

MX250

Enterprise Media Exchange

Overview

The MX250 is a powerful system that enables multimedia communications for all workers of an organization. By integrating the functions of many devices into a single 2U platform, the MX250 simplifies the VoIP network of any deployment. As well as being a comprehensive solution, the MX250 is easy to install, use, and maintain.

The system combines the functions of an IP PBX, Internet gateway, network server, and application server. By using standard protocols, it is fully interoperable with phones, gateways, and devices from other manufacturers.

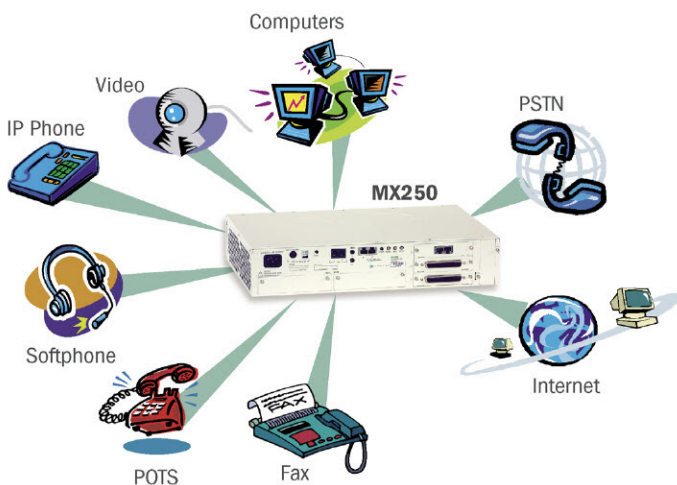
With the MX250, workers are accessible on a central communication system at any location with an Internet connection. Direct connectivity among all users is easily achieved, regardless of their location within a building, campus, city, country, or region. Users of the system can log in from the office, from home, while travelling, or from a different site within the enterprise and still have full access to all system features.

All users, regardless of role within the enterprise, get a high quality voice system and access to productivity tools that increase their ability to get more done in less time. The system offers powerful applications such as presence, instant messaging, unified messaging, call handling, screen pops, and detailed call logs. These tools can operate on a single system or among multiple systems for a centrally managed platform that painlessly scales to support large enterprises.



Key Features

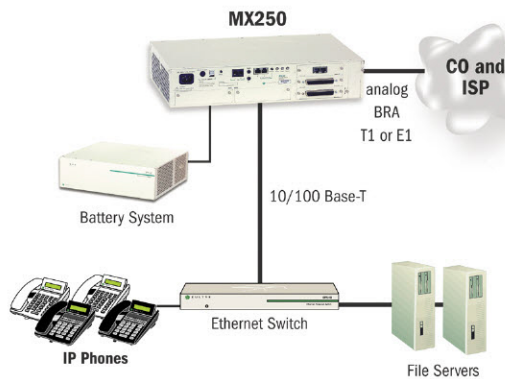
- Complete PBX functionality with integrated voice mail
- Based on open standards: SIP, Linux, VoiceXML, TAPI, SQL
- Supports 250 users in a single box
- Expandable to support 10,000 users in multiple locations
- Optional redundancy and battery back up
- Gateways to the PSTN and Internet
- Fax termination, origination, and storage
- Instant messaging, presence, and chat
- Unified messaging
- Call detail reports
- Archiving for HIPAA compliance
- Multiple automated attendants
- Multiple ACDs, hunt groups, and operator groups
- Advanced call center features
- Flexible paging groups
- Remote users over the Internet
- Integration with external CRM applications
- Multiple languages and worldwide support



Traditional Telephony Interfaces

The system accommodates a mixture of telephony interface modules to support PSTN connectivity. The module for T1 (1.544 Mb/s) or E1 (2.048 Mb/s) provides two full-duplex circuits that support the most commonly used protocols. The ISDN BRA module provides four full-duplex S/T circuits that support ETSI and Japanese ISDN. The analog FXO module provides eight two-wire circuits with detection of caller ID.

The base chassis has two analog extensions that can be automatically connected to analog FXO circuits on the PSTN in the event of a complete power failure. You can provision additional analog extensions with FXS modules or a gateway such as the MX25 from Zultys.



IP Telephony

The MX250 supports true end to end IP telephony for users among different sites, remote locations, and temporary work stations over the WAN and Internet. Users are no longer bound to any physical phone or port. They can travel from one location to another and still be directly connected to the company's central communication system.

The MX250 can interoperate with any SIP compliant phone. Zultys has its own range of IP phones that are fully compatible with the MX250. These include desktop phones as well as the soft phone included in the user software (MXIE). You can provision and maintain IP phones directly from the administration software, which allows central management of all IP phones within the enterprise without requiring a local administrator at each location.

The MX250 can connect to one or more ITSPs (Internet telephony service providers). This permits the use of the Internet for all voice calls without the need to connect to the PSTN. Alternatively, the MX250 provides you with the flexibility to route some calls to the PSTN and other calls to the ITSP.

Dial Plan and Least Cost Routing

Whether your organization receives voice service from a telephony interface, over the WAN, or both, the system has a flexible dial plan that allows you to specify the routing of calls based on dialed patterns and available bandwidth. Your organization can ensure least cost routing for all calls, regardless of the user or location.

For each dial pattern on the dial plan, you specify the source of the call, the transformed pattern, the primary route, and alternative routes. You can create multiple dial patterns to handle internal



calls and external calls. These calls can be routed over the LAN, the WAN, the Internet at an external gateway, a voice tie line to another PBX, or a line interface to the PSTN.

Call Accounts and Restrictions

Call accounting allows you to force specified users to enter an account code (contract code) before making certain types of calls. You can obtain call detail records based on the account code and therefore portion expenses among the various accounts. This is useful for organizations that bill their clients for calls made on behalf of the client.

You can restrict calls to specific destinations based on the user's profile or where the user's phone is located. The restriction can force the user to enter his or her password prior to making the call. The system can allow calls from certain phones without authentication, allow phones in other locations to require authentication, and require users wherever they are located to authenticate prior to making a call.

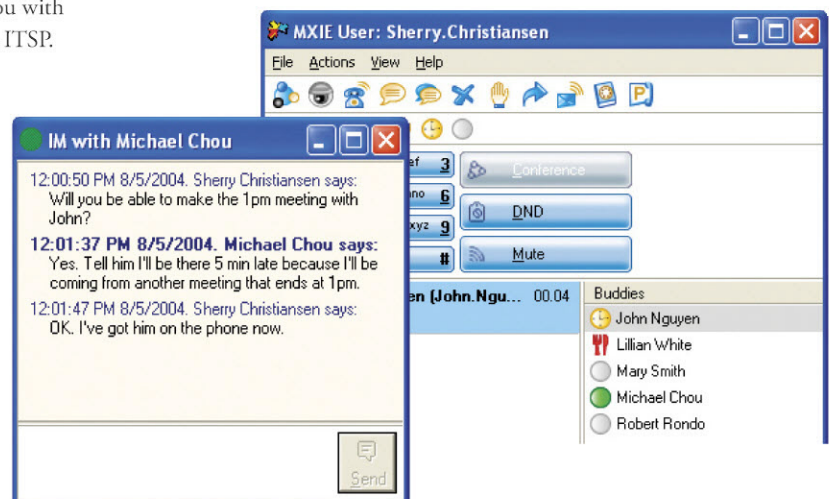
Data Networking

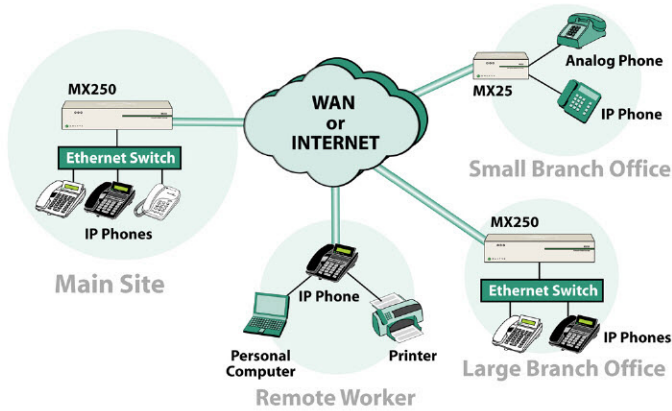
The MX250 can function as an edge router by connecting to an ISP using Point to Point Protocol (PPP). Default and static routes can be provisioned to control the proper routing of voice and data traffic. The system also incorporates a firewall and NAT, and servers for DHCP, TFTP, and NTP. You can independently disable any of these if you provide them externally to the MX250.

The system can terminate multiple simultaneous VPN sessions with remote IP phones or other MX250 systems. This allows users at branch offices or home offices to securely access all functions of the MX250 and the corporate network without the need for external equipment.

MXIE—MX Interface for End Users

MXIE (pronounced "mixee") is the PC client interface for users on the MX250. It enhances a user's ability to be more efficient in communicating with other users and external callers. With MXIE, users have address books, detailed call logs, call handling rules, message delivery rules, voice mail, faxes, instant messages, chat, and presence. MXIE can be used as a stand-alone application with a built in soft phone, or in conjunction with a desktop phone. There is only one login required for access from any location, regardless of the user's role as an operator, a call center agent, or an individual.





Management of Users

Adding or deleting users on the MX250 can be done in seconds. Multiple users can be imported by uploading an existing database. The MX250 supports multiple user profiles to set rights and privileges on the system. These rights include password settings, voice mail access, MXIE access, call recording, long distance dialling, and paging authority.

Accessibility of Users

The MX250 can be configured to handle calls in the most efficient manner possible. Users can have eight contact points where they can receive calls. A contact point can be an analog phone, IP desktop phone, or soft phone. An incoming call can alert all contact points simultaneously, with each contact point being located anywhere within the enterprise. Users can create custom call handling rules that can route their calls to any destination based on any combination of date, time, day of week, caller ID, presence, and location of log in.

Auto Attendant

The MX250 can accommodate multiple auto attendants to service different applications. Each auto attendant can be assigned a direct external number (DID) and an internal extension number. An auto attendant can be scheduled to run different scripts at different times of the day and on different days of the week. Special scripts can be scheduled to run only for specific days and times, such as holidays and emergencies. You can also schedule times when operators answer all calls.

Voice Mail

You can select how voice mail storage is divided among the users by setting the limits on the user profiles. Limitations that you can set for a user profile include the total number of received messages, the duration of each message, and the total disc space allowed for storage of all messages on the MX250.

Users can access, save, delete, and forward voice mail by using a phone (internal or external to the MX250) or by using MXIE. Users can save their voice messages without taking up storage on the MX250 by dragging the messages from MXIE into folders on the local PC. Voice messages are saved as standard WAV files and forwarded to others outside the system through standard means of file sharing such as email and network directories.



Operators

You can define multiple groups of operators on the MX250. Operators within a group can be assigned different priority levels to accommodate skills based routing and back up shifts. A user can belong to multiple operator groups and the MX250 can distribute operator calls to the user based on his or her priority within the group.

Operators use their MXIE login as the console, and thus there is no need for special equipment. Using MXIE, they have access to the complete directory of users and can use the 10-key operation of a PC to transfer calls. Any user of the system who is already familiar with MXIE can immediately become functional as an operator. Without a requirement for a physical console or special software training, an organization can dynamically assign operators at any time of the day. Operators, at all priority levels, can be located anywhere and can log in at anytime to provide uninterrupted coverage of incoming calls.

ACD and Hunt Groups

The MX250 can provide multiple ACD (automatic call distribution) and hunt groups for either the informal or formal call center. You can configure ACD or hunt groups for different services within the business. Each group can be assigned a direct inward dial number (DID) in addition to an internal extension. You can assign a user to be an agent for one or more groups, and agents within a group can be assigned different priority levels for call distribution. A user who belongs to one or more groups can still make and receive individual calls.

For the formal call center, the advanced ACD features on the MX250 provide call queues, real time supervisory monitoring, queue manipulation, group and agent statistics, queue overflow handling, call recording, and playing of promotional messages to callers in queue.

Unified Messaging

The MX250 supports unified messaging for delivery of voice, fax, and other notifications to the email client of choice. Each user can set up email notification of these messages with or without the message content attached. He or she can set up rules for email delivery based on media type, date and time, source, or age of the unchecked message.

Integration with External Applications

Integration with an external CRM or IVR package can easily be achieved through access with SIP, TAPI, HTTPS, and VoiceXML. The caller's information can be passed to the CRM package to invoke a screen pop with immediate presentation of account information to the agent. Call details can be retrieved from the MX250 for reconciliation of billing and performance through standard SQL access.

CDR—Call Detail Records

The MX250 provides comprehensive call detail records for reconciliation of billing and tracking of system usage. Predefined reports include usage reports for automated attendant, users, groups, emergency services, trunk lines, and dial plan routes. Activity can be filtered by user, extension, location, or group. For custom reports, the system integrates with external applications by providing read access to its internal MySQL database. Administrators can use Crystal Reports or any other third party reporting tool to generate the most appropriate call detail reports for the organization.

Paging Groups

The MX250 supports paging over the speakers of IP phones and overhead paging systems. You can configure multiple paging groups, and assign a user as a member of one or more paging groups. A paging group can comprise users from any location, thus users are logically divided rather than physically divided into zones. For example, a customer support agent can hear the announcements for sales and technical support teams, while a technical support agent can hear announcements only for the technical support team. Users can receive specific announcements from any location within the enterprise, even over the WAN and Internet. Paging authority can be restricted by password authentication and by assignment of paging profiles.

Encryption

The MX250 supports AES encryption to fully secure speech traffic between the system and internal or external callers. When enabled, encryption provides security for calls that occur between a user and voice mail or auto attendant. Encryption can also be enabled for all traffic between two MX250 systems on a WAN.

HIPAA Compliance for Archiving

The MX250 allows for the archiving of all voice mail, instant messages, and chat sessions to an external server. This archiving can meet HIPAA and SEC regulations requiring long term storage of communications.

Codecs and Voice Compression

You can specify the type of codec available for transmitting voice during calls between the MX250 and other IP devices. You can select between G.711 μ -law, G.711 A-law, G.729A, G.729AB, or any combination. The MX250 will automatically negotiate the codec that is available. When you have multiple MX250s communicating within a group, you can specify which codec to use between which site to ensure the most efficient use of bandwidth within a WAN.

Locations and Emergency Dialling

Locations are created to display the correct time on a telephone when it is in a different time zone from the system. They are also used to ensure that when a remote user dials an emergency phone number, the call is routed to the local public service access point (PSAP). A location can be based on an IP address or selected by the user. The dial plan entry on the MX250 routes emergency calls from any specific location to the appropriate PSAP. All operators are alerted of the user's name and location when an emergency call is made.

Full Redundancy and Backup Power

The MX250 can be configured for automatic redundancy and battery backup in case of power or mechanical failure. When configured with a battery for back up, the MX250 continues to operate reliably during a power failure and cleanly shuts itself down when the battery power runs low. When configured with the redundancy option, a standby unit automatically takes over operation during a failure of an active unit.

System Administration

The MX250 is managed from a single graphical user interface that runs on a PC under Windows. The PC can be located anywhere in your network. Different users can have different administration rights. All provisioning is done with this interface, which simplifies learning and increases productivity.

Administrators have real time views into the system, including call detail reports, current sessions, active registrations, status of SIP messaging, and status of telephony circuits. Critical events are sent to a Syslog server so administrators can receive a page or call if there are errors. All system configuration, voice mail messages, faxes, and call detail reports can be periodically backed up. You can schedule complete or partial back up to a network directory or FTP server.



System Capacities

When you purchase the MX250, it is equipped with all the hardware necessary to support 250 users and 1000 SIP registrations. You purchase what you need initially, and subsequently expand the functionality and capacity by purchasing software licenses for the system. These licenses can be added at anytime from any location without having to power down the system.

Multiple MX250 systems can be combined to provide capacities to 10,000 users with a transparent database of users. Users at one site can communicate with users at the same or another site with equal capabilities. Users who travel among the sites can log into any MX250 and continue to make and receive calls as if they were at their normal location.

Global Features

Zultys sells and supports its products worldwide, allowing the MX250 to be readily deployed in one or more countries. The system supports worldwide telephony protocols so it can connect directly to the local PSTN. You can install any one of a number of language packs available for the voice prompts. The language for the MXIE user interface can be selected dynamically by the user.

Physical and Environmental

Operating temperature: 10°C to 40°C (50°F to 104°F)

Storage temperature: 0°C to 50°C (32°F to 122°F)

Weight: 8.2 kg (18 lb). Shipping weight 10.5 kg (23 lb)

Size: 430 mm (W) x 269 mm (D) x 85 mm (H) (17" x 10½" x 3½")

Mount: Standard 19" rack from front, mid, or rear; 2 RU (89 mm)

Safety: UL 60950, CSA-C22.2, EN 60950

EMI: FCC Part 15, ICES-003 Class A, CISPR 22, AS/NZS 3548 Class A

EMC: CISPR 24 (EN55024), EN61000-4

Telecom: (Australia) AS/ACIF S031, AS/ACIF S038, AS/ACIF S002; (Europe) ETS 300 011, ETS 300 012, ETS 300 125, ETS 300 102; (US/Canada) TIA/EIA-IS 968, CS 03; (Japan) JATE AC04-0001003

Warranty: one year



Zultys, Inc.
Sunnyvale, CA 94085
USA

Tel: +1-408-328-0450

Fax: +1-408-328-0451

Email: zultys@zultys.com

Web: www.zultys.com