**3GPP TSG- Meeting #**

**, , - (revision of S6-254103)**

**Source: Airbus**

**Title: Solution for KI#7: Recording HTTP traffic**

**Spec: 3GPP TR 23.700-39 V0.2.0**

**Agenda item: 9.2**

**Document for: Approval**

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**1. Introduction**

This contribution proposes a solution to Key Issue#7 - Recording HTTP traffic.

**2. Reason for Change**

No solution exists for KI#7.

**3. Proposal**

It is proposed to agree the following changes to 3GPP TR 23.700-39 V0.3.0.

\* \* \* First Change \* \* \* \*

## 6.x Solution y (for KI#7): Recording HTTP traffic

### 6.x.1 Description

#### 6.x.1.0 General

This solution proposes updates needed to 3GPP TS 23.280 [2] to enable recording of HTTP traffic, including the non-communication related signalling (scenario 3) and MCData FD using HTTP (scenario 2).

NOTE: This solution focuses on the recording of HTTP messages. Aspects of recording the actual file during MCData FD is covered in KI#z and Sol#w.

#### 6.x.1.1 Functional model and reference points

1) New reference points are added to the figure “*Functional model for application plane for an MC system*”.

* REC6 between LMS and recording server
* REC7 between IdMS and recording server

Figure 6.x.1.1-1 is an updated Figure 7.3.1.2-1 in 3GPP TS 23.280 [2].



Figure 6.x.1.1-1 – Updates to Figure 7.3.1.2-1 in 3GPP TS 23.280 [2] in blue colour

2) Recording server is added to the figure *“Functional model for signalling control plane”*.

Figure 6.x.1.1-2 is an updated Figure 7.3.1.2-2 in 3GPP TS 23.280 [2].



Figure 6.x.1.1-2 – Updates to Figure 7.3.1.2-2 in 3GPP TS 23.280 [2] in blue colour

3) The new REC-6 and REC-7 reference points as well as IdMC and IdMS are added to the figure “*Relationships between reference points of MC service application plane and signalling control planes*”.

Figure 6.x.1.1-3 is an updated Figure 7.3.1.2-3 in 3GPP TS 23.280 [2].



Figure 6.x.1.1-3 – Updates to Figure 7.3.1.2-3 in 3GPP TS 23.280 [2] in blue colour

4) NOTE 6 under figure 7.3.1.2-3 in 3GPP TS 23.280 [2] needs to be updated

NOTE 4: Application plane reference point CSC-7 makes use of SIP-2 reference point when the group management servers are connected by a single SIP core. Where they are joined by more than one SIP core, CSC-7 also makes use of the SIP-3 reference point.

NOTE 5: For simplicity, the HTTP proxy, which provides the interconnection between HTTP-1, HTTP-2 and HTTP-3 reference points, is not shown in figure 7.3.1.2-3.

NOTE 6: CSC-3, CSC-5, CSC-15, CSC-24~~, REC-3,~~ and REC-4 ~~and REC-5~~ make use of SIP-1 and/or SIP-2 and/or SIP-3 reference points. For simplicity, this mapping relationship is not shown in figure 7.3.1.2-3.

5) The new REC-6 and REC-7 reference points are added to “*Functional model for Recording admin UE and Replay UE*”, figures 7.3.1.3-1 and 7.3.1.3-2 in 3GPP TS 23.280 [2].



Figure 6.x.1.1-4 – Updates to Figure 7.3.1.3-1 in 3GPP TS 23.280 [2] in blue colour



Figure 6.x.1.1-5 – Updates to Figure 7.3.1.3-2 in 3GPP TS 23.280 [2] in blue colour

6) Clause 7.4.2.4.2 in 3GPP TS 23.280 [2] needs to be updated

##### 7.4.2.4.2 Recording server

The recording server is a functional entity that can receive and record communications metadata and media, relating to target users and target groups, from MC service servers and other servers in the MC system. The recording server securely stores the recorded information into mass storage(s) and allows controlled access for replay/retrieve functions.

The security aspects of storing metadata and media into mass storage are specified in TS 33.180 [25].

The recording server functional entity is supported by the SIP AS, HTTP client and HTTP server functional entities of the signalling control plane.

The target users and/or groups for recording are set in the MC service user profile configuration data (A.3) and in the group configuration data (A.4). This can be done by an authorized recording admin user utilizing the CSC-4 reference point (user profiles) and CSC-2 reference point (group profiles).

7) Clause 7.5.2.32 in 3GPP TS 23.280 [2] needs to be updated

#### 7.5.2.32 Reference point REC-3 (between recording server and configuration management server)

The REC-3 reference point, which exists between recording server and configuration management server, is used by the recording server to obtain user profiles (and updated user profile data) of the replay service users. It is also used for sending of configuration management related user events of recording target users from CMS to the recording server.

NOTE: It is an implementation option and out of 3GPP scope whether the CMS explicitely sends/forwards messages to be recorded to the recording server or if the HTTP proxy is configured to intercept, log/duplicate and send a copy of HTTP messages to the recording server.

The REC-3 reference point shall use HTTP-1 and HTTP-2 reference points for transport and routing of non-subscription/notification related signalling. The REC-3 reference point shall use SIP-2 and SIP-3 reference point for transport and routing of subscription/notification related signalling. The SIP-3 reference point is used when the recording server and the configuration management server are served by different SIP cores.

8) Clause 7.5.2.37 in 3GPP TS 23.280 [2] needs to be updated

#### 7.5.2.37 Reference point REC-5 (between recording server and group management server)

The REC-5 reference point, which exists between recording server and group management server, is used by the recording server to obtain information related to target groups for the recordings, including the group related key material. It is also used for sending group management related user events of recording target users and groups from GMS to the recording server.

The REC-5 reference point shall use the HTTP-1 and HTTP-2 reference points.

NOTE: It is an implementation option and out of 3GPP scope whether the GMS explicitely sends/forwards messages to be recorded to the recording server or if the HTTP proxy is configured to intercept, log/duplicate and send a copy of HTTP messages to the recording server.

Editor's note: The security aspects of REC-5 shall be specified by SA3 in 3GPP TS 33.180 [25].

9) New clauses are needed for the new reference points REC-6 and REC-7

#### 7.5.2.n Reference point REC-6 (between recording server and location management server)

The REC-6 reference point, which exists between recording server and location management server, is used for sending location management related user events from LMS to the recording server.

NOTE: It is an implementation option and out of 3GPP scope whether the LMS explicitely sends/forwards messages to be recorded to the recording server or if the HTTP proxy is configured to intercept, log/duplicate and send a copy of HTTP messages to the recording server.

The REC-6 reference point shall use the HTTP-1 and HTTP-2 reference points.

#### 7.5.2.m Reference point REC-7 (between recording server and identity management server)

The REC-7 reference point, which exists between recording server and identity management server, is used for sending identity management related user events from IdMS to the recording server.

NOTE 1: It is an implementation option and out of 3GPP scope whether the IdMS explicitely sends/forwards messages to be recorded to the recording server or if the HTTP proxy is configured to intercept, log/duplicate and send a copy of HTTP messages to the recording server.

The REC-7 reference point shall use the HTTP-1 and HTTP-2 reference points.

#### 6.x.1.2 Configurations

No changes are needed to the application layer configurations i.e., configuring target users/groups for recording.

Possible HTTP proxy configurations to capture/forward traffic from target users/groups to the recording server are out of scope of 3GPP.

#### 6.x.1.3 Procedures

Editor's note: Impacts to procedure(s) (3GPP TS 23.280 [2], clause 10.18.3.1 (General) and new clause(s) 10.18.3.n) are FFS.

### 6.x.2 Impacts on existing functional entities and reference points

All impacts are described in 6.x.1.1.

### 6.x.3 Solution evaluation

FFS.

\* \* \* End of changes \* \* \* \*