



ETERNITY LE

The IP-PBX for Large Enterprises

Today's enterprises function in a dynamic business scenario full of new challenges well equated with new growth opportunities. To maximize their growth they need to address the underlying challenge of optimizing communication for better collaboration, information sharing and functioning. Enterprises need communication solution that offers more technology integration, more convergence and more flexibility empowering them to do more, grow more.

Matrix ETERNITY LE is a powerful enterprise communication solution designed to transcend all technological, organizational and geographical boundaries. This thorough breed solution offers advanced functionality backed by reliability and flexibility that today's growing enterprises expect from a communication solution. Its advanced call capabilities and comprehensive features ensure that the organization is more responsive, alert and aptly empowered to do more.

Matrix ETERNITY LE is designed for enterprise applications and has solution for medium to large organizations up to 2000 users. Unlike other IP-PBXs in this range, ETERNITY LE is a compact, single rack solution that eliminates the need of large power stations and stacking multiple cabinets.

- Up to 1150 TDM and 999 IP Users
- New-age VoIP and Traditional POTS Network
- Multi-site Networking over VoIP
- Hot Standby
- Enterprise Mobility
- Workforce Collaboration



45-Party
Conference



CTI



IP Telephony



Mobile
Extensions



Email to SMS



Voice Mail

SYSTEM CAPACITY OVERVIEW

USERS	
IP/ Mobile	999
Analog	1344
Digital	128

TRUNKS	
T1/E1 PRI	24 (720 Ch.)
BRI	32 (64 Ch.)
GSM	128
E&M	128
CO (TWT)	128
VoIP (SIP)	32
Radio	16

Above numbers shows the capacity of ETERNITY LE for different trunks and users. Actual capacity may vary depending upon the configuration requirement.



TRUNK OPTIONS



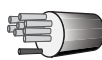
Fixed Telephony
(CO/TWT)



E&M



ISDN BRI



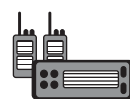
ISDN T1/E1 PRI



SIP Trunking (VoIP)



Mobile Voice
GSM SIM



Radio

USER OPTIONS



Analog Phone



Digital/IP Phone



Digital Operator Console



IP Phone



Android/iOS based
Smartphone

Apartments and Education Campuses



Corporate Offices



Hotels and Hospitals



RELIABILITY

An indispensable requirement of an enterprise exchange is to perform and perform at every instant. It is designed for 24x7, continuous operation and to provide carrier-grade reliability. It employs distributed processing architecture with intelligent local processing units for each card. The main processor employs powerful RISC processor. Integrated DSP based SLIC and DAA are used for FXS (SLT) and FXO (CO) interfaces. On-board secondary protection, over voltage and current protection eliminate overheating or breakdowns. Built-on Linux platform, best-of-breed software protocol stacks are used for digital interfaces like ISDN BRI, T1/E1, ISDN PRI and VoIP SIP. It meets approval standards like CE, RoHS and TEC.

1 + 1 Hot Standby for critical cards offers true redundancy. In the event of failure of the active card, the changeover to the standby card is automatic and transparent, without any disruption of services/on-going calls. All the interface cards are hot-swappable, eliminating unhealthy system down-time.



SCALABILITY

ETERNITY LE is highly scalable. The number of TDM and IP users are scalable up to 1344 and 999 respectively. Unlike other IP-PBXs in this range, ETERNITY LE is a compact, single rack solution that eliminates the need of large power stations. It offers compact 1000 watt DC power supply card which can handle 1344 SLT (FXS) with call traffic as high as 40%.



INTEGRATION

The integrated exchange offers interfaces for – new age IP network, GSM, ISDN BRI, T1/E1 ISDN PRI and even traditional network such as E&M and CO (TWT). On the extensions side it supports Analog Extensions, Magneto Phones, Digital Stations, IP and Mobile Extensions. The multi-port RADIO interface offers integration with HF/VHF/UHF radios, establishing communication path between the exchange and the roaming users in the radio net.

- Computer Telephony Integration (CTI)
- Property Management System Interface
- Call Accounting System (CAS) Interface
- Built-in External Music Port (AIP)
- Built-in Paging Port (AOP)
- PBX Networking over PRI/QSIG
- Email to SMS
- Voice Mail System



FLEXIBILITY MODULARITY

ETERNITY LE encompasses the CPU, power supply, various networks and extension cards in a modular architecture. It offers connectivity to various types of trunks and users in form of plug-in cards. Due to the universal personality of the slots, an interface card can be flexibly inserted in any of the vacant slot. All interface expansion cards of ETERNITY ME are compatible with ETERNITY LE, this gives an opportunity to existing ETERNITY ME users to scale to a larger platform ETERNITY LE and can effectively utilize the investment on interface expansion cards of ETERNITY ME.

WHY ETERNITY LE IS A PREFERRED IP-PBX FOR ENTERPRISES

ENTERPRISE NEEDS	ETERNITY LE OFFERINGS	BENEFITS
Lower TCO	Fast and Simple Deployment	<ul style="list-style-type: none"> • No need of external devices such as Voice Mail System, Gateway or ATAs. • Investment Protection - Support for diverse network types. • Avail benefits of new-age networks on a single platform. • Flexible Scalability • No need of changing existing VoIP devices (VoIP Gateways, SIP Server, SIP Phones) and telephone instruments.
	Modular Architecture	
	Gateway Functionality	
	Built-in Auto-Attendant	
	Voice Mail System Capacity up to 576 Hours	
	Easy Integration with other SIP Devices like VoIP Gateways, SIP Servers and SIP Phones	
	Built-in Auxiliary Ports (Analog Input-Output Ports)	
	Hybrid Expansion Card to Meet any Requirement	
Higher ROI	Multiple SIP Accounts	<ul style="list-style-type: none"> • Call Cost Savings on each Call • Use same Internet Bandwidth for Voice and Data • Customer Satisfaction – Increased Responsiveness • Field Upgradable • No need of Additional Application for Configuration
	Networking of Multiple Sites and Offices	
	Mobile Close User Groups (CUG)	
	On-site and Off-site Mobility	
	Multiple Call Groups	
	Web-based Interface	
Control over Operational Costs	Open Standard SIP	<ul style="list-style-type: none"> • Reduced Long-distance Telephony Costs through VoIP • Free Inter-site VoIP Calling • No Need to Invest in New Infrastructure • Increased Organizational Efficiency • No Need of Separate Administrator for Multiple Locations
	Multiple SIP Accounts	
	Software Configurable Parameters	
	Least Cost Routing Algorithm	
	Centralized Maintenance and Administration	
	Mobile Closed User Groups (CUG)	
Stay Connected	On-site Mobility	<ul style="list-style-type: none"> • Multi-locational Connectivity • Seamless Staff Mobility • Universal Connectivity • Seamless Network Coverage • Minimum Downtime
	Off-site Mobility	
	Unified Messaging – Voice Mail to Email, Email to SMS	
	Call Back on Trunk	
	Return Call to Original Caller (RCOC)	
	DID	
	Automatic DISA with Built-in DISA card	
Workforce Collaboration	Multi-party Conference	<ul style="list-style-type: none"> • Streamline Business Operations • Increased Staff Responsiveness to Customers • Increased Employee Effectiveness and Efficiency • Increased Availability to Customers
	Conference Dial-in	
	Mobile Extensions	
	On-site Mobility	
	Off-site Mobility	
	Unified Messaging - Voice Mail to Email, Email to SMS	
	IM and Presence Sharing	
	Automated Attendant	
	Fax over IP (FoIP)	

ENTERPRISE NEEDS	ETERNITY LE OFFERINGS	BENEFITS
Business Continuity and Networking	Voice Mail System	<ul style="list-style-type: none">• Identify Calls before Answering• Reduced Operator Call Volume• Automated Call Treatment• Direct connection for auxiliary devices such as Door Lock, etc. without the need of extra accessories.• No need of changing accustomed dialing habits.• No need of multiple devices for mobility.• Increased Employee Productivity and Efficiency• Adhere to Regulatory Compliances
	External Call Forwarding	
	Mobility	
	Handover and Handoff Support with Android/iOS Softphone Application	
	Return Call to Original Caller (RCOC)	
	Callback on Trunk	
	Failover Resiliency	
	Power Supply and CPU Redundancy	
	Logical Partitioning	
	Multiple Systems Networking through ISDN QSIG & SIP	
Enhanced Customer Experience	Automate Attendant	<ul style="list-style-type: none">• 24x7 Customer Assistance• Uniform Response to all Callers• Prompt Customer Services
	Voice Mail System	
	Return Call to Original Caller (RCOC)	
Ease-of-Use	Easy to Deploy and Maintain	<ul style="list-style-type: none">• Easy Troubleshooting• Rapid Maintenance• Reduced Downtime
	Web-based Interface	
	Modular System Architecture	
Simple Administration and Management	Built-in Remote Maintenance	<ul style="list-style-type: none">• No Need of Modem for Remote Maintenance• No Need of Additional Application for Configuration and Maintenance• Enables to Monitor Network Elements
	Built-in SMDR	
	Detailed Call Information	
	Web-based Configuration Interface	
	SNMP v1/v2c/v3	
Effective Resource Utilization	Open Standard SIP Support	<ul style="list-style-type: none">• Utilize existing IT infrastructure with existing telephones.• Use same Internet connection for Voice and Data• Increased Staff Productivity• Smartphone carrying GSM as well as Desk
	Mobile Extension through GSM/3G Mobiles	
	Third-party PMS/CAS Support	
	CTI (TAPI 2.2)	
	Email to SMS	
Future-proof Investment	SIP based VoIP	<ul style="list-style-type: none">• Ready for New-age Technologies• Support for New-age Devices• Easy scalability through expansion cards to meet evolving needs.
	Modular Design	
	Universal Slots based Architecture	
	CTI (TAPI 2.2)	
	Email to SMS	
Certification	CE, RoHS and TEC	<ul style="list-style-type: none">• Reliability• Safety• Industry Standard Product

ETERNITY LE functions as an automated call management exchange, flexibly managing calls; it seamlessly routes calls between various network ports, from trunks to users and amongst the various users. Multi-location networking can be done over QSIG, E1 or E&M lines and even over IP, extending system features and capacity till a distant location.

Incoming calls can be automatically directed to specific users; else routed amongst a group of users as per pre-defined priorities. Outgoing calls are routed via the most-cost-effective network using various algorithms. The dial plans can be unlike for different users and flexibly revived as per the time of calling. The exchange delivers intelligent features to its users, such as remembering access codes for easy and speed dialing, forwarding calls to desired user, grouping users under departments, establishing conferencing for multi-party conversations, re-attempting calls at unsuccessful trials and many others. It logs all its activity, maintains a detailed call activity reports with the provision to back-up and print the same.

IMPORTANT FEATURES

Multi-Party Conference

ETERNITY LE supports built-in 45-Party conference (21-Party in single conference) without affecting the quality of speech levels. It also allows participants of a conference to dial into a live conference at a scheduled time just by simply dialing a feature code.

Mobile Extension

ETERNITY LE provides true mobility to its users by allowing them to use their mobile phones as PBX extensions. Not only users can make and receive calls, they can also use most of the PBX functions like Transfer, Forward, Voice Mail, Directory Dial and Conference from their mobile phones from within and outside office. Moreover, with SPARSH M2S (softphone application) enterprise users can extend mobility on Android/iOS based smartphones. It makes your workforce smart, productive and anytime reachable.

Handover and Handoff Support with Mobile Client

ETERNITY LE allows handover of an active Mobile Client call from Wi-Fi network to the cellular number incase of the user goes out of Wi-Fi network. Similarly, it also offers handoff of an active Mobile Client call from the cellular to the Wi-Fi network. These happen smoothly without disruption of an on-going call.

Video Calling

With two end terminals, capable of leveraging a video call, ETERNITY LE acts as a relay unit between them. With Enterprise Mobility Application (SPARSH M2S), video calling can also be extended to Andorid/iOS based Smartphones.

SNMP

ETERNITY LE supports SNMP, which helps to manage and monitor network elements, audit network usage and detect network faults. SNMP manager supports SNMPv1/v2c/v3 versions.

Email to SMS

Users can send SMS from their email client using GSM SIM of ETERNITY LE. The system also supports sending Bulk SMS with flexibility of assigning it to selective users. The user can send SMS to as many as 1000 numbers. Further, these numbers can be retrieved from the contact list file in specific format.

CTI (TAPI 2.2)

Computer Telephony Integration allows control of telephone from the PC which includes answering calls or hanging up, transferring, forwarding, conferencing, or placing calls on hold. Third-party CTI software with TAPI2.2 support can be used as medium between CTI application and IP-PBX.

Presence and IM

Built-in presence enables the user to know the status before he make a call. Rich set of presence feature such as 'In a Meeting', 'Out

for a Meal' in addition to basic presence 'Available', 'Busy' enhances work force collaboration and quick decision making. IP endpoints supporting SIP presence can share and receive presence information and IM (instant messages) using IP Phone, PC Softphone and Matrix SPARSH M2S - Android/iPhone Softphone Application.

Auto-Attendant

This feature allows the caller to directly reach to an extension without operator's assistance. Different messages like Welcome, Dial-by-Name, Dial Extension, Busy, No Reply, Wrong Number Dialed and Transferring to the Operator are played according to the situation.

Department Call

This feature allows the caller to make a department call by dialing the department code and get response from one of the department group members. Such 16 department groups can be formed and each department is assigned an access code called department code.

Enterprise Directory

ETERNITY LE offers memory space of 900 numbers, where frequently called numbers can be stored along with the name. User can dial any of these numbers with an access code followed by an index number. DKP users have the flexibility of dialing directly by name and hence, are not required to remember index numbers.

External Music Port (AIP)

It allows an external music source to be connected to ETERNITY LE. Desired music or jingle can be played while a person is kept on hold.

Paging Port (AOP)

A Public Address System can be connected to this port which allows any station user to make announcements on external speakers.

Call Back on Trunk

This feature offers automated response to mobile workers. The moment a pre-defined user leaves a miss call on system trunk line; ETERNITY LE initiates a call back to the user. Once authenticated, the user gets direct access to other ETERNITY LE extensions, operator, system trunk resources as well as all the utility features.

Emergency Conference

In cases of emergencies, consultation is often required between groups of personnel. A predefined group of extension can be connected in a conference, just pressing the pre-defined feature code.

Live Call Screening

The DKP users can listen to an incoming voice mail message for the first few moments. This VMS feature lets the user determine whether it requires his attention or not, giving him the option to either talk to the caller or divert the caller to voicemail at that very moment.

CLI based Routing

The dedicated code detector circuits identify the Caller Line (trunk call) and route the incoming call directly to the respective users (DKP/Analog/IP User), if the incoming number matches with CLI table entries. As many as 2000 such external numbers can be programmed in ETERNITY LE. DKP Users can see the displayed caller name, if programmed accordingly.

Return Call to Original Caller (RCOC)

ETERNITY LE can be programmed to log unsuccessful calls with details like caller number, dialed number and time of call in case the called person does not attend the call. With these details available, if a call back is received from any of the called number, the call will be directly routed to the original caller.

This feature reduces communication delay and eliminates the need for operator assistance to redirect the call. ETERNITY LE logs all unsuccessful calls from GSM, T1/E1/PRI, BRI and VoIP (SIP) trunks of the PBX.

Voice Mail System

ETERNITY LE card VMS16 is a full-fledged Voice Mail System designed to provide a variety of voice applications usually offered by any external Voice Mail System. The VMS card utilizes an external USB memory as a storage media. The default 4 GB USB drive supports up to 72 hours of recording, which can be extended to 576 hours by using 32 GB USB drive. The 16 ports VMS card supports dedicated mailbox for different type of extensions (Analog/Digital/IP) to enable voice mailbox facility.

Attend up to 16 calls simultaneously with flexibility of routing callers to desired extension or delivering information depending upon the selection.

Dial-by-Name to reach the intended user.

Selectively allocate Voice Mails to users with the flexibility of customizable mailbox size and greetings for all/selective users.

Group mailbox to share messages between groups.

Access Voice Mail from anywhere with just a phone call.

Password protected secured Voice Mail access.

Record important conversations for future reference.

Live call screening offering the flexibility to screen a call initially and accordingly answer or direct it to the voice message storage.

Redirection of Voice Mails to another extension in case of non-availability.

Tag Voice Mails while forwarding messages to another Mailbox.

Broadcast voice message to a group of personnel.

Distribution lists for delivery of Voice Mails to different set of users or groups.

Message wait indication via ring, change in dial-tone, voice message or message wait lamp.

Notification of a new Voice Mail via email alert or a phone call.

TECHNICAL SPECIFICATIONS

BUILT-IN RESOURCES		
SYSTEM RESOURCES	DESCRIPTION	ETERNITY LE
DKP Ports	Proprietary Digital Key Phones or DSS Consoles	4
RS232C (COM) Ports	SMDR/PMS/CAS Interfaces	2
Analog Input Port (AIP)	External Music Source	1
Analog Output Port (AOP)	Public Address System	1
Conference	Number of Conference Participants (21 Party in a Single Conference)	45
Voice Messages (16 seconds each)	Auto Attendant, Voice Help, Voice Tones	16
Ethernet Port	Web-based Configuration, PMS, SMDR, System Log	1

MECHANICAL PATAMETERS	
Dimensions (WxHxD)	44.85 x 75 x 47.5cm (17.65" x 29.52" x 18.70")
Unit Weight	25kg (55.11lbs)
Shipping Weight	51kg (112.43lbs)
Type of Shipping Material	Palette (Wooden) Box
Installation	Wall Mount, Table Top, 19" Rack Mount

POWER SUPPLY	
Input	48VDC +/- 20%
Power Consumption (Typical with 25% SLT Traffic)	450W
LED Indications	2 LEDs for System Status

ORDERING INFORMATION	
ETERNITY LE	The IP-PBX Platform with 28 Universal Slots
ETERNITY LE Card SLT48	Expansion Card to Connect 48 Single Line Telephones
ETERNITY LE Card PS48VDC	DC Power Supply Card for Hot Redundancy
ETERNITY LE Card CPU	CPU Card for Hot Redundancy
ETERNITY LE SMS	License to Enable SMS Gateway Functionality
ETERNITY LE SMS SERVER	License to Enable SMS SERVER Functionality (Email to SMS and vice versa)
ETERNITY LE HOSPITALITY	License to Enable Advanced Hospitality Features and Functions
ETERNITY LE PMS	License to Enable Communication for PMS Integration
ETERNITY LEIP5/10/50	License to Enable IP Users 5/10/50 (Clients)
ETERNITY LE GATEWAY	License to Enable Universal Gateway Functions
ETERNITY LE QSIG	License to Enable QSIG over PRI
ETERNITY LE CTI Interface	License to open Interface between PBX and Third-party CTI Application

Note: All interface expansion cards of ETERNITY ME are compatible with ETERNITY LE.

ABOUT MATRIX

Established in 1991, Matrix is a leader in Telecom and Security solutions for modern businesses and enterprises. An innovative, technology driven and customer focused organization; Matrix is committed to keep pace with the revolutions in the telecom and security industries. With around 30% of its human resources dedicated to the development of new products, Matrix has launched cutting-edge products like IP-PBX, Universal Gateways, VoIP Gateways and Terminals, GSM Gateways, Access Control and Time-Attendance Systems, Video Surveillance System and Fire Alarm Systems. These solutions are feature-rich, reliable and conform to the international standards. Having global foot-prints in Asia, Europe, North America, South America and Africa through an extensive network of more than 500 channel partners, Matrix ensures that the products serve the needs of its customers faster and longer. Matrix has gained trust and admiration of customers representing the entire spectrum of industries. Matrix has won many international awards for its innovative products.

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