Essentra™ BAX: Application Server

Service providers are looking for ways to leverage the burgeoning broadband access market in order to introduce new revenue generating IP communications services. Enabling the delivery of residential and hosted enterprise VoIP services over Mobile, WiMAX and fixed Line broadband infrastructures, VocalTec's Essentra BAX Application Server helps service providers take advantage of evolving IP opportunities.

Based on over a decade of leadership in VoIP solutions, Essentra BAX offers service providers an efficient solution for delivering broadband VoIP services, with the capability of scaling up to millions of subscribers. Featuring innovative in-memory data-grid technology, Essentra BAX provides continuous availability and predictable scalability supporting carriers' stringent requirements of service delivery and network planning.

Essentra BAX boasts an extensive set of subscriber calling features including cutting-edge IP features such as click-to-dial, attendant console, auto-attendant and others. For enterprise customers, Essentra BAX supports VoIP virtual private networks (VPNs) and an array of IP-Centrex features. Equipped with a web-based subscriber self-provisioning interface, Essentra BAX enables subscribers to manage their own services, thereby enhancing user experience while reducing operating expenses (OPEX) for service providers.

IMS-TISPAN Ready: Application Server

Features & Benefits

- Broad range of subscriber calling features creating new revenue-generating opportunities

- Hosted enterprise services, serving enterprise customers across distributed networks

- Innovative in-memory data grid technology scaling up to millions of subscribers while supporting the unique requirement inherent to mobile and fixed environmets

- Linear and predictable scalability enabling gradual subscriber growth while maintaining entry-level cost efficiencies

- Carrier-grade availability and site redundancy, ensuring maximum network utilization and service usage

- Fully customizable multi-tier web-based management facilitating configuration and provisioning, while lowering operating costs

- Proven interoperability with leading SIP devices and Megaco/H.248 access gateways

VocalTec

Expanding the Borders of VoIP
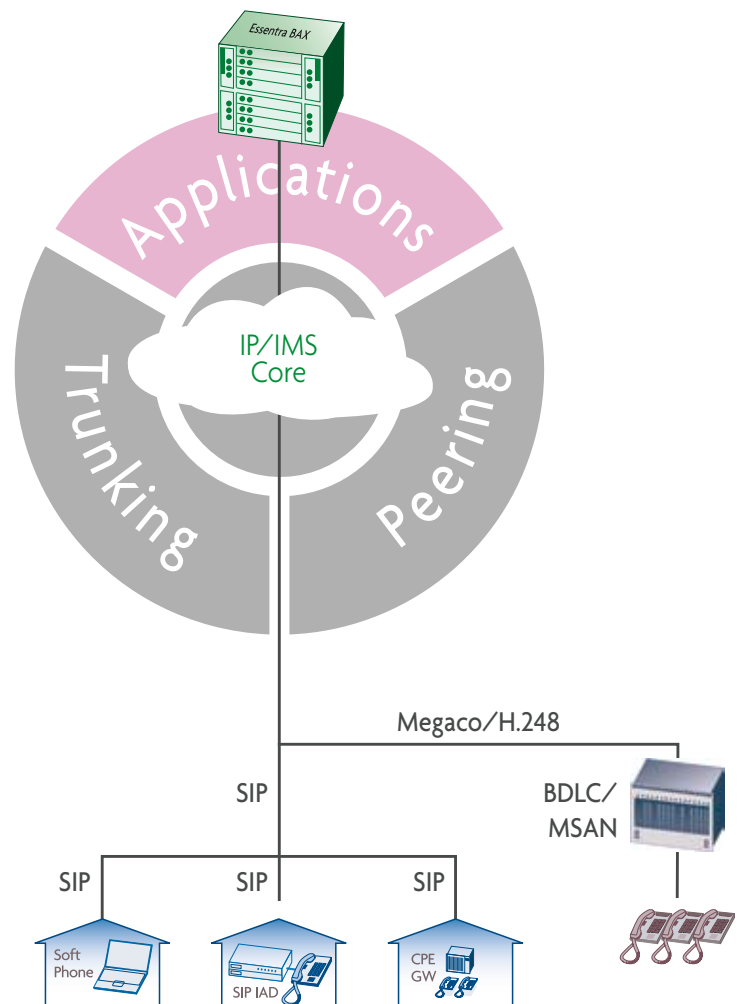
VoIP Protocols
- SIP B2BUA, SIP Proxy, SIP Registrar, SIP (RFC 3261, 3262, 3264, 3265, 2327, 2976, 3326, 3842, 3323, 3325, 3515)
- Megaco/H.248 Line side control of access gateways for supporting legacy POTS deployments connected to BDLCs/MSANs
- Interworking with H.323 in conjunction with Essentra EX Peering Manager

Interoperability
Multi-vendor interoperability including support for wide variety of SIP-based endpoints: IADs, SIP phones, soft phones and gateways

Call Features
Subscriber Call Features:
- Call waiting
- Call forward
    - Unconditional
    - On busy
    - On no answer
    - Offline
    - Group based
- Caller ID sending/blocking
- 3-way calling
- Automatic redial
- Repeat dial
- Call return
- Call transfer
- Call hold
- Do not disturb
- Timed do not disturb
- Anonymous call blocking
- Outbound call restriction
- Selective call rejection
- Find me/Follow Me
- Personal speed dial
- Peer-to-peer video calls
- Click-to-dial
- Emergency call support
- Wakeup call
- Malicious Call
- Hotline/Delayed hotline
- Self ringing
- Multiple registrations

IP Centrex Features
- Subscriber call features - see left column
- VoIP VPNs
    - Private numbering plans
    - VoIP trunking for existing PBX location
- Calling features
    - Music on hold
    - Hunt groups
    - Call park/pickup
    - Boss/secratary filtering
    - Selective call rejection
    - VPN speed dial
    - Peer-to-peer video calls
    - Billing codes
    - Camp on busy
    - DID
- Applications
    - Attendant console
    - Multi-party ad-hoc bridge conferencing
    - Integrated automated attendant system
    - User-configurable flows and announcements
    - Time-based call flows
- Management
    - Web-based management
        • System level
        • Reseller level
        • Enterprise level
        • VPN permissions
    - Web-based self-provisioning portal
    - Multi-level call and statistics
    - Class of Service

Essentra BAX-VM Integrated Voicemail System
- Calls routed to voicemail under defined conditions
    - No answer, busy, subsciber off-line/unreachable
- Administrator control over voicemail boxes
- DTMF-controlled voicemail menu
- Personalized greetings
- Message waiting indication
- Voicemail to email

Routing
- Policies: source, time, prefix
- Random selection between terminating trunking gateways
- Use enterprise CPE gateways for terminating off-net calls
- Enhanced routing capabilities enabled in conjunction with Essentra EX
- Alternate endpoints for improved call completion

Hardware Specifications
- IBM BladeCenter-HT
- IBM xSeries 3550

Management and Accounting
Configuration and Management
- Advanced web-based management for subscriber self-provisioning including:
    - Service activation/deactivation/configuration
    - View call logs
    - Modify personal details
    - Contact service provider
- System/enterprise administrator Web interface includes:
    - Account creation/activation/deactivation
    - Service configuration
    - System/VPN monitoring and statistics
- Service activation via activation codes entered on subscriber's handset
- Fully customizable web interface
- Call Monitoring / Troubleshooting

CDRs and Billing
- Successful and unsuccessful calls
- CDR files for offline billing (through FTP)
- Built-in RADIUS client for real-time integration with prepaid/postpaid billing systems
- Configurable RADIUS and CDR fields

Carrier Grade
- 1+1 or N+K high availability scheme
- No downtime and no call loss through server clustering and call state replication
- 99.999% availability
- No single point of failure
- NEBS (level 3) compliant

NAT Transversal
- Built-in STUN server
- Built-in media relay function

Security
- SIP digest security
- HTTPS support between provisioning interface and Essentra BAX Pinhole firewall
- Topology hiding

Regulatory/Lawful Interception
- Support for emergency call routing
- Support for ETSI/CALEA Lawful Interception
- Support for SORM (Russian Lawful Interception)

Capacity
- 50,000 subscribers on single 1U server
- 500,000 subscribers on BladeCenter-HT (N+2 high availability scheme)
- Scale to millions by stacking BladeCenter chassis

Operating System
- Red Hat Enterprise Linux 4

About VocalTec

VocalTec Communications (NasdaqCM: VOCL) is a global provider of carrier-class multimedia and voice-over-IP solutions for communication service providers. A pioneer in VoIP technology since 1994, VocalTec provides proven trunking, peering and residential/enterprise VoIP application solutions that enable the flexible deployment of next-generation networks (NGNs). Partnering with prominent system integrators and equipment manufacturers, VocalTec serves an installed base of dozens of leading carriers including Deutsche Telekom and Telecom Italia San Marino. VocalTec is led by a management team comprised of respected industry veterans.

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