

» CASE STUDY

BRIDGEWATER SYSTEMS HELPS MOBILE OPERATOR DELIVER QUALITY OF EXPERIENCE AND FAIR USAGE IN A DUAL NETWORK ENVIRONMENT

FACED WITH THE SUBSTANTIAL CHALLENGE OF PROPERLY TRACKING CUSTOMERS, NETWORKS, AND SERVICES WHILE DELIVERING A STRONG USER EXPERIENCE, THIS ASIA-PACIFIC-BASED MOBILE OPERATOR TURNED TO BRIDGEWATER SYSTEMS AND ITS POLICY CONTROLLER SOLUTION.

A major mobile operator in Asia-Pacific installed the Bridgewater Policy Controller to manage both subscriber access to applications and services and the network resources to support them. The Service Provider capitalizes on these capabilities to deliver high-quality customer experiences — a competitive differentiator that helps the company reduce churn and boost revenues.

Although the Service Provider derives approximately 80% of its revenues from voice services, the launch of a new high-speed downlink packet access (HSDPA) network propelled its data revenues to jump nearly 50% in 2007. Customers use this high-speed mobile network to surf the web, watch video feeds on their mobiles, and share internet content with friends and family in real time.

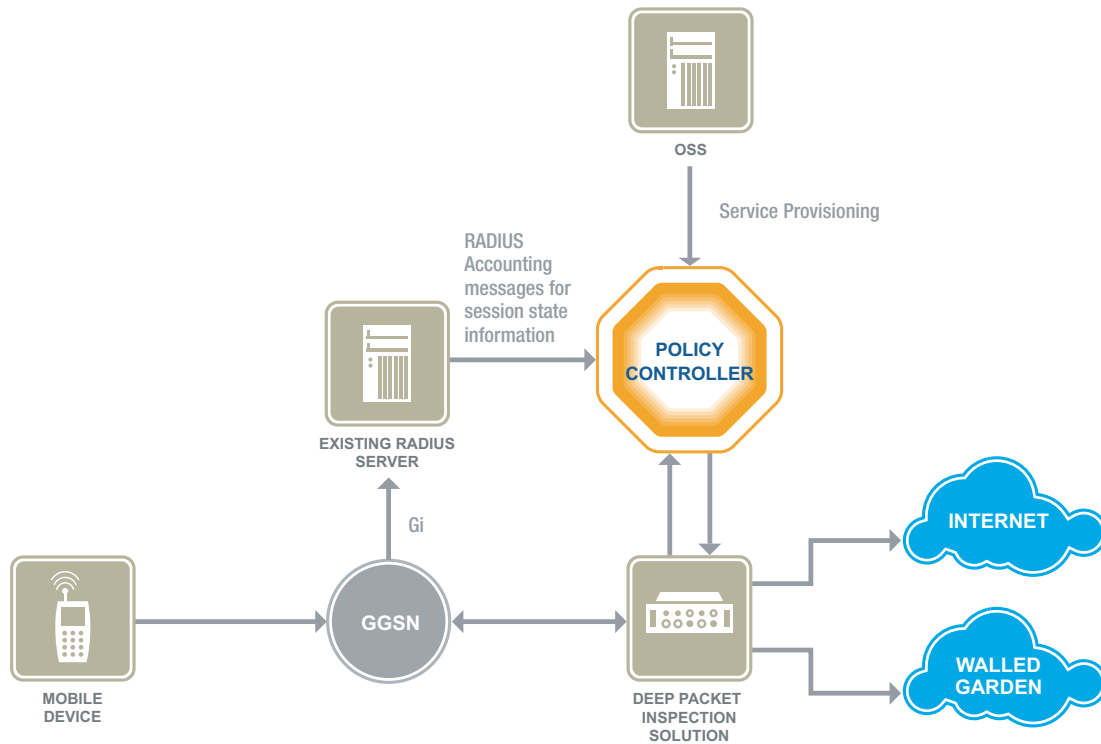
MANAGING SUBSCRIBERS ON TWO NETWORKS

In addition to its HSDPA network, the Service Provider operates a legacy general packet radio service (GPRS) network; however, the GPRS network could not adequately handle video and high-speed applications, a shortcoming that created a significant challenge for the Service Provider. Specifically, the company needed to recognize which of the two networks a subscriber was using at a particular time and then provide only the services that network could support.

To complicate matters, a subscriber could show up on the GPRS network one minute and then appear on the HSDPA network the next, simply by swapping a SIM card from one phone to another.

The Service Provider also needed to know which services applied to which subscribers; for example, there was no point delivering a high-bandwidth streaming video application to someone on the GPRS network. The all-important user experience would suffer, putting into question the company's ability to deliver those services, not to mention potentially jeopardizing the subscriber's loyalty.

Properly tracking customers, networks, and services while delivering a strong user experience presented a substantial hurdle. That's when the Service Provider turned to Bridgewater and its Policy Controller solution.



Seamless integration into an existing GSM mobile network for the purposes of introducing subscriber-centric, real-time policy-based services.

MEET USER EXPECTATIONS BY CONTROLLING NETWORK RESOURCES

The Policy Controller contains the subscriber profiles and network policies needed to manage network resources (such as bandwidth) according to each subscriber, session, or application. The Service Provider can control the subscriber experience by applying policies based on business rules associated with service tiers and other dynamic parameters, such as time of day.

The Service Provider combined the Policy Controller with a deep packet inspection (DPI) solution and a RADIUS server that contained accounting information and other subscriber details. This combination enabled the Service Provider to gain a number of important capabilities.

Provide the right services to the right subscribers

The Service Provider uses the Bridgewater Policy Controller to determine the network that a subscriber appears on, to assess which services this subscriber is entitled to have, and then to allocate sufficient network resources to provide those services.

Here's an example of how the system accomplishes these tasks: A subscriber wants to watch World Cup Soccer, so she turns on her handset and requests the relevant video service. At this point, using data from the RADIUS accounting server, the Policy Controller knows that this subscriber has both appeared on the HSDPA network and asked for World Cup Soccer video.

Next, the Policy Controller determines that the subscriber is on the right network for this video application — the high-bandwidth HSDPA network rather than the GPRS network — and then looks up the

subscriber's status in the subscriber database. By consulting the database, the Policy Controller then verifies that this customer subscribes to a mobile plan that includes a certain quality of video. The Policy Controller pushes policy to the DPI to allocate the network resources required to generate the quality of experience the subscriber is paying for (e.g., guaranteed bandwidth of 2 Mbps).

In this way, the Policy Controller controls user traffic based on real-time state information. By understanding the current state, or status, of a subscriber, the Policy Controller can dynamically determine the quality of service (QoS) policy that applies to that subscriber. With this information, the Policy Controller can then allocate network resources and adjust bandwidth and QoS to deliver the expected user experience.

Moreover, each subscriber can use multiple services, each with a unique QoS. And this same capability can be extended to literally millions of customers at once, all in real time.

What does the Service Provider gain from this capability? Customer loyalty. Subscribers consistently receive the service experience they're paying for — and expect.

Offer differentiated services to protect key customers

It's not uncommon in mobile networks for subscribers to experience a decline in service when the network becomes congested. This affects all users, regardless of the subscription package or options they are subscribed to. However, with the Bridgewater Policy Controller, this Service Provider can offer prioritized service to key customers, protecting them from reduced system access during congestion. This allows the Service Provider to maintain business-critical services for its most valued subscribers.

Enforce time-based fair-use policies and maintain service quality

The Service Provider also wanted to make sure that subscribers use only the network resources they pay for. With Policy Controller, the Service Provider can set bandwidth consumption thresholds for its service tiers and then enforce these thresholds by pushing policies to the DPI, which automatically adjusts the bandwidth.

This enables the Service Provider to optimize network resources and revenues. This capability also optimizes the user experience by ensuring that network capacity is available to those who pay for it. If a handful of users consume a disproportionate share of network resources, other subscribers could easily suffer. Keeping tabs on service usage by subscriber allows Service Providers to ensure that their customers receive the desired experience.

Automatically provision services and add functionality fast and cost-effectively

In the past, when this Service Provider wanted to add a new user or update a subscribed service, the company had to manually modify its systems, including its provisioning and billing servers — a time-consuming and costly task.

Employing Policy Controller to automatically synchronize newly defined or updated user information across all its systems, the Service Provider can now efficiently administer a variety of provisioning tasks, including:

- > Defining newly subscribed users or accounts.
- > Subscribing users to particular services.
- > Updating subscriber information.
- > Deleting users or accounts.

The business value? The Service Provider can launch new services and introduce new functionality faster and more economically than it could before.

USER EXPERIENCE IN THE SPOTLIGHT

Satisfying the needs of demanding mobile customers is no small feat. This Service Provider relies on the Bridgewater Policy Controller to ensure that customers receive the user experiences they pay for, to optimize its network resources, and to streamline service delivery. It's a smart combination that benefits all involved: customers remain happy with their services, and the Service Provider improves its bottom line.

BRIDGEWATER SYSTEMS

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