

Data Sheet: Bridgewater Home Subscriber Server

The Bridgewater® Home Subscriber Server (HSS) is the master repository for subscriber profiles, device profiles, and state information. As a mandatory control plane function in the LTE Evolved Packet Core (EPC), the HSS manages subscriber identities, service profiles, authentication, authorization, and Quality of Service (QoS) for Long Term Evolution (LTE) and IP Multimedia Subsystem (IMS) networks.

Fully compliant with the Third Generation Partnership Project (3GPP) Release 8 standard, the HSS provides support for LTE interworking with non-3GPP networks, and leverages the rich data management capabilities of Bridgewater's Subscriber Data Broker™ to support subscriber and device identity management, service profile management, static/dynamic QoS management, and state and usage tracking.

HIGHLIGHTS

The Bridgewater Home Subscriber Server is available as a software solution or as a pre-integrated network system, which:

- Reduces deployment costs;
- Accelerates time-to-market; and
- Provides a modular approach for adding network capacity.

Why the Bridgewater Home Subscriber Server?

- Sophisticated subscriber, device, and service management capabilities.
- Proven interoperability with all major network equipment vendors.
- Leverage and protect investments in existing Home Location Registers (HLR) for voice and SMS services because HSS provides data federation from HLR and other data repositories.
- Field-proven in live LTE production environments supporting LTE services, thereby derisking deployment plans
- Proven in benchmark performance testing as validated at the Light Reading megatest in 2010.
- Part of complete pre-integrated 4G intelligent broadband controls solution that includes Bridgewater® Policy Controller (PCRF) and Bridgewater's Subscriber Data Broker.
- Choice in flexible deployment options; including the Bridgewater EPC 500 control plane in a box, network systems, or software-only variants.

Features and Benefits

Dynamic Service Authorization

- Policy-driven business rules engine modifies service parameters based on device type, subscriber location, and other information to enable free or promotional service offers, or provide different QoS levels.
- Enables flexible static policy control at attachment.

Flexible Data Schema

- Provides fast and flexible modeling of services, subscribers, and device profiles.
- Reduces time-to-market for new service creation and launch.
- Additional services can be defined and customized for specific market segments.

Data Sheet: Bridgewater Home Subscriber Server

Interworking

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

Broad Multi-Vendor Interoperability and Standards Support

- Fully compliant with 3GPP Release 8 standards and with interfaces and performance requirements designed and tested for multi-vendor environments.
- Features standardized LTE interfaces such as the S6a (to the MME), the S6d (to the SGSN), SWx (to the 3GPP AAA), and support for IMS interfaces (Cx).

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.

Equipment Identity Register (EIR)

- By integrating this function into the HSS, a separate database for blacklisted devices is not required, thus simplifying database management.

Deployment Configurations

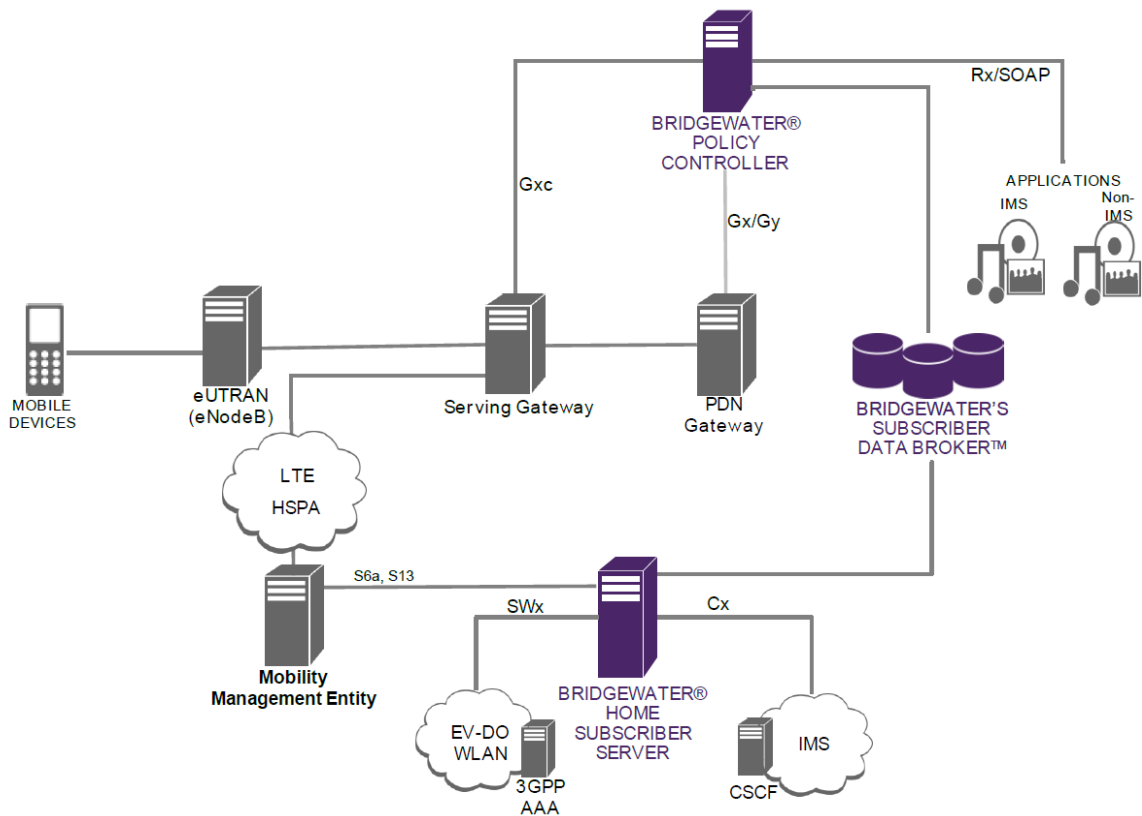
The HSS is available as a software solution or as a pre-integrated network system. The HSS network system reduces deployment costs, accelerates time-to-market, and provides a modular approach for adding network capacity. Pre-integrated on carrier-grade IBM servers, the HSS network system can be rapidly deployed in a wide range of service provider environments and is available in the following configurations.

<p>Bridgewater EPC 500L IBM x3650 M3 Server</p>	<p>A complete, integrated control system comprising Bridgewater Home Subscriber Server (HSS), Bridgewater Policy Controller (PCRF), and Bridgewater's Subscriber Data Broker. Ideally suited for LTE EPC lab trials and small to medium sized deployments.</p>
<p>Bridgewater HSS Server 500L IBM x3650 M3 Server</p>	<p>HSS for small-scale deployments</p>
<p>Bridgewater HSS Server 1000L IBM x3650 M3 Server (6 core)</p>	<p>HSS for small- to mid-scale deployments</p>
<p>Bridgewater HSS Server 3000L IBM x3650 M3 Server (12 core)</p>	<p>HSS for mid- to large-scale deployments</p>
<p>Bridgewater HSS Server 5000L IBM HS22 Blade Server</p>	<p>HSS for mid- to large-scale deployments</p>

Data Sheet: Bridgewater Home Subscriber Server

Deployment Example

Bridgewater HSS in LTE EPC



Technical Specifications

Operating System Support	Linux Red Hat (RHEL 5.4 x 86.64)
Hardware Support	IBM x3650 M3 IBM HS22 Servers in BCH chassis

Data Sheet: Bridgewater Home Subscriber Server

About Bridgewater Systems

Bridgewater Systems, the leader in intelligent broadband controls, provides pre-integrated solutions for mobile and converged operators to transform their networks, optimize mobile data growth, and innovate with new services. The Bridgewater portfolio of carrier-grade products includes Service Controller (AAA), Policy Controller (PCRF) and Home Subscriber Server (HSS), anchored by a common identity and device management system. More than 150 leading service providers worldwide leverage Bridgewater to create and deliver profitable services to consumer, enterprise, cloud and machine markets. For more information, visit us at

www.bridgewater.com

Copyright statement

© 2011. Bridgewater, Bridgewater Systems, the Bridgewater Systems logo, WideSpan, Smart Caps, myPolicy, and Subscriber Data Broker are trademarks or registered trademarks of Bridgewater Systems Corporation. All other company, product names and any registered and unregistered trademarks mentioned are used for identification purposes only and remain the exclusive property of their respective owners.

Company Headquarters
303 Terry Fox Drive
Suite 500
Ottawa, Ontario
Canada K2K 3J1
P: +1 613 591 6655
F: +1 613 591 6656

European Office
1st Floor, 6 Faraday
Office Park, Faraday Road
Basingstoke
United Kingdom
RG24 BQQ
P: +44 125 684 0877
F: +44 125 636 3833

Asia Pacific Office
Suite 211/250 Pitt Street
Sydney, NSW
Australia 2000
P: + 61 2 9283 2313
F: + 61 2 9283 3738

U.S. Office
280 Madison Avenue
Suite 912
New York, NY
United States 10016
P: +1 866 652 0471
F: +1 613 591 6656

Hong Kong Office
Unit #30, Level 23
One Island East
18 Westlands Road
Quarry Bay, Island East
P: +852 3750 7588
F: +852 3750 7469