

xMax[®] Mobile Switching Center (xMax[®] - MSC)

Wide Area Mobile VoIP and Data



The xMax Mobile Switching Center (xMax-MSC) is the backbone network element in the xMax regional network. The xMax-MSC controls the delivery of the voice and data services, and manages all elements in the regional network (BSN and end-user devices).

All three planes of the network operations (Management, Control and Transport) are realized in a single-rack starter configuration, and can be expanded as the network coverage and traffic grow. While it offers a rich set of functions supporting the xMax voice services today, the xMax-MSC will also be upgraded over the course of the lifetime of the network with new functions supporting additional features and services, while reducing the cost of operations.

The main building blocks of the xMax-MSC are:

- **Transport Plane:** core Ethernet switches and firewalls transport IP traffic between the devices on the local network and to the WAN;
- **Control Plane:** the Configuration and Authentication servers provide network configuration information to the BSN and end-user devices, and authenticate end-user devices; the Signaling Controller adapts specialized

mobile VoIP signaling processes developed for xMax to SIP2.0-compliant signaling for interworking with the WAN;

- **Management Plane:** xMonitor provides FCAPS functions for daily management of the xMax network and services, and the Mobile Update servers deliver remote SW updates to the BSNs and end-user devices, as well as Ephemeris data to devices with embedded GPS to achieve off-line assisted fast location fixes.

The xMax-MSC is part of the comprehensive, all-IP xMax system infrastructure that includes a line of base stations, switching centers, handsets and modems. xMax networks are powered by xG[®] Technology's patented system design and operate independently from legacy cellular networks. This allows operators to deploy networks that are cheaper to build, quicker to roll out, and easier to maintain, while adding new services resulting in growing ARPU, increased cash-flow and margins, and lower network total cost of ownership.

Key Features

- *Modular, redundant, pay-as-you-grow*
- *Interworking between xMax specialized Mobile VoIP and wireline VoIP*
- *Optimized for mobile voice and data*
- *FCAPS for the xMax network and services*
- *100% IP-based for low CAPEX and OPEX, and fast learning curve*
- *Single rack starter-configuration, delivered as integrated solution by xG*

xMax Mobile Switching Center (xMax-MSC) Technical Specifications

AVAILABLE CONFIGURATIONS

- xMax-MSC100: up to 100,000 served xMax handsets, and 10,000 simultaneous calls
- Other configurations available upon request
- All configurations fully redundant and high-availability, installed in standard 19" rack(s)

MANAGEMENT PLANE

- xMonitor: EMS for the xMax Network Element (NE) in the regional network
- Update Server: distributes SW updates to BSN and to end-user devices
- GPS off-line Assistance Data Server

CONTROL PLANE

- xMax Signaling Controller
- Configuration Server
- Authentication Server

TRANSPORT PLANE

- All interfaces 10/100/1G
- Mobile VoIP-friendly firewall

POWER

- 110VAC
- Consumption and heat dissipation depending on configuration and network size
- Redundant inputs

OTHER

- User Interface: English
- Environment: indoor, operating temp: 32 to 104°F (0 to 40°C)); humidity: 10 to 90%, non-condensing; storage temp: 14 to 140°F (-10 to 60°C)

CERTIFICATION

- Complies with U.S. Federal Communications Commission (FCC) per 3rd party Original Equipment Manufacturer compliance statement.

Product features and specifications are subject to change without prior notice. xG® and xMax® are registered trademarks of xG Technology, Inc. Copyright 2002-2009, All Rights Reserved. All other trademarks used herein are property of their respective owners.

xMAX-MSC-04 10



240 South Pineapple Avenue, Suite 701
Sarasota, FL 34236
(941) 953-9035
www.xgtechnology.com