

## **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
- Zpateller

### **\*\*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 &  $\mu$ -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](http://Voip-info.org))

### **\*\*PRI Protocols**

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