APPENDIX (E): Asterisk Features

Asterisk-based telephony solutions offer a rich and flexible feature set. Asterisk offers both classical PBX functionality and advanced features, and interoperates with traditional standards-based telephony systems and Voice over IP systems. Asterisk offers the features one would expect of a large proprietary PBX system such as Voicemail, Conference Bridging, Call Queuing, and Call Detail Records.

**Call Features**

- ADSI On-Screen Menu System
- Alarm Receiver
- Append Message
- Authentication
- Automated Attendant
- Blacklists
- Blind Transfer
- Call Detail Records
- Call Forward on Busy
- Call Forward on No Answer
- Call Forward Variable
- Call Monitoring
- Call Parking
- Call Queuing
- Call Recording
- Call Retrieval
• Call Routing (DID & ANI)
• Call Snooping
• Call Transfer
• Call Waiting
• Caller ID
• Caller ID Blocking
• Caller ID on Call Waiting
• Calling Cards
• Conference Bridging
• Database Store / Retrieve
• Database Integration
• Dial by Name
• Direct Inward System Access
• Distinctive Ring
• Distributed Universal Number Discovery (DUNDiâ„¢)
• Do Not Disturb
• E911
• ENUM
• Fax Transmit and Receive (3rd Party OSS Package)
• Flexible Extension Logic
• Interactive Directory Listing
• Interactive Voice Response (IVR)
• Local and Remote Call Agents
• Macros
• Music On Hold
• Music On Transfer
• Flexible Mp3-based System
• Random or Linear Play
• Volume Control
• Predictive Dialer
• Privacy
• Open Settlement Protocol (OSP)
• Overhead Paging
• Protocol Conversion
• Remote Call Pickup
• Remote Office Support
• Roaming Extensions
• Route by Caller ID
• SMS Messaging
• Spell / Say
• Streaming Media Access
• Supervised Transfer
• Talk Detection
• Text-to-Speech (via Festival)
• Three-way Calling
• Time and Date
• Transcoding
• Trunking
• VoIP Gateways
• Voicemail
• Visual Indicator for Message Waiting
• Stutter Dialtone for Message Waiting
• Voicemail to email
• Voicemail Groups
• Web Voicemail Interface
• Zapateller

**Computer-Telephony Integration**

• AGI (Asterisk Gateway Interface)
• Graphical Call Manager
• Outbound Call Spooling
• Predictive Dialer
• TCP/IP Management Interface

**Scalability**

• TDMoE (Time Division Multiplex over Ethernet)
• Allows direct connection of Asterisk PBX
• Zero latency
• Uses commodity Ethernet hardware
• Voice-over IP
• Allows for integration of physically separate installations
• Uses commonly deployed data connections
• Allows a unified dialplan across multiple offices
**Codecs**

- ADPCM
- G.711 (A-Law & μ-Law)
- G.723.1 (pass through)
- G.726
- G.729 (through purchase of commercial license through **Digium**)
- GSM
- iLBC
- Linear
- LPC-10
- Speex

**Protocols**

- IAX™ (Inter-Asterisk Exchange)
- H.323
- SIP (Session Initiation Protocol)
- MGCP (Media Gateway Control Protocol)
- SCCP (Cisco® Skinny®)

**Traditional Telephony Interoperability**

- E&M
- E&M Wink
• Feature Group D
• FXS
• FXO
• GR-303
• Loopstart
• Groundstart
• Kewlstart
• MF and DTMF support
• Robbed-bit Signaling (RBS) Types
• MFC-R2 (Not supported by Digium. However, a patch is available at Voip-info.org)

**PRI Protocols**

• 4ESS
• BRI (ISDN4Linux)
• DMS100
• EuroISDN
• Lucent 5E
• National ISDN2
• NFAS