

## Data Sheet: Bridgewater ServiceMAX 500

The Bridgewater® ServiceMAX 500 is an integrated system specifically designed to meet the service control and subscriber management needs of small- to mid-sized WiMAX operators.

This integrated WiMAX system combines the feature-rich, policy-based Bridgewater® Service Controller for WiMAX authentication, authorization, and accounting (AAA); sophisticated subscriber data management enabled through Bridgewater's Subscriber Data Broker™; pre-paid and post-paid billing support; and IP address management.

As a core element of the WiMAX Connectivity Service Network (CSN), ServiceMAX 500 interfaces to billing systems, ASN gateways, Mobile IP Home Agents (HA), and can be deployed in fixed (802.16d) or mobile (802.16e) networks.

Chosen by more than 35 WiMAX operators, best-of-breed Bridgewater service controller solutions are now available as part of the ServiceMAX 500 system, and are interoperable with leading WiMAX equipment vendors.

### HIGHLIGHTS

Bridgewater ServiceMax 500 pre-integrates key subscriber and service control for WiMAX networks providing a cost-effective solution specifically tailored for small- and mid-sized networks starting at 2,500 subscribers with impressive scaling up to 100,000 subscribers.

- Broad interoperability
- Carrier proven
- Works out of the box to reduce installation, integration, and maintenance times

### Why the Bridgewater ServiceMAX 500?

- **Field Proven:** The ServiceMAX 500 fully incorporates Bridgewater's industry leading Service Controller and Subscriber Data Broker products. Widely deployed in both mobile (2G, 3G, and 4G) and fixed broadband networks, these products are field proven and reliable.
- **Increase ARPU:** WiMAX operators can increase subscriber satisfaction and ARPU with this platform and can quickly launch new applications, services, and policies including the ability to implement flexible charging models such as pre-paid, post-paid, service based (e.g. VoIP), and volume based (e.g. data).
- **Scalability:** The ServiceMAX 500 conveniently packages this comprehensive WiMAX CSN functionality onto Oracle's SUN SPARC T5120 server – a compact one-rack high unit. As the subscriber base grows, ServiceMax 500 allows for impressive scaling up to 100,000 subscribers. The hardware/software bundling not only saves valuable time and effort during installation and integration, but also simplifies maintenance and support with a single vendor point of contact.
- **Best-of-Breed Solution:** Bridgewater has helped operators such as Sprint Nextel, Scartel, and Tatum deliver highly differentiated, personalized services for their WiMAX deployments.

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### System Overview

ServiceMax 500 pre-integrates key subscriber and service control for WiMAX networks providing a cost-effective solution specifically tailored for small- and mid-sized networks starting at 2,500 subscribers.

ServiceMAX 500 includes the following Bridgewater solutions.

The **Bridgewater Service Controller** provides network access control services, including AAA for devices and subscribers alike enabling fast, efficient, and secure access to data networks and services. The Service Controller provides a flexible underlying service control infrastructure required to support carrier-grade performance and scalability of mobile data services targeting consumer and enterprise markets.

The leading AAA server for WiMAX, Service Controller features full WiMAX support:

- Full user and device level authentication with full EAP support.
- Flexible authorization based on service flow and quality of service (QoS) parameters and network and vendor specific attributes.
- Support for time- and volume-based billing, both at the subscriber and per-service flow level; pre-paid and post-paid charging interfaces reduce the need for extensive billing mediation.
- Intelligent policy-based rules engine leverages profile, usage, and dynamic state information.
- Dual RADIUS and Diameter protocol stack ensures multi-vendor, multi-network compatibility.
- RADIUS AAA proxy, Mobile IP key derivation, and other features support mobile roaming.
- Support for WiMAX Forum Network Architecture Stage 3 Release 1.0 version 4. As a Principal Member of the WiMAX Forum, Bridgewater is the lead contributor to current and upcoming standards and architectures for AAA in WiMAX networks.

**Bridgewater's Subscriber Data Broker** is a subscriber data management system that enables a dynamic view of subscribers including profile (service package, user preferences), usage (history, downloads, etc.) and dynamic state information (location, device type, etc.).

Using Subscriber Data Broker as part of ServiceMAX 500, WiMAX operators can:

- Easily model and create new services using an extensible data schema model to manage all subscribers and services, and launch new services quickly—in weeks versus months.
- Save time with a pre-integrated subscriber data management system that allows them to get up and running quickly, and provides a platform for service personalization and innovation into the future.

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### Optional Support

ServiceMAX 500 supports the following additional options to extend system capabilities and functionality:

- **Lawful Intercept:** Allows secure access to subscriber data and communications without affecting service or performance, in compliance with local law enforcement and telecoms regulations.
- **Policy Controller:** Enables support of dynamic services that require network and application policy control, including casual user services and over the air provisioning of devices and subscribers.
- **Pre-Paid Integrator:** Integrates with pre-paid billing servers to provide precise and accurate real-time control of subscriber usage in WiMAX Forum NWG standards.

### Features and Benefits

System-wide features include:

- Broad interoperability with leading WiMAX equipment vendors such as Alvarion, Motorola, Samsung, Cisco, and more.
- Carrier proven, high availability configuration; hot standby redundancy with two servers keeps network operations running 24/7.
- Pre-integrated WiMAX solution that works out of the box reducing installation, integration, and maintenance times.

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## Technical Specifications

<b>Platform</b>	<b>Oracle's Sun SPARC Enterprise T5120 Server</b>
<b>Operating System</b>	Solaris 10
<b>CPU</b>	UltraSPARC T2 quad-core processor
<b>Memory</b>	8 GB RAM (expandable to 128 GB)
<b>Hard Drives</b>	2 x 146 GB, 10,000 rpm SAS disks; expandable to 8 disks (hot pluggable)
<b>Optical Drive</b>	DVD+/-R/W, CD+/-R/W
<b>Ethernet Ports</b>	4 x 10/100/1000 Mbps, RJ-45
<b>USB Ports</b>	2 front, 2 rear
<b>PCI Express</b>	1 x PCIe 8-lane, 2 x PCIe 4-lane slots
<b>Power</b>	2 redundant power supplies, hot swappable, 110-240VAC
<b>Dimensions</b>	425mm x 44mm x 714mm (width x height x depth)

### 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](http://www.bridgewater.com)**

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