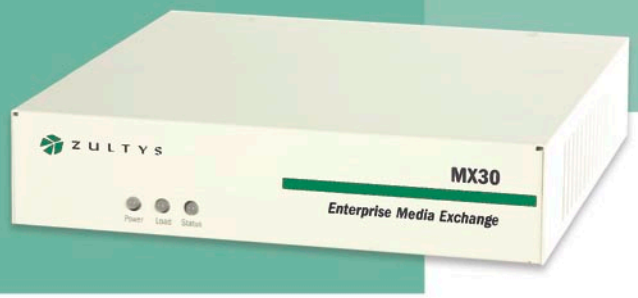
MX30

Enterprise Media Exchange



Overview

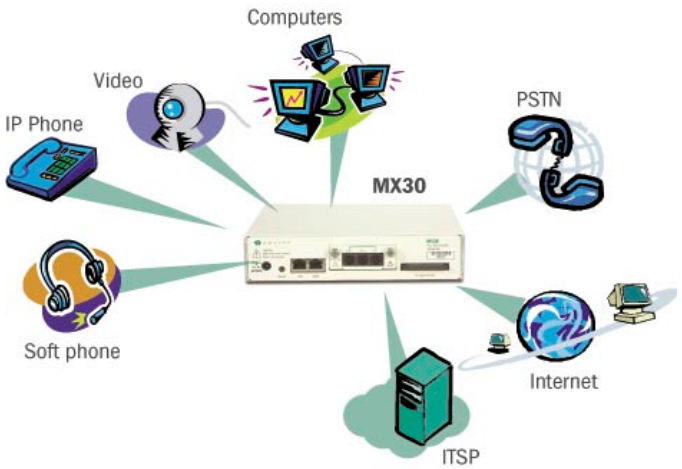
The MX30 is a powerful system that enables multimedia communications for all workers in a small office. By integrating the functions of many devices into a compact box, the MX30 simplifies the implementation of VoIP. As well as being a comprehensive solution, the MX30 is easy to install, use, and maintain.

The MX30 is designed specifically to connect to Internet Telephony service providers (ITSPs) using SIP. This allows customers to realize the full benefits of VoIP and save money because of the superior rates offered by ITSPs.

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

With the MX30, workers are accessible on a central communication system from 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 and still have full access to all system features.

All users, regardless of role within the organization, 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 MX systems of varying sizes for a centrally managed platform that painlessly scales to support large enterprises.



Key Features

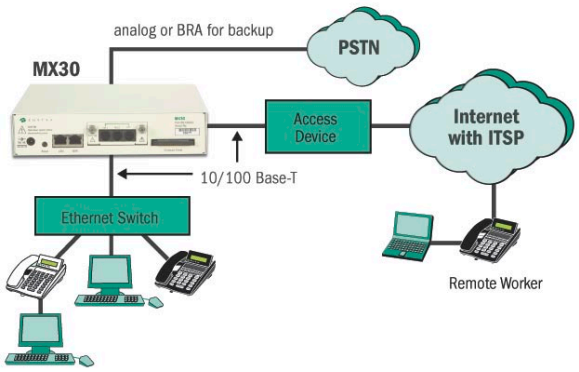
- *Complete PBX functionality with integrated voice mail*
- *Based on open standards: SIP, Linux, VoiceXML, TAPI, SQL*
- *Supports 30 users in a single box*
- *Expandable to support 10,000 users in multiple locations*
- *Gateway to ITSPs, PSTN, and Internet*
- *Fax termination, origination, and storage*
- *Instant messaging, presence, and chat*
- *Unified messaging*
- *Call detail reports*
- *Archiving for regulatory 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*

IP Telephony

The MX30 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 communication system.

The MX30 can interoperate with any SIP compliant phone. Zultys has its own range of IP phones that are fully compatible with the MX30. 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 for management of all IP phones within the office.

The MX30 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 MX30 provides you with the flexibility to route some calls to the PSTN and other calls to the ITSP.



Backup Telephony Interfaces

The system has a single slot for an optional telephony interface module to support backup PSTN connectivity in the case where calls are not routed to an ITSP.

The ISDN BRA modules provide one or two full-duplex S/T circuits that support ETSI and Japanese ISDN. The analog FXO modules provide two or four two-wire circuits which support detection of caller ID. Each analog module also provides one connection for a phone that can be automatically connected to the first FXO circuit on the PSTN in the event of a power failure.

Music on Hold (MoH)

The MX30 can play MoH to callers. This is played from a WAV file on the hard disc and can be music or a set of announcements describing the company's products or services.

Dial Plan and Least Cost Routing

The system has a flexible dial plan that allows you to specify the routing of calls based on dialled 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, 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 a 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 MX30 has two Ethernet ports – one connects to the service provider and one connects inside the office. A comprehensive firewall is between these two ports. Zultys recommends separate broadband connections for data and voice traffic to the Internet.

The WAN port connects directly behind the broadband IAD (integrated access device) and provides termination of traffic and address translation. The translation comprises NAT (network address translation) for Internet traffic and ALG (application layer gateway) for SIP traffic. The port can have a fixed IP address, an IP address received from the ISP using DHCP, or use PPPoE to obtain all information. Default and static routes can be provisioned to control the proper routing of voice and data traffic.

The LAN port connects directly to an Ethernet switch. On this interface, the MX30 can provide servers for DHCP, TFTP, and NTP. You can independently disable any of these if you provide them externally to the MX30.

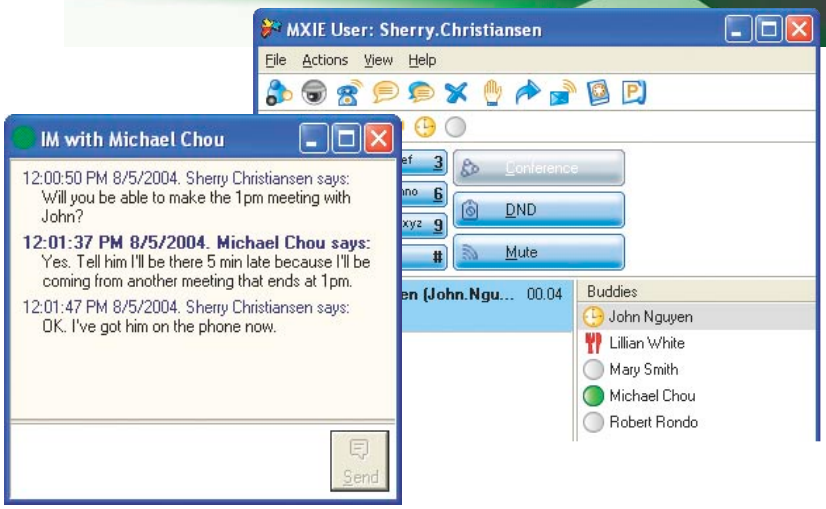
The system can terminate multiple simultaneous VPN sessions with remote IP phones or other MX30 or MX250 systems. This allows users at branch offices or home offices to securely access all functions of the MX30 and the corporate network without the need for external equipment.

MX Interface for End Users (MXIE)

MXIE (pronounced "mixee") is the PC client interface for users on the MX30. 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 MX30 can be done in seconds. Multiple users can be imported by uploading an existing database. The MX30 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 MX30 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 IP desktop phone or soft phone. An incoming call can alert all contact points simultaneously, with each contact point being located anywhere on the network. 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 (AA)

The MX30 can accommodate multiple AAs to service different applications. Each AA can be assigned a direct external number (DID) and an internal extension number. An AA 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. You can also schedule times when operators answer all calls.

The scripting is accomplished with a graphical user interface which automatically creates a standard VoiceXML program. You can create a script to prompt a user for input and then provide details on different products or services.

The MX30 has integrated text to speech capability in multiple languages. You can easily create an announcement for callers and integrate it as part of an AA script.

Voice Mail (VM)

You can select how VM storage is divided among the users by setting limits on the user profiles. Limits that you can set 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 MX30.

Users can access, save, delete, and forward VM by using a phone (internal or external to the company) or by using MXIE. Users can save their voice messages without taking up storage on the MX30 by dragging the messages from MXIE into folders on a local PC. Voice messages are saved as standard WAV files and are forwarded to others outside the system through standard means of file sharing such as email and network directories.

Fax Origination and Termination

The MX30 can send and receive faxes, eliminating the need for a paper fax machine. To send a fax, the user prints a document from the PC to the MX fax printer driver. The MX30 sends the fax as soon as possible. The MX30 terminates incoming faxes, converts them to a TIF file, and makes them available to users through MXIE. The user can access and manipulate faxes in the same way as voice messages.

Operators

You can define multiple groups of operators on the MX30. 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 MX30 can distribute operator calls to the user based on his or her priority within a 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 on a PC keyboard 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 any time to provide uninterrupted coverage of incoming calls.

Automatic Call Distribution (ACD) and Hunt Groups

The MX30 can provide multiple ACD 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 inbound call center, the advanced ACD features on the MX30 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 MX30 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 an unchecked message.

Integration with External Applications

Integration with an external CRM or IVR package can be achieved through access with SIP, TAPI, HTTP, 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 an agent.

Call Detail Records (CDR)

The MX30 provides comprehensive CDR 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 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 MX30 supports paging over the speakers of IP phones. 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 MX30 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 MX30 systems on a WAN.

Archiving

The MX30 allows for the archiving of all voice mail, instant messages, and chat sessions to an external server. This archiving can meet regulatory requirements such as those imposed by the HIPAA act and the SEC.

Codecs and Voice Compression

You can specify the type of codec available for transmitting voice during calls between the MX30 and other IP devices. You can select between G.711 µ-law, G.711 A-law, G.729A, G.729AB, or any combination. The MX30 will automatically negotiate the codec that is available. When you have multiple MX30s and MX250s communicating within a group, you can specify which codec to use between sites 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 on the MX30 routes emergency calls properly when it is connected to the PSTN. If the emergency call is routed to the ITSP, the ITSP must ensure proper handling of the emergency call. All operators are alerted of the user's name and location when an emergency call is made.

Sold and serviced by:

System Administration

The MX30 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 problems. 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 MX30, it is equipped with all the hardware necessary to support 30 users and 120 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 any time from any location without having to power down the system.

Multiple MX30 systems can be networked using MXgroups 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 MX 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 MX30 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: 1.7 kg (3.7 lb). Shipping weight 2.2 kg (4.8 lb)
Size: 210 mm (W) x 210 mm (D) x 50 mm (H) (8.3" x 8.3" x 2.0")
Mount: wall or table
Safety: UL 60950, CSA-C22.2, IEC 60950
EMI: FCC Part 15, ICES-003 Class A, CISPR 22, AS/NZS 3548 Class A, IEC 61000-3
EMC: CISPR 24 (EN55024), EN61000-4
Telecom: (Australia) AS/ACIF S031, 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

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