



Pre-packaged frameworks substantially reduces the cost & complexity of MME development

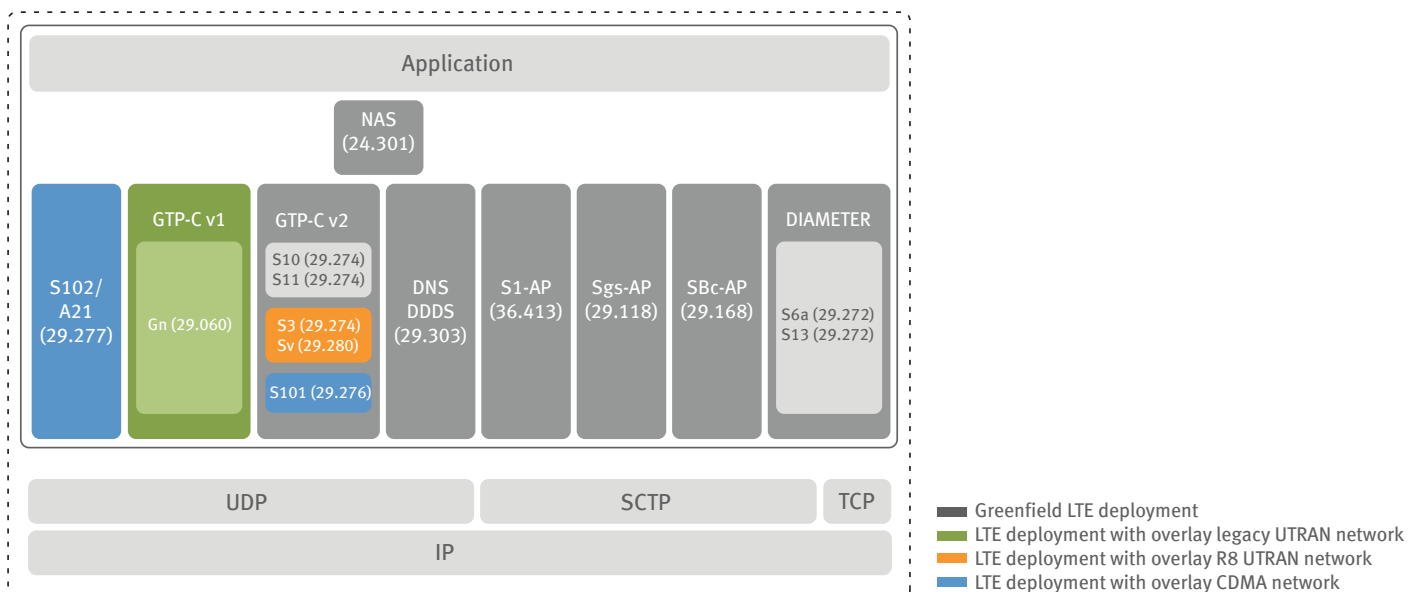
Aricent's Mobility Management Entity Framework

Overview of the Product

Aricent offers a pre-built, pre-tested and optimized Mobility Management Entity (MME) Framework designed to build carrier-class high capacity MME nodes. It provides unique time to market advantage to customers and solves a variety of technical challenges. This includes building software modules for multiple new protocols, continuous standards tracking and updating stack modules, dealing with stringent LTE capacity and performance requirements and handling interop issues with various peer network nodes. Aricent's MME framework also allows customers to integrate their own management and high availability frameworks and thus enables product differentiation.

Product Architecture

Aricent's MME framework includes modules which support native LTE functionality, as well as those for interworking with other technologies such as CDMA EVDO/1xRTT and UTRAN/GERAN. As LTE is expected to be deployed alongside legacy technologies for a long time to come, interworking with them is critical. Hence, the MME framework supports interworking with CDMA technologies via the S102/A21 and S101 interfaces. To interwork with UMTS-based technologies, support has been provided for connecting to the SGSN over the S3 interface, as well as for other protocols connecting to the legacy circuit core elements such as MSC, HLR, VLR, etc.



Interfaces Supported

- S1-MME
- S11
- S6a
- S10
- S13
- S101
- S102
- S3
- SGs

- **Platform Services** – Open interfaces via C APIs for integration with platform services
- **Mobility Management** – UE registration for CS/PS services, idle mode paging, location updates, roaming, and handover control for PS and CS fallback
- **Session Management** – Session setup, modification and teardown, end user address management, QoS negotiation, bearer management, data bearer management including setup, modification and teardown
- **Security** – Subscriber identification, authentication, key distribution for confidentiality and integrity, NAS signaling security

Protocol Conformance

- **3GPP TS 29.272** – Evolved Packet System (EPS); Mobility Management Entity (MME) and Serving GPRS Support Node (SGSN) related interfaces based on Diameter protocol
- **3GPP TS 29.274** – 3GPP Evolved Packet System (EPS); Evolved General Packet Radio Service (GPRS) Tunneling Protocol for Control plane (GTPv2-C)
- **3GPP TS 29.276** – Optimized Handover Procedures and Protocols between EUTRAN Access and cdma2000 HRPD Access
- **3GPP TS 29.277** – Optimized Handover Procedures and Protocols between EUTRAN Access and 1xRTT Access
- **3GPP TS 29.280** – Evolved Packet System (EPS); 3GPP Sv interface (MME to MSC, and SGSN to MSC) for SRVCC
- **3GPP TS 36.413** – Evolved Universal Terrestrial Radio Access (E-UTRA) ; S1 Application Protocol (S1AP)
- **3GPP TS 29.060** – General Packet Radio Service (GPRS); GPRS Tunneling Protocol (GTP) across the Gn and Gp interface
- **3GPP TS 29.118** – Mobility Management Entity (MME) ; Visitor Location Register (VLR) SGs interface specification
- **3GPP TS 24.301** – Non-Access-Stratum (NAS) protocol for Evolved Packet System (EPS)

Customer Testimonial

“Aricent’s deep domain knowledge and proven track record in delivering telecommunications software and services make them a clear choice for a development partner in LTE. Application Ready Platform for LTE EPC elements based on a combination of Aricent’s LTE framework and RadiSys’ industry leading ATCA platforms & middleware is an excellent way for telecom equipment manufacturers to dramatically reduce time-to-market in delivering cutting edge solutions to the market.”

- Venkataraman Prasanna, Senior Director of ATCA at RadiSys

Deliverables

- Binary Code
- User Manual
- Integration Support
- On demand Product Support

Product Features and Benefits

The salient features supported by Aricent’s MME framework include:

- **Scalability** – Up to 1 million subscribers can be supported
- **Sample Plug-ins** – Sample lawful interception client and management interfaces included with the solution

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