As service providers build out LTE networks and enhance their services portfolio with new IP Multimedia Subsystem (IMS) applications, they require carrier-grade standards-based subscriber management solutions to serve the growing network access control demands of their network.

The Amdocs Home Subscriber (HSS) functions as the master repository for subscriber profiles, device profiles and state information for authentication and authorization in LTE networks and for IMS application access. This comprehensive solution manages subscriber identities, service profiles, Access Point Name (APN) entitlements and quality of service (QoS) profiles required for access to the LTE network and IMS applications. It leverages the rich subscriber data management capabilities of the Amdocs Subscriber Data Broker for rapid hierarchical modeling of subscribers, device profiles and service entitlements that reduces the time to market for new services.

Fully compliant with 3GPP Release 9.10 standards, the Amdocs Home Subscriber Server is part of Amdocs’ comprehensive vendor-neutral network control solution for the LTE evolved packet core, including Amdocs Policy Controller (PCRF) and Amdocs Intelligent Routing Controller (diameter routing solution).

Why the Amdocs Home Subscriber Server?

• **Dual LTE authentication/authorization and IMS support** from a single HSS platform

• **Dynamic service authorization** based on multiple parameters such as subscriber location, device type, QoS profile for flexible network access control services

• **Broad and proven multi-vendor interoperability** for MME and IMS application and gateway functions – enables ease of deployment into mixed vendor environments

• Can deploy as a standalone HSS solution with 3rd party subscriber data management systems, or with the Amdocs Subscriber Data Broker

• **Fully virtualized deployment option**, as part of Amdocs virtualized network control solution including PCRF, diameter routing and subscriber data management

**Features and Benefits**

**Dynamic service authorization**

• Policy business rules engine modifies service parameters at authorization time based on device type, subscriber service plan, location

• Enables configuration of flexible policy rules based on incoming message (ULR), subscriber data (SPR), subscriber and session state (HSS) to generate service modification or notification such as QoS or location-based entitlements (i.e. roaming)

**Dual LTE EPC and IMS application service authorization support** – from a single platform

• Leverage for service authorization in LTE EPC, and for IMS applications, as these are introduced

• Provides a future proof standards-based solution

• Field proven in LTE EPC authentication and authorization, and in IMS applications (VoLTE/RCS)
Broad multi-vendor interoperability and 3GPP standards support

- Fully compliant with 3GPP Release 9.10 standards and with interfaces and performance requirements, designed and tested for multi-vendor environments
- Standardized interface support - S6a (to the MME), Gr (to the SGSN), SWx (to the 3GPP AAA), and support for IMS interfaces (Cx and Sh)
- Extensive multi-vendor interoperability testing completed for all major network equipment vendor solutions

Subscriber-centric data schema modeling

- Enables fast and flexible modeling of services, subscribers, and device profiles by leveraging the rich modeling capabilities of Amdocs Subscriber Data Broker
- Reduces time to market for new service creation and launch
- Additional services can be easily defined and customized for specific market segments – consumer, enterprise, M2M, public safety as examples
- Can leverage 3rd party subscriber data management systems in a standalone HSS configuration

Deployment example
Amdocs Home Subscriber Server in LTE EPC
Interworking

- Optional 3GPP AAA module for seamless mobility and interworking between LTE and non-3GPP networks

Fully virtualized deployment support – with no compromise on functionality

- Virtualized HSS can be deployed on any COTS x86 hardware, with support for VMware ESXi hypervisor and KVM
- Goes beyond simple software appliance deployment on a standard COTS server with different packages that support configurable sizing of HSS instances or slices
- Ensures incremental scale and performance elasticity by adding HSS slices – rapid flexible support for evolving call models and services across an entire network and ease of offering new services quickly
- Ease of replication, redundancy, expansion and in-service upgrades – automated workflows for service agility and operational efficiencies

Scalability and reliability

- Deployable in load balancing and active/active paired configuration combined with standby geo-redundant system, which offers high availability and reliability
- Database-level synchronization and replication adds a layer of protection to ensure data integrity

Technical specifications

Operating system support

- RedHat Enterprise Linux (RHEL 6.5 x86 64-bit)

Hypervisor support

- VMware ESXi
- KVM (Kernel-based Virtual Machine)

Hardware support

- IBM x3650 M3 and M4 Rackmount Servers
- IBM HS22 and HS23 Blade Servers in Bladecenter chassis
- Cisco UCS C210 M Series Rackmount Servers
- Cisco UCS B-Series Blade Servers in UCS 5100 Series
- Blade Server Chassis