## ETERNITY
IP-PBXs for Enterprises

All progressive organizations are moving to IP-PBXs for the obvious benefits of flexibility, productivity, integration and cost. While migrating to IP telephony, it is important to consider two critical requirements – mobility and connectivity.

Pulse Supply presents ETERNITY – a range of IP-PBXs that offers seamless mobility and universal connectivity. Matrix IP-PBXs offer connectivity to all-pervasive legacy and new-generation wireless telecom networks like POTS, ISDN, T1/E1, GSM/3G and VoIP. These workhorses offer universal connectivity to all these networks and facilitate smooth and natural migration to the new-age IP infrastructure. Along with various cutting-edge functions, ETERNITY offers various value added features like using mobile phones as PBX extensions. This enables the user to make and receive calls and use most of the PBX functions like transfer, forward, voice mail, directory and conference using their mobile phones, from within and outside the office.

**45-Party Conference**
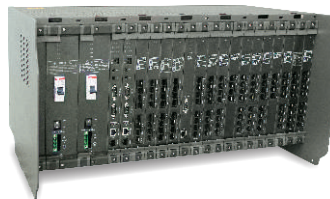
**CTI**

**IP Telephony**

**Mobile Extensions**

**Email to SMS**

**Voice Mail**

## ENTERPRISE IP-PBX PRODUCT RANGE



**ETERNITY GE**
(Up to 240 Users)



**ETERNITY ME**
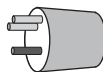(Up to 512 Users)



**ETERNITY LE**
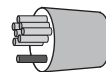(Up to 1344 Users)

## CONNECTIVITY OPTIONS



Fixed Telephony (CO/TWT)

E&M

ISDN BRI
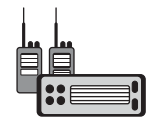
ISDN T1/E1 PRI

SIP Trunking (VoIP)

Mobile Voice GSM SIM

Radio

| **RELIABILITY** | **BUILT-IN FUNCTIONS** |
|---|---|

### RELIABILITY

- 100% Non-blocking
- Hot Standby
- Hot Swappable Expansion Cards
- CE
- RoHS
- TEC

### BUILT-IN FUNCTIONS

- Auto-Attendant
- Call Detail Records
- Caller Line Identification
- Global Directory Dialing
- Least Cost Routing
- Call Budgeting

### SCALABILITY

- ETERNITY GE- up to 240 TDM and 500 IP Users
- ETERNITY ME- up to 512 TDM and 999 IP Users
- ETERNITY LE- up to 1344 TDM and 1500* IP Users

### MOBILITY

- GSM/3G Connectivity
- Automatic Direct Inward System Access (DISA)
- Android/iOS based Smartphones as Office Extension
- On the Move Office Communication

### INTEGRATION

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

### PRODUCTIVITY

- Auto-Redial
- Auto-Answer
- Multi Party conference
- Conference Dial-in
- Presence & IM
- Memory Dialing
- Return Call to Original Caller
- CLI based Routing

*From Onwards ENTERNITY LE V12R5.1.3, VoIP Card V2R6

## USER TERMINALS

| DIGITAL KEY PHONES | IP PHONES | ANALOG TELEPHONES | PC SOFTPHONES | MOBILE EXTENSIONS | IP-DECT |
|---|---|---|---|---|---|

# TARGET CUSTOMERS

CORPORATE OFFICES   HOTELS-MOTELS   BUILDING INTERCOM   SERVICE PROVIDERS   DEFENSE   PLCC

# APPLICATION DIAGRAM

**CORPORATE IP PBXs**
- VoIP, GSM, POTS and ISDN
- Analog, Digital and SIP Phones
- SMS and Voice Mail
- Extensions on Smart Phones

**TERMINALS**
- IP/SIP Phones
- Digital Key Phones
- Analog Phones
- Android/iOS Mobile Extension

**BRANCH OFFICE CONNECTIVITY OVER IP**

**VoIP**

**HOTEL-MOTELS**

**BUILDING INTERCOM**

**PLCC EPABX**

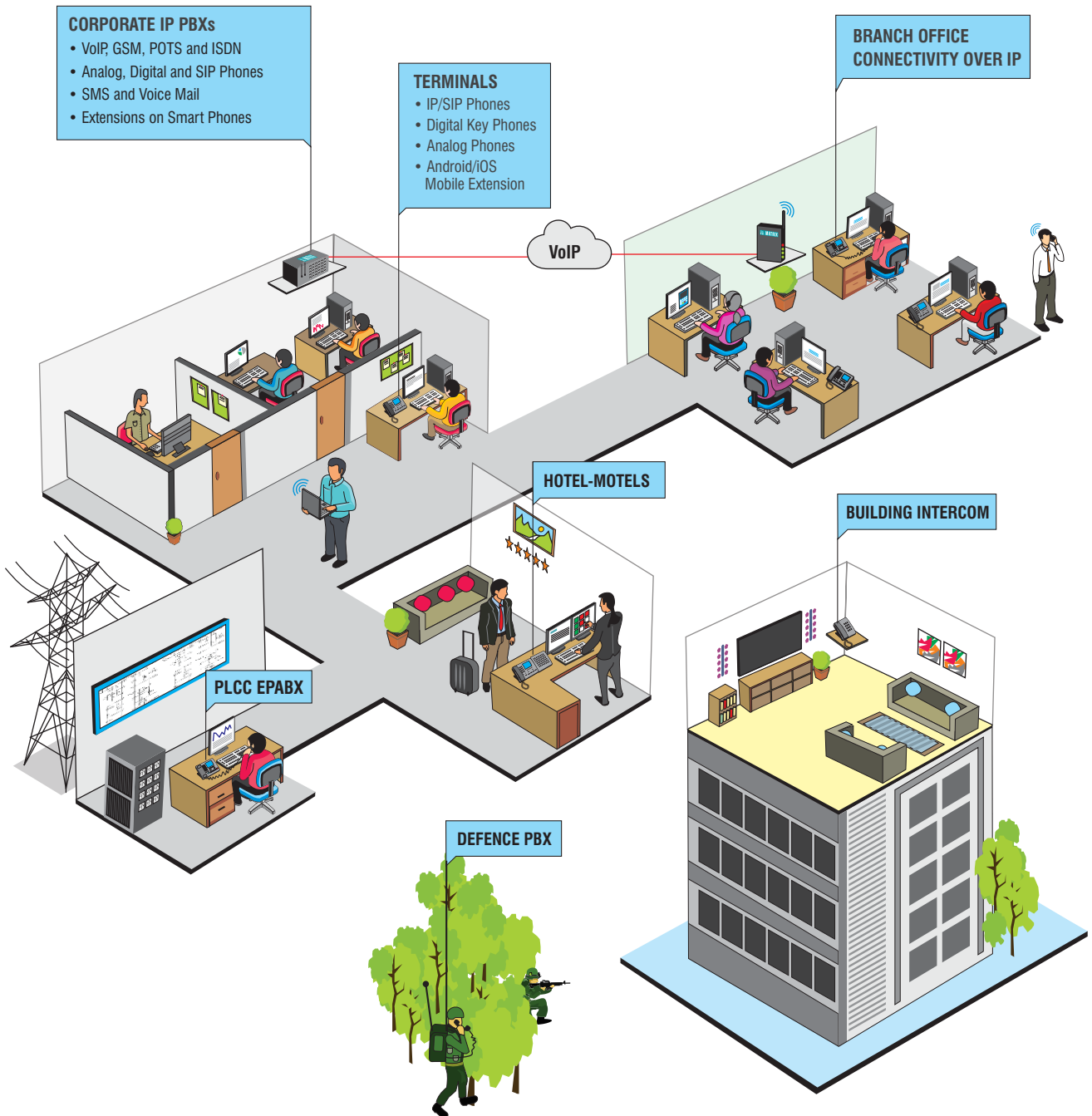**DEFENCE PBX**

# KEY FEATURES

### Auto-Attendant
This feature allows the caller to directly reach an extension without operator assistance. Different messages like Welcome Message, Dial-by-Name, Dial Extension, Busy, No Reply, Wrong Number Dialed and Transferring to the Operator are played according to the situation. ETERNITY can handle 5 callers simultaneously.

### Call Back on Trunk
This feature is used to respond to the specific incoming call on the mobile which was disconnected by the caller. In case, an Incoming call on mobile is disconnected by the caller during period, 'Call Back Timer' configured in the system, the system will initiate the call back from the same port, if the caller's CLI is matching and prefix configured in the 'Trusted Caller List'.

### Call Budget on Trunk and Extensions
It allows setting a monthly call budget for individual for individual trunks and users in order to control the usage. The station can be locked by the system is the user exceeds the call budget value.

### Call Detail Record with Cost Calculation Reports
The Advanced Search Module allows detailed report generation and printing for all outgoing, incoming and internal calls with strong filtering capability and separate buffer capacity for each category-6000 outgoing, 5000 incoming and 1000 internal calls.

### Caller Line Identification (CLI)
ETERNITY offers CLI features on IP Phone, DKP and SLT. It offers the facility to detect CLI on analog telephone lines, ISDN lines, GSM lines and VoIP lines. It can detect both, DTMF and FSK signals for CLI. User can get CLI of external number, internal number and also CLI on transfer of calls

### 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 or SLT, if the incoming number matches with CLI table entries.

### Conversation Recording
The user can use VMS to record his conversation in his mailbox. This helps the user to keep record of the points discussed and agreed upon with business associates. It is a boon for the businesses which works on verbal commitment. This feature should be used in accordance with the local laws.

### 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 TAPI 2.2 support can be used as medium between CTI Application and IP-PBX.

### Email to SMS
It enables users to send SMS from their email client using GSM SIM of ETERNITY. It also supports Bulk SMS with flexibility of assigning it to selective users. The Bulk SMS user can send as many as 1000 numbers which can be further retrieved from the contact list file in specific format.

### External Music Port (AIP)
It allows an external music source to be connected to the ETERNITY IP-PBX. Desired music or jingle can be played while a person is kept on hold.

### Paging Port (AOP)
The Public Address System can be connected to this port which allows any station user to make announcements on external speakers.

### Handover and Handoff support with Mobile Client
ETERNITY allows handover of an active Mobile Client call from Wi-Fi network to the cellular number enables users when leaving/problem with 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.

### Hot-Swap
This is a special functionality that allows replacement of a faulty card, without switching-off the system.

### Least Cost Routing (LCR)
This unique function, designed using structured programming, selects the most cost effective trunk from the allotted trunks to make outgoing calls depending upon the time of call and the destination number dialed, resulting in substantial savings.

### Live Call Screening
The Customized Information Exchange Protocol allows DKP users to listen an incoming voice mail message for the first few moments. This feature lets the user determine whether it requires his attention or not, giving him the option to either talk to the caller or store the message in the mailbox for later retrieval.

### Logical Partitioning
In some countries, routing of calls from VoIP to PSTN or Mobile Network is not allowed, whereas in other countries, it is allowed. With this feature, it can be possible to fulfill telecom regulatory requirements of different countries. It is a feature by which routing of calls from VoIP and other Trunk ports, like CO, T1/E1/PRI, BRI, E&M and GSM calls can be selectively restricted.

### Multi-Party Conference
ETERNITY GE/ME/LE supports built-in 15-party/21-party/45-party conference respectively 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.

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

**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.

**Redundancy**

ETERNITY ME and ETERNITY LE offers redundancy for all its important functional blocks – CPU and Power. It supports duplication of CPU and PS48VDC card. In case of failure of Power or CPU, the respective stand-by card takes over smoothly. This change over is automatic and transparent without any disruption of on-going calls.

**Return Call to Original Caller (RCOC)**

ETERNITY IP-PBX can be programmed to log unsuccessful calls in RCOC table with details as caller number, dialed number and time of call; in event the called party is busy or does not attend the call. With these details available, if a call back is received from any of the called number, it is possible to route the call to the original caller who attempted a call.

**SNMP**

ETERNITY supports SNMP, which helps to manage and monitor network elements, audit network usage and detect network faults. SNMP manager supports SNMPv1/v2c/v3 versions. This function is soon to be added in ETERNITY.



## PMS INTERFACE

hospitality solutions have built-in hotel features and ready integration with third-party PMS. PMS can interface with Matrix ETERNITY by serial communication or via Ethernet.

**Following is the list of PMS/HMS with ready integration to Matrix hotel-motel IP-PBX.**

• Micros Opera
• IDS
• RMS
• eZee Technosys-eZee
• Auto Clerk
• Acumen Software-HOTSOFT
• cHaR
• Power Brain-Power HMS
• Infor Classic Starlight

## CAS INTERFACE

Call accounting software facilitates easier and faster call cost calculation and helps in monitoring telephony costs. Matrix offers built-in call accounting software but hoteliers may intent to use third-party call accounting software. Following is the list of CAS with ready integration to Matrix hotel-motel PBX.

• HOBIS A/B
• Micros A/B
• Hilton
• Xiox



## RADIO INTERFACE

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.

**Interoperable with Radios**

• MOTOROLA GM338
• TADIRAN RT 6001/PRC 6020 (HF)
• TADIRAN RT-7330M (VHF)
• STARS V MKII 25W
• LUP 322 (VHF)
• HYT TM-610
• ICOMM F110

**VOICE MAIL SYSTEM**

ETERNITY 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.

**VOICE MAIL FLEXIBLE FEATURES**

| |
|---|
| 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 Mail box. |
| Broadcast voice message to a group of people. |
| Distribution lists for delivery of Voice Mails to different set of users or groups. |
| Message wait indication via ring, change in dial-tone, voicemessage or message wait lamp. |
| Notification of a new Voice Mail via email alert or a phone call. |

# RESOURCES

| SYSTEM RESOURCES | ETERNITY GE | | ETERNITY ME | ETERNITY LE |
|---|---|---|---|---|
| | GE 6S | GE12S | ME16S | |
| Universal Slots | 6 | 12 | 16 | 28 |
| CO Lines | 64 | 64 | 128 | 128 |
| BRI Ports | 24 | 32 | 32 | 32 |
| T1/E1 PRI Channels | 6 | 8 | 8 | 24 |
| GSM/3G Trunks | 24 | 40 | 64 | 64 |
| VoIP Trunks | 16 | 16 | 32 | 32 |
| Analog Extensions | 120 | 240 | 512 | 1344 |
| Digital Extensions | 96 | 96 | 128 | 128 |
| IP Extensions | 500 | 500 | 999 | 1500* |
| Power Supply options | 100-240VAC, 47-63Hz or 48VDC | | 100-240VAC, 47-63Hz or 48VDC | 48VDC±20% |

*From Onwards Eternity LE V12R5.1.3, VoIP Card V2R6

# CUSTOMER REFERENCE

## Corporate
- PepsiCo
- Larsen & Toubro
- Torrent
- Adani
- Kirloskar Systems Ltd.
- Crompton & Greaves

## Manufacturing
- ABB
- Cadila Pharma
- GEC Alstom
- Gammon India
- Dupont
- Maruti Suzuki India Ltd.

## Telecommunication
- Airtel
- Aircel
- Reliance
- TATA Teleservices
- MTS

## Hotel-Motel
- Cambay Hotels & Resorts, India
- Hotel Le Grande, India
- Hotel Posta, Como, Italy
- Royal Orchid Hotels, India
- Hotel Schiller, Cervia, Italy
- Hotel Regal Palace, India

## Government Entity
- Airport Authority of India, Chennai
- Department of Space, Ahmedabad
- Indian Defense
- Botswana Police, Botswana
- Bharat Petroleum
- Indian Oil Corporation

## Education
- Indian Institute of Technology, Mumbai
- National Institute Of Technology, Agartala
- Institute of Integrated Learning in Management (IILM), Noida
- University of Pune

*For further information, please contact:*

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*Due to continuous technology upgradations, product specifications are subject to change without notice.*