

Source: TSG CN WG 1**Title: *Proposed flows for session establishment exception conditions*
*24.228*****Agenda item:****Document for:****3GPP TSG-CN-WG1, Meeting #16
26 February 2001 to 01 March 2001,
Sophia France.*****Tdoc N1-010436010484*****Agenda Item:** 8.2**WI / Topic:** SIP call control protocol for the IM subsystem**Source:** Lucent Technologies, Motorola**Title:** Proposed flows for Session Initiation exception conditions**Effected Specifications / Releases:** 24.229/R5**Document for:** Discussion and decision.**Date:** 26 February 2001

Introduction

This contribution discusses and points out the call flows that need to be addressed as exception call flows for Session Initiation call flows.

Description

There are several decision points that exist on Session Initiation call flows. All or some of these decision points also exist on all the session initiation call flows shown in Appendix A in 24.228.030. Based on the outcome of these decision points it should be noted that flows might change radically. There are also possible exception cases that might exist like, UE out of range or unreachable etc.

Listed below are possible exception flows for each type/segment of mobile session initiation scenarios. This discussion is based on the call flows in Appendix A of 24.228.030.

(MO#1a) Mobile origination, roaming, without I-CSCF in home network providing configuration independence

1. If service control at step 5, 35 denied the service then a new call flow will result due to that decision.
2. If Authorize QoS Resources at step 10 denied the resources then a new call flow will result due to that decision.
3. If Resource Reservation at step 18 failed to reserve resources then a new call flow will result due to that decision. a new call flow

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4. If the Cx interface fails then a new call flow will result because of that failure. Put this in the Registration call flow as well.

(MO#1b) Mobile origination, roaming, with I-CSCF in home network providing configuration independence

1. If service control at step 7, 45 denied the service then a new call flow will result due to that decision.
2. If Authorize QoS Resources at step 13 denied the resources then a new call flow will result due to that decision.
3. If Resource Reservation at step 23 failed to reserve resources then a new call flow will result due to that decision. a new call flow
4. If the Cx interface fails then a new call flow will result because of that failure. Put this in the Registration call flow as well.

(MO#2) Mobile origination, located in home network

1. If service control at step 5, 35 denied the service then a new call flow will result due to that decision.
2. If Authorize QoS Resources at step 10 denied the resources then a new call flow will result due to that decision.
3. If Resource Reservation at step 18 failed to reserve resources then a new call flow will result due to that decision.
4. If the Cx interface fails then a new call flow will result because of that failure. Put this in the Registration call flow as well.

(PSTN-O) PSTN origination

If Resource Reservation failed to reserve resources then a new call flow will result due to that decision.

If the call fails due to an error in the PSTN then a new call flow will result.

If UE refused the call then a new call flow would result due to that decision.

(MT#1a) Mobile termination, roaming, without I-CSCF in home network providing configuration independence

1. If service control at step 3, 36 denied the service then a new call flow will result due to that decision.
2. If Authorize QoS Resources at step 9 denied the resources then a new call flow will result due to that decision.
3. If Resource Reservation at step 18 failed to reserve resources then a new call flow will result due to that decision. a new call flow.
4. Called UE could be unreachable since it might have run out of radio coverage.
5. Called UE is not registered.

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6. If the Cx interface fails then a new call flow will result because of that failure. Put this in the Registration call flow as well.
7. Is Called UE refuses to accept the call (e.g. resources busy in the terminal) the a new call flow will result due to this action.

(MT#1b) Mobile termination, roaming, with I-CSCF in home network providing configuration independence

1. If service control at step 3, 47 denied the service then a new call flow will result due to that decision.
2. If Authorize QoS Resources at step 11 denied the resources then a new call flow will result due to that decision.
3. If Resource Reservation at step 23 failed to reserve resources then a new call flow will result due to that decision. a new call flow
4. Called UE could be unreachable since it might have run out of radio coverage.
5. Called UE is not registered.
6. If the Cx interface fails then a new call flow will result because of that failure. Put this in the Registration call flow as well.
7. Is Called UE refuses to accept the call (e.g. resources busy in the terminal) the a new call flow will result due to this action.

(MT#2) Mobile termination, located in home network

1. If service control at step 3, 36 denied the service then a new call flow will result due to that decision.
2. If Authorize QoS Resources at step 9 denied the resources then a new call flow will result due to that decision.
3. If Resource Reservation at step 18 failed to reserve resources then a new call flow will result due to that decision. a new call flow
4. Called UE could be unreachable since it might have run out of radio coverage.
5. Called UE is not registered.
6. If the Cx interface fails then a new call flow will result because of that failure. Put this in the Registration call flow as well.
7. Is Called UE refuses to accept the call (e.g. resources busy in the terminal) the a new call flow will result due to this action.

(PSTN-T) PSTN termination

If Resource Reservation failed to reserve resources then a new call flow will result due to that decision.
If the calls fails due to an error in the PSTN then a new call flow will result.
If PSTN phone refused the call then a new call flow would result due to that decision.

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(S-S#1a) Different network operators performing origination and termination, without firewall between networks

1. If Service Control at step 3, 10, 40 43 denied the service then a new call flow will result due to that decision. a new call flow a new call flow a new call flow
2. Called UE could be unreachable since it might have run out of radio coverage.
3. Called UE is not registered.
4. If the Cx interface fails then a new call flow will result because of that failure. Put this in the Registration call flow as well.

(S-S#1b) Different network operators performing origination and termination, with configuration hiding

1. If Service Control at step 3, 12, 56, 60 denied the service then a new call flow will result due to that decision. a new call flow a new call flow service then a new call flow will result due to that decision.
2. Called UE could be unreachable since it might have run out of radio coverage.
3. Called UE is not registered.
4. If the Cx interface fails then a new call flow will result because of that failure. Put this in the Registration call flow as well.

(S-S#2) Single network operator performing origination and termination

1. If Service Control at step 3, 10, 40, 43 denied the service then a new call flow will result due to that decision. a new call flow a new call flow a new call flow
2. Called UE could be unreachable since it might have run out of radio coverage.
3. Called UE is not registered.
4. If the Cx interface fails then a new call flow will result because of that failure. Put this in the Registration call flow as well.

(S-S#3) PSTN Termination performed by home network of originator

1. If Service Control at step 3, 8, 27, 30 denied the service then a new call flow will result due to that decision. a new call flow a new call flow a new call flow
2. Called PSTN user does not Answer or cannot be reached.
3. If the Cx interface fails then a new call flow will result because of that failure. Put this in the Registration call flow as well.

(S-S#4) PSTN Termination performed by different operator than origination

1. If Service Control at step 3, 10, 40, 43 denied the service then a new call flow will result due to that decision. a new call flow a new call flow a new call flow
2. Called PSTN user does not Answer or cannot be reached.
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Proposal

This list of proposed exception flows have been noted here to show some of the possible exception call flows that need to be considered for session initiation calls. It is proposed that the CN group come to a decision as to which of these might be necessary to address and put as call flows in 24.228⁸⁹