3GPP TSG CN Plenary Meeting #26   **NP-040579**
8th – 10th December 2004 Athens, Greece.

Source:	TSG CN WG4
Title:	Corrections on Diameter Coordination
Agenda item:	9.1
Document for:	APPROVAL

Spec	CR	Rev	Doc-2nd-Level N4-040	Phase	Subject	Cat	Ver_C
29.230	006		1337	Rel-6	Inclusion of missing Cx AVPs	F	6.1.0
29.230	011		1547	Rel-6	Gq interface allocations	C	6.1.0
29.230	009	1	1580	Rel-6	Addition of Gmb interface	F	6.1.0
29.230	012		1603	Rel-6	Addition of Gx interface	C	6.1.0
29.230	010	1	1654	Rel-6	Documenting the Reuse of the 3GPP specific application identifier of Ro for Re on the Charging Interfaces	C	6.1.0

CR-Form-v7.1

CHANGE REQUEST

| ⌘ | **29.230** CR **006** | ⌘ **rev** | **-** | ⌘ | Current version: | **6.1.0** | ⌘ |

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

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

Title: ⌘	Inclusion of missing Cx AVPs		
Source: ⌘	Vodafone		
Work item code:⌘	IMS-CCR2	***Date:*** ⌘	01/11/2004

Category: ⌘ **F**	***Release:*** ⌘ Rel-6

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction 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.

Use one of the following releases:
Ph2 *(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)*
Rel-7 *(Release 7)*

Reason for change: ⌘	AVP's associated with the introduction of 'Features' are not included in 29.230
Summary of change:⌘	AVP's that are missing are added. Also, note to implementor – the merged cell containing '29.229' in the table in section 7.1 needs to have the cell aligned with AVP 627 merged in to it.
Consequences if not approved: ⌘	Record of AVP's used for Cx interface is incomplete

Clauses affected: ⌘	7.1	

	Y	N	
Other specs affected: ⌘		X	Other core specifications ⌘
		X	Test specifications
		X	O&M Specifications

Other comments: ⌘	

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

7.1   3GPP specific AVP codes

The 3GPP specific AVPs have the Vendor-Specific bit ('V' bit) set in the AVP header and they carry the 3GPP's vendor identifier in the Vendor-ID field of the AVP header. The 3GPP specific AVP codes are presented in the following table.

Table 7.1: 3GPP specific AVP codes

AVP Code	Attribute Name	Data Type	Specified in the 3GPP TS
Note: The AVP codes from 1 to 255 are reserved for backwards compatibility with 3GPP RADIUS Vendor Specific Attributes (See TS 29.061 [13])			
Note: The AVP codes from 256 to 299 are reserved for future use.			
			29.234 [6]
Note: The AVP codes from 300 to 399 are reserved for TS 29.234			
			29.109 [7]
Note: The AVP codes from 400 to 499 are reserved for TS 29.109			
			29.209 [8]
Note: The AVP codes from 500 to 599 are reserved for TS 29.209			
600	Visited-Network-Identifier	OctetString	29.229 [2]
601	Public-Identity	UTF8String	
602	Server-Name	UTF8String	
603	Server-Capabilities	Grouped	
604	Mandatory-Capability	Unsigned32	
605	Optional-Capability	Unsigned32	
606	User-Data	OctetString	
607	SIP-Number-Auth-Items	Unsigned32	
608	SIP-Authentication-Scheme	UTF8String	
609	SIP-Authenticate	OctetString	
610	SIP-Authorization	OctetString	
611	SIP-Authentication-Context	OctetString	
612	SIP-Auth-Data-Item	Grouped	
613	SIP-Item-Number	Unsigned32	
614	Server-Assignment-Type	Enumerated	
615	Deregistration-Reason	Grouped	
616	Reason-Code	Enumerated	
617	Reason-Info	UTF8String	
618	Charging-Information	Grouped	
619	Primary-Event-Charging-Function-Name	DiameterURI	
620	Secondary-Event-Charging-Function-Name	DiameterURI	
621	Primary-Charging-Collection-Function-Name	DiameterURI	
622	Secondary-Charging-Collection-Function-Name	DiameterURI	
623	User-Authorization-Type	Enumerated	
624	User-Data-Already-Available	Enumerated	
625	Confidentiality-Key	OctetString	
626	Integrity-Key	OctetString	
627	User-Data-Request-Type	Enumerated	
628	Supported-Features	Grouped	
629	Feature-List-ID	Unsigned32	
630	Feature-List	Unsigned32	
631	Supported-Applications	Grouped	
Note: The AVP codes from 628 to 699 are reserved for TS 29.229.			
700	User-Identity	Grouped	29.329 [4]
701	MSISDN	OctetString	
702	User-Data	OctetString	
703	Data-Reference	Enumerated	
704	Service-Indication	OctetString	
705	Subs-Req-Type	Enumerated	
706	Requested-Domain	Enumerated	
707	Current-Location	Enumerated	
708	Identity-Set	Enumerated	
Note: The AVP codes from 709 to799 are reserved for TS 29.329.			
			32.299 [5]
Note: The AVP codes from 800 to 899 are reserved for TS 32.299			

CR-Form-v7.1

CHANGE REQUEST

⌘　　**29.230** CR **011**　⌘**rev** **-** ⌘ Current version: **6.1.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

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

Title: ⌘	Gq interface allocations
Source: ⌘	Nokia

Work item code:⌘	TEI6	***Date:*** ⌘	16/11/2004

Category: ⌘ **C**　　　　　　　　　　　　　　***Release:*** ⌘ Rel-6

Use one of the following categories:
　F *(correction)*
　A *(corresponds to a correction in an earlier release)*
　B *(addition of feature),*
　C *(functional modification of feature)*
　D *(editorial modification)*
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　R98　*(Release 1998)*
　R99　*(Release 1999)*
　Rel-4　*(Release 4)*
　Rel-5　*(Release 5)*
　Rel-6　*(Release 6)*
　Rel-7　*(Release 7)*

Reason for change: ⌘	To keep 3GPP Diameter allocations up-to-date according to CN3 LS (N4-041253, N3-040531)
Summary of change:⌘	3GPP AVPs and result-codes allocated in 29.209 are added.
Consequences if not approved: ⌘	3GPP Diameter allocations are not up-to-date.

Clauses affected: ⌘	7.1, 8.1.4

Other specs affected: ⌘	Y	N		
		X	Other core specifications	⌘
		X	Test specifications	
		X	O&M Specifications	

Other comments: ⌘	

How to create CRs using this form:
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3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

7.1 3GPP specific AVP codes

The 3GPP specific AVPs have the Vendor-Specific bit ('V' bit) set in the AVP header and they carry the 3GPP's vendor identifier in the Vendor-ID field of the AVP header. The 3GPP specific AVP codes are presented in the following table.

Table 7.1: 3GPP specific AVP codes

AVP Code	Attribute Name	Data Type	Specified in the 3GPP TS
Note: The AVP codes from 1 to 255 are reserved for backwards compatibility with 3GPP RADIUS Vendor Specific Attributes (See TS 29.061 [13])			
Note: The AVP codes from 256 to 299 are reserved for future use.			
			29.234 [6]
Note: The AVP codes from 300 to 399 are reserved for TS 29.234			
			29.109 [7]
Note: The AVP codes from 400 to 499 are reserved for TS 29.109			
500	Abort-Cause	Enumerated	29.209 [8]
501	Access-Network-Charging-Address	Address	
502	Access-Network-Charging-Identifier	Grouped	
503	Access-Network-Charging-Identifier-Value	OctetString	
504	AF-Application-Identifier	OctetString	
505	AF-Charging-Identifier	OctetString	
506	Authorization-Token	OctetString	
507	Flow-Description	IPFilterRule	
508	Flow-Grouping	Grouped	
509	Flow-Number	Unsigned32	
510	Flows	Grouped	
511	Flow-Status	Enumerated	
512	Flow-Usage	Enumerated	
513	Gq-Specific-Action	Enumerated	
514	Max-Requested-Bandwidth	Unsigned32	
515	Max-Requested-Bandwidth-DL	Unsigned32	
516	Max-Requested-Bandwidth-UL	Unsigned32	
517	Media-Component-Description	Grouped	
518	Media-Component-Number	Unsigned32	
519	Media-Sub-Component AVP	Grouped	
520	Media-Type	Enumerated	
521	RR-Bandwidth	Unsigned32	
522	RS-Bandwidth	Unsigned32	
523	SIP-Forking-Indication	Enumerated	
Note: The AVP codes from 5~~2400~~ to 599 are reserved for TS 29.209			
600	Visited-Network-Identifier	OctetString	29.229 [2]
601	Public-Identity	UTF8String	
602	Server-Name	UTF8String	
603	Server-Capabilities	Grouped	
604	Mandatory-Capability	Unsigned32	
605	Optional-Capability	Unsigned32	
606	User-Data	OctetString	
607	SIP-Number-Auth-Items	Unsigned32	
608	SIP-Authentication-Scheme	UTF8String	
609	SIP-Authenticate	OctetString	
610	SIP-Authorization	OctetString	
611	SIP-Authentication-Context	OctetString	
612	SIP-Auth-Data-Item	Grouped	
613	SIP-Item-Number	Unsigned32	
614	Server-Assignment-Type	Enumerated	
615	Deregistration-Reason	Grouped	
616	Reason-Code	Enumerated	
617	Reason-Info	UTF8String	
618	Charging-Information	Grouped	
619	Primary-Event-Charging-Function-Name	DiameterURI	
620	Secondary-Event-Charging-Function-Name	DiameterURI	
621	Primary-Charging-Collection-Function-Name	DiameterURI	
622	Secondary-Charging-Collection-Function-Name	DiameterURI	
623	User-Authorization-Type	Enumerated	
624	User-Data-Already-Available	Enumerated	
625	Confidentiality-Key	OctetString	
626	Integrity-Key	OctetString	
627	User-Data-Request-Type	Enumerated	
Note: The AVP codes from 628 to 699 are reserved for TS 29.229.			

700	User-Identity	Grouped	
701	MSISDN	OctetString	
702	User-Data	OctetString	
703	Data-Reference	Enumerated	29.329 [4]
704	Service-Indication	OctetString	
705	Subs-Req-Type	Enumerated	
706	Requested-Domain	Enumerated	
707	Current-Location	Enumerated	
708	Identity-Set	Enumerated	
Note: The AVP codes from 709 to799 are reserved for TS 29.329.			
			32.299 [5]
Note: The AVP codes from 800 to 899 are reserved for TS 32.299			

*** Next Modification ***

8.1.4   Permanent Failures

The Permanent Failure result codes shall use the values from 5001 to 5999 in the Experimental-Result-Code AVP. The reserved 3GPP specific Permanent Failure result codes are presented in the following table.

Table 8.1.4: 3GPP specific Permanent Failure result codes

Experimental Result Code	Result text	Specified in the TS
5001	DIAMETER_ERROR_USER_UNKNOWN	
5002	DIAMETER_ERROR_IDENTITIES_DONT_MATCH	
5003	DIAMETER_ERROR_IDENTITY_NOT_REGISTERED	
5004	DIAMETER_ERROR_ROAMING_NOT_ALLOWED	
5005	DIAMETER_ERROR_IDENTITY_ALREADY_REGISTERED	
5006	DIAMETER_ERROR_AUTH_SCHEME_NOT_SUPPORTED	29.229 [2]
5007	DIAMETER_ERROR_IN_ASSIGNMENT_TYPE	
5008	DIAMETER_ERROR_TOO_MUCH_DATA	
5009	DIAMETER_ERROR_NOT_SUPPORTED_USER_DATA	
5010	DIAMETER_MISSING_USER_ID	
Note: The Experimental Result Codes from 5011 to 5020 are reserved for the TS 29.229.		
		32.299 [5]
Note: The Experimental Result Codes from 5021 to 5040 are reserved for the TS 32.299.		
		29.234 [6]
Note: The Experimental Result Codes from 5041 to 5060 are reserved for the TS 29.234.		
5061	GQ_INVALID_SERVICE_INFORMATION	29.209 [8]
5062	GQ_FILTER_RESTRICTIONS	
Note: The Experimental Result Codes from 5063 to 5080 are reserved for the TS 29.209.		
5100	DIAMETER_ERROR_USER_DATA_NOT_RECOGNIZED	
5101	DIAMETER_ERROR_OPERATION_NOT_ALLOWED	
5102	DIAMETER_ERROR_USER_DATA_CANNOT_BE_READ	
5103	DIAMETER_ERROR_USER_DATA_CANNOT_BE_MODIFIED	29.329 [4]
5104	DIAMETER_ERROR_USER_DATA_CANNOT_BE_NOTIFIED	
5105	DIAMETER_ERROR_TRANSPARENT_DATA OUT_OF_SYNC	
Note: The Experimental Result Codes from 5106 to 5119 are reserved for the TS 29.329.		
		29.109 [7]
Note: The Experimental Result Codes from 5400 to 5419 are reserved for the TS 29.109.		

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CHANGE REQUEST

| ⌘ | **29.230** CR **009** | ⌘ **rev** **1** | ⌘ | Current version: | **6.1.0** | ⌘ |

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

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

Title:	⌘	Addition of Gmb interface
Source:	⌘	Nortel Networks
Work item code: ⌘	7.4	**Date:** ⌘	19/11/2004
Category:	⌘	**F**	**Release:** ⌘	Rel-6

Use one of the following categories:
F (correction)
A (corresponds to a correction 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.

Use one of the following releases:
Ph2 (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)
Rel-7 (Release 7)

Reason for change:	⌘	CN3 has requested range codes for Gmb interface (part of TS 29.061)
Summary of change: ⌘	A range of AVP, experimental error codes for permanent failures codes is reserved. Also a placeholder for the application-id is created
Consequences if not approved:	⌘	Missing one 3GPP diameter application from 29.230

| **Clauses affected:** | ⌘ | 4.1, 7.1, 8.1.4 |

		Y	N		
Other specs affected:	⌘		X	Other core specifications	⌘	
			X	Test specifications	
			X	O&M Specifications	

| **Other comments:** | ⌘ | |

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3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

4.1   3GPP specific application identifiers

The 3GPP specific application identifiers allocated by IANA are listed in the following table.

Table 4.1: 3GPP specific application identifiers

Application identifier	Application	3GPP TS
16777216	3GPP Cx/Px	29.228 [1] and 29.229 [2]
16777217	3GPP Sh/Ph	29.328 [3] and 29.329 [4]

Editors note: The following applications are under development and they don't have the application id yet.

	3GPP Wx	29.234 [6]
	3GPP Zn	29.109 [7]
	3GPP Zh	29.109 [7]
	3GPP Gq	29.209 [8]
	3GPP Gmb	29.061 [13]

7.1   3GPP specific AVP codes

The 3GPP specific AVPs have the Vendor-Specific bit ('V' bit) set in the AVP header and they carry the 3GPP's vendor identifier in the Vendor-ID field of the AVP header. The 3GPP specific AVP codes are presented in the following table.

Table 7.1: 3GPP specific AVP codes

AVP Code	Attribute Name	Data Type	Specified in the 3GPP TS
Note: The AVP codes from 1 to 255 are reserved for backwards compatibility with 3GPP RADIUS Vendor Specific Attributes (See TS 29.061 [13])			
Note: The AVP codes from 256 to 299 are reserved for future use.			
			29.234 [6]
Note: The AVP codes from 300 to 399 are reserved for TS 29.234			
			29.109 [7]
Note: The AVP codes from 400 to 499 are reserved for TS 29.109			
			29.209 [8]
Note: The AVP codes from 500 to 599 are reserved for TS 29.209			
600	Visited-Network-Identifier	OctetString	29.229 [2]
601	Public-Identity	UTF8String	
602	Server-Name	UTF8String	
603	Server-Capabilities	Grouped	
604	Mandatory-Capability	Unsigned32	
605	Optional-Capability	Unsigned32	
606	User-Data	OctetString	
607	SIP-Number-Auth-Items	Unsigned32	
608	SIP-Authentication-Scheme	UTF8String	
609	SIP-Authenticate	OctetString	
610	SIP-Authorization	OctetString	
611	SIP-Authentication-Context	OctetString	
612	SIP-Auth-Data-Item	Grouped	
613	SIP-Item-Number	Unsigned32	
614	Server-Assignment-Type	Enumerated	
615	Deregistration-Reason	Grouped	
616	Reason-Code	Enumerated	
617	Reason-Info	UTF8String	
618	Charging-Information	Grouped	
619	Primary-Event-Charging-Function-Name	DiameterURI	
620	Secondary-Event-Charging-Function-Name	DiameterURI	
621	Primary-Charging-Collection-Function-Name	DiameterURI	
622	Secondary-Charging-Collection-Function-Name	DiameterURI	
623	User-Authorization-Type	Enumerated	
624	User-Data-Already-Available	Enumerated	
625	Confidentiality-Key	OctetString	
626	Integrity-Key	OctetString	
627	User-Data-Request-Type	Enumerated	
Note: The AVP codes from 628 to 699 are reserved for TS 29.229.			
700	User-Identity	Grouped	29.329 [4]
701	MSISDN	OctetString	
702	User-Data	OctetString	
703	Data-Reference	Enumerated	
704	Service-Indication	OctetString	
705	Subs-Req-Type	Enumerated	
706	Requested-Domain	Enumerated	
707	Current-Location	Enumerated	
708	Identity-Set	Enumerated	
Note: The AVP codes from 709 to799 are reserved for TS 29.329.			
			32.299 [5]
Note: The AVP codes from 800 to 899 are reserved for TS 32.299			
			29.061 [13]
Note: The AVP codes from 9007 to 999 are reserved for TS 29.061			

******** **NEXT MODIFIED CLAUSE** ********

8.1.4 Permanent Failures

The Permanent Failure result codes shall use the values from 5001 to 5999 in the Experimental-Result-Code AVP. The reserved 3GPP specific Permanent Failure result codes are presented in the following table.

Table 8.1.4: 3GPP specific Permanent Failure result codes

Experimental Result Code	Result text	Specified in the TS
5001	DIAMETER_ERROR_USER_UNKNOWN	29.229 [2]
5002	DIAMETER_ERROR_IDENTITIES_DONT_MATCH	
5003	DIAMETER_ERROR_IDENTITY_NOT_REGISTERED	
5004	DIAMETER_ERROR_ROAMING_NOT_ALLOWED	
5005	DIAMETER_ERROR_IDENTITY_ALREADY_REGISTERED	
5006	DIAMETER_ERROR_AUTH_SCHEME_NOT_SUPPORTED	
5007	DIAMETER_ERROR_IN_ASSIGNMENT_TYPE	
5008	DIAMETER_ERROR_TOO_MUCH_DATA	
5009	DIAMETER_ERROR_NOT_SUPPORTED_USER_DATA	
5010	DIAMETER_MISSING_USER_ID	
Note: The Experimental Result Codes from 5011 to 5020 are reserved for the TS 29.229.		
		32.299 [5]
Note: The Experimental Result Codes from 5021 to 5040 are reserved for the TS 32.299.		
		29.234 [6]
Note: The Experimental Result Codes from 5041 to 5060 are reserved for the TS 29.234.		
		29.209 [8]
Note: The Experimental Result Codes from 5061 to 5080 are reserved for the TS 29.209.		
5100	DIAMETER_ERROR_USER_DATA_NOT_RECOGNIZED	29.329 [4]
5101	DIAMETER_ERROR_OPERATION_NOT_ALLOWED	
5102	DIAMETER_ERROR_USER_DATA_CANNOT_BE_READ	
5103	DIAMETER_ERROR_USER_DATA_CANNOT_BE_MODIFIED	
5104	DIAMETER_ERROR_USER_DATA_CANNOT_BE_NOTIFIED	
5105	DIAMETER_ERROR_TRANSPARENT_DATA OUT_OF_SYNC	
Note: The Experimental Result Codes from 5106 to 5119 are reserved for the TS 29.329.		
		29.061 [13]
Note: The Experimental Result Codes from 51204 to 5139 are reserved for the TS 29.061		
		29.109 [7]
Note: The Experimental Result Codes from 5400 to 5419 are reserved for the TS 29.109.		

******** END OF MODIFIED CLAUSE ********

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CHANGE REQUEST

⌘	**29.230** CR **012**	⌘ **rev**	**-**	⌘	Current version:	**6.1.0**	⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

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

Title: ⌘	Addition of Gx interface	
Source: ⌘	Nokia	
Work item code: ⌘	TEI6	***Date:*** ⌘ 17/11/2004
Category: ⌘ **C**		***Release:*** ⌘ Rel-6

Use one of the following categories:
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Detailed explanations of the above categories can
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Use one of the following releases:
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  R98 *(Release 1998)*
  R99 *(Release 1999)*
  Rel-4 *(Release 4)*
  Rel-5 *(Release 5)*
  Rel-6 *(Release 6)*
  Rel-7 *(Release 7)*

Reason for change: ⌘	CN3 LS on Assignment of the Diameter codes and identifiers for the Rel-6 Gx interface (N4-041583, N3-040818).
Summary of change: ⌘	Range of new 3GPP AVP-codes and result-codes are allocated. Placeholders for application-ids are created.
Consequences if not approved: ⌘	3GPP Diameter allocations may overlap and cause interoperability problems.

Clauses affected: ⌘	4.1, 7.1, 8.1.4

	Y	N		
Other specs affected: ⌘		X	Other core specifications	⌘
		X	Test specifications	
		X	O&M Specifications	

Other comments: ⌘	

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3GPP specific application identifiers

The 3GPP specific application identifiers allocated by IANA are listed in the following table.

Table 4.1: 3GPP specific application identifiers

Application identifier	Application	3GPP TS
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16777217	3GPP Sh/Ph	29.328 [3] and 29.329 [4]

Editors note: The following applications are under development and they don't have the application id yet.

	3GPP Wx	29.234 [6]
	3GPP Zn	29.109 [7]
	3GPP Zh	29.109 [7]
	3GPP Gq	29.209 [8]
	3GPP Gx	29.210 [TBD]
	3GPP Gx over Gy	29.210 [TBD]

*** Next Modification ***

7.1   3GPP specific AVP codes

The 3GPP specific AVPs have the Vendor-Specific bit ('V' bit) set in the AVP header and they carry the 3GPP's vendor identifier in the Vendor-ID field of the AVP header. The 3GPP specific AVP codes are presented in the following table.

Table 7.1: 3GPP specific AVP codes

AVP Code	Attribute Name	Data Type	Specified in the 3GPP TS
Note: The AVP codes from 1 to 255 are reserved for backwards compatibility with 3GPP RADIUS Vendor Specific Attributes (See TS 29.061 [13])			
Note: The AVP codes from 256 to 299 are reserved for future use.			
			29.234 [6]
Note: The AVP codes from 300 to 399 are reserved for TS 29.234			
			29.109 [7]
Note: The AVP codes from 400 to 499 are reserved for TS 29.109			
			29.209 [8]
Note: The AVP codes from 500 to 599 are reserved for TS 29.209			
600	Visited-Network-Identifier	OctetString	29.229 [2]
601	Public-Identity	UTF8String	
602	Server-Name	UTF8String	
603	Server-Capabilities	Grouped	
604	Mandatory-Capability	Unsigned32	
605	Optional-Capability	Unsigned32	
606	User-Data	OctetString	
607	SIP-Number-Auth-Items	Unsigned32	
608	SIP-Authentication-Scheme	UTF8String	
609	SIP-Authenticate	OctetString	
610	SIP-Authorization	OctetString	
611	SIP-Authentication-Context	OctetString	
612	SIP-Auth-Data-Item	Grouped	
613	SIP-Item-Number	Unsigned32	
614	Server-Assignment-Type	Enumerated	
615	Deregistration-Reason	Grouped	
616	Reason-Code	Enumerated	
617	Reason-Info	UTF8String	
618	Charging-Information	Grouped	
619	Primary-Event-Charging-Function-Name	DiameterURI	
620	Secondary-Event-Charging-Function-Name	DiameterURI	
621	Primary-Charging-Collection-Function-Name	DiameterURI	
622	Secondary-Charging-Collection-Function-Name	DiameterURI	
623	User-Authorization-Type	Enumerated	
624	User-Data-Already-Available	Enumerated	
625	Confidentiality-Key	OctetString	
626	Integrity-Key	OctetString	
627	User-Data-Request-Type	Enumerated	
Note: The AVP codes from 628 to 699 are reserved for TS 29.229.			
700	User-Identity	Grouped	29.329 [4]
701	MSISDN	OctetString	
702	User-Data	OctetString	
703	Data-Reference	Enumerated	
704	Service-Indication	OctetString	
705	Subs-Req-Type	Enumerated	
706	Requested-Domain	Enumerated	
707	Current-Location	Enumerated	
708	Identity-Set	Enumerated	
Note: The AVP codes from 709 to799 are reserved for TS 29.329.			
			32.299 [5]
Note: The AVP codes from 800 to 899 are reserved for TS 32.299			
			29.210 [TBD]
Note: The AVP codes from 1000 to 1099 are reserved for TS 29.210			

*** Next Modification ***

8.1.4   Permanent Failures

The Permanent Failure result codes shall use the values from 5001 to 5999 in the Experimental-Result-Code AVP. The reserved 3GPP specific Permanent Failure result codes are presented in the following table.

Table 8.1.4: 3GPP specific Permanent Failure result codes

Experimental Result Code	Result text	Specified in the TS
5001	DIAMETER_ERROR_USER_UNKNOWN	29.229 [2]
5002	DIAMETER_ERROR_IDENTITIES_DONT_MATCH	
5003	DIAMETER_ERROR_IDENTITY_NOT_REGISTERED	
5004	DIAMETER_ERROR_ROAMING_NOT_ALLOWED	
5005	DIAMETER_ERROR_IDENTITY_ALREADY_REGISTERED	
5006	DIAMETER_ERROR_AUTH_SCHEME_NOT_SUPPORTED	
5007	DIAMETER_ERROR_IN_ASSIGNMENT_TYPE	
5008	DIAMETER_ERROR_TOO_MUCH_DATA	
5009	DIAMETER_ERROR_NOT_SUPPORTED_USER_DATA	
5010	DIAMETER_MISSING_USER_ID	
Note: The Experimental Result Codes from 5011 to 5020 are reserved for the TS 29.229.		
		32.299 [5]
Note: The Experimental Result Codes from 5021 to 5040 are reserved for the TS 32.299.		
		29.234 [6]
Note: The Experimental Result Codes from 5041 to 5060 are reserved for the TS 29.234.		
		29.209 [8]
Note: The Experimental Result Codes from 5061 to 5080 are reserved for the TS 29.209.		
5100	DIAMETER_ERROR_USER_DATA_NOT_RECOGNIZED	29.329 [4]
5101	DIAMETER_ERROR_OPERATION_NOT_ALLOWED	
5102	DIAMETER_ERROR_USER_DATA_CANNOT_BE_READ	
5103	DIAMETER_ERROR_USER_DATA_CANNOT_BE_MODIFIED	
5104	DIAMETER_ERROR_USER_DATA_CANNOT_BE_NOTIFIED	
5105	DIAMETER_ERROR_TRANSPARENT_DATA OUT_OF_SYNC	
Note: The Experimental Result Codes from 5106 to 5119 are reserved for the TS 29.329.		
		29.210 [TBD]
Note: The Experimental Result Codes from 5140 to 5159 are reserved for the TS 29.210.		
		29.109 [7]
Note: The Experimental Result Codes from 5400 to 5419 are reserved for the TS 29.109.		

CR-Form-v7.1

CHANGE REQUEST

⌘   **29.230** CR **010**   ⌘**rev** **1** ⌘   Current version: **6.1.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

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

Title: ⌘	Documenting the Reuse of the 3GPP specific application identifier of Ro for Re on the Charging Interfaces
Source: ⌘	CN4
Work item code:⌘	CH *Date:* ⌘ 18/11/2004

Category: ⌘	**C**		*Release:* ⌘ Rel-6

Use one of the following categories:
F (correction)
A (corresponds to a correction 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.

Use one of the following releases:
Ph2   (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)
Rel-7   (Release 7)

Reason for change: ⌘	Currently the 3GPP specific application identifiers assigned for Ro is redundant as Ro is using the base IETF Identifier for Charging. The interface Re can reuse this assigned value, as Re requires a 3GPP specific application identifier.
Summary of change:⌘	Enter Re for the already assigned 3GPP specific application identifier for charging.
Consequences if not approved: ⌘	Confusion over 3GPP specific application identifier use for the charging interfaces.

Clauses affected: ⌘	4.1

	Y	N		
Other specs affected: ⌘		X	Other core specifications ⌘	
		X	Test specifications	
		X	O&M Specifications	

Other comments: ⌘	IANA has to be notified of the change *KK

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

2   References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1]   3GPP TS 29.228: " IP Multimedia (IM) Subsystem Cx and Dx interfaces; Signalling flows and message contents".

[2]   3GPP TS 29.229: " Cx and Dx interfaces based on the Diameter protocol; Protocol details".

[3]   3GPP TS 29.328: " IP Multimedia (IM) Subsystem Sh interface; Signalling flows and message contents".

[4]   3GPP TS 29.329: " Sh Interface based on the Diameter protocol; Protocol details".

[5]   3GPP TS 32.299 "3GPP Diameter charging application".

[6]   3GPP TS 29.234: "3GPP System to WLAN Interworking; Stage 3 Description".

[7]   3GPP TS 29.109: " Generic Authentication Architecture (GAA); Zh and Zn Interfaces based on the Diameter protocol; Protocol details".

[8]   3GPP TS 29.209: " Technical Specification Group Core Network; Policy control over Gq interface".

[9]   IETF RFC 3588: "Diameter Base Protocol".

[10]   IETF RFC 3589: "Diameter Command Codes for Third Generation Partnership Project (3GPP) Release 5".

[11]   IANA's Enterprise-Numbers: http://www.iana.org/assignments/enterprise-numbers

[12]   IANA's AAA parameters register: ftp://ftp.iana.org/assignments/aaa-parameters/

[13]   3GPP TS 29.061: "Interworking between the Public Land Mobile Network (PLMN) supporting packet based services and Packet Data Networks (PDN)".

[c]   3GPP TS 32.299: "Telecommunication management; Charging management; Diameter charging applications".

▪▪▪
Next Modified section
▪▪▪

4.1   3GPP specific application identifiers

The 3GPP specific application identifiers allocated by IANA are listed in the following table.

Table 4.1: 3GPP specific application identifiers

Application identifier	Application	3GPP TS
16777216	3GPP Cx/Px	29.228 [1] and 29.229 [2]
16777217	3GPP Sh/Ph	29.328 [3] and 29.329 [4]
16777218	3GPP Re	32.299 [c]

Editors note: The following applications are under development and they don't have the application id yet.

	3GPP Wx	29.234 [6]
	3GPP Zn	29.109 [7]
	3GPP Zh	29.109 [7]
	3GPP Gq	29.209 [8]