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3RD GENERATION
PARTNERSHIP
PROJECT 2
"3GPP2"

Common Voice Feature Procedures

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Revision History

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PART 650

COMMON VOICE FEATURE PROCEDURES

1 CALL FORWARDING ROUTING

1.1 HLR Select Forward-To or Diversion Number Courtesy Call Point of Return

Upon request, the HLR shall do the following:

1 IF the selected forward-to number or diversion number indicates voice mail:

(Courtesy call does not apply.)

1-1 Set the PointOfReturn to *ToneTermination*.

2 ELSE (directory number is specified):

2-1 Include the Digits (Destination) parameter set to the forward-to number or diversion number.

2-2 Set the PointOfReturn to *PSTNTermination*.

3 ENDIF.

4 Return to calling task via the PointOfReturn.

1.2 HLR Select Forward-To or Diversion Number Point of Return

Upon request, the HLR shall do the following:

- 1 IF the received TransactionCapability parameter has been received AND IF it indicates the system is *termination list capable*:
 - 1-1 IF the selected forward-to number or diversion number indicates voice mail:
 - 1-1-1 IF the voice mailbox is not the MIN of the called subscriber:
 - 1-1-1-1 Include the VoiceMailboxNumber set to the appropriate mailbox.
 - 1-1-1-2 ENDIF.
 - 1-1-1-3 IF the system launching the current request is the same as the voice mail system:
 - 1-1-1-3-1 Set the PointOfReturn to *LocalTermination*.
 - 1-1-1-3-2 Include the TerminationTreatment parameter set to *VoiceMailDelivery*.
 - 1-1-1-3-3 ELSE:
 - 1-1-1-3-3-1 Include the TerminationTreatment set to *VoiceMailDelivery*.
 - 1-1-1-3-3-2 Execute the “HLR Initiating a Routing Request” task (see Part 640, sec. 62.1).
 - 1-1-1-3-3-3 IF Digits (Destination) is received:
 - 1-1-1-3-3-3-1 Relay the received Digits (Destination).
 - 1-1-1-3-3-3-2 Set the PointOfReturn to *IntersystemTermination*.
 - 1-1-1-3-3-3-3 ELSE (The voice mail box cannot be reached):
 - 1-1-1-3-3-3-3-1 Optionally, include the AnnouncementCode parameter in the AnnouncementList parameter set to an appropriate announcement.
 - 1-1-1-3-3-3-3-2 Set the PointOfReturn to *ToneTermination*.
 - 1-1-1-3-3-3-4 ENDIF.
 - 1-1-1-3-4 ENDIF.
 - 1-2 ELSE (a directory number is specified):
 - 1-2-1 Include the Digits (Destination) parameter set to the selected forward-to number or diversion number.
 - 1-2-2 Set the PointOfReturn to *PSTNTermination*.
 - 1-3 ENDIF.
 - 2 ELSE (the system is not termination list capable):
 - 2-1 IF the selected forward-to number or diversion number indicates voice mail:
 - 2-1-1 Optionally, include the AnnouncementCode parameter in the AnnouncementList parameter set to an appropriate announcement.
 - 2-1-2 Set the PointOfReturn to *ToneTermination*.
 - 2-2 ELSE (a directory number is specified):
 - 2-2-1 Include the Digits (Destination) parameter set to the forward-to number or diversion number.
 - 2-2-2 Set the PointOfReturn to *PSTNTermination*.
 - 2-3 ENDIF.
 - 3 ENDIF.
 - 4 Return to calling task via the PointOfReturn.

2 DIGIT ANALYSIS

2.1 Termination Address Expansion

- 1 IF extra digits are included with the feature code string:
 - 1-1 IF TransactionCapability parameter number of terminations is set to at least one:
 - 1-1-1 IF next digit is a pound ('#') digit:
 - 1-1-1-1 Skip over the pound ('#') digit.
 - 1-1-1-2 IF termination address can be expanded into a destination address.
 - 1-1-1-2-1 Execute the "HLR SPINI Feature Request Invocation" task (see Part 651, sec. 24.4).
 - 1-1-1-2-2 IF the SPINI invocation *failed*:
 - 1-1-1-2-2-1 Return to the calling task via the PointOfReturn.
 - 1-1-1-2-3 ELSE:
 - 1-1-1-2-3-1 Include DestinationDigits parameter set to the destination address.
 - 1-1-1-2-3-2 Set PointOfReturn to PSTN Termination.
 - 1-1-1-2-4 ENDIF.
 - 1-1-1-3 ELSE:
 - 1-1-1-3-1 Optionally, include the AnnouncementCode parameter in the AnnouncementList parameter set to an appropriate announcement.
 - 1-1-1-3-2 Set PointOfReturn to *ToneTermination*.
 - 1-1-1-4 ENDIF.
 - 1-1-2 ELSE:
 - 1-1-2-1 Optionally, include the AnnouncementCode parameter in the AnnouncementList parameter set to an appropriate announcement.
 - 1-1-2-2 Set PointOfReturn to *ToneTermination*.
 - 1-1-3 ENDIF.
 - 1-2 ELSE:
 - (Ignore the extra digits, cannot do anything with them.)
 - 1-2-1 Set PointOfReturn to *ToneTermination*.
 - 1-3 ENDIF.
 - 2 ENDIF.
 - 3 Return to the calling task.

3 WIN VOICE FEATURE PROCEDURES

3.1 MSC Check of Serial Trigger Limit

Upon request, the MSC shall do the following:

- 1 Increment the NumberOfSerialTriggers counter for the current call.
- 2 IF the NumberOfSerialTriggers counter value is greater than the MSC MaximumSerialTriggers value:
 - 2-1 Execute “Local Recovery Procedures” task (see Part 630, sec. 5.1).
 - 2-2 Exit this task.
- 3 ENDIF.
- 4 Return to the calling task.

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3.2 WIN Service Logic

When WIN service logic is invoked, the SCF network entity shall perform the following¹:

- 1 Execute the WIN service logic program.
- 2 WAIT for completion of WIN service logic execution.
- 3 WHEN execution of WIN service logic is complete:
 - 3-1 Include applicable parameters.
 - 3-2 Return to the calling task.
- 4 WHEN data is to be retrieved from an SDF network entity:
 - 4-1 Execute the “SCF Initiating a Search” task (see Part 640, sec. 63.1).
 - 4-2 Remain in this state.
- 5 WHEN data is to be updated in an SDF network entity:
 - 5-1 Execute the “SCF Initiating a Modify task.
 - 5-2 Remain in this state.
- 6 WHEN user interaction is required:

User interaction required:

 - 6-1 IF an SRF network entity external to the MSC is indicated:
 - 6-1-1 Execute “SCF Initiating a Seize Resource” task (see Part 640, sec. 65.1).
 - 6-1-2 IF the task was *unsuccessful*:
 - 6-1-2-1 Include parameters for default treatment.
 - 6-1-2-2 Return to the calling task.
 - 6-1-3 ELSE (the task was *successful*):
 - 6-1-3-1 Execute the ”SCF Initiating Connect Resource” task (see Part 640, sec. 12.1).
 - 6-1-3-2 IF the task was *unsuccessful*:
 - 6-1-3-2-1 Include parameters for default treatment.
 - 6-1-3-2-2 Return to the calling task.
 - 6-1-3-3 ENDIF.
 - 6-1-3-4 IF further user interaction is required:
 - 6-1-3-4-1 Execute the “SCF Initiating Disconnect Resource” task (see Part 640, sec. 15.1).
 - 6-1-3-4-2 GOTO User Interaction Required.
 - 6-1-3-5 ELSEIF immediate disconnection of the MSC to the SRF network entity is required:
 - 6-1-3-5-1 Execute the “SCF Initiating Disconnect Resource” task (see Part 640, sec. 15.1).
 - 6-1-3-6 ENDIF.
 - 6-1-4 ENDIF.
 - 6-2 ELSE (an SRF network entity external to the MSC is not indicated):

¹ This procedure identifies interactions with other procedures and may be different than actual implementations.

- 6-2-1 Execute “Initiation of Remote User Interaction Directive” task (see Part 640, sec. 59.1). 1
- 6-3 ENDIF. 2
- 6-4 Remain in this state. 3
- 7 WHEN remote service logic execution is required¹: 4
- 7-1 Execute “SCF Initiating Service Request” task (see Part 640, sec. 65.1). 5
- 7-2 IF the remote service logic execution is *unsuccessful*: 6
- 7-2-1 Include parameters for default treatment. 7
- 7-2-2 Return to the calling task. 8
- 7-3 ENDIF. 9
- 7-4 Remain in this state. 10
- 8 ENDWAIT. 11

¹ If there is an interaction between the requesting MSC and an SRF network entity that may interfere with the remote service logic execution, the SCF network entity may have to disconnect the MSC from the SRF network entity prior to invocation of remote service logic. This potential interaction should be identified in agreements between the requesting and serving network entities.