

Version 10.1.0.9

Release Date: Aug 20, 2014

Components

1. LTE Emulators : MME, SGW, PGW, HSS and PCRF
2. LTE Emulators Console

Resolved Issues

Issue #	Summary
10226	SGW does not forward the GTPu End Marker during S1 handover with indirect forwarding.
10289	Sometimes MME crashes if UE-initiated and network-initiated procedures starts simultaneously for large number of UEs.
10297	MME does not respond to Attach Request message containing GUTI when NAS message is sent without integrity protection.
10299	MME crashes during UE Attach when tracing is enabled.
10313	Multi-homing can not be configured in MME from Emulator Console.
10361	P-CSCF address is not correctly populated by PGW in PCO if PDN type is set to IPV4.
10365	MME crashes while creating second dedicated bearer for an UE when packet filters contain same precedence value for both the dedicated bearers.
10372	MME continues to process UE Context Release Request message received from eNB even when configured to drop that message.
10384	MME sends "E-RABs subject to forwarding list" IE in Handover Command message even when forwarding tunnel is not established.
10396	MME sends UE context release command to target HeNB instead of source HeNB after S1 handover completion when both source and target HeNBs are served by HeNB-GW.

Known Issues

Issue #	Summary
10255	MME cannot handle simultaneous multiple dedicated bearer creation requests from UE.
10447	Sometimes MME cannot process Attach Request message if previous attach attempt was terminated abruptly due to radio resource release.

Version 10.1.0.7 Beta

Release Date: Jul 22, 2014

Components

1. LTE Emulators : MME, SGW, PGW, HSS and PCRF
2. LTE Emulators Console

Resolved Issues

Issue #	Summary
10025	IPv6 PDN connection does not work if UE is allocated an IPv6 prefix with the last 2 bytes set to 0.
10028	Emulator Console does not allow dedicated bearer activation for IPv6 PDN.
10059	Network initiated bearer operations fail for idle UE.
10060	UE Attach and PDN Connection does not work for IPv6 PDN if all EPC nodes run on single system.
10158	UE Attach does not succeed when DRA is used in the LTE network.
10196	TAI routing of handover messages fail when HeNB-GW advertises itself as macro eNB in S1 Setup Request.
10197	MME rejects UE Attach Request received via HeNB when ECGI does not match Global ENB-ID used by HeNB-GW during S1 Setup.
10203	MME gets segmentation fault during S1AP Configuration Transfer between eNBs when HeNB-GW is deployed in the network.
10214	MME crashes when HeNB sends a Configuration Transfer Message.
10217	Console freezes on loading HSS Emulator from a configuration file where 30K subscribers are registered in different Subscription Profile.
10231	Console throws application error during UE Attach when authentication procedure fails.
10250	Sometimes MME does not send Modify Access Bearer Request to SGW during Service Request.

Known Issues

Issue #	Summary
10289	Sometimes MME crashes if UE-initiated and network-initiated procedures starts simultaneously for large number of UEs.
10297	MME does not respond to Attach Request message containing GUTI when NAS message is sent without integrity protection.
10299	MME crashes during UE Attach when tracing is enabled.
10313	Multi-homing can not be configured in MME from Emulator Console.

Version 10.1.0.6 Beta

Release Date: Jun 26, 2014

Components

1. LTE Emulators : MME, SGW, PGW, HSS and PCRF
2. LTE Emulators Console

Resolved Issues

Issue #	Summary
9930	Provision required to send multiple user defined cell ids in S1AP Write Replace Warning Request message.
9963	MME gets segmentation fault during S1 Handover if transparent container present in eNB Status Transfer message is larger than 1024 bytes.
9965	MME does not behave properly if multiple S1AP messages are received in the same SCTP frame.
9966	MME cannot handle GW Context Release Indication IE in UE Context Release Request message.
10002	Encoding of warning message in S1AP Write Replace Warning Request packet is not correct.
10054	Polaris EPC rejects UE authentication when USIM is configured with less than 128 bit key for XOR algorithm.
10191	MME sends incorrect NCC value to target eNB in Handover Request message during S1 Handover with SGW relocation.

Version 10.1.0.4 Beta

Release Date: May 30, 2014

Components

1. LTE Emulators : MME, SGW, PGW, HSS and PCRF
2. LTE Emulators Console

New in Release 10.1

1. Standalone PCRF Emulator with interfaces Gx, Rx, S9 and proprietary Sp. Only E-UTRAN Access is supported.
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 with GTP based S5/S8.
6. UE IPv6 Address assignment via DHCPv6 for 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. Support for Radio Resource Management and Mobility Restriction in MME.
11. UE Time Zone reporting.
12. Support for APN Restriction.
13. PGW Restart Indication and Modify Access Bearer Request support in MME and SGW.

Known Issues

Issue #	Summary
10025	IPv6 PDN connection does not work if UE is allocated an IPv6 prefix with the last 2 bytes set to 0.
10028	Emulator Console does not allow dedicated bearer activation for IPv6 PDN.

Resolved Issues

Issue #	Summary
8293	Provision required to send optional IEs in Handover Request message.
8645	Provision required to send UE AMBR value in E-RAB Modify Request message.
9052	MME does not allow incorrect cell id in Write Replace Warning Request message required for negative testing.
9390	Emulator Console does not allow configuration of extended repetition period for Write Replace Warning Request message.
9391	Emulator Console does not allow skipping of Data Coding Scheme in Write Replace Warning Request message.
9394	Emulator Console does not allow Kill Request message to be sent with user defined Message Identifier, Serial No and Warning Area required for negative testing.
9396	Emulator Console does not allow multiple Kill Request messages to be sent with same Message Identifier and Serial Number required for negative testing.
9808	SGW always sends GTPC Echo Response messages to destination port 2123.
9930	MME does not support user defined multiple cell identities in Write Replace Warning Request message.
9967	Sometimes MME does not respond to Handover Cancel Request sent by Source eNB.
9973	MME does not support routing of Handover and Configuration Transfer messages to HeNB-GW based on Tracking Area Identity.

Version 10.0.0.9

Release Date: May 19, 2014

Components

1. LTE Emulators : MME (with internal HSS), SGW and PGW (with internal PCRF)
2. LTE Emulators Console

Resolved Issues

Issue #	Summary
9854	MME sends incorrect KeNB in Initial Context Setup Request message when received Uplink NAS Count from UE is not sequentially incremented by 1 from the previous one.
9913	Sometimes Emulator Console running in Linux system shows application error when user clicks ok in "Start Alert" dialog box.
9938	MME always sends DRX parameter in Paging message.

Version 10.0.0.8

Release Date: Apr 9, 2014

Components

1. LTE Emulators : MME (with internal HSS), SGW and PGW (with internal PCRF)
2. LTE Emulators Console

Resolved Issues

Issue #	Summary
9307	UE Attach fails with external HSS.
9537	Piggybacked dedicated bearer creation fails as MME sends incorrect PTI value in Activate Dedicated EPS Bearer Context Request message during Attach and PDN connections.
9608	Emulator console does not allow user to configure resource release timer interval less than 3 seconds.
9612	MME gets segmentation fault if UE Radio Capability information is larger than 128 bytes and attach does not succeed.
9622	SGW does not forward PDCP PDU Extension Header to receiver endpoint.
9752	S1 Handover fails if UE Radio Capability information is larger than 128 bytes.

Version 10.0.0.7

Release Date: Feb 24, 2014

Components

1. LTE Emulators : MME (with internal HSS), SGW and PGW (with internal PCRF)
2. LTE Emulators Console

Resolved Issues

Issue #	Summary
9135	Second PDN Connection of an UE is not successful using single PGW when DHCP servers are used for IP allocation for both the PDNs.
9204	PGW gets segmentation fault during initial Attach if multiple PDN connections to the same APN is not supported by SGW (MAG) on PMIP-based S5.
9209	During Handover from GERAN A/Gb mode to E-UTRAN, MME sends incorrect instance value of Bearer Context IE in GTPC Forward Relocation Response message.
9231	Sometimes MME terminates abnormally during Network-initiated Bearer Creation/Modification procedures for Idle UEs.
9233	MME gets segmentation fault while attaching an UE using Polaris HSS Simulator if subscription profile for that UE contains more than 5 PDN contexts.
9499	SGW generates malformed GTPu End Marker message.
9500	SGW stops working after receiving Error Indication message with extension header.
9520	MME fails to decode Path Switch Request message if SourceMME-GUMMEI IE is present in the message.

Version 10.0.0.6

Release Date: Dec 30, 2013

Components

1. LTE Emulators : MME (with internal HSS), SGW and PGW (with internal PCRF)
2. LTE Emulators Console

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:
Supports access to LTE Core Network via GERAN/UTRAN and both Idle and Connected mode mobility between GERAN/UTRAN and LTE Network.
Requires third-party PCRF as Polaris PCRF simulator supports only E-UTRAN.
4. CS-Fallback to GERAN and UTRAN:
Supports Combined Attach to CS+PS network, SMS over SGs and Mobile Originating and Terminating Voice Calls with Suspension of PS service during CSFB. PS Handover during CSFB is not supported.
Requires third-party PCRF as Polaris PCRF simulator supports only E-UTRAN.
5. CS-Fallback to CDMA2000 1xRTT Network:
Supports Mobile originating and terminating voice call and SMS without PS Handover.
6. Support for dedicated bearers on PMIP-based S5/S8 interface:
Supports Gxc in SGW. Requires third-party PCRF as Polaris PCRF simulator does not support Gxc interface.
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. Support for Trace Activation and Deactivation from external HSS using S6a interface.

Resolved Issues

Issue #	Summary
8003	MME cannot handle UE Context Release Request from Source eNodeB while Handover is going on.
8103	EPC Emulators can not handle data packets bigger than 1400 bytes.
8250	MME emulator does not support deletion of configured neighbor MME/SGW/PGW
8278	SGW does not buffer DL data packets for Idle UEs.
8406	MME cannot handle Service Request message if it comes after Combined TAU procedure.
8443	PGW terminates abnormally if same IP address is assigned to an UE for multiple PDNs.
8468	MME rejects S1 Handover procedure if UE has more than 6 bearers.
8512	SGW terminates abnormally if multiple bearer operations performed for more than 16 UEs.
8763	MME retransmits Paging message that contains IMSI even after UE responds with Attach Request.
8849	MME rejects attach procedure with cause "ILLEGAL UE" when an already registered UE comes back with GUTI of another MME.
8921	MME does not discard Handover Required message even if negative protocol policy is set in the MME to drop the message.
8979	During S1-HO, MME sends same indirect forwarding tunnel identifier for all bearers to the source eNodeB.
9053	MME can not send large warning message (> 512 bytes) in Write-Replace Warning Request message.
9060	During S1-HO, SGW does not forward buffered data packets to the Target EnodeB.

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