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**Source:** SA5 (Telecom Management)  
**Title:** 3 Rel-5 CRs 32.225 (IMS Charging): various  
**Document for:** Approval  
**Agenda Item:** 7.5.3

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Doc-1st-	Spec	CR	R	Phase	Subject	Cat	Version	Doc-2nd-	Workitem
SP-020739	32.225	001	-	Rel-5	Remove ambiguity of the CCF Session State	F	5.0.0	S5-024512	OAM-CH
SP-020739	32.225	002	-	Rel-5	Addition of Application Server (AS) acting as a Voice Mail Server	B	5.0.0	S5-024488	OAM-CH
SP-020739	32.225	003	-	Rel-5	Corrections of definitions and ambiguity	F	5.0.0	S5-024552	OAM-CH

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CHANGE REQUEST
⌘ <b>32.225 CR 001</b> ⌘ rev <b>-</b> ⌘ Current version: <b>5.0.0</b> ⌘

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**Proposed change affects:** UICC apps  ME  Radio Access Network  Core Network

<b>Title:</b>	⌘	Remove ambiguity of the CCF Session State
<b>Source:</b>	⌘	SA5
<b>Work item code:</b>	⌘	OAM-CH
		<b>Date:</b> ⌘ 22/11/02
<b>Category:</b>	⌘	<b>F</b>
		Use <u>one</u> of the following categories: <i>F</i> (correction) <i>A</i> (corresponds to a correction in an earlier release) <i>B</i> (addition of feature), <i>C</i> (functional modification of feature) <i>D</i> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .
		<b>Release:</b> ⌘ Rel-5 Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

<b>Reason for change:</b>	⌘	The session state of the CCF is not clear.
<b>Summary of change:</b>	⌘	To clarify in section 4.2.2.1 the stateless nature of the CCF.
<b>Consequences if not approved:</b>	⌘	Ambiguity and non-clarity of the session state of the CCF, resulting in potential billing problems.

<b>Clauses affected:</b>	⌘	4.2.2.1								
<b>Other specs affected:</b>	⌘	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications ⌘ Test specifications ⌘ O&M Specifications ⌘	Y	N		X		X		X
Y	N									
	X									
	X									
	X									
<b>Other comments:</b>	⌘									

**Change in Clause 4.2.2.1**

## 4.2.2.1 Offline Specific Base Protocol Requirements

In order to support the offline charging principles described in the present document, the Diameter client and server must implement at least the following Diameter options listed in [3]:

- To send/receive Abort-Session-Request.
- To send/receive Abort-Session-Answer.

All other options of the Diameter Base Protocol are beyond the scope of the present document.

If *Acct-Interim-Interval* AVP is not used or its value field is set to 0, the timer Ts should have a configurable default value.

[For Offline Charging, the client implements the state machine described in \[3\]. The server \(CCF\) implements the STATELESS ACCOUNTING state machine as specified in \[3\], i.e. there is no order in which the server expects to receive the accounting information.](#)

**End of Change in Clause 4.2.2.1  
End of Document**

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<b>CHANGE REQUEST</b>
⌘ <b>32.225 CR 002</b> ⌘ rev <b>-</b> ⌘ Current version: <b>5.0.0</b> ⌘

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**Proposed change affects:** UICC apps  ME  Radio Access Network  Core Network

<b>Title:</b>	⌘	Addition of Application Server (AS) acting as a Voice Mail Server
<b>Source:</b>	⌘	SA5
<b>Work item code:</b>	⌘	OAM-CH
		<b>Date:</b> ⌘ 11/10/2002
<b>Category:</b>	⌘	<b>B</b>
		Use <u>one</u> of the following categories: <i>F</i> (correction) <i>A</i> (corresponds to a correction in an earlier release) <i>B</i> (addition of feature), <i>C</i> (functional modification of feature) <i>D</i> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .
		<b>Release:</b> ⌘ Rel-5 Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

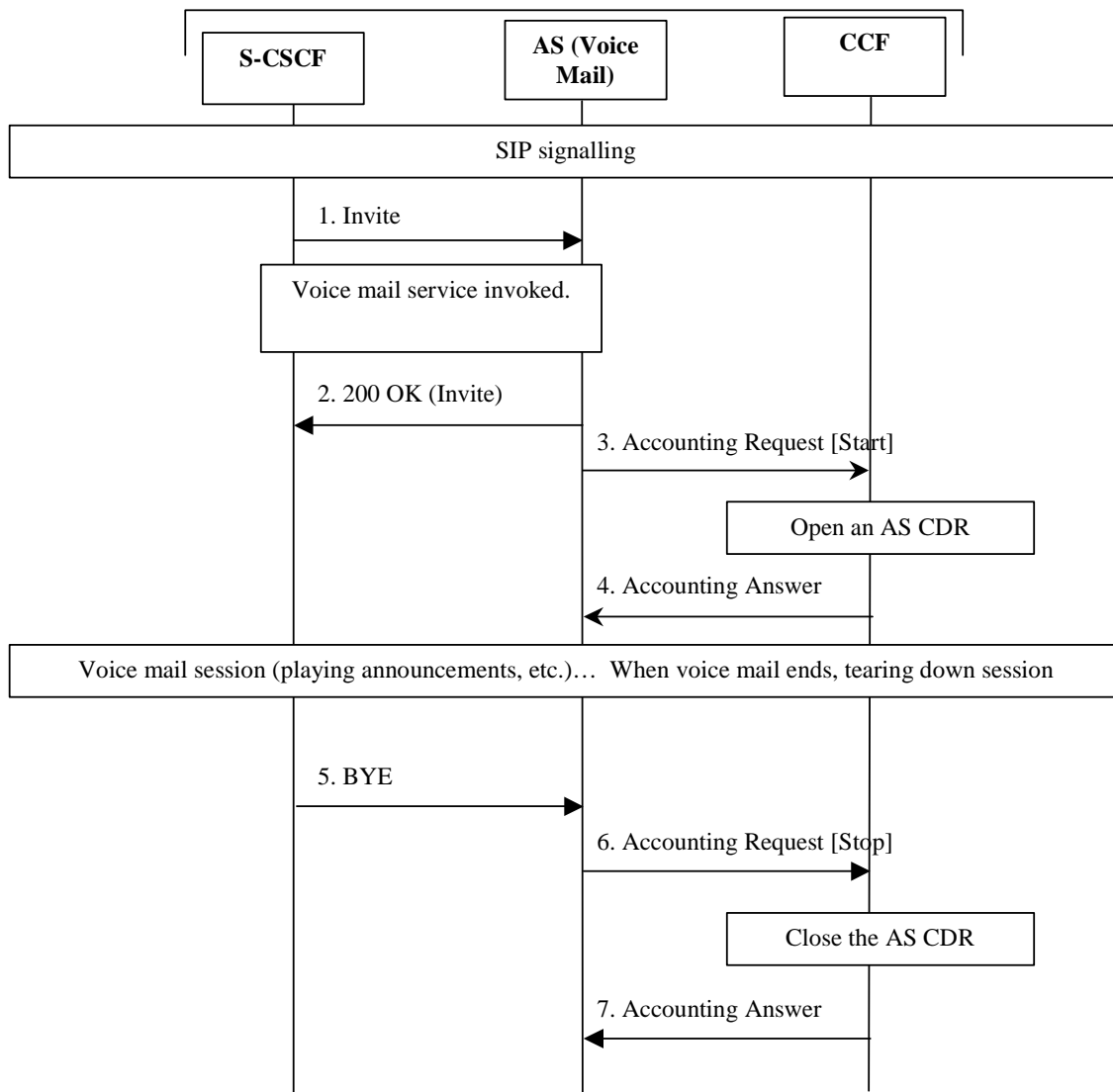
<b>Reason for change:</b>	⌘	The section "AS as a Voice Mail Server" is currently void.
<b>Summary of change:</b>	⌘	The contribution proposes to add the details where an AS acts as a Voice Mail Server
<b>Consequences if not approved:</b>	⌘	No clear charging mechanism for the AS acting as a mail server.

<b>Clauses affected:</b>	⌘	5.1.2.1.5.2				
<b>Other specs affected:</b>	⌘	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Other core specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		Y	N			
		<input type="checkbox"/>	<input checked="" type="checkbox"/>			
<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Test specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Y	N					
<input type="checkbox"/>	<input checked="" type="checkbox"/>					
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Y	N					
<input type="checkbox"/>	<input checked="" type="checkbox"/>					
<b>Other comments:</b>	⌘					

**Change in Clause 5.1.2.1.5.2**

5.1.2.1.5.2 AS Acting as a Voice Mail Server

Figure 5.13 shows the case where an Application Server acts as a Voice Mail Server. S-CSCF invokes the AS acting as Voice Mail Server according to procedure as defined in TS 23.218 [5].



**Figure 5.13: Message Sequence Chart for AS Acting as a Mail Server**

1. AS receives the INVITE from the S-CSCF.
2. AS acknowledges the initiated Voice Mail session by issuing a 200 OK in response to the INVITE.
3. AS sends Accounting-Request with Accounting-Record-Type indicating START\_RECORD to record start of a voice mail session.
4. The CCF acknowledges the reception of the Accounting-Request with Accounting-Record-Type indicating START\_RECORD and opens a AS CDR.
5. Voice mail session release is initiated.

6. Upon reception of release message AS sends an *Accounting-Request* with *Accounting-Record-Type* indicating *STOP\_RECORD* to record stop of a session in the AS CDR.
7. The CCF acknowledges the reception of the data and closes the AS CDR.

**End of Change in Clause 5.1.2.1.5.2**  
**End of Document**

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⌘ <b>32.225 CR 003</b> ⌘ rev <b>-</b> ⌘ Current version: <b>5.0.0</b> ⌘

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**Proposed change affects:** UICC apps  ME  Radio Access Network  Core Network

<b>Title:</b>	⌘ Corrections of definitions and ambiguity		
<b>Source:</b>	⌘ SA5		
<b>Work item code:</b>	⌘ OAM-CH	<b>Date:</b>	⌘ 22/11/2002
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ Rel-5
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

<b>Reason for change:</b>	⌘ Incorrectness of definitions and ambiguity of passages.
<b>Summary of change:</b>	⌘ <ol style="list-style-type: none"> <li>1. On Re-transmission &amp; Duplicate detection (Accounting Related)</li> <li>2. Clarification of ACRs from different nodes</li> <li>3. Clarification on the usage of Duplicate Detection</li> <li>4. Clarification to CDR field Media Initiator</li> <li>5. Clarification to CDR field Private User ID</li> </ol>
<b>Consequences if not approved:</b>	⌘ Ambiguity and incorrectness in the Technical Specification.

<b>Clauses affected:</b>	⌘ 5.1.2.2.3.3, 5.1.1, 6.1.2.2.2.3, 5.2.4.16, 5.2.4.19						
<b>Other specs affected:</b>	<table border="1" style="font-size: x-small;"> <tr> <td style="width: 20px;">Y</td> <td style="width: 20px;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other core specifications	⌘
	Y	N					
	<input type="checkbox"/>	<input checked="" type="checkbox"/>					
<input checked="" type="checkbox"/>	Test specifications						
<input checked="" type="checkbox"/>	O&M Specifications						
<b>Other comments:</b>	⌘						

### Change in Clause 5.1.2.2.3.3

#### 5.1.2.2.3.3 Duplicate detection – (Accounting Related)

A Diameter client marks possible duplicate request messages (e.g., retransmission due to the link failover process) with the *Re-Transmission* AVP.

If the CCF receives a message that is marked as retransmitted and this message was already received, then it discards the duplicate message. However, If the original of the re-transmitted message was not yet received, its-it's the information in the marked message is taken into account when generating the CDR. The CDRs are marked if information from duplicated message(s) is used. ~~with a retransmission flag if information from duplicated messages is used.~~

### End of Change in Clause 5.1.2.2.3.3

### Change in Clause 5.1.1

It is operator configurable in the nodes for which SIP method or ISUP messages an *Accounting Request* is sent, with the exception that if accounting information is collected for sessions the ACR [Start] and ACR [Stop] messages are mandatory according to the tables below. Table 5.1 describes all possible ACRs that might be sent from a P-CSCF, I-CSCF, S-CSCF, MGCF or BGCF. ~~However, not all options are required in all nodes, and a more node specific description of the ACRs is given in subclause 5.1.3.3.~~ A list of node specific ACRs, along with the AVPs to be included are detailed in section 5.1.3.3.

### End of Change in Clause 5.1.1

### Change in Clause 6.1.2.2.2.3

#### 6.1.2.2.2.3 Duplicate Detection

For credit control ~~sessions the duplicate detection is performed only for possible duplicate event requests related to IEC as mentioned in section subclause 6.1.2.1.2.3, is not needed,~~ as retransmission of ECUR session related accounting requests is not allowed.

### End of Change in Clause 6.1.2.2.2.3

### Change in Clause 5.2.4.16

#### 5.2.4.16 Media Initiator ~~Flag~~Address

~~Void.~~ This field indicates if the called party has requested the session modification and it is present only if the initiator was the called party.

### End of Change in Clause 5.2.4.16

### Change in Clause 5.2.4.19

#### 5.2.4.19 Private User ID (served party)

~~Void.~~ This field identifies the served party's, which is either the calling or called party, private User ID that is received in the User-Name AVP in the Accounting Request message. The served party could be either the calling or called party. The used Network Access Identifier is according to the RFC2486 [6].

### End of Change in Clause 5.2.4.19 End of Document