



ETERNITY PLCC SWITCH

The Special Digital EPAX for PLCC Applications

Electricity infrastructure is the lifeline of every modern community, state and country.

Instant, live-wire communication is vital for the people who run and maintain electricity generation, transmission and distribution. They demand a communication system that is reliable, intelligent and flexible. Due to the special nature of their PLCC communication network and application, they need a special product that is designed keeping their infrastructure and requirements in mind.

Introducing: Matrix Eternity – The Special Digital PLCC EPAX for electricity utilities!



Matrix ETERNITY

PLCC Switches are available in three variants:



ETERNITY GE6S

- 6 Universal slots
- Expandable up to 120 Ports



ETERNITY ME10S

- 10 Universal slots
- Expandable up to 324 Ports



ETERNITY ME16S

- 16 Universal slots
- Expandable up to 516 Ports

The PLCC network itself is typical in its architecture and topology. In addition, PLCC users depend heavily on communication to keep the electricity infrastructure run uninterrupted round-the-clock. Matrix Eternity is the result of thorough study of PLCC requirements and many years of experience in designing similar products.

Flexible

Flexibility is the core strength of the Matrix Eternity. Its open, universal slot architecture allows it to be upgraded at any time to adapt to the growth and changes in the PLCC network. Various combinations of cards make it possible to configure Matrix Eternity to match the exact need of a site.

Non-Blocking PCM-TDM Technology

Built on PCM-TDM technology with high density digital switching platform, Eternity provides 100% non-blocking system to perform efficiently in heavy traffic environment. Each interface port has its own dedicated DTMF encoders and decoders to support simultaneous dialing and receiving calls on all the ports. This makes Eternity a truly non-blocking switch.

Integrated

Matrix Eternity provides 4 built-in ports[#] for digital key phones and operator consoles. Multi-party Conferencing Bridge and 256 seconds (16 messages x 16 seconds) Auto Attendant are part of the standard product. Analog Input Port for external music, Analog Output Port for PAS, Digital Input Port for connecting sensors and Digital Output Port for relay control are built-in system. In addition, a Printer Port[#], COM Port, an Ethernet Port and a USB Port make the Matrix Eternity an all integrated PLCC Switch.

Reliable

The Matrix Eternity is designed for industrial applications requiring high reliability. Distributed processing, universal slots architecture, hot-swapping of cards and system log of faults enhance the reliability of the product.

Versatile

Matrix Eternity supports many different types of interfaces on the trunk and the subscriber sides and hence can be connected with diverse networks. It supports Plain Old Telephony System (POTS), FXS, FXO, E&M, GSM, ISDN BRI, ISDN PRI, T1, E1 and VoIP. Analog phones or digital key phones (DKP) can be used by the subscribers.



ETERNITY GE6S



ETERNITY ME10S

TECHNOLOGY

32 Bit RISC Architecture

The Eternity employs a high speed 32-bit RISC processor with 32MB SDRAM and 32MB Flash Memory. This Master processor provides the Eternity enough horse-power to provide real-time response to all the incoming and outgoing calls.

Compact and Sturdy Design

Eternity's compact design leads to smaller foot-print. The wall mountable design is easy to maintain and occupies lesser space. Besides, all the parts have been fixed in specified slots. This 'no moving parts' design leads to higher reliability.



Dedicated DTMF

Matrix Eternity offers dedicated DTMF circuit for each user making it 100% non-blocking even while dialing. This is a critical parameter for organizations expecting heavy call traffic. This is what makes Matrix Eternity a 100% non-blocking system in the true sense.

Distributed Processing

Matrix Eternity employs multiprocessor architecture, wherein each card has its own dedicated micro-controller, EPROM and RAM. This local (Slave) processor is responsible for local processing of events and commands. The master processor manages all the slaves. This technology enhances flexibility and reliability.

High Density Digital Switching

Built on PCM/TDM digital technology, the Eternity ME10S and Eternity ME16S, uses 1024x1024 switching matrix to provide unrestricted communication to all the users simultaneously.

Hot-Swap*

In a high-reliability scenario, the Eternity ME cards can be ordered with hot-swap circuitry. This allows replacing cards without switching off the system and in the process disconnecting all the ongoing calls.

Multi Network Operation

In addition to E&M ports, the Eternity also supports 2Wire Trunk (CO Trunks), GSM, ISDN BRI/PRI, E1/T1 and VoIP network operation simultaneously using respective interface cards. This allows the Eternity to be used as a common switch for PLCC, PSTN, ISDN, GSM and the Internet telephony.

Primary Protection*

With the rack enclosure, the Eternity can be supplied with primary protection, using IPM (Inter Protection Module) that consists of resettable fuses and GD Tubes to be mounted on MDF.

Rack (Cabinet) with Integrated MDF*

The Eternity can be supplied in a custom-made steel rack enclosure designed to accommodate all the internal wiring, MDF and protection providing a neat, protected and reliable installation. Industry standard Krone-type MDF tag blocks are provided to terminate System side wiring and Field side wiring.

Redundancy*#

The Eternity ME10S offers redundancy for its all critical functional cards like Master Card, Switch Card and the 48VDC Power Supply Card. On the failure event of Power Card and Switch Card, the stand-by card takes over without interruption of their functionalities. Whereas, if the active Master Card fails, the system restarts and stand-by card takes over automatically.

Secondary Protection

The Eternity provides built-in secondary protection circuit on each interface ports as per relevant standards at no extra cost.

SLIC based Design

Each Station (Extension) Port uses DSP based Subscriber Loop Integrated Circuit (SLIC), which offers programmable line parameters.

SMT

The surface Mount Technology is the current semiconductor packaging technology that offers reduction in real estate resulting in smaller foot-print and higher density of ports. SMT also ensures reliable performance from EMI-EMC viewpoint.

Standard 19" Sub Rack#

The Eternity ME10S is housed in the industry 19" rugged, powder-coated aluminum sub-rack (System Enclosure) and thus can be mounted in a rack with other data and networking telecom equipment.

Universal Slots

All the expansion slots of Matrix Eternity are universal in nature. Any card can be inserted in any slot and the system will configure it automatically. This scheme eliminates configuration bottle-necks because any slot can be used for SLT, DKP, Analog Trunk, ISDN BRI, ISDN PRI, GSM, VoIP, Magneto, E&M or any other circuit. Thus, allowing flexible configuration.

Web Based System Management

Flexible and user-friendly windows based GUI software, Jeeves helps in programming the features through a web browser like the Internet Explorer. Matrix Eternity incorporates built-in server functionality that is required to access Eternity to program it through the internet. This web based programming feature helps users to configure Eternity from any part of the world once it is connected with the IP network.

INTERFACES

TRUNK (NETWORK) INTERFACES

2Wire Trunks (FXO / CO Lines)

Being Eternity as a universal platform for integration of multiple interfaces, it allows terminating 2W Analog Trunk (CO Lines) to work Eternity as PLCC EPAX as well as conventional PBX simultaneously.

E&M Trunk

Matrix Eternity E&M card provides the interface to PLCC panel. Both E&M Dial-in /Tie line as well E&M Express lines can be interfaced. Eternity supports E&M line with 2W / 4W and Type IV / V. Using E&M interface, Eternity can be deployed in typical power grid network to integrate with routers, VSAT, DACS / Multiplexers, etc.

GSM Trunk (SIM)

Matrix Eternity supports GSM connectivity by means of an optional GSM card. User can dial out mobile number grabbing GSM (SIM) line to avail call cost benefit by calling GSM to GSM.

ISDN Trunk

Eternity can connect ISDN BRI (2B+D) as well as ISDN PRI (23B+D or 30B+D) lines to the system using optional cards. ISDN BRI and ISDN PRI lines can be configured as NT or TE as per application requirement. An ISDN Terminal, Video Phone or LAN can be connected to ISDN port if it is programmed as NT.

Magneto Trunk

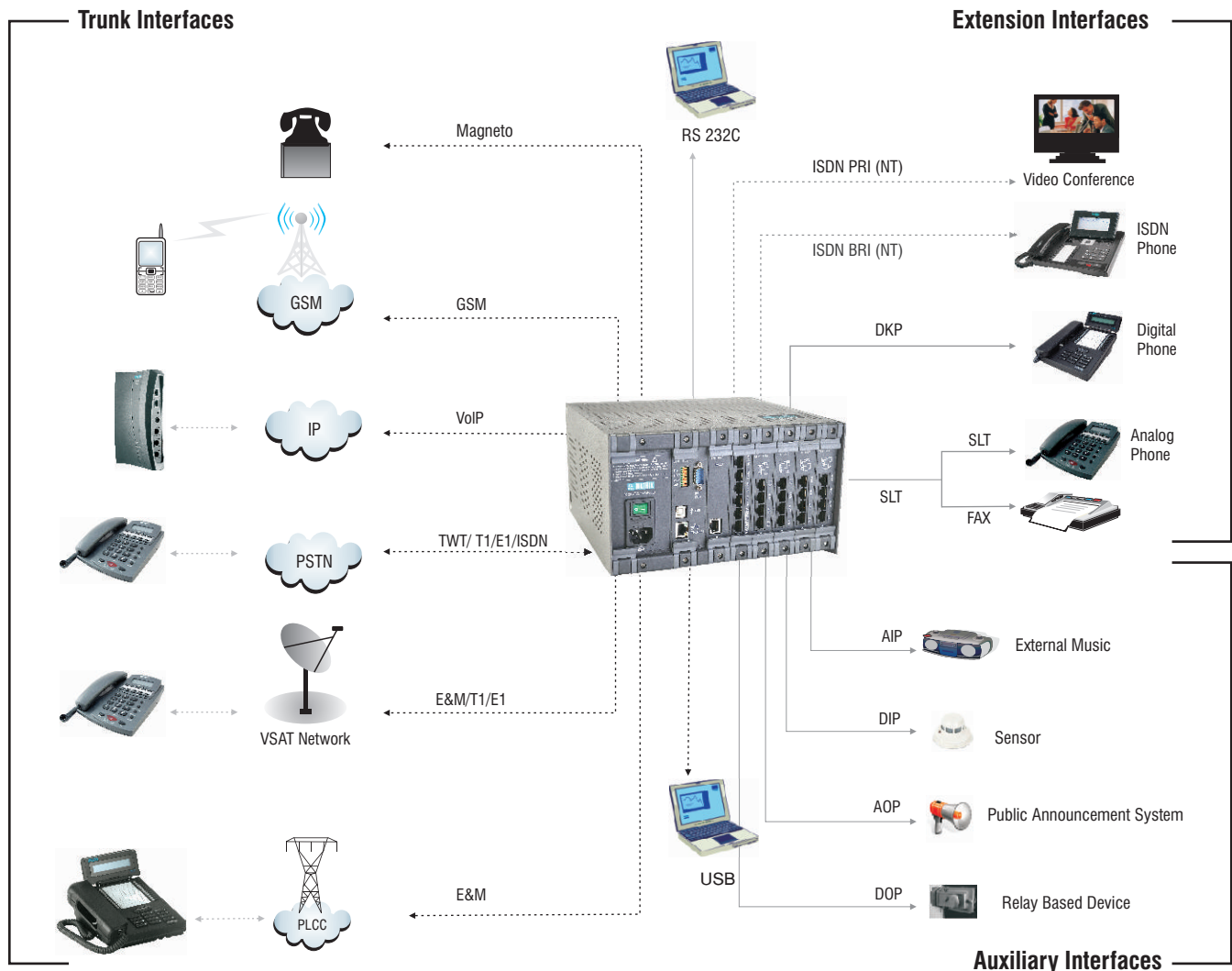
Built-in circuit and logic to generate ringing voltages, allows Magneto phones to be connected directly to the Eternity. It can detect incoming call ring and route the call to any digital or analog station. The station can just lift the handset and talk to the calling magneto phone. Similarly, a user can "crank" outgoing calls on a magneto line.

T1/E1 Trunk

The Eternity offers connectivity based on E1/T1 standards. Using T1/E1/PRI card, Multiple Eternity can be connected over various media like Copper, Fiber, RF and VSAT. This card allows interfacing of Eternity EPAX to Radio Link, STM, xDSL Modem, DACS / Multiplexers etc...

VoIP Channel (SIP)

VoIP Network can be connected to Matrix Eternity through an optional VoIP card. Each VoIP card provides 8 Channels, enables users to call on all 8 channels simultaneously. Eternity is designed to support a maximum of 32 SIP accounts of various ITSPs.



EXTENSION (STATION) INTERFACES

Analog Extension (FXS)

Eternity provides FXS port used for interfacing standard Analog (2wire) Telephone instruments. System can be programmed using any analog telephone connected to FXS port of Eternity.

Digital Extension (DKP)

Developed on proprietary protocol, Matrix Eternity offers Digital Extension port to connect Digital Key Telephone through a 2Wire full duplex Digital Subscriber Network Interface Circuit. EPAX can be programmed using Matrix Digital Key Phones connected on DKP port of system.

ISDN BRI Extension (NT Mode)

Eternity provides ISDN BRI (2B+D) ports using optional ISDN BRI card. This card ports can be configured as NT to use as an ISDN BRI extension. Once configured as ISDN extension, any ISDN terminal (TE) device like ISDN Phone can be connected to it.

ISDN PRI Extension (NT Mode)

Eternity provides ISDN PRI (30B+D/23B+D) ports using optional DS1 card. This card port can be configured as NT to use as an ISDN PRI extension. Once configured as ISDN extension, it can be used for Voice and Data communication like Video Conferencing using appropriate ISDN terminal (TE) devices.

AUXILIARY INTERFACES

External Music Port (AIP)

The external music port allows an external music source to be connected to Matrix Eternity. The desired music or jingle can be played while a person is kept on hold.

Public Address System Port (PAS) (AOP)

The Public Address System Port allows any station user to make public announcements on external speakers.

Relay Port (DOP)

Eternity provides a solid state digital out-put port for connecting relay based devices for various controlling applications.

Security Dialer Port (DIP)

Matrix Eternity allows you to connect any type of sensors to its digital input port (DIP). In case of emergency, the Eternity dials 3 different pre-defined numbers and plays a pre-recorded message. A hooter can also be activated in case of emergency.

PLCC FEATURES

Alternate Routing

In typical PLCC network, there can be multiple paths that a call can take to reach the destination. The Eternity has the facility of selecting an alternate route if a particular route is busy.

Compander Control Signal (CCS)

To improve signal to noise ratio in a PLCC network, speech signals are compressed at source and decompressed at the destination. This process is activated by the Comander Control Signal (CCS). CCS can be activated in the Eternity at originating and destination stations. CCS can also be activated for transit calls. CCS signal is provided for each E&M port.

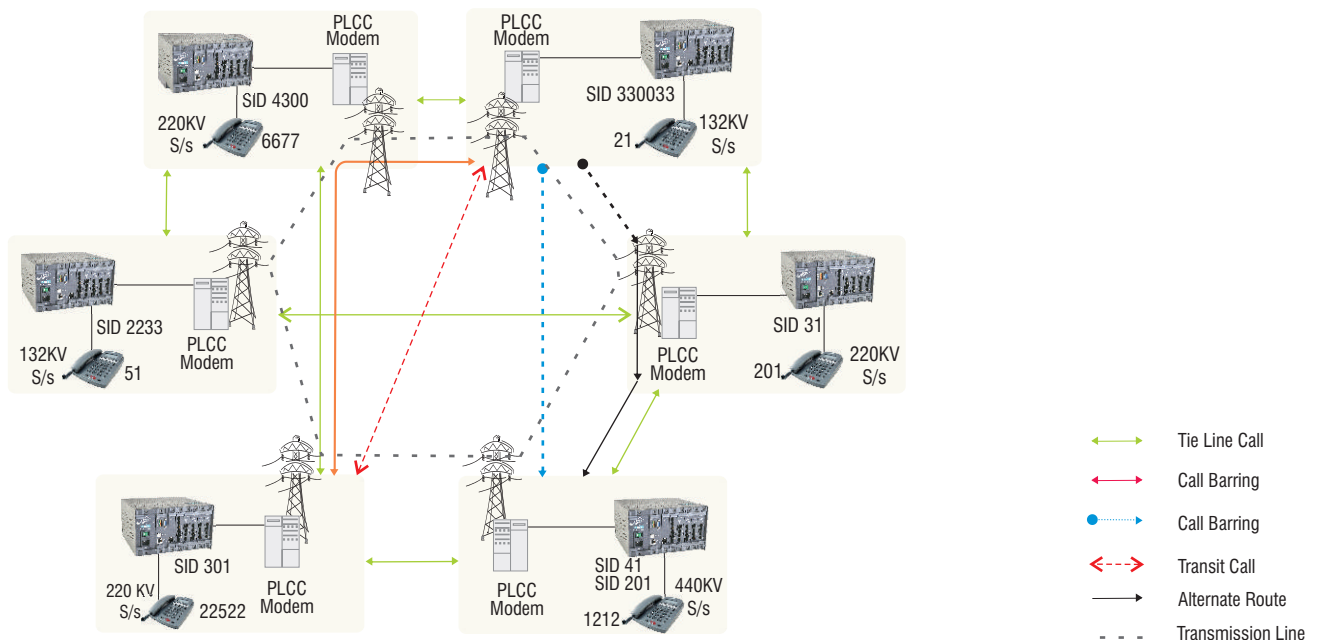
Destination Restricted Dialing

This feature restricts all users of the system to make a call to certain destination even though trunk line is available to that destination. This feature blocks all the calls initiated by all users to specific destination.

Disable Out-of-Order Trunk

In the event of faulty trunk line, Eternity allows user to disable the trunk and take it out of service to avoid routing of calls on such trunk lines.

PLCC Calling Features & Numbering Plan



Field Programmable

The hardware and software configuration can be changed in the field to adapt to the dynamic field requirement. Capacity, Port configuration and programming can be managed at the installation site. No specific tool is required while expanding the configuration on field.

Flexible Extension Numbering Plan

The Eternity offers flexible numbering plan for all the stations users. These can vary from 1 to 4 digits. It is also possible to program few ports with 2 digits and others with 3 or 4 digits. Even overlapping numbers is also possible.

Flexible Station ID

In a PLCC network, each EPAX is given a Station Identity (SID). SID is used to route a call to its correct destination. Eternity allows setting of SID to any length from 1 to 6 digits. This allows seamless integration of the Eternity in any existing PLCC network.

Multiple Station ID

The same Eternity can be programmed with multiple Station ID (SID). This provides flexibility of connecting the Eternity with Multiple PLCC networks.

Priority

In a PLCC network it is desired that calls from selected user have precedence over other user. Such important user may be allowed to interrupt an ongoing call to request them for release of current call. The Eternity offers priority to such users. There are 10 different levels or priority to cover entire hierarchy of any organization.

Programmable Pulse

Eternity provides users a flexibility program the Engage Pulse, Released Pulse, Ringer Pulse and Dialed Digit Pulse to match with the pulses of PLCC network wherein it is getting installed.

Programming Options

Eternity provides multiple options to user for programming the system. EPAX can be programmed using normal analog telephone, digital key phone or using web based GUI tool from PC.

Remote Programming

Matrix Eternity can be engineered for change in its programming from a remote location also. This does not even require a PC or any other specialized device at the site. EPAX can be programmed remotely once it is connected with CO lines or with internet. Remote user can administer the system by Web based Management or by using Telephone, which saves time and cost in providing essential technical support.

Routing Table

Each call in a PLCC network is routed to its correct destination through programming of routing table. The Eternity allows the user to define 255 different routes in its routing table.

SMDR Reports (Outgoing, Incoming and Internal)

The Advanced Search Module allows detailed reports for each outgoing, incoming and internal calls, to be generated and printed for better analysis. Filters for selecting what calls to be stored and filters for different types of analysis are available in Matrix Eternity. Separate buffer capacity of calls is available each for 6000 outgoing, 5000 incoming and 1000 internal calls.

System Activity Log & Report

The Eternity records important events and exceptions within the system in its internal log file. Events like System restart, Card going faulty, Port getting hang, etc. are noted in this log. In turn, this log can be printed or transferred on a PC for further review and archiving. System Activity Log can be printed in online mode by connecting a parallel or a serial printer on the respective ports.

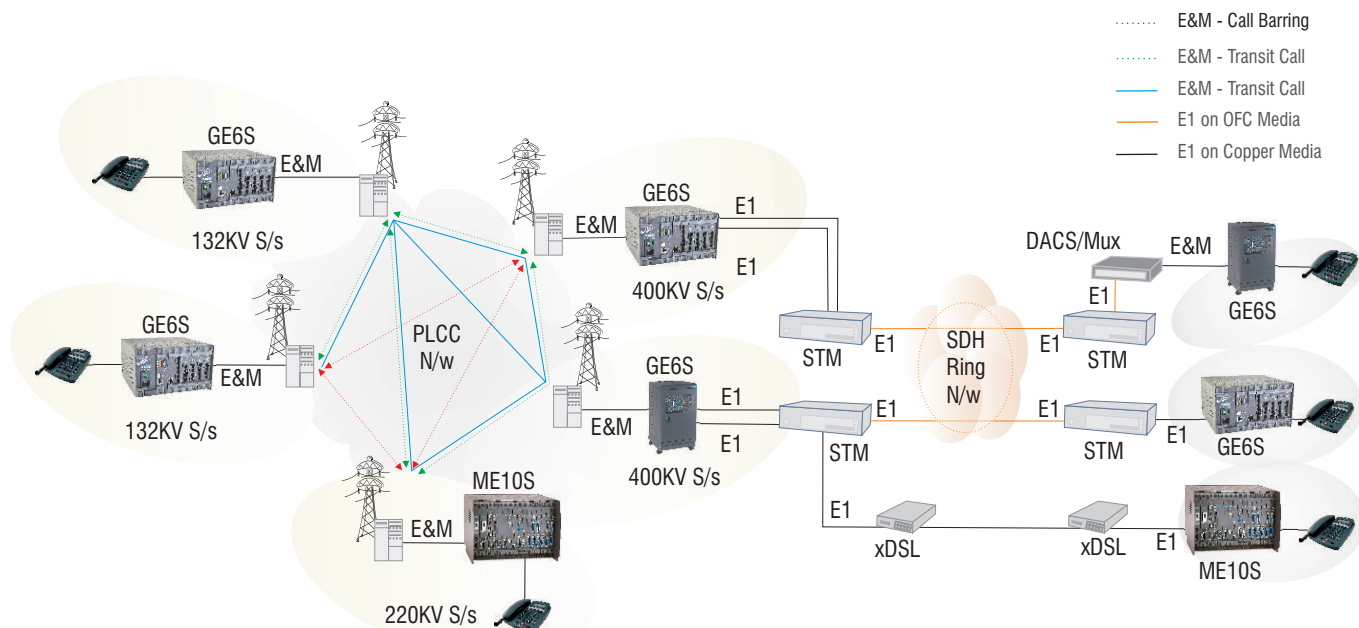
System Fault Alarms

Failure of card or such problems can be annunciated on the relay port provided on the Master (CPU) card of the Eternity. Hooter or Lamp can be connected using an appropriate external relay to draw attentions of the operator or the engineer so that corrective actions can be taken.

System Fault Log

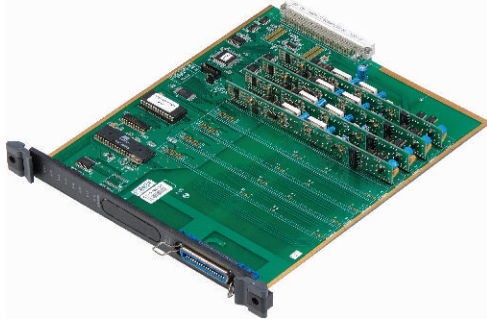
Eternity functions like a watch dog, whereby it maintains a log of all faults occurring in system. Various faulty events like Card Absent, RTC Failure, Ds1 the Signal Loss, BRI Signal Loss, and DKP/SLT absent etc. are registered in the fault log. In such events Eternity activates the buzzer.

Integrations of Eternity in PLCC and Optical Fibre Network



Transit Barring

A caller has many options in selecting a route while calling the desired destination in a PLCC network. If the designated route is busy, call may be routed through an alternate route or a system, which is meant for other locations. Eternity can block transition of such unauthorized routing of calls. This streamlines the flow of the traffic only on the designated routes.



Trunk Restricted Dialing

Eternity gives flexibility to group the trunks to avoid traffic on critical trunk/routes. Feature allows certain trunks to keep reserved for specific call traffic so that ordinary traffic does not flow through such trunks/routes. It helps user to balance the traffic evenly on all trunks.

User Restricted Dialing

User restricted dialing feature blocks a call originated from specific user for specific destination. When user tries to call specific destination system rejects the call, allowing other user to call same destination.

■ KEY FEATURES

Allowed / Denied List

This feature can be used to restrict the long distance and international calls made by the user while allowing them to dial few numbers of the same category from the allowed list. It uses number specific criteria for allowing or denying the call. System supports such 32 lists in both allowed and denied types. Each list supports a maximum of 256 numbers of 16 digits each.

Auto Attendant Functionality

The built-in auto-attendant feature performs the task of an operator by greeting the external caller and transferring call to the desired station. Eternity can greet the five calls simultaneously.

Boss Ring

The system can be programmed to have different ring cadences to the user depending on the call origination. Eight types of ringing cadences can be set for different call types like internal calls, calls from boss, alarms, auto redial etc. This feature is set to alert the users about the type of call they are receiving.

Call Accounting System Interface

Matrix Eternity offers interface for most types of call Accounting System protocols available world-wide. This helps in easy integration of the third party call accounting software with Matrix Eternity.

Call Duration Control

An effective cost control feature that allows you to have user specific call duration control with multiple options for each type of calls. Feature includes incoming, outgoing, intercom, long distance or international call to be disconnected after a pre-defined duration.

Call Progress Tones & Rings

Eternity provides Call Progress Tones like Dial Tone, Ring Back Tone, Busy Tone etc. Country specific tones can be selected to match the tones of the country wherein it is getting installed. Similarly, ring cadences can also be selected.

Caller Line Identification (CLI)

Matrix Eternity offers CLI features on both DKP and SLT. It offers the facility to detect CLI on normal telephone lines, ISDN lines, GSM lines and VoIP lines. It can detect both, DTMF and FSK signals for CLI. You can get CLI of external number, internal number and also CLI on transfer of calls. If programmed, even the name of the caller can be displayed on the DKP Matrix Eternity also offers the flexibility of programming the CLI feature for each extension individually.

Conference (Dial-in)

This unique feature allows participants of a conference to dial in to a live conference at a scheduled time. Using the Dial-in feature, the users can directly enter the conference by entering their passwords.

Conference (Multi Party)

Matrix Eternity possesses a PCM Conference Call Circuit that uses a total of 8 digital conferencing circuits. Eternity ME supports of a maximum of 21 parties while Eternity GE supports of a maximum of 15 party in a single conference without affecting the speech levels. This feature allows even multiple conferences to be conducted simultaneously. Dial-in Conference is also possible.

How Outward Dialing

This function is of great use for those stations which make more trunk calls than internal calls. As soon as the station user picks up the receiver, he/she gets access to the desired trunk line, saving time and effort. This function also offers a variant whereby a specified telephone number may be dialed either immediately after the handset is picked up or after a pre-defined delay.

LCR

It is a unique function designed using structured programming. It selects the most cost effective trunk from the allotted trunks to make outgoing calls depending upon the time of call and the destination number leading to major savings. Four options are available for least cost routing, based on (1) Time, (2) Number, (3) Combination of Time and Number (4) Service Provider to Service Provider. Even combinations of the above parameters can be defined for least cost routing.

Paging

Messages can be announced to a larger number of people just by lifting the phone and dialing a specific code. Mass communication at its best!

Voice Mail System*

Matrix Eternity supports Voice Mail System through an optional VMS card. A voice mail system that provides efficient call management and accurate messaging can work wonders for your organizations productivity, by saving precious time of employees, yet allowing a non-interfering work environment. Key features like Message Wait Indication, Call Taping, Conversation Recording, Live Call Screening etc are supported by the VMS card.

Voice Message Applications

Matrix Eternity has built-in voice modules. They can be used for various voice applications like Station Greetings, Reminders, Toll Control, Multiple Trunk Auto Attendant, DID.

* Optional # Model Dependent

ETERNITY PLCC EXPRESS SWITCH

Many PLCC networks use point-to-point lines for inter-connecting important locations. Each node is connected with all other nodes using direct links in a mesh network topology. This eliminates delays in routing a call due to intermediate transit switching and dialing. As a dedicated link is reserved between two nodes, the route is never busy. This provides instantaneous connectivity between all the important locations like head offices, load dispatch centers (LDC), control rooms, generation plants, and major substations (400KV/220KV). These lines are known as Express Lines or Hotlines.

Traditionally, each of these express lines is terminated on a separate phone or a console of 4 to 8 lines. Switching between lines is achieved using obsolete relay panels. Moreover, all the cables are taken right up to the desks of senior officers and managers in their offices and control rooms. There is a way of easy identifying each line. Call cannot be transferred easily and conferencing between multiple locations cannot be conducted. In short, many of the existing solutions are unwieldy and unreliable.

Matrix Eternity offers a special additional software module to transform it as an efficient Express Switch. Once this module is activated, the express lines can be terminated on the Matrix Eternity. Digital key phones with Direct Station Selection (DSS) keys can be used by subscribers to make and receive calls at just a touch of a button.

Eternity as a PLCC Express Switch offers the following distinct advantages:

The system indicates the status of call being received or made, station busy etc. on a convenient LCD screen of DKP and dual colour LEDs on the DSS64. Most importantly, any number of express lines can be connected and accessed through a single DKP.

Ease of Use

Making and receiving calls from the key-phone is intuitive and easy. Its LCD displays the name of the called or calling location. DSS keys allow single touch access to all the locations. Dual color LED is provided for each location showing elaborate status of the line. Talking is possible through the handset or the built-in speaker-phone. The status of all the ports is visible to all the users.

Extended Coverage

As the digital key-phones use just a single pair of wires for speech, data and power, it is easy to extend them to offices and residences of concerned authorities living next to the site. Thus these important people can attend to emergencies even during night hours and holidays.

Flexibility

Ringer and speech volume can be adjusted by the user to suit his tastes. Ring tune and cadence can also be programmed to differentiate between different phones ringing simultaneously. In fact, different key-phones can have different keys assigned for different locations. This allows dividing the total traffic between two key-phones. Flexible hunting groups with simultaneous and round-robin rings provide flexibility of placing a call in a desired sequence.

Integrated Switch

The Matrix Eternity PLCC Express is the superset of all the switching functions. It has capabilities to work as a PLCC EPAX with transit functions. It also performs the role of a normal office PBX. Hence in the cases where a customer does not wish to invest in separate switching infrastructure of PLCC Express, PLCC EPAX and PBX, the Eternity can be configured to handle all these functions.

Reliability

The digital key-phones use just a single-pair of wires to transport speech, data and power eliminating bulky and unreliable wiring. The modular, centralized and software driven architecture of the Eternity provide dependable platform for PLCC Express applications. Moreover, redundancy of critical hardware blocks are provided to meet needs of mission-critical applications.

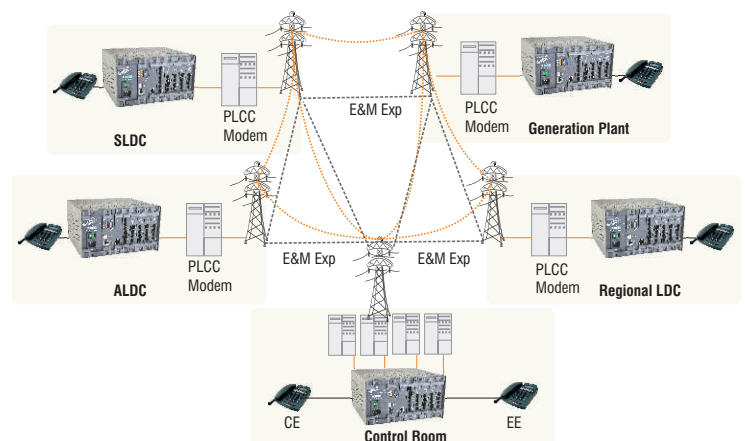
Universal Access

If need be, the Eternity can be configured to provide express lines access to normal subscribers using analog phones. For making an outgoing call, these users need to dial just the trunk port number and call would be placed on the other end of the express line. Incoming calls from the express lines can be routed or transferred to these phones. If the phone have CLIP feature, they can see the port number and even the name of the remote location calling.

Value Added Features

Call Transfer, Call Toggle between two calls and Multi-Party Conference are just few of the many value added features possible. These functions help to reduce the time taken to arrive at an important decision and contribute to the quality of the decision. These features can be programmed on the DSS keys and hence are easy to use.

Integration of Eternity in PLCC Express Line Network



CE: Chief Engineer
EE: Executive Engineer
LDC: Load Despatch Centre

— E&M - Express Lines

DIGITAL KEY TELEPHONES

'EON', the Digital Key Phone, is a versatile, feature-rich, easy to use station. It supports a host of additional features providing the user fast access to the functions of Matrix Eternity at a single touch of a button. Matrix Digital Key Phone (DKP) is available in three models - EON48P, EON48S and EON42S. All models are available in two colour variants - Black and White.



EON48P



EON48S



EON42S

EON48 KEY FEATURES

- Full-Duplex Speaker Phone
- 2x24 and 6x24 LCD with Swivel, Backlite and Contrast Control
- Message Wait Lamp
- Ringer Lamp
- 16 Direct Station Keys
- 17 Touch-Sense Keys for Features
- More Direct Station Keys on Optional Attachment (DSS16x4)
- Upright and Horizontal Angles
- Desk-Top and Wall Mounting

KEY FEATURES

Adjustable Ringer Volume and Speech Level

User has the option of adjusting the ringer volume level as per the requirement. The added advantage is that both receive and transmit speech levels can also be adjusted by the user.

DSS Keys

The EON offers DSS keys (24 in EON42S and 16 in EON48) that can be programmed for each user, to access trunk line, SLT, DKP and even features, at a single touch of the key.

Executive and Operator Functionality

The EON provides user functionality of Operator or Executive by means of dedicated keys to perform specific task by single touch of buttons.

Last Dialed Calls

Last dialed 16 calls can be stored.

Message Paging

User of the EON can page different pre-defined messages, like Meet Me, Congratulations, Meeting Today, etc., to other DKP users. These messages can be programmed by the system engineer.

Missed Calls

Details of last 20 missed calls can be viewed on the LCD of the EON. A useful feature for the user to find details of calls missed.

Tri Colour LEDs for Port Status

Status of other extensions (DKP and SLT) and trunk lines can be displayed on the Digital Key Phone. The status of the user's extension as well as that of other extensions or trunks can be known through the LEDs.

DSS CONSOLE



EON48P with DSS16x4

DSS16x4 is an attachment to Eon48S and Eon48P. It offers 64 Direct Station Selection Keys.



ABOUT MATRIX

ISO 9001 Company, Matrix is a leader in Telecom and Security solutions for modern businesses and enterprises. An innovative, technology driven and customer focused organization; the company 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 telecom products like IP-PBX, Universal Gateways, VoIP Gateways and Terminals, GSM Gateways, Access Control and Time-Attendance Systems 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 more than 150,000 customers representing the entire spectrum of industries. Matrix has won many awards for its innovative products.



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