



Landslide Interfaces and Specifications

Release 13.0

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Introduction

Major Landslide releases may include 3GPP LTE specification updates. For the major test applications (e.g. MME nodal) and interface protocols (e.g. S1-MME NAS and S1-AP) the user can select specific LTE specification versions. Landslide supports 3GPP LTE Release 8, 9, 10 and 11. Landslide nominally supports mandatory protocol features (e.g. options, IEs and AVPs) and capabilities (e.g. messages and procedures). Support for optional protocol features and capabilities are provided on an as needed basis. This version of *Landslide Interfaces and Specifications* has been update for Landslide Release 13.0. It may contain omissions or errors.

Other Landslide test applications are updated to maintain compatibility; however, they do not provide selectable specification versions. In this document if the version and date fields are blank for an interface protocol that means that compatibility with the latest Landslide specification update has been maintained, but the version is not selectable.



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CGF Node – Ga GTP'

3GPP TS 32.298

3rd Generation Partnership Project;

Technical Specification Group Services and System Aspects;

Telecommunication management;

Charging management; Charging Data Record (CDR) parameter description

Version	Date
R97	
R98	
R99	
R4	
R5	
R6	
R7	
R8	
R9	
R10	September 2012
R11	September 2012



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DRA Nodal Sd Diameter

3GPP 29.212

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Policy and Charging Control (PCC) over Gx/Sd Reference points

Version	Date
8.4.0	June 2009
8.5.0	September 2009
8.6.0	December 2009
8.7.0	March 2010
8.8.0	June 2010
9.4.0	October 2010
9.5.0	January 2011
9.6.0	March 2011
9.7.0	June 2011
9.8.0	September 2011
9.9.0	December 2011
10.6.0	March 2012
10.7.0	June 2012
10.8.0	September 2012
11.4.0	March 2012
11.6.0	September 2012



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DRA Nodal – Sh Diameter

3GPP 29.329

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Sh Interface based on the Diameter protocol;

Protocol details

Version	Date
11.4.0	September 2012

DRA Nodal – Sy Diameter

3GPP 29.219

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Policy and Charging Control: Spending Limit Reporting over Sy reference point

Version	Date
8.4.0	June 2009
8.5.0	September 2009
8.6.0	December 2009
8.7.0	March 2010
8.8.0	June 2010
9.4.0	October 2010
9.5.0	January 2011
9.6.0	March 2011
9.7.0	June 2011
9.8.0	September 2011
9.9.0	December 2011
10.6.0	March 2012
10.7.0	June 2012
10.8.0	September 2012
11.4.0	March 2012
11.6.0	September 2012



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DRA Nodal – Gx/Gxc Diameter

3GPP 29.212

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Policy and Charging Control (PCC) over Gx/Sd Reference points

Version	Date
8.4.0	June 2009
8.5.0	September 2009
8.6.0	December 2009
8.7.0	March 2010
8.8.0	June 2010
9.4.0	October 2010
9.5.0	January 2011
9.6.0	March 2011
9.7.0	June 2011
9.8.0	September 2011
9.9.0	December 2011
10.6.0	March 2012
10.7.0	June 2012
10.8.0	September 2012
11.4.0	March 2012
11.6.0	September 2012



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DRA Nodal – Rx Diameter

3GPP TS 29.214

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Policy and Charging Control over Rx reference point

Version	Date
8.4.0	June 2009
8.5.0	September 2009
8.6.0	December 2009
8.7.0	March 2010
8.8.0	June 2010
9.4.0	October 2010
9.5.0	January 2011
9.6.0	March 2011
9.7.0	June 2011
9.8.0	September 2011
9.9.0	December 2011
10.6.0	March 2012
10.7.0	June 2012
10.8.0	September 2012
11.4.0	March 2012
11.6.0	September 2012



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DRAn Nodal – S9 Diameter

3GPP 29.215

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Policy and Charging Control (PCC) over S9 reference point;

(Stage 3)

Version	Date
8.4.0	June 2009
8.5.0	September 2009
8.6.0	December 2009
8.7.0	March 2010
8.8.0	June 2010
9.4.0	October 2010
9.5.0	January 2011
9.6.0	March 2011
9.7.0	June 2011
9.8.0	September 2011
9.9.0	December 2011
10.6.0	March 2012
10.7.0	June 2012
10.8.0	September 2012
11.4.0	March 2012
11.6.0	September 2012



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DRA Nodal – S6a/S6d Diameter

3GPP TS 29.272

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Evolved Packet System (EPS); Evolved Packet System (EPS);

Mobility Management Entity (MME)

and Serving GPRS Support Node (SGSN) related interfaces based on Diameter protocol

Version	Date
8.4.0	September 2009
8.10.0	April 2011
9.2.0	April 2010
10.6.0	March 2012
11.4.0	September 2012



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EIR Nodal – S6a/S6d Diameter

3GPP TS 29.272

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Evolved Packet System (EPS); Evolved Packet System (EPS);

Mobility Management Entity (MME)

and Serving GPRS Support Node (SGSN) related interfaces based on Diameter protocol

Version	Date
8.4.0	September 2009
8.10.0	April 2011
9.2.0	April 2010
10.6.0	March 2012
11.4.0	September 2012

EIR Nodal – S13/S13' Diameter

3GPP TS 29.272

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Evolved Packet System (EPS); Evolved Packet System (EPS);

Mobility Management Entity (MME)

and Serving GPRS Support Node (SGSN) related interfaces based on Diameter protocol

Version	Date
8.4.0	September 2009
8.10.0	April 2011
9.2.0	April 2010
10.6.0	March 2012
11.4.0	September 2012



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eMBMS Node – SGmb Diameter

3GPP 29.272

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Evolved Packet System (EPS);

Mobility Management Entity (MME)

and Serving GPRS Support Node (SGSN) related interfaces based on Diameter protocol

Version	Date
9.4.0	September 2010
11.5.0	June 2013



Landslide Interfaces and Specifications Release 13.0

eMBMS Node – Sm GTPv2-C

3GPP 29.274

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

3GPP Evolved Packet System (EPS);

Evolved General Packet Radio Service (GPRS)

Tunnelling Protocol for Control plane (GTPv2-C);

Stage 3

Version	Date
8.0.0	December 2008
8.1.1	March 2009
8.2.0	June 2009
8.3.0	September 2009
8.4.0	December 2009
8.5.0	March 2010
8.6.0	June 2010
9.4.0	September 2010
9.5.0	December 2010
9.6.0	March 2011
9.7.0	June 2011
9.9.0	December 2011
10.6.0	March 2012
10.8.0	September 2012
11.4.0	September 2012
11.7.0	June 2013



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HSGW Nodal – S11 GTPv2-C

3GPP 29.274

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

3GPP Evolved Packet System (EPS);

Evolved General Packet Radio Service (GPRS)

Tunnelling Protocol for Control plane (GTPv2-C);

Stage 3

Version	Date
8.0.0	December 2008
8.1.1	March 2009
8.2.0	June 2009
8.3.0	September 2009
8.4.0	December 2009
8.5.0	March 2010
8.6.0	June 2010
9.4.0	September 2010
9.5.0	December 2010
9.6.0	March 2011
9.7.0	June 2011
9.9.0	December 2011
10.6.0	March 2012
10.8.0	September 2012
11.4.0	September 2012



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HSGW Nodal – S1-MME NAS

3GPP TS 24.301

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Non-Access-Stratum (NAS) protocol

for Evolved Packet System (EPS);

Stage 3

Version	Date
8.1.0	March 2009
8.2.1	June 2009
8.3.0	September 2009
8.4.0	December 2009
8.5.0	March 2010
8.6.0	June 2010
9.4.0	September 2010
9.5.0	December 2010
9.6.0	March 2011
9.7.0	June 2011
9.8.0	September 2011
10.6.0	March 2012
10.8.0	September 2012
11.4.0	September 2012



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HSGW Nodal – S2a PMIPv6

3GPP TS 29.275

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Proxy Mobile IPv6 (PMIPv6) based Mobility and Tunnelling protocols;

Stage 3

Version	Date
8.1.0	December 2008
8.2.0	March 2009
8.3.0	June 2009
8.4.0	September 2009
8.5.0	December 2009
8.6.0	March 2010
8.7.0	June 2010
9.3.0	September 2010
9.4.0	December 2010
9.5.0	June 2011
9.7.0	December 2011
10.5.0	March 2012
11.4.0	September 2012



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HSGW Nodal – S1-MME S1-AP

3GPP TS 36.413

3rd Generation Partnership Project;
Technical Specification Group Radio Access Network;
Evolved Universal Terrestrial Radio Access Network
(E-UTRAN);
S1 Application Protocol (S1AP)

Version	Date
8.5.1	March 2009
8.6.1	June 2009
8.7.0	September 2009
8.8.0	December 2009
8.9.0	March 2010
8.10.0	June 2010
9.4.0	September 2010
9.5.0	December 2010
9.6.0	March 2011
9.7.0	June 2011
9.8.0	December 2011
10.5.0	March 2012
10.6.0	September 2012
11.1.0	September 2012



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HSGW Node – S11 GTPv2-C

3GPP TS 29.274
3GPP Evolved Packet System (EPS);
Evolved General Packet Radio Service (GPRS)
Tunnelling Protocol for Control plane (GTPv2-C);
Stage 3

Version	Date
8.0.0	December 2008
8.1.1	March 2009
8.2.0	June 2009
8.3.0	September 2009
8.4.0	December 2009
8.5.0	March 2010
8.6.0	June 2010
9.4.0	September 2010
9.5.0	December 2010
9.6.0	March 2011
9.7.0	June 2011
9.9.0	December 2011
10.6.0	March 2012
10.8.0	September 2012
11.4.0	September 2012

HSGW Node – S1-MME NAS

3GPP TS 24.301
3rd Generation Partnership Project;
Technical Specification Group Core Network and Terminals;
Non-Access-Stratum (NAS) protocol
for Evolved Packet System (EPS);
Stage 3

Version	Date
8.1.0	March 2009



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8.2.1	June 2009
8.3.0	September 2009
8.4.0	December 2009
8.5.0	March 2010
8.6.0	June 2010
9.4.0	September 2010
9.5.0	December 2010
9.6.0	March 2011
9.7.0	June 2011
9.8.0	September 2011
10.6.0	March 2012
10.8.0	September 2012
11.4.0	September 2012



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HSGW Node – S2a PMIPv6

3GPP TS 29.275

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Proxy Mobile IPv6 (PMIPv6) based Mobility and Tunnelling protocols;

Stage 3

Version	Date
8.1.0	December 2008
8.2.0	March 2009
8.3.0	June 2009
8.4.0	September 2009
8.5.0	December 2009
8.6.0	March 2010
8.7.0	June 2010
9.3.0	September 2010
9.4.0	December 2010
9.5.0	June 2011
9.7.0	December 2011
10.5.0	March 2012
11.4.0	September 2012



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HSGW Node – S1-MME S1-AP

3GPP TS 36.413

3rd Generation Partnership Project;
 Technical Specification Group Radio Access Network;
 Evolved Universal Terrestrial Radio Access Network
 (E-UTRAN);
 S1 Application Protocol (S1AP)

Version	Date
8.5.1	March 2009
8.6.1	June 2009
8.7.0	September 2009
8.8.0	December 2009
8.9.0	March 2010
8.10.0	June 2010
9.4.0	September 2010
9.5.0	December 2010
9.6.0	March 2011
9.7.0	June 2011
9.8.0	December 2011
10.5.0	March 2012
10.6.0	September 2012
11.1.0	September 2012



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HSS Nodal – S6a/S6d Diameter

3GPP TS 29.272

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Evolved Packet System (EPS); Evolved Packet System (EPS);

Mobility Management Entity (MME)

and Serving GPRS Support Node (SGSN) related interfaces based on Diameter protocol

Version	Date
8.4.0	September 2009
8.10.0	April 2011
9.2.0	April 2010
10.6.0	March 2012
11.4.0	September 2012

HSS Nodal – S13/S13' Diameter

3GPP TS 29.272

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Evolved Packet System (EPS); Evolved Packet System (EPS);

Mobility Management Entity (MME)

and Serving GPRS Support Node (SGSN) related interfaces based on Diameter protocol

Version	Date
8.4.0	September 2009
8.10.0	April 2011
9.2.0	April 2010
10.6.0	March 2012
11.4.0	September 2012



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HSS Node – S6d/S6a Diameter

3GPP TS 29.272

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Evolved Packet System (EPS); Evolved Packet System (EPS);

Mobility Management Entity (MME)

and Serving GPRS Support Node (SGSN) related interfaces based on Diameter protocol

Version	Date
8.4.0	September 2009
8.10.0	April 2011
9.2.0	April 2010
10.6.0	March 2012
11.4.0	September 2012

HSS Node – SWx Diameter

3GPP 29.273

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Evolved Packet System (EPS);

3GPP EPS AAA interfaces

Version	Date
8.4.0	September 2009
8.10.0	April 2011
9.2.0	April 2010
10.6.0	March 2012
11.4.0	September 2012



Landslide Interfaces and Specifications Release 13.0

HSS Node – S13/13’ Diameter

3GPP TS 29.272

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Evolved Packet System (EPS); Evolved Packet System (EPS);

Mobility Management Entity (MME)

and Serving GPRS Support Node (SGSN) related interfaces based on Diameter protocol

Version	Date
8.4.0	September 2009
8.10.0	April 2011
9.2.0	April 2010
10.6.0	March 2012
11.4.0	September 2012



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MME Nodal – S3/S4/S11 GTPv2-C

3GPP TS 29.274

3GPP Evolved Packet System (EPS);

Evolved General Packet Radio Service (GPRS)

Tunnelling Protocol for Control plane (GTPv2-C);

Stage 3

Version	Date
8.0.0	December 2008
8.1.1	March 2009
8.2.0	June 2009
8.3.0	September 2009
8.4.0	December 2009
8.5.0	March 2010
8.6.0	June 2010
9.4.0	September 2010
9.5.0	December 2010
9.6.0	March 2011
9.7.0	June 2011
9.9.0	December 2011
10.6.0	March 2012
10.8.0	September 2012
11.4.0	September 2012



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MME Nodal – M3 M3-AP

3GPP 36.444
3rd Generation Partnership Project;
Technical Specification Group Radio Access Network;
Evolved Universal Terrestrial Radio Access Network
(E-UTRAN);
M3 Application Protocol (M3AP)

Version	Date
9.4.0	December 2012
11.6.0	June 2013

MME Nodal – S1-MME NAS

3GPP TS 24.301
3rd Generation Partnership Project;
Technical Specification Group Core Network and Terminals;
Non-Access-Stratum (NAS) protocol
for Evolved Packet System (EPS);
Stage 3

Version	Date
8.1.0	March 2009
8.2.1	June 2009
8.3.0	September 2009
8.4.0	December 2009
8.5.0	March 2010
8.6.0	June 2010
9.4.0	September 2010
9.5.0	December 2010
9.6.0	March 2011
9.7.0	June 2011
9.8.0	September 2011
10.6.0	March 2012
10.8.0	September 2012
11.4.0	September 2012



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MME Nodal – S1-MME S1-AP

3GPP TS 36.413

3rd Generation Partnership Project;

Technical Specification Group Radio Access Network;

Evolved Universal Terrestrial Radio Access Network

(E-UTRAN);

S1 Application Protocol (S1AP)

Version	Date
8.5.1	March 2009
8.6.1	June 2009
8.7.0	September 2009
8.8.0	December 2009
8.9.0	March 2010
8.10.0	June 2010
9.4.0	September 2010
9.5.0	December 2010
9.6.0	March 2011
9.7.0	June 2011
9.8.0	December 2011
10.5.0	March 2012
10.6.0	September 2012
11.1.0	September 2012



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MME Nodal – S2a PMIPv6

3GPP TS 29.275

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Proxy Mobile IPv6 (PMIPv6) based Mobility and Tunnelling protocols;

Stage 3

Version	Date
8.1.0	December 2008
8.2.0	March 2009
8.3.0	June 2009
8.4.0	September 2009
8.5.0	December 2009
8.6.0	March 2010
8.7.0	June 2010
9.3.0	September 2010
9.4.0	December 2010
N/A	March 2011
9.5.0	June 2011
9.7.0	December 2011
10.5.0	March 2012
11.4.0	September 2012



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MME Node – S3/S10/S11 GTPv2-C

3GPP TS 29.274

3GPP Evolved Packet System (EPS);

Evolved General Packet Radio Service (GPRS)

Tunnelling Protocol for Control plane (GTPv2-C);

Stage 3

Version	Date
8.0.0	December 2008
8.1.1	March 2009
8.2.0	June 2009
8.3.0	September 2009
8.4.0	December 2009
8.5.0	March 2010
8.6.0	June 2010
9.4.0	September 2010
9.5.0	December 2010
9.6.0	March 2011
9.7.0	June 2011
9.9.0	December 2011
10.6.0	March 2012
10.8.0	September 2012
11.4.0	September 2012



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MME Node – Sv GTPv2-C

3GPP Evolved Packet System (EPS);
Evolved General Packet Radio Service (GPRS)
Tunnelling Protocol for Control plane (GTPv2-C);
Stage 3

Version	Date
10.6.0	March 2012

MME Node – M3 M3-AP

3GPP 36.444
3rd Generation Partnership Project;
Technical Specification Group Radio Access Network;
Evolved Universal Terrestrial Radio Access Network
(E-UTRAN);
M3 Application Protocol (M3AP)

Version	Date
9.4.0	December 2012
11.6.0	June 2013



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MME Node – S1-MME NAS

3GPP TS 24.301

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Non-Access-Stratum (NAS) protocol

for Evolved Packet System (EPS);

Stage 3

Version	Date
8.1.0	March 2009
8.2.1	June 2009
8.3.0	September 2009
8.4.0	December 2009
8.5.0	March 2010
8.6.0	June 2010
9.4.0	September 2010
9.5.0	December 2010
9.6.0	March 2011
9.7.0	June 2011
9.8.0	September 2011
10.6.0	March 2012
10.8.0	September 2012
11.4.0	September 2012



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MME Node – S1-MME S1-AP

3GPP TS 36.413

3rd Generation Partnership Project;
Technical Specification Group Radio Access Network;
Evolved Universal Terrestrial Radio Access Network
(E-UTRAN);
S1 Application Protocol (S1AP)

Version	Date
8.5.1	March 2009
8.6.1	June 2009
8.7.0	September 2009
8.8.0	December 2009
8.9.0	March 2010
8.10.0	June 2010
9.4.0	September 2010
9.5.0	December 2010
9.6.0	March 2011
9.7.0	June 2011
9.8.0	December 2011
10.5.0	March 2012
10.6.0	September 2012
11.1.0	September 2012



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OCS Node – Ro Diameter

TS 32.299

3rd Generation Partnership Project;
Technical Specification Group Services and System Aspects;
Telecommunication management;
Charging management;
Diameter charging applications

Version	Date
R9	
R10	September 2012
R11	September 2012

OCS Node – Sy Diameter

3rd Generation Partnership Project;
Technical Specification Group Core Network and Terminals;
Policy and Charging Control: Spending Limit Reporting over Sy reference point

Version	Date
R9	
R10	September 2012
R11	September 2012



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OFCS Node – Rf Diameter

TS 32.299

3rd Generation Partnership Project;
Technical Specification Group Services and System Aspects;
Telecommunication management;
Charging management;
Diameter charging applications

Version	Date
R10	September 2012
R11	September 2012



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PCRF Nodal – Gx/Gxc (Rx & S9) Diameter

TS 29.212

3rd Generation Partnership Project;
 Technical Specification Group Core Network and Terminals;
 Policy and Charging Control (PCC) over Gx reference point

3GPP TS 29.214

3rd Generation Partnership Project;
 Technical Specification Group Core Network and Terminals;
 Policy and Charging Control over Rx reference point

3GPP 29.215

3rd Generation Partnership Project;
 Technical Specification Group Core Network and Terminals;
 Policy and Charging Control (PCC) over S9 reference point;
 (Stage 3)

Version	Date
8.4.0	June 2009
8.5.0	September 2009
8.6.0	December 2009
8.7.0	March 2010
8.8.0	June 2010
9.4.0	October 2010
9.5.0	January 2011
9.6.0	March 2011
9.7.0	June 2011
9.8.0	September 2011
9.9.0	December 2011
10.6.0	March 2012
10.7.0	June 2012
10.8.0	September 2012
11.4.0	March 2012
11.6.0	September 2012



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PCRF Node – Gx/Gxc (Rx & S9) Diameter

TS 29.212

3rd Generation Partnership Project;
Technical Specification Group Core Network and Terminals;
Policy and Charging Control (PCC) over Gx reference point

3GPP TS 29.214

3rd Generation Partnership Project;
Technical Specification Group Core Network and Terminals;
Policy and Charging Control over Rx reference point

3GPP 29.215

3rd Generation Partnership Project;
Technical Specification Group Core Network and Terminals;
Policy and Charging Control (PCC) over S9 reference point;
(Stage 3)

Version	Date
8.4.0	June 2009
8.5.0	September 2009
8.6.0	December 2009
8.7.0	March 2010
8.8.0	June 2010
9.4.0	October 2010
9.5.0	January 2011
9.6.0	March 2011
9.7.0	June 2011
9.8.0	September 2011
9.9.0	December 2011
10.6.0	March 2012
10.7.0	June 2012
10.8.0	September 2012
11.4.0	March 2012
11.6.0	September 2012



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PCRF Node – Sy Diameter

3rd Generation Partnership Project;
Technical Specification Group Core Network and Terminals;
Policy and Charging Control: Spending Limit Reporting over Sy reference point

Version	Date
8.4.0	June 2009
8.5.0	September 2009
8.6.0	December 2009
8.7.0	March 2010
8.8.0	June 2010
9.4.0	October 2010
9.5.0	January 2011
9.6.0	March 2011
9.7.0	June 2011
9.8.0	September 2011
9.9.0	December 2011
10.6.0	March 2012
10.7.0	June 2012
10.8.0	September 2012
11.4.0	March 2012
11.6.0	September 2012



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PGW Nodal – S5/S8 GTPv2-C

3GPP TS 29.274

3GPP Evolved Packet System (EPS);

Evolved General Packet Radio Service (GPRS)

Tunnelling Protocol for Control plane (GTPv2-C);

Stage 3

Version	Date
8.0.0	December 2008
8.1.1	March 2009
8.2.0	June 2009
8.3.0	September 2009
8.4.0	December 2009
8.5.0	March 2010
8.6.0	June 2010
9.4.0	September 2010
9.5.0	December 2010
9.6.0	March 2011
9.7.0	June 2011
9.9.0	December 2011
10.6.0	March 2012
10.8.0	September 2012
11.4.0	September 2012



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PGW Nodal – S5/S8 PMIPv6

3GPP TS 29.275

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Proxy Mobile IPv6 (PMIPv6) based Mobility and Tunnelling protocols;

Stage 3

Version	Date
8.1.0	December 2008
8.2.0	March 2009
8.3.0	June 2009
8.4.0	September 2009
8.5.0	December 2009
8.6.0	March 2010
8.7.0	June 2010
9.3.0	September 2010
9.4.0	December 2010
9.5.0	June 2011
9.7.0	December 2011
10.5.0	March 2012
11.4.0	September 2012



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PGW Nodal – S2a/S2b PMIPv6

3GPP TS 29.275

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Proxy Mobile IPv6 (PMIPv6) based Mobility and Tunnelling protocols;

Stage 3

Version	Date
8.1.0	December 2008
8.2.0	March 2009
8.3.0	June 2009
8.4.0	September 2009
8.5.0	December 2009
8.6.0	March 2010
8.7.0	June 2010
9.3.0	September 2010
9.4.0	December 2010
9.5.0	June 2011
9.7.0	December 2011
10.5.0	March 2012
11.4.0	September 2012



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PGW Node – S5/S8 GTPv2-C

3GPP TS 29.274

3GPP Evolved Packet System (EPS);

Evolved General Packet Radio Service (GPRS)

Tunnelling Protocol for Control plane (GTPv2-C);

Stage 3

Version	Date
8.0.0	December 2008
8.1.1	March 2009
8.2.0	June 2009
8.3.0	September 2009
8.4.0	December 2009
8.5.0	March 2010
8.6.0	June 2010
9.4.0	September 2010
9.5.0	December 2010
9.6.0	March 2011
9.7.0	June 2011
9.9.0	December 2011
10.6.0	March 2012
10.8.0	September 2012
11.4.0	September 2012



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PGW Node – S5/S8 PMIPv6

3GPP TS 29.275

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Proxy Mobile IPv6 (PMIPv6) based Mobility and Tunnelling protocols;

Stage 3

Version	Date
8.1.0	December 2008
8.2.0	March 2009
8.3.0	June 2009
8.4.0	September 2009
8.5.0	December 2009
8.6.0	March 2010
8.7.0	June 2010
9.3.0	September 2010
9.4.0	December 2010
9.5.0	June 2011
9.7.0	December 2011
10.5.0	March 2012
11.4.0	September 2012



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PGW Node – S2a/S2b GTPv2-C

3GPP TS 29.274

3GPP Evolved Packet System (EPS);

Evolved General Packet Radio Service (GPRS)

Tunnelling Protocol for Control plane (GTPv2-C);

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9.4.0	September 2010
9.5.0	December 2010
9.6.0	March 2011
9.7.0	June 2011
9.9.0	December 2011
10.6.0	March 2012
10.8.0	September 2012
11.4.0	September 2012



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PGW Node – S2a/S2b PMIPv6

3GPP TS 29.275

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Proxy Mobile IPv6 (PMIPv6) based Mobility and Tunnelling protocols;

Stage 3

Version	Date
8.1.0	December 2008
8.2.0	March 2009
8.3.0	June 2009
8.4.0	September 2009
8.5.0	December 2009
8.6.0	March 2010
8.7.0	June 2010
9.3.0	September 2010
9.4.0	December 2010
9.5.0	June 2011
9.7.0	December 2011
10.5.0	March 2012
11.4.0	September 2012



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SGW Nodal – S4/S5/S8/S11 GTPv2-C

3GPP TS 29.274

3GPP Evolved Packet System (EPS);

Evolved General Packet Radio Service (GPRS)

Tunnelling Protocol for Control plane (GTPv2-C);

Stage 3

Version	Date
8.0.0	December 2008
8.1.1	March 2009
8.2.0	June 2009
8.3.0	September 2009
8.4.0	December 2009
8.5.0	March 2010
8.6.0	June 2010
9.4.0	September 2010
9.5.0	December 2010
9.6.0	March 2011
9.7.0	June 2011
9.9.0	December 2011
10.6.0	March 2012
10.8.0	September 2012
11.4.0	September 2012



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SGW Nodal – S5/S8 PMIPv6

3GPP TS 29.275

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Proxy Mobile IPv6 (PMIPv6) based Mobility and Tunnelling protocols;

Stage 3

Version	Date
8.1.0	December 2008
8.2.0	March 2009
8.3.0	June 2009
8.4.0	September 2009
8.5.0	December 2009
8.6.0	March 2010
8.7.0	June 2010
9.3.0	September 2010
9.4.0	December 2010
9.5.0	June 2011
9.7.0	December 2011
10.5.0	March 2012
11.4.0	September 2012



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SGW Node – S4/S5/S8/S11 GTPv2-C

3GPP TS 29.274

3GPP Evolved Packet System (EPS);

Evolved General Packet Radio Service (GPRS)

Tunnelling Protocol for Control plane (GTPv2-C);

Stage 3

Version	Date
8.0.0	December 2008
8.1.1	March 2009
8.2.0	June 2009
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8.4.0	December 2009
8.5.0	March 2010
8.6.0	June 2010
9.4.0	September 2010
9.5.0	December 2010
9.6.0	March 2011
9.7.0	June 2011
9.9.0	December 2011
10.6.0	March 2012
10.8.0	September 2012
11.4.0	September 2012



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SGW Node – S5/S8 PMIPv6

3GPP TS 29.275

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Proxy Mobile IPv6 (PMIPv6) based Mobility and Tunnelling protocols;

Stage 3

Version	Date
8.1.0	December 2008
8.2.0	March 2009
8.3.0	June 2009
8.4.0	September 2009
8.5.0	December 2009
8.6.0	March 2010
8.7.0	June 2010
9.3.0	September 2010
9.4.0	December 2010
9.5.0	June 2011
9.7.0	December 2011
10.5.0	March 2012
11.4.0	September 2012



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UMTS – S4 GTPv2-C

3GPP TS 29.274

3GPP Evolved Packet System (EPS);

Evolved General Packet Radio Service (GPRS)

Tunnelling Protocol for Control plane (GTPv2-C);

Stage 3

Version	Date
8.0.0	December 2008
8.1.1	March 2009
8.2.0	June 2009
8.3.0	September 2009
8.4.0	December 2009
8.5.0	March 2010
8.6.0	June 2010
9.4.0	September 2010
9.5.0	December 2010
9.6.0	March 2011
9.7.0	June 2011
9.9.0	December 2011
10.6.0	March 2012
10.8.0	September 2012
11.4.0	September 2012



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WiFi Offload GW Node – S2a/S2b GTPv2-C

3GPP TS 29.274

3GPP Evolved Packet System (EPS);

Evolved General Packet Radio Service (GPRS)

Tunnelling Protocol for Control plane (GTPv2-C);

Stage 3

Version	Date
8.0.0	December 2008
8.1.1	March 2009
8.2.0	June 2009
8.3.0	September 2009
8.4.0	December 2009
8.5.0	March 2010
8.6.0	June 2010
9.4.0	September 2010
9.5.0	December 2010
9.6.0	March 2011
9.7.0	June 2011
9.9.0	December 2011
10.6.0	March 2012
10.8.0	September 2012
11.4.0	September 2012



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WiFi Offload GW Node – S2a/S2b PMIPv6

3GPP TS 29.275

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Proxy Mobile IPv6 (PMIPv6) based Mobility and Tunnelling protocols;

Stage 3

Version	Date
8.1.0	December 2008
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9.5.0	June 2011
9.7.0	December 2011
10.5.0	March 2012
11.4.0	September 2012



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Contacting Spirent Communications

To obtain technical support for any Spirent Communications product, please contact our Support Services department using any of the following methods:

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Web: <http://support.spirent.com>

Toll Free: +1 800-SPIRENT (+1 800-774-7368) (US and Canada)

Phone: +1 818-676-2616

Fax: +1 818-880-9154

Hours: Monday through Friday, 05:30 to 18:00 Pacific Time

Europe, Africa, Middle East

E-mail: support@spirent.com

Web: <http://support.spirent.com>

Phone: +33 (0) 1 61 37 22 70

Fax: +33 (0) 1 61 37 22 51

Hours: Monday through Thursday, 09:00 to 18:00, 9:00 to 17:00 Friday, Paris Time

Asia Pacific

E-mail: supportchina@spirent.com

Web: <http://support.spirent.com>

Phone: 400 810 9529 (mainland China only)

Phone: +86 400 810 9529 (outside China)

Fax: +86 10 8233 0022

Operating Hours: Monday through Friday, 09:00 to 18:00 Beijing Time

The latest versions of user manuals, application notes, and software and firmware updates are available on the Spirent Communications support website at <http://support.spirent.com>.

Information about Spirent Communications and its products and services can be found on the main company website at <http://www.spirent.com>.

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Calabasas, CA 91302
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