 | LS on UE types in TS 22.262 | Convida Wireless | revised | - | S6-192394 |
| S6-192364 | Key issue on QoS coordination | Huawei, Hisilicon | approved | S6-192261 | - |
| S6-192365 | Solution to establish communications with FFAPP requirements | Huawei, Hisilicon | approved | S6-192262 | - |
| S6-192366 | Pseudo-CR on solution 14 - functional model enhancement | BDBOS | approved | S6-192239 | - |
| S6-192367 | New WID on enhancements for functional architecture and information flows for Mission Critical Data | AT&T GNS Belgium SPRL | agreed | S6-192315 | - |
| S6-192368 | Reply LS on clarifications regarding V2XAPP services | Huawei | revised | S6-192185 | S6-192385 |
| S6-192369 | LS on Application Architecture for enabling Edge Applications | Huawei, Hisilicon | revised | S6-192189 | S6-192399 |
| S6-192370 | Architecture clean-up | Samsung, CATT | approved | S6-192324 | - |
| S6-192371 | Solution to Key issue#4 on EAS discovery from EDNCS | Huawei, Hisilicon | approved | S6-192286 | - |
| S6-192372 | Pseudo-CR on Distributing Edge Application Server information | Samsung Electronics | approved | S6-192290 | - |
| S6-192373 | pCR 23.758 – New solution | Ericsson | approved | S6-192285 | - |
| S6-192374 | EAS discovery using DNS | Samsung, Ericsson | approved | S6-192361 | - |
| S6-192375 | Pseudo-CR on solution to Key Issues 9 with an alternative flow | Nokia, Nokia Shanghai Bell | approved | S6-192341 | - |
| S6-192376 | Pseudo-CR on Solution for EEC subscription for configuration notifications | Intel Deutschland GmbH | approved | S6-192331 | - |
| S6-192377 | Pseudo-CR on solution to Key Issue 12 (lifecycle management) | Nokia, Nokia Shanghai Bell, Vodafone | revised | S6-192342 | S6-192397 |
| S6-192378 | p-CR - Alternative transport for hight throughput and low latency communications | Nokia, Nokia Shanghai Bell | approved | S6-192333 | - |
| S6-192379 | Pseudo-CR additional Key Issue – alternative transport at the Edge Data Network | Nokia, Nokia Shanghai Bell | approved | S6-192332 | - |
| S6-192380 | Updates to Edge Deployment options figures and description corrections | Convida Wireless LLC, Samsung, Huawei, Hisilicon, Ericsson, Sony | revised | S6-192307 | S6-192401 |
| S6-192381 | Pseudo-CR on Overall evaluations | Samsung Electronics, Nokia, Nokia Shanghai Bell | approved | S6-192312 | - |
| S6-192382 | File repair with the content storage function | ENENSYS | agreed | S6-192218 | - |
| S6-192383 | File repair with the content storage function | ENENSYS | agreed | - | - |
| S6-192384 | CR Message Delivery | Ericsson GmbH, Eurolab | agreed | S6-192195 | - |
| S6-192385 | Reply LS on clarifications regarding V2XAPP services | SA6 | approved | S6-192368 | - |
| S6-192386 | Notifications-based solution for KI #1 in 23.774 | AT&T | revised | S6-192247 | S6-192402 |
| S6-192387 | Resource optimized group call mode for KI #2 in 23.774 | AT&T | revised | S6-192248 | S6-192403 |
| S6-192388 | Handling large number of UEs in a cell for KI #3 in 23.774 | AT&T | approved | S6-192249 | - |
| S6-192389 | LS on further aspects of Mission Critical Services over 5MBS | AT&T | revised | S6-192058 | S6-192404 |
| S6-192390 | Architecture for UAS application layer | Huawei, Hisilicon | approved | S6-192256 | - |
| S6-192391 | Framework for MSGin5G Service Architecture | Convida Wireless | approved | S6-192251 | - |
| S6-192392 | New Solution for Key Issue #3 | Convida Wireless | approved | S6-192252 | - |
| S6-192393 | Pseudo-CR on 5GMARCH KI8 group management | Samsung | approved | S6-192253 | - |
| S6-192394 | LS on UE types in TS 22.262 | SA6 | approved | S6-192363 | - |
| S6-192395 | LS reply to S6-192011 on tele-operated driving | SA6 | approved | S6-192079 | - |
| S6-192396 | New WID on Architecture for enabling Edge Applications | Samsung Electronics | agreed | S6-192316 | - |
| S6-192397 | Pseudo-CR on solution to Key Issue 12 (lifecycle management) | Nokia, Nokia Shanghai Bell, Vodafone | approved | S6-192377 | - |
| S6-192398 | Solution Evaluation for Key Issue#4 Edge Application Server Discovery | Convida Wireless | approved | S6-192289 | - |
| S6-192399 | LS on Application Architecture for enabling Edge Applications | SA6 | approved | S6-192369 | - |
| S6-192400 | Presentation of Report to TSG:TR 23.758, Version 1.1.0Study on application architecture for enabling Edge Applications | Samsung Electronics | approved | S6-192164 | - |
| S6-192401 | Updates to Edge Deployment options figures and description corrections | Convida Wireless LLC, Samsung, Huawei, Hisilicon, Ericsson, Sony | approved | S6-192380 | - |
| S6-192402 | Notifications-based solution for KI #1 in 23.774 | AT&T | approved | S6-192386 | - |
| S6-192403 | Resource optimized group call mode for KI #2 in 23.774 | AT&T | approved | S6-192387 | - |
| S6-192404 | LS on further aspects of Mission Critical Services over 5MBS | SA6 | approved | S6-192389 | - |

## Annex B: List of change requests

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Document | Title | Source | Spec | CR | Rev | Rel | Cat | WI | Decision |
| S6-192180 | Correction on usage of service API information in access control message | Huawei, Hisilicon | 23.222 | 0065 | - | Rel-16 | F | eCAPIF | agreed |
| S6-192048 | Introducing descriptive text describing the urgency handling in the MC service system | Union Inter. Chemins de Fer | 23.280 | 0221 | 2 | Rel-17 | F | eMONASTERY2 | revised |
| S6-192210 | Introducing descriptive text describing the urgency handling in the MC service system | Union Inter. Chemins de Fer | 23.280 | 0221 | 3 | Rel-17 | F | eMONASTERY2 | revised |
| S6-192345 | Introducing descriptive text describing the urgency handling in the MC service system | Union Inter. Chemins de Fer | 23.280 | 0221 | 4 | Rel-17 | F | eMONASTERY2 | agreed |
| S6-192028 | Addition of preconfigured regroup procedures | FirstNet | 23.280 | 0222 | - | Rel-17 | B | TEI17 | revised |
| S6-192235 | Addition of preconfigured regroup procedures | FirstNet | 23.280 | 0222 | 1 | Rel-17 | B | TEI17 | revised |
| S6-192351 | Addition of preconfigured regroup procedures | FirstNet | 23.280 | 0222 | 2 | Rel-17 | B | TEI17 | agreed |
| S6-192084 | Corrections on functional alias to group binding | Nokia, Nokia Shanghai Bell | 23.280 | 0223 | - | Rel-17 | F | eMONASTERY2 | revised |
| S6-192205 | Corrections on functional alias to group binding | Nokia, Nokia Shanghai Bell | 23.280 | 0223 | 1 | Rel-17 | F | eMONASTERY2 | agreed |
| S6-192085 | Resolving EN on functional alias to group binding impacts | Nokia, Nokia Shanghai Bell | 23.280 | 0224 | - | Rel-17 | C | eMONASTERY2 | agreed |
| S6-192086 | Functional alias used for private communications | Nokia, Nokia Shanghai Bell | 23.280 | 0225 | - | Rel-17 | B | eMONASTERY2 | postponed |
| S6-192129 | Alignment on MCX emergency alert procedures | AT&T GNS Belgium SPRL | 23.280 | 0226 | - | Rel-17 | C | TEI17 | revised |
| S6-192236 | Alignment on MCX emergency alert procedures | AT&T GNS Belgium SPRL | 23.280 | 0226 | 1 | Rel-17 | C | TEI17 | agreed |
| S6-192151 | Clarifications for location management | CATT | 23.280 | 0227 | - | Rel-16 | F | enh2MCPTT | revised |
| S6-192214 | Clarifications for location management | CATT | 23.280 | 0227 | 1 | Rel-16 | F | enh2MCPTT | revised |
| S6-192321 | Clarifications for location management | CATT | 23.280 | 0227 | 2 | Rel-16 | F | enh2MCPTT | agreed |
| S6-192322 | Clarifications for location management | CATT | 23.280 | 0228 | - | Rel-17 | A | enh2MCPTT | revised |
| S6-192357 | Clarifications for location management | CATT | 23.280 | 0228 | 1 | Rel-17 | A | enh2MCPTT | agreed |
| S6-192054 | Priority of the user for initiating/receiving calls | Union Inter. Chemins de Fer | 23.281 | 0137 | - | Rel-17 | B | eMONASTERY2 | revised |
| S6-192224 | Priority of the user for initiating/receiving calls | Union Inter. Chemins de Fer | 23.281 | 0137 | 1 | Rel-17 | B | eMONASTERY2 | revised |
| S6-192348 | Priority of the user for initiating/receiving calls | Union Inter. Chemins de Fer | 23.281 | 0137 | 2 | Rel-17 | B | eMONASTERY2 | agreed |
| S6-192130 | Alignment on MCX emergency alert procedures | AT&T GNS Belgium SPRL | 23.281 | 0138 | - | Rel-17 | D | TEI17 | revised |
| S6-192238 | Alignment on MCX emergency alert procedures | AT&T GNS Belgium SPRL | 23.281 | 0138 | 1 | Rel-17 | D | TEI17 | agreed |
| S6-192049 | Requested Priority in IP connectivity point to point communication | Union Inter. Chemins de Fer | 23.282 | 0190 | - | Rel-17 | F | eMONASTERY2 | revised |
| S6-192211 | Requested Priority in IP connectivity point to point communication | Union Inter. Chemins de Fer | 23.282 | 0190 | 1 | Rel-17 | F | eMONASTERY2 | revised |
| S6-192225 | Requested Priority in IP connectivity point to point communication | Union Inter. Chemins de Fer | 23.282 | 0190 | 2 | Rel-17 | F | eMONASTERY2 | agreed |
| S6-192050 | Enhancing SDS data requests with application priority capabilities in on-network mode | Union Inter. Chemins de Fer | 23.282 | 0191 | - | Rel-17 | B | eMONASTERY2 | revised |
| S6-192212 | Enhancing SDS data requests with application priority capabilities in on-network mode | Union Inter. Chemins de Fer | 23.282 | 0191 | 1 | Rel-17 | B | eMONASTERY2 | agreed |
| S6-192051 | Enhancing FD data requests with application priority capabilities in on-network mode | Union Inter. Chemins de Fer | 23.282 | 0192 | - | Rel-17 | B | eMONASTERY2 | revised |
| S6-192213 | Enhancing FD data requests with application priority capabilities in on-network mode | Union Inter. Chemins de Fer | 23.282 | 0192 | 1 | Rel-17 | B | eMONASTERY2 | withdrawn |
| S6-192052 | Priority of the user for initiating/receiving communications | Union Inter. Chemins de Fer | 23.282 | 0193 | - | Rel-17 | B | eMONASTERY2 | revised |
| S6-192222 | Priority of the user | Union Inter. Chemins de Fer | 23.282 | 0193 | 1 | Rel-17 | B | eMONASTERY2 | revised |
| S6-192131 | Alignment on MCX emergency alert procedures | AT&T GNS Belgium SPRL | 23.282 | 0194 | - | Rel-17 | D | TEI17 | withdrawn |
| S6-192141 | File repair with the content storage function | ENENSYS | 23.282 | 0195 | - | Rel-16 | F | eMCData2 | revised |
| S6-192218 | File repair with the content storage function | ENENSYS | 23.282 | 0195 | 1 | Rel-16 | F | eMCData2 | revised |
| S6-192382 | File repair with the content storage function | ENENSYS | 23.282 | 0195 | 2 | Rel-16 | F | eMCData2 | agreed |
| S6-192383 | File repair with the content storage function | ENENSYS | 23.282 | 0196 | - | Rel-17 | A | eMCData2 | agreed |
| S6-192346 | Priority of the user | Union Inter. Chemins de Fer | 23.282 | 0240 | 2 | Rel-17 | B | eMONASTERY2 | agreed |
| S6-192043 | Add enhancements for interworking of MCPTT group calls with GSM-R | Kapsch CarrierCom | 23.283 | 0049 | 2 | Rel-17 | B | eMONASTERY2 | revised |
| S6-192208 | Add enhancements for interworking of MCPTT group calls with GSM-R | Kapsch CarrierCom | 23.283 | 0049 | 3 | Rel-17 | B | eMONASTERY2 | agreed |
| S6-192087 | Editorial changes related to functional alias interworking | Nokia, Nokia Shanghai Bell | 23.283 | 0052 | - | Rel-17 | F | eMONASTERY2 | revised |
| S6-192209 | Text improvements related to functional alias interworking | Nokia, Nokia Shanghai Bell | 23.283 | 0052 | 1 | Rel-17 | F | eMONASTERY2 | agreed |
| S6-192078 | CR Message Delivery | Ericsson GmbH, Eurolab | 23.286 | 0010 | - | Rel-16 | F | V2XAPP | revised |
| S6-192195 | CR Message Delivery | Ericsson GmbH, Eurolab | 23.286 | 0010 | 1 | Rel-16 | F | V2XAPP | revised |
| S6-192384 | CR Message Delivery | Ericsson GmbH, Eurolab | 23.286 | 0010 | 2 | Rel-16 | F | V2XAPP | agreed |
| S6-192183 | Update API names | Huawei, Hisilicon | 23.286 | 0011 | - | Rel-16 | F | V2XAPP | agreed |
| S6-192184 | Update to uplink message delivery procedure | Huawei, Hisilicon | 23.286 | 0012 | - | Rel-16 | F | V2XAPP | revised |
| S6-192196 | Update to uplink message delivery procedure | Huawei, Hisilicon, Ericsson | 23.286 | 0012 | 1 | Rel-16 | F | V2XAPP | revised |
| S6-192335 | Update to uplink message delivery procedure | Huawei, Hisilicon, Ericsson | 23.286 | 0012 | 2 | Rel-16 | F | V2XAPP | revised |
| S6-192358 | Update to uplink message delivery procedure | Huawei, Hisilicon, Ericsson | 23.286 | 0012 | 3 | Rel-16 | F | V2XAPP | agreed |
| S6-192026 | Corrections to preconfigured regroup procedures | FirstNet | 23.379 | 0236 | - | Rel-16 | F | enh2MCPTT | revised |
| S6-192215 | Corrections to preconfigured regroup procedures | FirstNet | 23.379 | 0236 | 1 | Rel-16 | F | enh2MCPTT | agreed |
| S6-192027 | Corrections to preconfigured regroup procedures | FirstNet | 23.379 | 0237 | - | Rel-17 | A | enh2MCPTT | revised |
| S6-192216 | Corrections to preconfigured regroup procedures | FirstNet | 23.379 | 0237 | 1 | Rel-17 | A | enh2MCPTT | agreed |
| S6-192041 | Handling origination side of functional alias for group calls | Kapsch CarrierCom France S.A.S | 23.379 | 0238 | - | Rel-17 | B | eMONASTERY2 | revised |
| S6-192206 | Handling origination side of functional alias for group calls | Kapsch CarrierCom France S.A.S | 23.379 | 0238 | 1 | Rel-17 | B | eMONASTERY2 | agreed |
| S6-192042 | Include functional alias in group call interconnect | Kapsch CarrierCom France S.A.S | 23.379 | 0239 | - | Rel-17 | B | eMONASTERY2 | revised |
| S6-192207 | Add missing server to server information flows for group calls | Kapsch CarrierCom France S.A.S | 23.379 | 0239 | 1 | Rel-17 | B | eMONASTERY2 | agreed |
| S6-192053 | Priority of the user for initiating/receiving calls | Union Inter. Chemins de Fer | 23.379 | 0240 | - | Rel-17 | B | eMONASTERY2 | revised |
| S6-192223 | Priority of the user for initiating/receiving calls | Union Inter. Chemins de Fer | 23.379 | 0240 | 1 | Rel-17 | B | eMONASTERY2 | revised |
| S6-192347 | Priority of the user for initiating/receiving calls | Union Inter. Chemins de Fer | 23.379 | 0240 | 2 | Rel-17 | B | eMONASTERY2 | agreed |
| S6-192083 | Correcting stage 1 reference on maximum number of simultaneously received group calls | Nokia, Nokia Shanghai Bell | 23.379 | 0241 | - | Rel-17 | F | eMONASTERY2 | agreed |
| S6-192088 | Receiving a private call from any other user | Nokia, Nokia Shanghai Bell | 23.379 | 0242 | - | Rel-16 | F | MONASTERY2 | revised |
| S6-192220 | Receiving a private call from any other user | Nokia, Nokia Shanghai Bell | 23.379 | 0242 | 1 | Rel-16 | F | MONASTERY2 | agreed |
| S6-192089 | Receiving a private call from any other user | Nokia, Nokia Shanghai Bell | 23.379 | 0243 | - | Rel-17 | A | MONASTERY2 | revised |
| S6-192221 | Receiving a private call from any other user | Nokia, Nokia Shanghai Bell | 23.379 | 0243 | 1 | Rel-17 | A | MONASTERY2 | agreed |
| S6-192121 | Removal of temporary regroup procedures | FirstNet | 23.379 | 0244 | - | Rel-16 | F | enh2MCPTT | revised |
| S6-192217 | Removal of temporary regroup procedures | FirstNet | 23.379 | 0244 | 1 | Rel-16 | F | enh2MCPTT | agreed |
| S6-192128 | Alignment on MCX emergency alert procedures | AT&T GNS Belgium SPRL | 23.379 | 0245 | - | Rel-17 | D | TEI17 | revised |
| S6-192237 | Alignment on MCX emergency alert procedures | AT&T GNS Belgium SPRL | 23.379 | 0245 | 1 | Rel-17 | F | TEI17 | agreed |
| S6-192016 | Editorial modifications | one2many B.V. | 23.434 | 0009 | - | Rel-16 | F | TEI16, SEAL | revised |
| S6-192197 | Corrections to naming and other fixes | one2many B.V. | 23.434 | 0009 | 1 | Rel-16 | F | SEAL | agreed |
| S6-192017 | Result element missing | one2many B.V. | 23.434 | 0010 | - | Rel-16 | F | TEI16, SEAL | revised |
| S6-192198 | Result element missing | one2many B.V. | 23.434 | 0010 | 1 | Rel-16 | F | SEAL | revised |
| S6-192319 | Result element missing | one2many B.V. | 23.434 | 0010 | 2 | Rel-16 | F | SEAL | agreed |
| S6-192018 | Anonymous requests and notifications | one2many B.V. | 23.434 | 0011 | - | Rel-16 | F | TEI16, SEAL | revised |
| S6-192199 | Anonymous requests | one2many B.V. | 23.434 | 0011 | 1 | Rel-16 | F | SEAL | agreed |
| S6-192019 | No multicast resource management in 5GS | one2many B.V. | 23.434 | 0012 | - | Rel-16 | F | TEI16, SEAL | revised |
| S6-192200 | No multicast resource management in 5GS | one2many B.V. | 23.434 | 0012 | 1 | Rel-16 | F | SEAL | agreed |
| S6-192024 | Mention of SA3 responsibility in a published TS is not relevant. | one2many B.V. | 23.434 | 0013 | - | Rel-16 | F | TEI16, SEAL | revised |
| S6-192201 | Mention of SA3 responsibility in a published TS is not relevant. | one2many B.V. | 23.434 | 0013 | 1 | Rel-16 | F | SEAL | revised |
| S6-192320 | Mention of SA3 responsibility in a published TS is not relevant. | one2many B.V. | 23.434 | 0013 | 2 | Rel-16 | F | SEAL | agreed |
| S6-192148 | SEAL APIs corrections | Samsung | 23.434 | 0014 | - | Rel-16 | F | SEAL | revised |
| S6-192202 | SEAL APIs corrections | Samsung | 23.434 | 0014 | 1 | Rel-16 | F | SEAL | revised |
| S6-192317 | SEAL APIs corrections | Samsung | 23.434 | 0014 | 2 | Rel-16 | F | SEAL | agreed |
| S6-192182 | Update to location configuration procedure | Huawei, Hisilicon | 23.434 | 0015 | - | Rel-16 | F | SEAL | revised |
| S6-192204 | Update to location configuration procedure | Huawei, Hisilicon | 23.434 | 0015 | 1 | Rel-16 | F | SEAL | agreed |

## Annex C: Lists of liaisons

### C1: Incoming liaison statements

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Document | Original | Title | From | Decision | Reply TDoc |
| S6-192010 | 190916 | NGMN 5G End-to-End Architecture Framework | NGMN Alliance Project E2E Architecture Framework | noted | (none) |
| S6-192011 | S-190183 | LS reply to A-190116 3GPP SA6 application layer support for V2X services | 5GAA WG2 | replied to | S6-192395 |
| S6-192012 | C3-193621 | LS on clarifications regarding V2XAPP services | CT3 | replied to | S6-192385 |
| S6-192013 | ORAN\_3GPP\_Liaison\_Statement\_final | LS on O-RAN Alliance & 3GPP Coordination on O-RAN Alliance Outputs | O-RAN Alliance | noted | (none) |
| S6-192014 | SG11-LS99 | LS on SG11 activities related to improvement of the SS7 security including for digital financial services | ITU SG11 | noted | (none) |
| S6-192015 | SP-190947 | Reply LS to “O-RAN Alliance & 3GPP Coordination on O-RAN Alliance Outputs” | SA | noted | (none) |
| S6-192020 | C1-196979 | LS on how the IWF obtains key material for interworking group and private communications | CT1 | replied to | S6-192194 |
| S6-192023 | C3-194432 | LS on clarifications regarding SEAL services | CT3 | replied to | S6-192318 |
| S6-192187 | S5-196765 | LS reply from 3GPP SA5 to NGMN on 5G End-to-End Architecture Framework | SA5 | noted | (none) |
| S6-192192 | - | LS on Testing and Certification of 3GPP Mission Critical features A GCF-TCCA Joint Approach to Develop and Manage MC Certification | TCCA | noted | (none) |

### C2: Outgoing liaison statements

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Document | Title | To | Cc | reply to i/c LS |
| S6-192194 | Reply LS on how the IWF obtains key material for interworking group and private communications | CT1, SA3 | - | S6-192020 |
| S6-192318 | Reply LS (S6-192023) on clarifications regarding SEAL services | CT3 | CT1 | S6-192023 |
| S6-192385 | Reply LS on clarifications regarding V2XAPP services | CT3 | CT1 | S6-192012, S6-191929 |
| S6-192394 | LS on UE types in TS 22.262 | SA1 | - | - |
| S6-192395 | LS reply to S6-192011 on tele-operated driving | 5GAA WG2, Work Item Tele-operated Driving | - | S6-192011 |
| S6-192399 | LS on Application Architecture for enabling Edge Applications | SA2 | SA3, SA5 | - |
| S6-192404 | LS on further aspects of Mission Critical Services over 5MBS | SA, RAN, SA2, RAN2, RAN3 | SA1 | - |

## Annex D: List of agreed/approved new and revised Work Items

|  |  |  |  |
| --- | --- | --- | --- |
| Document | Title | Source | new/revised |
| S6-192367 | New WID on enhancements for functional architecture and information flows for Mission Critical Data | AT&T GNS Belgium SPRL | WID new |
| S6-192396 | New WID on Architecture for enabling Edge Applications | Samsung Electronics | WID new |
| S6-192264 | Revised WID on Enhancements to Application Architecture for the Mobile Communication System for Railways Phase 2 | Nokia, Nokia Shanghai Bell | WID revised |

## 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) |
| AGHILI, Behrouz | InterDigital France R&D, SAS | 3GPPMEMBER (ETSI) |
| ALNÅS, Svante | Sony Europe B.V. | 3GPPMEMBER (ETSI) |
| AMOGH, Niranth | Huawei Technologies France | 3GPPMEMBER (ETSI) |
| ARREAGA, Arturo | Rogers Communications Canada | 3GPPMEMBER (ETSI) |
| BAKKER, John-Luc | BlackBerry UK Limited | 3GPPMEMBER (ETSI) |
| BEICHT, Peter | Kapsch CarrierCom France S.A.S | 3GPPMEMBER (ETSI) |
| BOGINENI, Kalyani | Verizon UK Ltd | 3GPPMEMBER (ETSI) |
| BUCKLEY, Adrian | vivo Mobile Communication (S) | 3GPPMEMBER (CCSA) |
| BURDINAT, Christophe | ENENSYS | 3GPPMEMBER (ETSI) |
| CHAPONNIERE, Lena | Qualcomm Incorporated | 3GPPMEMBER (ATIS) |
| CHEN, Xiao | ZTE Corporation | 3GPPMEMBER (CCSA) |
| CHITTURI, Suresh | Samsung Electronics Co., Ltd | 3GPPMEMBER (TTA) |
| DU, Xiaoning | China Mobile Group Device Co. | 3GPPMEMBER (CCSA) |
| FACCIN, Stefano | QUALCOMM Europe Inc. - Italy | 3GPPMEMBER (ETSI) |
| GRUET, Christophe | Kapsch CarrierCom France S.A.S | 3GPPMEMBER (ETSI) |
| GUPTA, Nishant | BEIJING SAMSUNG TELECOM R&D | 3GPPMEMBER (CCSA) |
| GUPTA, Varini | Samsung Electronics GmbH | 3GPPMEMBER (ETSI) |
| HAN, Andrew Min-gyu | Hansung University | 3GPPMEMBER (TTA) |
| HOWELL, Andrew | NCSC | 3GPPMEMBER (ETSI) |
| HUANG, Zhenning | China Mobile (Suzhou) Software | 3GPPMEMBER (CCSA) |
| JANKY, William | FirstNet | 3GPPMEMBER (ATIS) |
| KILGOUR, Kit | Sepura PLC | 3GPPMEMBER (ETSI) |
| KIM, Hyesung | Samsung Electronics Romania | 3GPPMEMBER (ETSI) |
| KISS, Krisztian | Apple Hungary Kft. | 3GPPMEMBER (ETSI) |
| KOO, Hyounhee | SyncTechno Inc. | 3GPPMEMBER (ETSI) |
| LAVASANI, Shahab | Huawei Tech.(UK) Co., Ltd | 3GPPMEMBER (ETSI) |
| LAZARA, Dominic | Motorola Solutions Danmark A/S | 3GPPMEMBER (ETSI) |
| LEE, Jicheol | SAMSUNG R&D INSTITUTE JAPAN | 3GPPMEMBER (ARIB) |
| LEVINE, Anatoli | Softil Ltd | 3GPPMEMBER (ETSI) |
| LIBUNAO, Gerardo | Verizon UK Ltd | 3GPPMEMBER (ETSI) |
| LIU, Qingfen | Huawei Technologies Japan K.K. | 3GPPMEMBER (TTC) |
| LOTFALLAH, Osama | Qualcomm Tech. Netherlands B.V | 3GPPMEMBER (ETSI) |
| LUETZENKIRCHEN, Thomas | Intel Ireland | 3GPPMEMBER (ETSI) |
| MANGION, Mathieu | ETSI | 3GPPORG\_REP (ETSI) |
| MATTSSON, Bernt | ETSI | 3GPPORG\_REP (ETSI) |
| MAYALIL, Stanley | Apple GmbH | 3GPPMEMBER (ETSI) |
| MERRICK, Robert | HOME OFFICE | 3GPPMEMBER (ETSI) |
| MLADIN, Catalina | Convida Wireless | 3GPPMEMBER (ETSI) |
| MOHAJERI, Shahram | AT&T GNS Belgium SPRL | 3GPPMEMBER (ETSI) |
| MONNES, Peter | L3Harris Technologies | 3GPPMEMBER (ATIS) |
| MONRAD, Atle | InterDigital Belgium. LLC | 3GPPMEMBER (ETSI) |
| MOSES, Danny | Intel Deutschland GmbH | 3GPPMEMBER (ETSI) |
| NEAL, Adrian | Vodafone Ireland Plc | 3GPPMEMBER (ETSI) |
| OETTL, Martin | Nokia France | 3GPPMEMBER (ETSI) |
| OPRESCU, Val | AT&T | 3GPPMEMBER (ATIS) |
| PATTAN, Basavaraj (Basu) | Samsung Research America | 3GPPMEMBER (ATIS) |
| PIROARD, Francois | Airbus | 3GPPMEMBER (ETSI) |
| PISON, Laurent | Bull SAS | 3GPPMEMBER (ETSI) |
| PRATURI, Upendra | Qualcomm India Pvt Ltd | 3GPPMEMBER (TSDSI) |
| RV, ANIKETHAN | Samsung Electronics Nordic AB | 3GPPMEMBER (ETSI) |
| SAMDANIS, Konstantinos | Nokia Belgium | 3GPPMEMBER (ETSI) |
| SANDERS, Peter | one2many B.V. | 3GPPMEMBER (ETSI) |
| SAWADA, MASAHIRO | NTT DOCOMO INC. | 3GPPMEMBER (TTC) |
| SCARRONE, Enrico | TELECOM ITALIA S.p.A. | 3GPPMEMBER (ETSI) |
| SHAH, Sapan | Samsung Electronics Benelux BV | 3GPPMEMBER (ETSI) |
| SHIH, Jerry | AT&T GNS Belgium SPRL | 3GPPMEMBER (ETSI) |
| SHU, Lin | HuaWei Technologies Co., Ltd | 3GPPMEMBER (CCSA) |
| SOLANO, Camilo | Ericsson France S.A.S | 3GPPMEMBER (ETSI) |
| SOLOWAY, Alan | QUALCOMM JAPAN LLC. | 3GPPMEMBER (ARIB) |
| SONG, Yue | China Mobile E-Commerce Co. | 3GPPMEMBER (CCSA) |
| SUH, Kyungjoo Grace | Tianjin Samsung Telecom | 3GPPMEMBER (CCSA) |
| TANG, Tingfang | Lenovo (Beijing) Ltd | 3GPPMEMBER (CCSA) |
| TANGUDU, Narendranath Durga | Samsung Electronics Czech | 3GPPMEMBER (ETSI) |
| TIWARI, Kundan | Samsung R&D Institute India | 3GPPMEMBER (TSDSI) |
| TOOBE, Jens | BDBOS | 3GPPMEMBER (ETSI) |
| VENKATARAMAN, Vijay | Apple Portugal | 3GPPMEMBER (ETSI) |
| VERWEIJ, Kees | The Police of the Netherlands | 3GPPMEMBER (ETSI) |
| VIALEN, Jukka | Airbus DS SLC | 3GPPMEMBER (ETSI) |
| WATFA, Mahmoud | QUALCOMM Europe Inc. - Italy | 3GPPMEMBER (ETSI) |
| WENDLER, Ingo | Union Inter. Chemins de Fer | 3GPPMEMBER (ETSI) |
| WIEHE, Ulrich | Nokia Korea | 3GPPMEMBER (TTA) |
| WON, Sung Hwan | Nokia Japan | 3GPPMEMBER (ARIB) |
| WOODWARD, Tim | Motorola Solutions Germany | 3GPPMEMBER (ETSI) |
| XU, Wenliang | Ericsson GmbH, Eurolab | 3GPPMEMBER (ETSI) |
| YONG, Jiang | Datang Mobile Com. Equipment | 3GPPMEMBER (CCSA) |
| ZHANG, Ling | CATT | 3GPPMEMBER (ETSI) |
| ZHOU, Xiaoyun | HUAWEI TECHNOLOGIES Co. Ltd. | 3GPPMEMBER (ETSI) |

## Annex I: List of future meetings

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Title** | **Start date** | **End date (OP)** | **Town** | **Country** | **Reference** |
| 3GPPSA6#34 | 11/11/2019 09:00:00 | 15/11/2019 17:30:00 | Reno, Nevada | US | S6-34 |
| 3GPPSA6#35 | 13/01/2020 09:00:00 | 17/01/2020 17:30:00 | Hyderabad | IN | S6-35 |
| 3GPPSA6#36 | 24/01/2020 09:00:00 | 28/02/2020 17:30:00 | Christchurch | NZ | S6-36 |
| 3GPPSA6#37 | 11/05/2020 09:00:00 | 15/05/2020 17:30:00 | Dubrovnik | HR | S6-37 |
| 3GPPSA6#38 | 06/07/2020 09:00:00 | 10/07/2020 17:30:00 | Espoo | FI | S6-38 |
| 3GPPSA6#39 | 24/08/2020 09:00:00 | 28/08/2020 17:30:00 | Wroclaw | PL | S6-39 |
| 3GPPSA6#adhoc | 12/10/2020 09:00:00 | 16/10/2020 17:30:00 | TBD | TBD | - |
| 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 |