

LTE Networks

Driven by the success of 3G, Long Term Evolution (LTE) technology, standardized by the Third Generation Partnership Project (3GPP), is emerging as the next generation wireless technology that will lead the growth of mobile broadband services in the next decade. Its adoption by service providers around the world has the potential to generate economies of scale unprecedented by any previous generation of wireless networking technology as it becomes the universal 4G mobile platform used by both GSM/HSPA and CDMA/EVDO service providers.

LTE is critical to delivering the lower cost per bit, high performance connectivity, and subscriber experience needed to address the challenges of mobile broadband. It has the potential to transform how subscribers and machines consume, use, and interact with applications and content distributed over mobile networks.

The Bridgewater EPC 500 is a pre-integrated system combining key LTE functionality such as the Bridgewater® Home Subscriber Server, the Bridgewater® Policy Controller, and Bridgewater's Subscriber Data Broker™ for the LTE evolved packet core and is specifically designed to meet the needs of LTE trial deployments and small- to mid-sized commercial launches.

Why Bridgewater for LTE Service Providers?

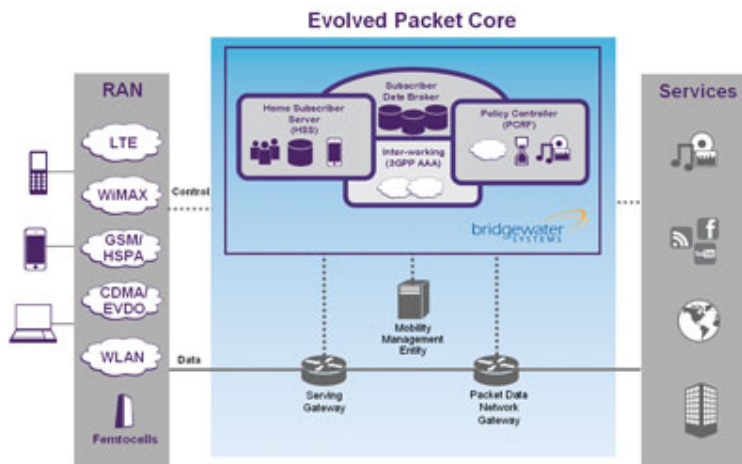
Service providers are anticipating the need to significantly increase their network capacity to address the rapid growth in subscribers, devices, and applications. However, given the exponential growth in data demand and the potential for traffic congestion, capacity improvements will need to be supplemented with subscriber, service and policy control approaches that manage the 'flow' of data and demand for data services.

Bridgewater Systems has developed best of breed subscriber, service and policy control products for the LTE Evolved Packet Core that are optimally designed for the performance and service demands of mobile broadband including:

- **'Smart' controls** to manage the complexities of billions of mobile data transactions, and millions of subscribers, devices, and applications;
- **Enabling personalized services** based on a unified view of subscriber preferences, state and usage behaviors;
- **Centralizing control across all mobile access technologies** including LTE, GSM/HSPA, CDMA/EVDO, Wi-Fi, WiMAX, and Femtocells;
- **A flexible and modular approach** – integrated or single purpose systems with a common subscriber data management platform; and
- **Proven interoperability** in multi-vendor environments and fully compliant with 3GPP Release 8 standards.

Bridgewater in the LTE Evolved Packet Core

To be a significant contributor to end to end service creation and enrich the subscriber experience, the LTE network must support higher data rates, ensure service continuity and parity of existing 3G services and support the rollout of new 4G services, leverage existing 3G infrastructure investments, and enable innovative service plans. The LTE Evolved Packet Core (EPC) plays an important role in meeting these challenges.



The Bridgewater® Home Subscriber Server
The Bridgewater® Policy Controller (PCRF)
Bridgewater's Subscriber Data Broker™
Bridgewater 3GPP AAA Interworking Function

The Promise of LTE

LTE promises to deliver significant value to service providers, enterprises, and subscribers. From a service provider perspective, LTE offers:

- Higher bandwidth throughput to mobile terminals and lower latencies, enabling advanced services and applications such as streaming videos. Specifically, LTE delivers peak rates of at least 100 megabits per second and latencies lower than 10 milliseconds;
- Lower cost per bit as a result of greater spectrum efficiency, a simpler architecture, and a global infrastructure, device and application ecosystem;
- A service-aware, "flat" mobile IP network infrastructure, called the Evolved Packet Core (EPC), which allows for better management of network traffic growth, applications, services, and devices, a lower total cost of ownership, easier integration with other networks, and a better subscriber experience; and
- New revenue opportunities that offset declining voice revenues such as compelling applications and devices including person-to-person, person-to-machine and machine-to-machine services.

For subscribers and enterprises, LTE is expected to deliver a whole new level of mobile broadband experience as services become personal, participation becomes more social, behavior becomes more virtual, and usage reaches the mass market. It offers:

- Significant speed and performance improvements for multimedia applications at a lower cost;
- Enhanced applications such as video blogging, interactive TV, advanced gaming, mobile office, and social networking; and
- A wider variety of devices such as smartphones, netbooks, laptops, gaming and video devices as well as machine-to-machine supported applications including smart meters, medical devices, and transportation devices.

About Bridgewater Systems

Bridgewater Systems, the mobile personalization company, enables service providers to efficiently manage and profit from mobile data services, content and commerce. The company's market leading mobile personalization portfolio provides a real-time, unified view of subscribers including entitlements, devices, networks, billing profiles, preferences and context. Anchored by Bridgewater's Subscriber Data

Broker™, the portfolio of carrier-grade and standards-based products includes the Bridgewater® Service Controller (AAA), the Bridgewater® Policy Controller (PCRF) and the Bridgewater® Home Subscriber Server (HSS). More than 150 leading service providers including America Movil, Bell Canada, Clearwire, Cox, Hutchison Telecom, Iusacell, Scartel, SmarTone-Vodafone, Sprint, Tata Teleservices, Tatum, Telmex, Telstra, and Verizon Wireless use Bridgewater's solutions to rapidly deliver innovative mobile services to over 150 million subscribers. For more information, visit us at www.bridgewater.com.

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