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LTE;  
Policy and Charging Control (PCC);  
Reference points  
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# Contents

Intellectual Property Rights .....	2
Foreword.....	2
Modal verbs terminology.....	2
Foreword.....	15
1 Scope .....	16
2 References .....	16
3 Definitions and abbreviations.....	18
3.1 Definitions .....	18
3.2 Abbreviations .....	20
4 Gx reference point .....	20
4.1 Overview .....	20
4.2 Gx Reference model.....	21
4.3 PCC Rules .....	21
4.3.1 PCC Rule Definition.....	21
4.3.2 Operations on PCC Rules .....	23
4.3a IP flow mobility routing rules .....	24
4.3a.0 General.....	24
4.3a.1 Functional entities.....	24
4.3a.2 IP flow mobility routing rule definition.....	24
4.3a.3 Operations on Routing rules .....	24
4.3a.4 PCC procedures for IP flow mobility routing rule over Gx reference point .....	25
4.3a.4.1 Provisioning of IP flow mobility routing rules.....	25
4.3b Void.....	25
4.3c NBIFOM routing rules .....	25
4.3c.1 General.....	25
4.3c.2 NBIFOM routing rule definition.....	26
4.3c.3 Operations on NBIFOM Routing rules.....	26
4.4 Functional elements.....	27
4.4.1 PCRF .....	27
4.4.2 PCEF.....	28
4.5 PCC procedures over Gx reference point .....	28
4.5.1 Request for PCC rules.....	28
4.5.2 Provisioning of PCC rules .....	31
4.5.2.0 Overview .....	31
4.5.2.1 Selecting a PCC rule for Uplink IP packets .....	34
4.5.2.2 Selecting a PCC rule and IP CAN Bearer for Downlink IP packets .....	35
4.5.2.3 Gate function.....	35
4.5.2.4 Policy enforcement for "Authorized QoS" per PCC Rule.....	35
4.5.2.5 Usage Monitoring Control .....	35
4.5.2.6 Redirect function.....	36
4.5.2.7 Support for DSCP marking of downlink packets at the TDF.....	36
4.5.2.8 Traffic Steering Control support .....	36
4.5.3 Provisioning of Event Triggers.....	37
4.5.4 Provisioning of charging related information for the IP-CAN session .....	37
4.5.4.1 Provisioning of Charging Addresses.....	37
4.5.4.2 Provisioning of Default Charging Method.....	38
4.5.4.3 Void.....	38
4.5.4.4 Provisioning of Access Network Charging Identifier .....	38
4.5.5 Provisioning and Policy Enforcement of Authorized QoS .....	38
4.5.5.0 Overview .....	38
4.5.5.0a Provisioning of authorized QoS per IP CAN bearer .....	39
4.5.5.1 Policy enforcement for authorized QoS per IP CAN bearer .....	39
4.5.5.2 Policy provisioning for authorized QoS per service data flow.....	39
4.5.5.3 Policy enforcement for authorized QoS per service data flow .....	40

4.5.5.4	Coordination of authorized QoS scopes in mixed mode .....	40
4.5.5.5	Provisioning of authorized QoS per QCI .....	40
4.5.5.6	Policy enforcement for authorized QoS per QCI .....	40
4.5.5.7	Provisioning of authorized QoS per APN .....	41
4.5.5.8	Policy enforcement for authorized QoS per APN .....	41
4.5.5.9	Provisioning of authorized QoS for the Default EPS Bearer .....	42
4.5.5.10	Policy enforcement for authorized QoS of the Default EPS Bearer .....	42
4.5.5.11	Policy provisioning and enforcement of authorized QoS for service data flows that share resources .....	42
4.5.5.12	Provisioning and enforcement of time conditioned policy information .....	43
4.5.5.12.1	General .....	43
4.5.5.12.2	Time conditioned authorized QoS per APN .....	44
4.5.5.12.3	Time conditioned authorized default EPS bearer QoS .....	44
4.5.5.13	Policy provisioning and enforcement of authorized QoS for service data flows that shall be bound to the default bearer .....	45
4.5.6	Indication of IP-CAN Bearer Termination Implications .....	45
4.5.7	Indication of IP-CAN Session Termination .....	46
4.5.8	Request of IP-CAN Bearer Termination .....	46
4.5.9	Request of IP-CAN Session Termination .....	47
4.5.10	Bearer Control Mode Selection .....	47
4.5.11	Provisioning of Event Report Indication .....	48
4.5.12	PCC Rule Error Handling .....	48
4.5.13	Time of the day procedures .....	49
4.5.14	Trace activation/deactivation .....	50
4.5.15	IMS Emergency Session Support .....	50
4.5.15.1	Functional Entities .....	50
4.5.15.2	PCC procedures for Emergency services over Gx reference point .....	51
4.5.15.2.1	Request for PCC Rules for Emergency services .....	51
4.5.15.2.2	Provisioning of PCC Rules for Emergency services .....	51
4.5.15.2.2.1	Provisioning of PCC Rules at Gx session establishment .....	51
4.5.15.2.2.2	Provisioning of PCC Rules for Emergency Services .....	51
4.5.15.2.3	Removal of PCC Rules for Emergency Services .....	52
4.5.15.2.4	Removal of PCC Rules at Gx session termination .....	52
4.5.16	Requesting Usage Monitoring Control .....	52
4.5.17	Reporting Accumulated Usage .....	54
4.5.17.0	General .....	54
4.5.17.1	Usage Threshold Reached .....	55
4.5.17.2	PCC Rule Removal .....	55
4.5.17.3	Usage Monitoring Disabled .....	55
4.5.17.4	IP-CAN Session Termination .....	55
4.5.17.5	PCRF Requested Usage Report .....	55
4.5.17.6	Report in case of Monitoring Time provided .....	56
4.5.18	IMS Restoration Support .....	56
4.5.18a	P-CSCF Restoration Enhancement Support .....	56
4.5.19	Multimedia Priority Support .....	57
4.5.19.1	PCC Procedures for Multimedia Priority services over Gx reference point .....	57
4.5.19.1.1	Provisioning of PCC Rules for Multimedia Priority Services .....	57
4.5.19.1.2	Invocation/Revocation of Priority EPS Bearer Services .....	57
4.5.19.1.3	Invocation/Revocation of IMS Multimedia Priority Services .....	58
4.5.20	Sponsored Data Connectivity .....	59
4.5.21	PCRF Failure and Restoration .....	59
4.5.22	Reporting Access Network Information .....	59
4.5.23	Application Detection Information .....	60
4.5.24	Group Communication Service Support .....	61
4.5.25	NBIFOM Support .....	61
4.5.25.1	General .....	61
4.5.25.1.1	PCRF procedures .....	61
4.5.25.1.2	PCEF procedures .....	62
4.5.25.2	NBIFOM impacts on PCC procedures over Gx .....	63
4.5.25.2.1	IP-CAN session establishment .....	63
4.5.25.2.2	Addition of an access .....	63
4.5.25.2.3	Removal of an access .....	64

4.5.25.2.3.1	UE/PCEF-initiated removal of an access .....	64
4.5.25.2.3.2	PCRF-initiated removal of an access .....	64
4.5.25.2.4	Network-initiated IP flow mobility within a PDN connection (Network-initiated NBIFOM mode).....	64
4.5.25.2.5	UE-initiated IP flow mobility within a PDN connection (UE-initiated NBIFOM mode) .....	65
4.5.25.2.6	UE Requested IP Flow Mapping (Network-initiated NBIFOM mode) .....	66
4.5.25.2.7	An access becomes not available/available again.....	68
4.5.25.2.8	Access Network Information Reporting .....	68
4.5.25.2.9	Usage monitoring control .....	69
4.5.25.2.10	UE resource request for a multi-access IP-CAN session.....	69
4.5.26	Detection and handling of late arriving requests.....	69
4.5.26.1	General .....	69
4.5.26.2	Detection and handling of requests which collide with an existing session context .....	69
4.5.26.3	Detection and handling of requests which have timed out at the originating entity .....	70
4.5.27	Resource reservation for services sharing priority .....	70
4.5.28	Support for PCC rule versioning .....	71
4.5.29	3GPP PS Data Off Support .....	71
4.6	Void.....	72
4a	Gxx reference points .....	72
4a.1	Overview .....	72
4a.2	Gxx Reference model.....	73
4a.3	Quality of Service Control Rules .....	73
4a.3.1	Quality of Service Control Rule Definition .....	73
4a.3.2	Operations on QoS Rules.....	74
4a.4	Functional elements.....	75
4a.4.1	PCRF .....	75
4a.4.2	BBERF.....	75
4a.5	PCC procedures over Gxx reference points .....	76
4a.5.1	Gateway control and QoS Rules Request .....	76
4a.5.2	Gateway control and QoS Rules Provision.....	77
4a.5.2.1	Overview .....	77
4a.5.2.2	Support for DSCP marking of downlink packets at the TDF.....	79
4a.5.3	Gateway Control Session Termination .....	79
4a.5.4	Request of Gateway Control Session Termination .....	79
4a.5.5	QoS Control Rule error handling .....	79
4a.5.6	Gateway Control session to Gx session linking.....	79
4a.5.7	Multiple BBF support .....	81
4a.5.7.1	General .....	81
4a.5.7.2	Handling of two BBFs associated with the same IP-CAN session during handover .....	81
4a.5.7.3	Handling of multiple BBFs with flow mobility within IP-CAN session.....	82
4a.5.8	Provisioning of Event Triggers.....	83
4a.5.9	Bearer Control Mode Selection .....	83
4a.5.10	Provisioning and Policy Enforcement of Authorized QoS .....	84
4a.5.10.1	Provisioning of authorized QoS for the Default EPS Bearer .....	84
4a.5.10.2	Policy enforcement for authorized QoS of the Default EPS Bearer.....	84
4a.5.10.3	Provisioning of authorized QoS per APN .....	84
4a.5.10.4	Policy provisioning for authorized QoS per service data flow.....	84
4a.5.10.5	Policy enforcement for authorized QoS per service data flow .....	85
4a.5.10.6	Policy provisioning and enforcement of authorized QoS for service data flows that share resources .....	85
4a.5.11	Trace activation/deactivation.....	85
4a.5.12	IMS Emergency Session Support .....	85
4a.5.12.1	PCC procedures for Emergency services over Gxx reference point .....	85
4a.5.12.1.1	Gateway control and QoS Rules request for Emergency services.....	85
4a.5.12.1.2	Provisioning of QoS Rules for Emergency services.....	86
4a.5.12.1.2.1	Provisioning of QoS Rules at Gxx session establishment.....	86
4a.5.12.1.2.2	Provisioning of QoS Rules for Emergency services .....	86
4a.5.12.2	Gateway Control Session to Gx session linking.....	86
4a.5.12.3	Removal of QoS Rules for Emergency Services.....	87
4a.5.12.4	Termination of Gateway Control session for Emergency Services.....	87
4a.5.13	Time of the day procedures.....	87

4a.5.14	Multimedia Priority Support .....	88
4a.5.14.1	PCC Procedures for Multimedia Priority services over Gxx reference point.....	88
4a.5.14.1.1	Provisioning of QoS Rules for Multimedia Priority Services.....	88
4a.5.14.1.2	Invocation/Revocation of Priority EPS Bearer Services .....	89
4a.5.14.1.3	Invocation/Revocation of IMS Multimedia Priority Services .....	89
4a.5.15	PCRF Failure and Restoration .....	89
4a.5.16	Reporting Access Network Information .....	89
4a.5.17	Resource reservation for services sharing priority.....	90
4a.5.18	Support for QoS rule versioning .....	91
4b	Sd reference point.....	92
4b.1	Overview .....	92
4b.2	Sd Reference model.....	92
4b.3	Application Detection and Control Rules.....	92
4b.3.1	Functional entities.....	92
4b.3.2	Application Detection and Control Rule Definition .....	93
4b.3.3	Operations on ADC Rules .....	95
4b.4	Functional elements.....	95
4b.4.1	PCRF .....	95
4b.4.2	TDF.....	96
4b.5	ADC procedures over Sd reference point for solicited application reporting.....	97
4b.5.1	Provisioning of ADC rules .....	97
4b.5.1.1	General .....	97
4b.5.1.2	Gate function.....	98
4b.5.1.3	Bandwidth limitation function .....	98
4b.5.1.4	Redirect function.....	98
4b.5.1.5	Usage Monitoring Control .....	99
4b.5.1.6	Marking of downlink packets.....	99
4b.5.2	Request for ADC rules.....	99
4b.5.3	Provisioning of Event Triggers.....	99
4b.5.4	Request of TDF Session Termination.....	100
4b.5.5	ADC Rule Error Handling .....	100
4b.5.6	Requesting Usage Monitoring Control .....	100
4b.5.7	Reporting Accumulated Usage .....	102
4b.5.7.1	General .....	102
4b.5.7.2	Usage Threshold Reached.....	103
4b.5.7.3	ADC Rule Removal .....	103
4b.5.7.4	Usage Monitoring Disabled .....	103
4b.5.7.5	TDF Session Termination .....	104
4b.5.7.6	PCRF Requested Usage Report.....	104
4b.5.7.7	Report in case of Monitoring Time provided.....	104
4b.5.8	Provisioning of Event Report Indication .....	104
4b.5.9	Application Detection Information.....	105
4b.5.10	Time of the day procedures.....	105
4b.5.11	PCRF Failure and Restoration .....	106
4b.5.12	Bandwidth limitation function .....	106
4b.5.13	Provisioning of charging related information for the TDF session.....	107
4b.5.13.1	Provisioning of Charging Addresses.....	107
4b.5.13.2	Provisioning of Default Charging Method.....	107
4b.5.13.3	Provisioning of Charging Characteristics.....	107
4b.5.14	Downlink packet marking by the TDF .....	107
4b.5.15	Traffic steering control support .....	108
4b.5.16	Sponsored Data Connectivity .....	108
4b.5a	ADC procedures over Sd reference point for unsolicited application reporting.....	109
4b.5a.1	Provisioning of ADC rules .....	109
4b.5a.1.1	General .....	109
4b.5a.2	Application Detection Information.....	109
4b.5a.3	Request of TDF Session Termination.....	110
4b.5a.4	TDF session to Gx session linking.....	110
4c	St reference point .....	110
4c.1	Overview .....	110

4c.2	St Reference model .....	110
4c.3	Functional elements.....	111
4c.3.1	PCRF .....	111
4c.3.2	TSSF.....	111
4c.4	Procedures over St reference point.....	111
4c.4.1	Traffic Steering Control Information Provisioning.....	111
4c.4.2	St Session Termination .....	113
4c.4.3	ADC Rule Error Handling .....	113
4c.4.4	UE IPv4 Address Provisioning.....	113
5	Gx protocol.....	113
5.1	Protocol support .....	113
5.2	Initialization, maintenance and termination of connection and session.....	114
5.3	Gx specific AVPs .....	114
5.3.0	General.....	114
5.3.1	Bearer-Usage AVP (3GPP-GPRS and 3GPP-EPS access types).....	120
5.3.2	Charging-Rule-Install AVP (All access types) .....	121
5.3.3	Charging-Rule-Remove AVP (All access types).....	122
5.3.4	Charging-Rule-Definition AVP (All access types).....	122
5.3.5	Charging-Rule-Base-Name AVP (All access types).....	123
5.3.6	Charging-Rule-Name AVP (All access types).....	123
5.3.7	Event-Trigger AVP (All access types).....	123
5.3.8	Metering-Method AVP (All access types).....	131
5.3.9	Offline AVP (All access types).....	131
5.3.10	Online AVP (All access types) .....	132
5.3.11	Precedence AVP (All access types).....	132
5.3.12	Reporting-Level AVP (All access types).....	133
5.3.13	TFT-Filter AVP (3GPP-GPRS access type only) .....	133
5.3.14	TFT-Packet-Filter-Information AVP (3GPP-GPRS access type only).....	134
5.3.15	ToS-Traffic-Class AVP (All access types) .....	134
5.3.16	QoS-Information AVP (All access types).....	134
5.3.17	QoS-Class-Identifier AVP (All access types).....	135
5.3.18	Charging-Rule-Report AVP (All access types) .....	137
5.3.19	PCC-Rule-Status AVP (All access types).....	138
5.3.20	Bearer-Identifier AVP (Applicable access type 3GPP-GPRS) .....	138
5.3.21	Bearer-Operation AVP (Applicable access type 3GPP-GPRS).....	138
5.3.22	Access-Network-Charging-Identifier-Gx AVP (All access types) .....	138
5.3.23	Bearer-Control-Mode AVP.....	139
5.3.24	Network-Request-Support AVP .....	139
5.3.25	Guaranteed-Bitrate-DL AVP .....	139
5.3.26	Guaranteed-Bitrate-UL AVP .....	140
5.3.27	IP-CAN-Type AVP (All access types) .....	140
5.3.28	QoS-Negotiation AVP (3GPP-GPRS Access Type only).....	140
5.3.29	QoS-Upgrade AVP (3GPP-GPRS Access Type only).....	141
5.3.30	Event-Report-Indication AVP (All access types) .....	141
5.3.31	RAT-Type AVP.....	142
5.3.32	Allocation-Retention-Priority AVP (All access types) .....	143
5.3.33	CoA-IP-Address AVP (All access types) .....	143
5.3.34	Tunnel-Header-Filter AVP (All access types).....	143
5.3.35	Tunnel-Header-Length AVP (All access types) .....	144
5.3.36	Tunnel-Information AVP (All access types) .....	144
5.3.37	CoA-Information AVP (All access types) .....	144
5.3.38	Rule-Failure-Code AVP (All access types).....	145
5.3.39	APN-Aggregate-Max-Bitrate-DL AVP .....	147
5.3.40	APN-Aggregate-Max-Bitrate-UL AVP .....	147
5.3.41	Revalidation-Time (ALL Access Types).....	147
5.3.42	Rule-Activation-Time (ALL Access Types).....	147
5.3.43	Rule-Deactivation-Time (ALL Access Types).....	148
5.3.44	Session-Release-Cause (All access types) .....	148
5.3.45	Priority-Level AVP (All access types).....	148
5.3.46	Pre-emption-Capability AVP.....	149
5.3.47	Pre-emption-Vulnerability AVP .....	149



5.3.48	Default-EPS-Bearer-QoS AVP .....	149
5.3.49	AN-GW-Address AVP (All access types) .....	149
5.3.50	Resource-Allocation-Notification AVP (All access types).....	150
5.3.51	Security-Parameter-Index AVP (All access types) .....	150
5.3.52	Flow-Label AVP (All access types) .....	150
5.3.53	Flow-Information AVP (All access types).....	150
5.3.54	Packet-Filter-Content AVP .....	151
5.3.55	Packet-Filter-Identifier AVP .....	151
5.3.56	Packet-Filter-Information AVP .....	151
5.3.57	Packet-Filter-Operation AVP.....	152
5.3.58	PDN-Connection-ID AVP .....	152
5.3.59	Monitoring-Key AVP .....	152
5.3.60	Usage-Monitoring-Information AVP.....	152
5.3.61	Usage-Monitoring-Level AVP.....	153
5.3.62	Usage-Monitoring-Report AVP.....	153
5.3.63	Usage-Monitoring-Support AVP .....	154
5.3.64	CSG-Information-Reporting AVP .....	154
5.3.65	Flow-Direction AVP .....	154
5.3.66	Packet-Filter-Usage AVP (All access types) .....	155
5.3.67	Charging-Correlation-Indicator AVP (All access types) .....	155
5.3.68	Routing-Rule-Install AVP .....	155
5.3.69	Routing-Rule-Remove AVP .....	155
5.3.70	Routing-Rule-Definition AVP .....	155
5.3.71	Routing-Rule-Identifier AVP.....	156
5.3.72	Routing-Filter AVP.....	156
5.3.73	Routing-IP-Address AVP .....	156
5.3.74	Void .....	157
5.3.75	Void .....	157
5.3.76	Void .....	157
5.3.77	TDF-Application-Identifier AVP.....	157
5.3.78	TDF-Information AVP .....	157
5.3.79	TDF-Destination-Realm AVP .....	157
5.3.80	TDF-Destination-Host AVP .....	157
5.3.81	TDF-IP-Address AVP.....	157
5.3.82	Redirect-Information AVP .....	157
5.3.83	Redirect-Support AVP .....	158
5.3.84	PS-to-CS-Session-Continuity AVP (3GPP-EPS access type only) .....	158
5.3.85	Void .....	158
5.3.86	Void .....	158
5.3.87	Void .....	158
5.3.88	Void .....	158
5.3.89	Void .....	158
5.3.90	Void .....	158
5.3.91	Application-Detection-Information AVP .....	159
5.3.92	TDF-Application-Instance-Identifier AVP .....	159
5.3.93	Void .....	159
5.3.94	Void .....	159
5.3.95	HeNB-Local-IP-Address AVP (3GPP-EPS access type only) .....	159
5.3.96	UE-Local-IP-Address AVP (Non-3GPP-EPS access type only) .....	159
5.3.97	UDP-Source-Port AVP (3GPP-EPS and Non-3GPP-EPS access types) .....	159
5.3.98	Mute-Notification AVP .....	159
5.3.99	Monitoring-Time AVP .....	160
5.3.100	AN-GW-Status AVP (3GPP-EPS access type).....	160
5.3.101	User-Location-Info-Time AVP.....	160
5.3.102	Credit-Management-Status AVP .....	160
5.3.103	Default-QoS-Information AVP (FBA access type) .....	161
5.3.104	Default-QoS-Name AVP (FBA access type).....	161
5.3.105	Conditional-APN-Aggregate-Max-Bitrate (All access types) .....	161
5.3.106	RAN-NAS-Release-Cause AVP (3GPP-EPS and Non-3GPP-EPS access type).....	162
5.3.107	Presence-Reporting-Area-Elements-List AVP (3GPP-EPS access type) .....	162
5.3.108	Presence-Reporting-Area-Identifier AVP (3GPP-EPS access type).....	162
5.3.109	Presence-Reporting-Area-Information AVP (3GPP-EPS access type).....	162

5.3.110	Presence-Reporting-Area-Status AVP (3GPP-EPS access type).....	162
5.3.111	NetLoc-Access-Support AVP.....	163
5.3.112	Fixed-User-Location-Info AVP (FBA access type).....	163
5.3.113	PCSCF-Restoration-Indication AVP.....	163
5.3.114	IP-CAN-Session-Charging-Scope AVP.....	163
5.3.115	Monitoring-Flags AVP.....	163
5.3.116	NBIFOM-Support AVP.....	164
5.3.117	NBIFOM-Mode AVP.....	164
5.3.118	Routing-Rule-Report AVP.....	164
5.3.119	Routing-Rule-Failure-Code AVP.....	164
5.3.120	Default-Access AVP.....	165
5.3.121	Access-Availability-Change-Reason AVP.....	165
5.3.122	RAN-Rule-Support AVP.....	165
5.3.123	Traffic-Steering-Policy-Identifier-DL AVP.....	166
5.3.124	Traffic-Steering-Policy-Identifier-UL AVP.....	166
5.3.125	Resource-Release-Notification AVP (All access types).....	166
5.3.126	Removal-Of-Access AVP.....	166
5.3.127	Execution-Time AVP (ALL Access Types).....	166
5.3.128	Conditional-Policy-Information AVP.....	166
5.3.129	TCP-Source-Port AVP (Non-3GPP-EPS access type).....	167
5.3.130	PRA-Install AVP (3GPP-EPS access type).....	167
5.3.131	PRA-Remove AVP (3GPP-EPS access type).....	167
5.3.132	Default-Bearer-Indication AVP.....	167
5.3.133	3GPP-PS-Data-Off-Status AVP (Applicable access type 3GPP-EPS).....	167
5.4	Gx re-used AVPs.....	168
5.4.0	General.....	168
5.4.1	Use of the Supported-Features AVP on the Gx reference point.....	176
5.4.2	Flow-Description AVP.....	181
5.5	Gx specific Experimental-Result-Code AVP values.....	182
5.5.1	General.....	182
5.5.2	Success.....	182
5.5.3	Permanent Failures.....	182
5.5.4	Transient Failures.....	183
5.6	Gx Messages.....	183
5.6.1	Gx Application.....	183
5.6.2	CC-Request (CCR) Command.....	184
5.6.3	CC-Answer (CCA) Command.....	185
5.6.4	Re-Auth-Request (RAR) Command.....	186
5.6.5	Re-Auth-Answer (RAA) Command.....	187
5a	Gxx protocols.....	187
5a.1	Protocol support.....	187
5a.2	Initialization, maintenance and termination of connection and session.....	187
5a.3	Gxx specific AVPs.....	188
5a.3.0	General.....	188
5a.3.1	QoS-Rule-Install AVP (All access types).....	188
5a.3.2	QoS-Rule-Remove AVP (All access types).....	189
5a.3.3	QoS-Rule-Definition AVP (All access types).....	189
5a.3.4	QoS-Rule-Name AVP (All access types).....	190
5a.3.5	QoS-Rule-Report AVP (All access types).....	190
5a.3.6	Session-Linking-Indicator AVP (All access types).....	190
5a.3.7	QoS-Rule-Base-Name AVP (All access types).....	191
5a.4	Gxx re-used AVPs.....	191
5a.4.0	General.....	191
5a.4.1	Use of the Supported-Features AVP on the Gxx reference point.....	197
5a.5	Gxx specific Experimental-Result-Code AVP values.....	198
5a.6	Gxx Messages.....	198
5a.6.1	Gxx Application.....	198
5a.6.2	CC-Request (CCR) Command.....	199
5a.6.3	CC-Answer (CCA) Command.....	199
5a.6.4	Re-Auth-Request (RAR) Command.....	200
5a.6.5	Re-Auth-Answer (RAA) Command.....	201

5b	Sd protocol .....	201
5b.1	Protocol support .....	201
5b.2	Initialization, maintenance and termination of connection and session.....	201
5b.3	Sd specific AVPs.....	202
5b.3.0	General.....	202
5b.3.1	ADC-Rule-Install AVP.....	202
5b.3.2	ADC-Rule-Remove AVP .....	202
5b.3.3	ADC-Rule-Definition AVP .....	203
5b.3.4	ADC-Rule-Base-Name AVP .....	203
5b.3.5	ADC-Rule-Name AVP .....	204
5b.3.6	ADC-Rule-Report AVP .....	204
5b.3.7	Void .....	204
5b.4	Sd re-used AVPs .....	204
5b.4.0	General.....	204
5b.4.1	Use of the Supported-Features AVP on the Sd reference point.....	214
5b.5	Sd specific Experimental-Result-Code AVP values.....	215
5b.5.1	General.....	215
5b.5.2	Success.....	215
5b.5.3	Permanent Failures .....	215
5b.5.4	Transient Failures .....	216
5b.6	Sd Messages .....	216
5b.6.1	Sd Application .....	216
5b.6.2	TDF-Session-Request (TSR) Command.....	216
5b.6.3	TDF-Session-Answer (TSA) Command.....	217
5b.6.4	CC-Request (CCR) Command.....	217
5b.6.5	CC-Answer (CCA) Command.....	218
5b.6.6	Re-Auth-Request (RAR) Command .....	219
5b.6.7	Re-Auth-Answer (RAA) Command .....	219
5c	St Diameter protocol .....	219
5c.1	St Application.....	219
5c.2	Initialization, maintenance and termination of connection and session.....	220
5c.3	St specific AVPs.....	220
5c.3.1	General.....	220
5c.3.2	Request-Type AVP .....	220
5c.4	St re-used AVPs .....	221
5c.4.1	General.....	221
5c.4.2	Use of the Supported-Features AVP on the St reference point.....	224
5c.5	St specific Experimental-Result-Code AVP values .....	225
5c.5.1	General.....	225
5c.5.2	Success.....	225
5c.5.3	Permanent Failures .....	225
5c.5.4	Transient Failures .....	225
5c.6	St Messages .....	226
5c.6.1	General.....	226
5c.6.2	TDF-Session-Request (TSR) Command.....	226
5c.6.3	TDF-Session-Answer (TSA) Command.....	227
5c.6.4	Session-Termination-Request (STR) command .....	227
5c.6.5	Session-Termination-Answer (STA) command.....	227
5c.6.6	TSSF-Notification-Request (TNR) Command .....	228
5c.6.7	TSSF-Notification-Answer (TNA) Command.....	228
<b>Annex A (normative): Access specific aspects (GPRS).....</b>		<b>229</b>
A.1	Scope.....	229
A.2	Reference model.....	229
A.2	Functional elements.....	229
A.2.1	PCRF .....	229
A.3	PCC procedures.....	229
A.3.1	Request for PCC rules .....	229
A.3.2	Provisioning of PCC rules .....	230

A.3.2.1	PCC rule request for services not known to PCRF.....	231
A.3.2.2	Selecting a PCC rule and IP CAN Bearer for Downlink IP packets.....	231
A.3.3	Provisioning and Policy Enforcement of Authorized QoS.....	231
A.3.3.0	Overview.....	231
A.3.3.1	Provisioning of authorized QoS per IP CAN bearer.....	231
A.3.3.2	Policy enforcement for authorized QoS per IP CAN bearer.....	233
A.3.3.2a	Policy provisioning for authorized QoS per service data flow.....	233
A.3.3.3	Policy enforcement for authorized QoS per service data flow.....	233
A.3.3.3a	Coordination of authorized QoS scopes in mixed mode.....	233
A.3.3.3b	Provisioning of authorized QoS per QCI.....	234
A.3.3.4	Policy enforcement for authorized QoS per QCI.....	234
A.3.3.5	Void.....	234
A.3.3.6	Provisioning of authorized QoS per APN.....	234
A.3.4	Indication of IP-CAN Bearer Termination Implications.....	234
A.3.5	Indication of IP-CAN Session Termination.....	234
A.3.6	Request of IP-CAN Bearer Termination.....	235
A.3.7	Request of IP-CAN Session Termination.....	235
A.3.8	Bearer Control Mode Selection.....	235
A.3.9	Bearer Binding Mechanism.....	236
A.3.10	Void.....	236
A.3.11	PCC Rule Error Handling.....	236
A.3.12	IMS Emergency Session Support.....	236
A.3.12.1	Request of PCC Rules for an Emergency services.....	236
A.3.12.2	Provisioning of PCC Rules for an Emergency services.....	236
A.3.13	Removal of PCC Rules for Emergency Services.....	237
A.3.14	Removal of PCC Rules at Gx session termination.....	237
A.3.15	IMS Restoration Support.....	237
A.3.16	Provisioning of CSG information reporting indication.....	237
A.3.17	Packet-Filter-Usage AVP.....	237
A.3.18	Precedence handling.....	238
A.3.19	Reporting Access Network Information.....	238
A.3.20	User CSG Information Reporting.....	238
A.4	QoS mapping.....	238
A.4.1	GPRS QCI to UMTS QoS parameter mapping.....	238
A.4.2	GPRS ARP to UMTS ARP parameter mapping.....	239

## **Annex B (normative): Access specific aspects, 3GPP (GERAN/UTRAN/E-UTRAN) EPS .....240**

B.1	Scope.....	240
B.2	Functional Elements.....	240
B.2.1	PCRF.....	240
B.2.2	PCEF.....	240
B.2.3	BBERF.....	240
B.3	PCC procedures.....	240
B.3.1	Request for PCC and/or QoS rules.....	240
B.3.2	Provisioning of PCC and/or QoS rules.....	241
B.3.3	Provisioning and Policy Enforcement of Authorized QoS.....	242
B.3.3.1	Provisioning of authorized QoS per APN.....	242
B.3.3.2	Policy enforcement for authorized QoS per APN.....	242
B.3.3.3	QoS handling for interoperation with Gn/Gp SGSN.....	242
B.3.3.4	Void.....	245
B.3.3.5	Policy provisioning for authorized QoS per service data flow.....	245
B.3.3.6	Policy enforcement for authorized QoS of the Default EPS Bearer.....	245
B.3.4	Packet-Filter-Information AVP.....	246
B.3.5	Bearer Control Mode Selection.....	246
B.3.6	Trace activation/deactivation at P-GW.....	246
B.3.7	IMS Restoration Support.....	246
B.3.8	Provisioning of CSG information reporting indication.....	246
B.3.9	Packet-Filter-Usage AVP.....	246
B.3.10	User CSG Information Reporting.....	246

B.3.10.1	GTP-based S5/S8.....	246
B.3.10.2	PMIP-based S5/S8.....	247
B.3.11	Request of IP-CAN Bearer Termination.....	247
B.3.12	CS to PS handover.....	247
B.3.13	Precedence handling.....	248
B.3.14	S-GW Restoration Support.....	248
B.3.15	Reporting Access Network Information.....	249
B.3.16	Presence Reporting Area Information reporting.....	249
B.3.17	Multiple Presence Reporting Area Information reporting.....	250
<b>Annex C (Informative): Mapping table for type of access networks.....</b>		<b>252</b>
<b>Annex D (normative): Access specific aspects (EPC-based Non-3GPP) .....</b>		<b>253</b>
D.1	Scope.....	253
D.2	EPC-based eHRPD Access .....	253
D.2.1	General .....	253
D.2.2	Gxa procedures.....	253
D.2.2.1	Request for QoS rules.....	253
D.2.2.2	Provisioning of QoS rules.....	254
D.2.2.2.1	QoS rule request for services not known to PCRF.....	254
D.2.2.3	Provisioning and Policy Enforcement of Authorized QoS .....	254
D.2.2.3.1	Provisioning of authorized QoS .....	254
D.2.2.3.2	Policy enforcement for authorized QoS .....	254
D.2.3	Bearer Control Mode selection.....	254
D.2.4	QoS Mapping .....	255
D.2.4.1	QCI to eHRPD QoS parameter mapping .....	255
D.3	EPC-based Trusted WLAN Access with S2a.....	255
D.4	EPC-based Untrusted WLAN Access .....	255
<b>Annex E (normative): Access specific aspects, Fixed Broadband Access interworking with EPC .....</b>		<b>257</b>
E.1	Scope.....	257
E.2	Definitions and abbreviations.....	257
E.2.1	Definitions.....	257
E.2.2	Abbreviations .....	257
E.3	Reference points and Reference model.....	257
E.3.0	General .....	257
E.3.1	Gx Reference Point .....	258
E.3.2	Gxx Reference Point .....	258
E.3.3	S15 Reference Point .....	258
E.3.3a	Sd Reference Point .....	258
E.3.4	Reference Model .....	258
E.4	Functional Elements.....	261
E.4.1	PCRF .....	261
E.4.2	PCEF .....	262
E.4.3	BBERF .....	262
E.4.4	HNB GW.....	262
E.5	PCC procedures.....	262
E.5.1	PCC procedures over Gx reference point .....	262
E.5.2	PCC procedures over Gxx reference point .....	263
E.5.2.1	Gateway Control Session Establishment .....	263
E.5.2.2	Gateway Control Session Modification .....	263
E.5.2.3	Gateway Control Session Termination .....	263
E.5.2.4	Request of Gateway Control Session Termination .....	263
E.5.3	S15 Procedures .....	263
E.5.3.1	S15 Session Establishment .....	263

E.5.3.2	S15 Session Modification .....	264
E.5.3.2.1	S15 Session Modification initiated by the HNB GW .....	264
E.5.3.2.2	S15 Session Modification initiated by the PCRF .....	264
E.5.3.3	S15 Session Termination .....	264
E.5.4	ADC procedures over Sd reference point for solicited application reporting .....	264
E.5.4.1	TDF session establishment .....	264
E.5.5	ADC procedures over Sd reference point for unsolicited application reporting .....	265
E.5.5.1	General .....	265
E.5.5.2	TDF session to S9a* session linking .....	265
E.6	S15 Protocol .....	265
E.6.1	Protocol support .....	265
E.6.2	Initialization, maintenance and termination of connection and session .....	266
E.6.3	S15 specific AVPs .....	266
E.6.3.1	General .....	266
E.6.3.2	CS-Service-QoS-Request-Identifier .....	267
E.6.3.3	CS-Service-QoS-Request-Operation .....	267
E.6.3.4	CS-Service-Resource-Result-Operation .....	267
E.6.3.5	CS-Service-Resource-Failure-Cause .....	267
E.6.3.6	CS-Service-Resource-Report .....	267
E.6.4	S15 re- used AVPs .....	268
E.6.4.1	General .....	268
E.6.4.2	Use of the Supported-Features AVP on the S15 reference point .....	268
E.6.5	S15 specific Experimental-Result-Code AVP values .....	269
E.6.5.1	General .....	269
E.6.5.2	Success .....	269
E.6.5.3	Permanent Failures .....	269
E.6.5.4	Transient Failures .....	269
E.6.6	S15 Messages .....	269
E.6.6.1	S15 Application .....	269
E.6.6.2	CC-Request (CCR) Command .....	270
E.6.6.3	CC-Answer (CCA) Command .....	270
E.6.6.4	Re-Auth-Request (RAR) Command .....	271
E.6.6.5	Re-Auth-Answer (RAA) Command .....	271
<b>Annex F (informative):</b>	<b>Disabling/re-enabling Usage Monitoring for a PCC/ADC rule .....</b>	<b>272</b>
<b>Annex G (normative):</b>	<b>Access specific aspects, Fixed Broadband Access network convergence .....</b>	<b>273</b>
G.1	Scope .....	273
G.2	Definitions and abbreviations .....	273
G.2.1	Definitions .....	273
G.2.2	Abbreviations .....	273
G.3	Reference points and Reference model .....	274
G.3.1	Reference architecture .....	274
G.3.1.1	General .....	274
G.3.1.2	Reference architecture .....	274
G.3.2	Gx Reference Point .....	275
G.3.3	Sd Reference Point .....	275
G.4	Functional Elements .....	276
G.4.1	PCRF .....	276
G.4.2	PCEF(IP Edge) .....	276
G.4.3	TDF .....	276
G.5	PCC procedures .....	276
G.5.1	Concept Adaptations for Fixed Broadband Access Network Convergence .....	276
G.5.1.1	General .....	276
G.5.1.2	IP-CAN session .....	277
G.5.1.3	IP-CAN bearer .....	277
G.5.1.4	PCC rule .....	277

G.5.1.5	ADC rule.....	277
G.5.1.6	Subscriber Identifier .....	277
G.5.1.7	Default QoS control .....	278
G.5.2	IP-CAN Session Establishment.....	278
G.5.3	IP-CAN Session Termination.....	279
G.5.4	IP-CAN Session Modification.....	279
G.5.4.1	PCEF-Initiated IP-CAN Session Modification .....	279
G.5.4.2	PCRF-Initiated IP-CAN Session Modification.....	280
<b>Annex H (informative):</b>	<b>Policy Control for Remote UEs behind a ProSe UE-to-network relay UE.....</b>	<b>281</b>
<b>Annex I (informative):</b>	<b>Change history .....</b>	<b>281</b>
History .....		285

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# Foreword

This Technical Specification has been produced by the 3<sup>rd</sup> Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

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x the first digit:

- 1 presented to TSG for information;
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Y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.

z the third digit is incremented when editorial only changes have been incorporated in the document.



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# 1 Scope

The present document provides the stage 3 specification of the Gx, Gxx and Sd reference points for the present release. The present document also provides the Diameter variant of St reference point for the present release. The functional requirements and the stage 2 specifications of the Gx, Gxx, Sd and St reference points are contained in 3GPP TS 23.203 [7]. The Gx reference point lies between the Policy and Charging Rule Function and the Policy and Charging Enforcement Function. The Gxx reference point lies between the Policy and Charging Rule Function and the Bearer Binding and Event Reporting Function. The Sd reference point lies between the Policy and Charging Rule Function and the Traffic Detection Function. The St reference point lies between the Policy and Charging Rule Function and the Traffic Steering Support Function.

Whenever it is possible the present document specifies the requirements for the protocol by reference to specifications produced by the IETF within the scope of Diameter. Where this is not possible, extensions to Diameter are defined within the present document.

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# 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 and/or edition number or version number) 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 TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] 3GPP TS 29.210: "Charging Rule Provisioning over Gx Interface".
- [3] Void.
- [4] Void.
- [5] IETF RFC 3588: "Diameter Base Protocol".
- [6] Void.
- [7] 3GPP TS 23.203: "Policy Control and Charging architecture".
- [8] 3GPP TS 29.213: "Policy and charging control signalling flows and Quality of Service (QoS) parameter mapping".
- [9] IETF RFC 4006: "Diameter Credit Control Application".
- [10] 3GPP TS 29.214: "Policy and Charging Control over Rx reference point".
- [11] 3GPP TS 29.061: "Interworking between the Public Land Mobile Network (PLMN) supporting packet based services and Packet Data Networks (PDN)".
- [12] IETF RFC 4005: "Diameter Network Access Server Application".
- [13] 3GPP TS 24.008: "Mobile radio interface Layer 3 specification".
- [14] 3GPP TS 29.229: "Cx and Dx interfaces based on Diameter protocol; Protocol details".
- [15] IETF RFC 3162: "Radius and Ipv6".
- [16] 3GPP TS 32.295: "Telecommunication management; Charging management; Charging Data Record (CDR) transfer".