**3GPP TSG-SA6 Meeting #37-e *S6-200643***

**Online, ,14th May 2020 - 26th May 2020 (revision of S6-200575)**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **23.379** | **CR** | **0255** | **rev** | **2** | **Current version:** | **17.2.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME | **x** | Radio Access Network |  | Core Network | **x** |

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| ***Title:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Kontron Transportation France | | | | | | | | | |
| ***Source to TSG:*** | S6 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eMONASTERY2 | | | | |  | ***Date:*** | | | 2020-05-06 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) Rel-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Corrections in call forwarding related clauses | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Correcting different errors | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Errors remain in the specification | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 10.7.5.1.1, 10.7.5.1.2, 10.7.5.1.3, 10.7.5.1.4, 10.7.5.1.5, 10.7.5.2.3 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **x** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **x** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **x** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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



##### 10.7.5.1.1 MCPTT private call forwarding request (MCPTT client to MCPTT server)

Table 10.7.5.1.1-1 describes the information flow of the MCPTT private call forwarding request from the MCPTT client to the MCPTT server.

Table 10.7.5.1.1-1: MCPTT private call forwarding request (MCPTT client to MCPTT server) information elements

|  |  |  |
| --- | --- | --- |
| Information Element | Status | Description |
| MCPTT ID | M | The MCPTT ID requesting the call forwarding |
| MCPTT ID | M | The MCPTT ID originating the MCPTT private call |
| MCPTT ID | M | The target MCPTT ID of the call forwarding |

##### 10.7.5.1.2 MCPTT private call forwarding response (MCPTT server to MCPTT client)

Table 10.7.5.1.2-1 describes the information flow of the MCPTT private call forwarding response from the MCPTT server to the MCPTT client.

Table 10.7.5.1.2-1: MCPTT private call forwarding response (MCPTT server to MCPTT client) information elements

|  |  |  |
| --- | --- | --- |
| Information Element | Status | Description |
| MCPTT ID | M | The MCPTT ID requesting the call call forwarding |
| Result | M | Result of the call forwarding request – success or fail |

##### 10.7.5.1.3 MCPTT private call forwarding request (MCPTT server to MCPTT client)

Table 10.7.5.1.3-1 describes the information flow of the MCPTT private call forwarding request from the MCPTT server to the MCPTT client.

Table 10.7.5.1.3-1: MCPTT private call forwarding request (MCPTT server to MCPTT client) information elements

|  |  |  |
| --- | --- | --- |
| Information Element | Status | Description |
| MCPTT ID | M | The MCPTT ID of the party to be forwarded |
| MCPTT ID | M | The target MCPTT ID of the call forwarding |

##### 10.7.5.1.4 MCPTT private call forwarding response (MCPTT client to MCPTT server)

Table 10.7.5.1.4-1 describes the information flow of the MCPTT private call forwarding response from the MCPTT client to the MCPTT server.

Table 10.7.5.1.4-1: MCPTT private call forwarding response (MCPTT client to MCPTT server) information elements

|  |  |  |
| --- | --- | --- |
| Information Element | Status | Description |
| MCPTT ID | M | The MCPTT ID of the party to be forwarded |
| MCPTT ID | M | The MCPTT ID of the target of the forwarding |
| Result | M | Result of the call forwarding request – success or fail |

\* \* \* End of Change \* \* \* \*

\* \* \* Next Change \* \* \* \*

##### 10.7.5.2.3 MCPTT private call forwarding no answer

Figure 10.7.5.2.3-1 below illustrates the procedure of call forwarding no answer of MCPTT private calls.

NOTE 1: The condition no answer covers both the cases in which the user does not answer because he is not reachable, as well as the case in which he is reachable but does not answer.

Pre-conditions:

1. MCPTT client 2 is authorized to use call forwarding and has call forwarding no answer enabled with the destination MCPTT client 3.

2. MCPTT client 1 is authorized to make private calls to MCPTT client 2.

3. No forwarding with no answer has so far occurred in this call.

4. MCPTT client 1 has the necessary security information to initiate a secured private call with MCPTT client 2 and MCPTT client 3.



Figure 10.7.5.2.3-1: MCPTT call forwarding no answer

1. MCPTT client 1 sends an MCPTT private call request towards the MCPTT server.

2. The MCPTT server checks if MCPTT client 2 has call forwarding no answer enabled. If the MCPTT server detects that MCPTT client 2 is not registered, the procedure continues with step 7. Otherwise the MCPTT server starts a timer with the configured no answer timeout.

3. The MCPTT server sends a MCPTT private call request with manual commencement mode towards MCPTT client 2. If the MCPTT server detects that MCPTT client 2 is not reachable, the procedure continues with step 7.

4. The user at MCPTT client 2 is alerted. MCPTT client 2 sends an MCPTT ringing to the MCPTT server.

5. In manual commencement mode the MCPTT server sends an MCPTT ringing to the MCPTT client 1.

6. The MCPPT server detects that MCPTT client 2 does not answer within the specified time interval.

7. The MCPTT server verifies that no other forwarding with the condition no answer has occurred so far.

8. The MCPTT server sends a MCPTT call forwarding request towards the MCPTT client 1.

NOTE 2: The target MCPTT ID is the one configured in the user profile for call forwarding no answer.

9. The user at MCPTT client 1 is notified that a call forwarding is in process.

10. Optionally MCPTT client 1 sends a MCPTT call forwarding response back to the MCPTT server.

NOTE 3: Step 14 might not be sent, since it could be determined that the MCPTT call forwarding request was successful by receiving the MCPTT private call request initiated by MCPTT client 1.

11. MCPTT client 1 sends a MCPTT private call request towards the MCPTT server that includes a call forwarding indication set to true. MCPTT client 1 initiates a security association with MCPTT client 3 for the media, if end-to-end encryption is used for this call

12. The MCPTT server verifies that client 1 is authorized to perform the MCPTT private call as a result of the MCPTT private call forwarding request. The MCPTT server verifies that the MCPTT private call request contains MCPTT client 3 that is the authorized target from step 8, and the forwarding indication is set to true.

NOTE 3: For call forwarding the MCPTT server does not check if the initial originating MCPTT user at MCPTT client 1 is authorized to make an MCPTT private call to the final target MCPTT user at MCPTT client 3.

Editor's note: Checking if MCPTT client 3 is in the whitelist of MCPTT client 1 is FFS.

13. The MCPTT server sends a MCPTT private call request towards MCPTT client 3.

14. Optionally the MCPTT server sends a MCPTT progress indication to MCPTT client 1.

15. The user at MCPTT client 3 is alerted. MCPTT client 3 sends an MCPTT ringing to the MCPTT server. This step is not required in case of automatic commencement mode.

16. The MCPTT server sends an MCPTT ringing to MCPTT client 1. This step is not required in case of automatic commencement mode.

17. MCPTT client 3 sends an MCPTT private call response to the MCPTT server. In manual commencement mode this occurs after the user at MCPTT client 3 has accepted the call.

18. The MCPTT server sends an MCPTT private call response to MCPTT client 1 indicating that MCPTT client3 has accepted the call.

19. The media plane for communication between MCPTT client 1 and MCPTT client 3 is established.

\* \* \* End of Change \* \* \* \*

\* \* \* Next Change \* \* \* \*

##### 10.7.5.2.4 MCPTT private call forwarding based on manual user input

Figure 10.7.5.2.4-1 below illustrates the procedure of call forwarding based on manual user input of MCPTT private calls.

Pre-conditions:

1. MCPTT client 2 is authorized to perform call forwarding based on manual input.

2. MCPTT client 1 is authorized to make private calls to MCPTT client 2.

3. No forwarding with no answer has so far occurred in this call.

4. MCPTT client 1 has the necessary security information to initiate a secured private call with MCPTT client 2 and MCPTT client 3.



Figure 10.7.5.2.4-1: MCPTT call forwarding based on manual user input

1. MCPTT client 1 sends an MCPTT private call request towards the MCPTT server.

2. The MCPTT server checks if MCPTT client 2 has call forwarding no answer enabled. If the MCPTT server detects that MCPTT client 2 is not registered, the procedure continues with step 10. Otherwise the MCPTT server starts a timer with the configured no answer timeout.

3. The MCPTT server sends a MCPTT private call request with manual commencement mode towards MCPTT client 2. If the MCPTT server detects that MCPTT client 2 is not reachable, the procedure continues with step 10.

4. The user at MCPTT client 2 is alerted. MCPTT client 2 sends an MCPTT ringing to the MCPTT server.

5. In manual commencement mode the MCPTT server sends an MCPTT ringing to the MCPTT client 1.

6. During ringing MCPTT client 2 request the call to be forwarded based on manual input.

7. MCPTT client 2 sends a MCPTT call forwarding request to the MCPTT server.

8. The MCPTT server verifies if the user at client 2 is allowed to perform forwarding based on manual input.

9. The MCPTT server stops the timer for the no answer timeout.

10. The MCPTT server verifies that no other forwarding with the condition no answer has occurred so far.

11.The MCPTT server sends a call forwarding response to client 2.

12. The MCPTT server sends a MCPTT call forwarding request towards the MCPTT client 1.

NOTE: The target MCPTT ID is the one entered by the user for call forwarding based on manual user input.

13. The user at MCPTT client 1 is notified that a call forwarding is in process.

14. Optionally MCPTT client 1 sends a MCPTT call forwarding response back to the MCPTT server.

NOTE 2: Step 14 might not be sent, since it could be determined that the MCPTT call forwarding request was successful by receiving the MCPTT private call request initiated by MCPTT client 1.

15. MCPTT client 1 sends a MCPTT private call request towards the MCPTT server that includes a call forwarding indication set to true. MCPTT client 1 initiates a security association with MCPTT client 3 for the media, if end-to-end encryption is used for this call

16. The MCPTT server verifies that client 1 is authorized to perform the MCPTT private call as a result of the MCPTT private call forwarding request. The MCPTT server verifies that the MCPTT private call request contains MCPTT client 3 that is the authorized target from step 12, and the forwarding indication is set to true.

NOTE 3: For call forwarding the MCPTT server does not check if the initial originating MCPTT user at MCPTT client 1 is authorized to make an MCPTT private call to the final target MCPTT user at MCPTT client 3.

Editor's note: Checking if MCPTT client 3 is in the whitelist of MCPTT client 1 is FFS.

17. The MCPTT server sends a MCPTT private call request towards MCPTT client 3.

18. Optionally the MCPTT server sends a MCPTT progress indication to MCPTT client 1.

19. The user at MCPTT client 3 is alerted. MCPTT client 3 sends an MCPTT ringing to the MCPTT server. This step is not required in case of automatic commencement mode.

20. The MCPTT server sends an MCPTT ringing to MCPTT client 1. This step is not required in case of automatic commencement mode.

21. MCPTT client 3 sends an MCPTT private call response to the MCPTT server. In manual commencement mode this occurs after the user at MCPTT client 3 has accepted the call.

22. The MCPTT server sends an MCPTT private call response to MCPTT client 1 indicating that MCPTT client3 has accepted the call.

23. The media plane for communication between MCPTT client 1 and MCPTT client 3 is established.

\* \* \* End of Change \* \* \* \*