

Version 11.0.0.115

Release Date: Apr 29, 2016

Resolved Issues

Issue #	Summary
11471	MME does not include CDMA2000 HO Status IE in Downlink S1 CDMA2000 Tunneling message even it receives handover status information from IWS.
12413	Support required to configure the number of UEs that can be monitored simultaneously using Subscriber Monitoring feature.
12460	MBMS-GW does not support MLD.
12496	Modification of IP address range of an Emergency APN does not work properly.
12504	MBMS-GW Emulator Console should be enhanced to include multiple service id during service group creation.
12518	PGW does not send Router Advertisement message if Router Solicitation message arrives before DL tunnel is ready.
12542	Spanish language support required in CMAS Alert Message.
12568	Emulator Console should support 9600 bytes of Warning Message Content in a single CMAS Alert message.
12578	eNB Emulator does not support X2 Setup between eNBs having IPv6 addresses.
12590	PGW should send PMIP Heartbeat response message in reply of a Heartbeat request to a peer even if no active session exists over S5/S2a/S2b.
12592	eNB Emulator fails to decode X2 Setup Request message if multiple Served Cells are present in the message.
12612	Emulator nodes cannot be started and connected from console if the validity of license is less than 10 days.
12624	eNB Emulator rejects X2 Setup Request if optional GU Group Id List IE is not present in the message.
12636	MCE sends repetitive LCID information in the SI message to eNBs when multiple eNBs are connected with the MCE.
12638	Tcl API required to get interface ID of an existing X2 connection based on eNB IP address.
12653	S1-Handover with MME relocation fails as source MME does not include E-RABs Subject to Forwarding List IE in Handover Command message when direct path is available between source and target eNB.
12654	IMS Secret Key is not persistent across configuration load.
12656	MCE sends MCE Configuration Update message to a single eNB even when multiple eNBs are connected to the MCE for same MBSFN area.
12668	MME does not send MME Configuration Update message to eNB even if Equivalent PLMN configuration is modified in the MME.
12672	Configuration loading in Emulator Console does not fully restore emergency session configuration.

Version 11.0.0.114

Release Date: Mar 18, 2016

Known Issues

Issue #	Summary
12518	PGW does not send Router Advertisement message if Router Solicitation message arrives before DL tunnel is ready.

Resolved Issues

Issue #	Summary
12296	Enhancement required to deactivate multiple dedicated bearers in a single E-RAB Release Command S1AP message.
12370	MME behaves abnormally when S1-Reset is received from old eNB after successful S1-Handover.
12412	MME cannot process Service Request for a UE due to procedure collision between ongoing dedicated bearer operation and DL Data Notification from SGW.
12428	Enhancement required in Emulator Console to send more than 50 paging messages per second to eNB.
12441	S1-Handover fails at Target MME when selected PLMN in target TA does not match with the PLMN of target eNB.
12455	MCE sends wrong closed session details in MBMS Scheduling Information message after stopping one of many sessions.
12456	MBMS-GW does not allow restarting a session after stopping it as TMGI already exists.
12458	Enhancement required in MBMS-GW Start Traffic dialog to allow user to select the media file from the local system for the traffic data.
12462	PGW sends incorrect length for P-CSCF IPv4 Address inside PCO IE of Create Session Response message.
12465	MME crashes when eNB sends a TAC that MME does not support in ENB Configuration Transfer S1AP message and log level is set to debug.
12494	ePDG cannot attach a UE in the network if previous session for that UE is not properly deleted.
12502	User should be able to configure the value of "IPv4 Link MTU" in PGW that goes inside PCO.
12508	PGW sends downlink data prior to sending PBA to ePDG when UE moves from LTE to WLAN due to E-UTRAN connectivity loss.

Version 11.0.0.113

Release Date: Feb 18, 2016

Known Issues

Issue #	Summary
12462	PGW sends incorrect length for P-CSCF IPv4 Address inside PCO IE of Create Session Response message.

Resolved Issues

Issue #	Summary
11827, 12272	PGW rejects Attach or Detach requests from a UE coming via WLAN Access when test is running in a loop of 127 or more.
12153	Sometimes all Emulator servers do not start automatically across reboot of the system when USB dongle is used for license verification.
12185	Enhancement required to configure Multiple P-CSCF Servers in an APN.
12221	MME sends Downlink Data Notification Failure message with wrong UDP port.
12222	Sometimes NetTest Console user needs to wait 10 seconds approximately before connecting servers when servers are started fresh and Console is running on Linux system.
12267	MME sets wrong EPS Bearer status in TAU Accept message if one or more dedicated bearers exist.
12286	S1 Setup policy can not be configured for eNodeBs having IPv6 addresses.

Version 11.0.0.112

Release Date: Jan 4, 2016

Known Issues

Issue #	Summary
12153	Sometimes all Emulator servers do not start automatically across reboot of the system when USB dongle is used for license verification.
12222	Sometimes NetTest Console user needs to wait 10 seconds approximately before connecting servers when servers are started fresh and Console is running on Linux system.

Resolved Issues

Issue #	Summary
11998	HeNB-GW cannot handle partial success response from eNodeB during dedicated bearer creation and does not forward failed bearer list to MME.
12016	Enhancement required in Console to fetch APN details from APN definition of PGW Emulator while defining PDN Context in HSS.
12048	Enabling NAT causes all outgoing packets to be NAT-ed across all interfaces.
12071	ePDG cannot handle UE-initiated ESP Rekeying request when UE sends multiple Proposal Transforms in CREATE_CHILD_SA message.
12072	SGW does not forward data over indirect forwarding tunnels during S1 Handover.
12085, 12016	MME terminates abnormally if eNB fails to set up all requested bearers and rejects the request.
12139	X2 HO fails when UE moves from Macro eNB to HeNB which is behind HGW and UE has more than 7 bearers.
12188	MME sends UE Context Release Command with an incorrect cause after TAU Accept message.

Version 11.0.0.111 Beta

Release Date: Dec 3, 2015

New in this Release

1. User Plane performance improvement: Up to 2x faster user-plane throughput on suitable hardware compared to release 10.2.
2. UE Emulator with S14 and SWu interfaces.
3. ePDG: NAT Traversal on SWu interface.
4. HeNB-GW: Optional user-plane aggregation, LIPA, protocol policy setting for negative testing.
5. User Traffic Impairment configuration.
6. Support for Kamailio IMS Server to test IMS Voice Calls, Video Calls and SMS.
7. DSCP marking on Uplink and Downlink traffic over S1u, S5u and SGi interfaces.

Known Issues

Issue #	Summary
11222	HeNB-GW does not support following S1AP procedures: Trace, Location Reporting, Overload, LPPa Transport.
11774	ePDG does not support following algorithms: Random functions: PRF_AES128-XCBC, SHA2_384, SHA2_512 IKE Encryption: AES_CBC_256 and AES_CTR_256 ESP Encryption: AES_CBC_256 and AES_CTR_256
12048	Enabling NAT causes all outgoing packets to be NAT-ed across all interfaces.
12071	ePDG cannot handle UE-initiated ESP Rekeying request when UE sends multiple Proposal Transforms in CREATE_CHILD_SA message.
12072	SGW does not forward data over indirect forwarding tunnels during S1 Handover.
12085	MME terminates abnormally if eNB fails to set up all requested bearers and rejects the request.

Resolved Issues

Issue #	Summary
11873	MME does not delete failed bearers when direct path is available between source and target eNodeB during S1-Handover.
11875	“Regenerate Security Key” feature does not work after piggybacked dedicated bearer creation during Attach process.
11962	SGW does not validate sender IP address while processing GTP-U Error Indication message.
11971	MME rejects attach request if integrity check fails on Attach Request NAS message.
11982	Sometimes MME erroneously sets Handover Indication flag in Create Session Request towards SGW/PGW for a Initial Attach Request if previous handover attempt from non-3GPP Access to LTE Access fails.
11986	PGW crashes if uplink data packet size is more than 10000 bytes.
11998	HeNB-GW cannot handle partial success response from eNodeB during dedicated bearer creation and does not forward failed bearer list to MME.
12003	MME rejects attach request when RRC establishment cause is “delay Tolerant Access”.
12019	S1-Handover fails if “Source to Target Transparent Container” IE length in Handover Required S1AP message is more than 800 bytes.

Version 11.0.0.109

Release Date: Nov 11, 2015

Resolved Issues

Issue #	Summary
11886	Sometimes MCE terminates abruptly during configuration load.
11895	SYNC protocol does not work properly for absolute time based MBSFN Content Synchronization.
11950	ANDSF Server does not respond to UE OMADM Pull when LocName field is absent in SML message sent by the UE.

Version 11.0.0.108

Release Date: Oct 16, 2015

Resolved Issues

Issue #	Summary
11841	Memory leak observed during overnight test scenario involving multiple signaling and user plane procedures.
11868	User should be able to configure Synchronization period value more than a minute using simulated BM-SC.
11872	ePDG does not include NAT detection Notify Payload in IKEv2_SA_INIT Reply message even when UE sends it in IKEv2_SA_INIT Request packet.

Version 11.0.0.107

Release Date: Oct 12, 2015

Resolved Issues

Issue #	Summary
11747	SGW terminates abnormally during various operations if MME stops responding.
11770	When multiple bearers are setup, modified or deleted simultaneously, MME cannot handle an eNB response of partial success.
11771	EPC uses high memory during overnight load testing scenario.
11784	ePDG does not support APN in non-FQDN format.
11799	Sometimes ePDG does not send EAP payload in IKE_AUTH message even after successful Diameter EAP message exchange with AAA server.
11801	AAA server cannot handle next Diameter EAP Request message when previous EAP-AKA procedure fails with UE.
11810	PCRF gets segmentation fault during UE attach when multiple services are added in a PDN context.
11811	S1 Handover fails when indirect data forwarding is not used during handover and HeNB-GW is deployed in the network.
11812	NetTest console throws error when user tries to Install or Modify a service from PCRF Emulator when user runs console on Linux.
11813	Back to back X2-Handover fails when UE moves between HeNB that resides behind HeNB-GW and Macro eNB connected directly to MME.

Version 11.0.0.101 Beta

Release Date: Sep 23, 2015

Resolved Issues

Issue #	Summary
11737	Emulator Console throws error when user tries to terminate session of selected subscribers from PCRF.
11769	PGW does not support PCRF-initiated PDN disconnection procedure when UE is attached via untrusted Non-3GPP access network.

Version 11.0.0.100 Beta

Release Date: Sep 21, 2015

New in this Release

1. MCE Emulator with M3 and M2 interfaces.
2. M2 interface in eNodeB Emulator.
3. Location Services (LCS):
 - o SLg and SLs interfaces in MME Emulator to external GMLC and E-SMLC.
 - o SLh interface in HSS Emulator to external GMLC.
4. Untrusted non-3GPP Access:
 - o Handover from 3GPP Access Network.
 - o Emergency Services.
 - o Home-Routed and Local-breakout Roaming.
 - o Re-keying over IKEv2 and ESP tunnels.
5. Trusted non-3GPP Access: HSS-initiated procedures.
6. Control Plane performance improvement: Up to 10x faster signaling procedures on suitable hardware compared to release 10.2.
7. GERAN and UTRAN support in HSS Emulator with S6d interface.
8. VoLTE with SRVCC Handovers with 3GPP Access networks:
 - o S1-MME enhancements in MME Emulator.
 - o Sv interface in MME Emulator to external MSC.
 - o Sh interface in HSS Emulator to external IMS.
9. LIPA and SIPTO support in MME and HSS Emulator.

Known Issues

Issue #	Summary
11222	HeNB-GW does not support following S1AP procedures: Trace Location Reporting, Overload, S1 CDMA2000 Tunneling, eNB/MME Direct Information Transfer, eNB/MME Configuration Transfer, LPPa Transport
11737	Emulator Console throws error when user tries to terminate session of selected subscribers from PCRF.
11747	SGW terminates abnormally during various operations if MME stops responding.
11769	PGW does not support PCRF-initiated PDN disconnection procedure when UE is attached via untrusted Non-3GPP access network.
11770	When multiple bearers are setup, modified or deleted simultaneously, MME cannot handle an eNB response of partial success.
11774	ePDG does not support following algorithms: Random functions: PRF_AES128-XCBC, SHA2_384, SHA2_512 IKE Encryption: AES_CBC_256 and AES_CTR_256 ESP Encryption: AES_CBC_256 and AES_CTR_256

Version 11.0.0.5 Beta

Release Date: Apr 21, 2015

New in this Release

1. HeNB Gateway Emulator with S1-MME and S1-u interfaces.
2. Untrusted non-3GPP Access: Multiple PDN connection and disconnection.
3. Untrusted non-3GPP Access: Handover to 3GPP Access Network.

Resolved Issues

Issue #	Summary
11113	ePDG does not support following algorithms: Random functions: PRF_AES128-XCBC IKE Integrity: hmacAesXcbcLen96 IKE Encryption: aesCtr, Null ESP Integrity: aesXcbcMacLen96, Null ESP Encryption: aesCtr, des, des3, Null

Known Issues

Issue #	Summary
11100	ePDG Emulator does not support IPv6 addressing.
11222	HeNB-GW does not support all S1AP Procedures.

Version 11.0.0.2 Beta

Release Date: Mar 13, 2015

New in this Release

1. ePDG Emulator with SWm, SWn, SWu, S2b interfaces.
Only PMIP based S2b is supported.
2. Untrusted non-3GPP Access Network support in HSS/AAA and PGW.

Known Issues

Issue #	Summary
11100	ePDG Emulator does not support IPv6 addressing.
11113	ePDG does not support following algorithms: Random functions: PRF_AES128-XCBC IKE Integrity: hmacAesXcbcLen96 IKE Encryption: aesCtr, Null ESP Integrity: aesXcbcMacLen96, Null ESP Encryption: aesCtr, des, des3, Null

Version 10.2.0.15

Release Date: Aug 28, 2015

Version 10.2.0.14

Release Date: Jul 8, 2015

Version 10.2.0.13

Release Date: May 25, 2015

Version 10.2.0.11

Release Date: Apr 22, 2015

Version 10.2.0.10

Release Date: Mar 9, 2015

Version 10.2.0.9

Release Date: Feb 6, 2015

Version 10.2.0.8 Beta

Release Date: Jan 15, 2015

New in this Release

1. Support for IPv6 for signaling between LTE Network Elements.

Version 10.2.0.7 Beta

Release Date: Nov 19, 2014

New in this Release

1. MBMS-GW Emulator with M1, Sm, SG-mb and SGi-mb interfaces and internal BM-SC Simulator to generate MBMS traffic.
2. eMBMS support in eNodeB and MME Emulator.
3. Inter-working with trusted non-3GPP Access Network with S2a, S6b, STa and Gxa interfaces.
4. AAA Server functionality in HSS Emulator.
5. SMS transmission from MME to UE and UE-to-UE SMS loopback in MME.
6. Equivalent PLMN and Forbidden TA/LA configuration in MME.
7. Minimization of Drive Test (MDT) configuration and activation.
8. HSS-initiated Trace Activation/Deactivation on S6a.
9. GERAN and UTRAN support in PCRF.
10. AF Session Establishment/Termination/Modification in Visited PLMN.
11. Support for Diameter Redirect Agent and Diameter Proxy Agent in SGW and PCRF.
12. Gxc interface in PCRF Emulator.
13. Cx interface in HSS Emulator to test IMS Voice Calls and SMS.
14. Use of OpenIMS Server to test IMS Voice Calls and SMS.
15. Use of DHCP server co-located with PGW for allocation of UE IP addresses.

Version 10.2.0.3 Beta

Release Date: Jul 25, 2014

New in this Release

1. ANSDF Emulator with S14, Zh and Ub interfaces.
2. UES14 Emulator with S14 interface.

Version 10.1.0.12

Release Date: Nov 15, 2014

Version 10.1.0.11

Release Date: Oct 15, 2014

Version 10.1.0.10

Release Date: Sep 17, 2014

Version 10.1.0.9

Release Date: Aug 20, 2014

Version 10.1.0.7 Beta

Release Date: Jul 22, 2014

Version 10.1.0.6 Beta

Release Date: Jun 26, 2014

Version 10.1.0.4 Beta

Release Date: May 30, 2014

New in Release 10.1

1. Standalone PCRF Emulator with Gx, Rx, S9 and proprietary Sp interfaces.
2. Standalone HSS Emulator with S6a interface.
3. Multimedia Priority Service.
4. Support for Diameter Redirect Agent and Diameter Proxy Agent in MME and PGW.
5. Network-triggered Service Restoration on GTP based S5/S8.
6. UE IPv6 Address assignment via DHCPv6 on GTP-based S5/S8.
7. PS Handover during CS Fallback to GERAN and UTRAN.
8. Support for Relay Node in MME.
9. HSS Identity resolution and SGW selection using DNS in MME.
10. Radio Resource Management and Mobility Restriction in MME.
11. UE Time Zone reporting.
12. APN Restriction.
13. PGW Restart Indication and Modify Access Bearer Request support in MME and SGW.

Version 10.0.0.9

Release Date: May 19, 2014

Version 10.0.0.8

Release Date: Apr 9, 2014

Version 10.0.0.7

Release Date: Feb 24, 2014

Version 10.0.0.6

Release Date: Dec 30, 2013

New in Release 10.0

1. 3GPP Release 10 Compatibility:
3GPP Release 10 enhancements in S1AP, GTP, PMIP and Diameter messages.
2. Local Breakout Roaming using GTP-based S5.
3. Inter-working with GERAN and UTRAN:
Access to LTE Core Network via GERAN/UTRAN and Idle and Connected mode mobility between GERAN/UTRAN and LTE Network.
4. CS Fallback to GERAN and UTRAN:
Combined Attach to CS+PS network, SMS over SGs and Mobile Originated and Terminating Voice Call with Suspension of PS service during CSFB.
5. CS Fallback to CDMA2000 1xRTT Network:
Mobile Originated and Terminating Voice Call and SMS without PS Handover.
6. Dedicated Bearers on PMIP-based S5/S8 interface, Gxc interface in SGW.
7. Complete and Partial Path Failure handling.
8. GTP-U Error Indication handling.
9. Remote packet capture from Emulators Console using Wireshark.
10. Subscriber Monitoring using Emulator Console.
11. PGW selection in MME and Charging Server selection in PGW using DNS.
12. Trace Activation and Deactivation from external HSS using S6a interface.

Version 9.2.0.9

Release Date: Dec 4, 2013

Version 9.2.0.8

Release Date: Oct 21, 2013

Version 9.2.0.7

Release Date: July 23, 2013

Version 9.2.0.6

Release Date: June 27, 2013

Version 9.2.0.4

Release Date: May 14, 2013

New in Release 9.2

1. Emergency Session
2. CMAS - SBc interface between MME and Cell Broadcast Centre (CBC) and simulation of Alerts from MME
3. PMIP-based S5/S8 interface, with support for Default Bearer establishment only
4. Bearer Release initiated by eNB and MME
5. UE requested DHCP-based IPv4 address assignment
6. HSS Initiated APN-AMBR, QCI, ARP Modification
7. PCRF-initiated Location Reporting using the Emulators' Tcl scripting API
8. Support for IPv6 user plane traffic on dedicated bearer

Version 9.1.0.10

Release Date: April 23, 2013

Version 9.1.0.9

Release Date: March 06, 2013

New in this Release

1. Support for “Network Access Mode” configuration in EPC.

Version 9.1.0.8

Release Date: February 22, 2013

Version 9.1.0.7 Beta

Release Date: February 8, 2013

Version 9.1.0.6 Beta

Release Date: February 1, 2013

New in Release 9.1

1. S6a interface in MME to communicate with external HSS
2. S13 interface in MME to communicate with external EIR
3. IPv6 user plane traffic – only on default bearer
4. Trace in SGW and PGW
5. Roaming – Home-Routed

Version 9.0.0.10

Release Date: November 27, 2012

Supported Signaling Procedures (compliant to 3GPP Release 9 standards)

1. S1 Setup, S1 Close, S1 Flex
2. S1 Reset: eNB Initiated and MME Initiated
3. SCTP Multi-homing on S1-MME
4. UE Attach: Initial Attach with IMSI / old GUTI
5. UE Detach: UE Initiated and Network Initiated
6. UE Context Release
7. Service Request
8. Tracking Area Update
9. Downlink Data Notification / Paging
10. Dedicated Bearer Activation: UE and Network Initiated
11. Bearer Modification: UE and Network Initiated
12. Bearer Deactivation: UE and Network Initiated
13. S1-Based Handover - with or without MME and SGW relocation
14. X2-Based Handover - with or without SGW relocation
15. Multiple PDN Connection and Disconnection
16. Trace support in MME
17. Overload
18. Location Reporting on S1-MME
19. SGW selection in MME based on Tracking Area
20. UE IPv4 address allocation by PGW using DHCP based
21. Closed Subscriber Groups and Open/Closed/Hybrid Access Control to support Home eNB

Other Features

1. End-to-end IPv4 traffic on default and dedicated bearers
2. ICMP and UDP traffic generation using internal traffic generator
3. Simulation of abnormal and failure scenarios for negative testing
4. Procedure and Packet statistics for each protocol
5. Protocol timer configuration
6. Separate IP Address for each 3GPP interface