Linux-based Phone Systems for Business

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What is a Linux Phone System?

- Software programs that have PBX (Private Branch Exchange) features
  - Voicemail
  - Conferencing
  - Local phone extensions
  - Call Queues
  - Special call routing
  - PSTN calling capability
- Easy ISO installs like Trixbox and AsteriskNOW
Major Linux-based PBX Software:

- Asterisk PBX - asterisk.org
- CallWeaver(OpenPBX) - callweaver.org
- Yate - yate.null.ro
- FreeSwitch - freeswitch.org
- SipX - sipfoundry.org
Asterisk PBX

- By far the most popular Linux-based telephony system, over 1 million downloads in 2007
- Full PBX functionality (voicemail, conferencing, LCR, IVR, etc...)
- Multiple trunk types: POTS, T1/E1, SIP, IAX, MGCP, SCCP, H323
- Fonality, Switchvox and trixbox: Asterisk-based
- Primary corporate contributor: Digium
- Dual-licensed (GPL and proprietary)
- Project started in 1999
CallWeaver

• Formerly known as OpenPBX
• Fork of Asterisk 1.2 codebase
• Includes several GPL-only add-ons that are not shipped with Asterisk due to it's dual-license
• GPL licensed
• Project started 2006
Yate

- Yet Another Telephony Engineering
- Not as fully featured as Asterisk, but it is more efficient
- GPL licensed
- Project started in 2004
FreeSwitch

- Started from scratch by a core Asterisk developer
- Small core with modularized architecture
- MPL licensed
- Project started 2006
SipX

- SipXecs offers a full SIP-only PBX system
- Designed to work with many 3rd party SIP gateways
- Primary corporate contributor: Pingtel
- LGPL licensed
- Project started in 1999, Open-Source in 2004
Big Corporations Selling Asterisk-Based Appliances

- **3com** – solid-state PBX appliance designed by Digium
- **Dell** – Trixbox appliance designed by Fonality
- **NTT Japan** – PBX appliance designed in-house
Major Asterisk Installations

- **Vonage** – Asterisk used for 1,000,000+ voicemail accounts
- **VoicePulse** – VOIP provider using Asterisk for tens of thousands of customer accounts
- **Sam Houston University** – 6,000 student University using Asterisk for all telephony services
Case Studies for Asterisk PBX

- Financial Services company
- Marketing company expanding
- Marketing company PBX end-of-life'd
- Health services company moving to automated call handling
- Large outsourced inbound call center
Financial Services Company

- Call Center, 24 seats inbound, 3 call groups
- Existing system had no computer integration
- Wanted screen pop from CallerID to their CRM
- Proprietary system was quoted at $2000/seat
- Asterisk/VICIDIAL solution total cost was $400/seat
Marketing Company Expanding

- Had existing 24 seat contact center PBX
- Needed to grow to 200 seats
- Quoted prices of $2500/seat
- Asterisk/VICIDIAL solution price: $300/seat
Marketing Company PBX EOL

- Existing 4-server Phone systems with 120 phones
- No connection between systems
- Manufacturer stopped servicing equipment
- Asterisk/VICIDIAL solution installed in one month
- In-house staff now maintain the phone system
- 10% increase in call handling efficiency
Health Services Company

- Existing 75-phone system only allowed manual phone calls, no CTI
- Wanted to integrate outbound dialing system with internal CRM
- Started dialing outbound and taking inbound blended together on Asterisk/VICIDIAL with great results
Outsourced Inbound Call Center

• Needed capacity of 500+ inbound agent seats
• Quoted $4000/seat on Proprietary solution
• Moved to Asterisk with internal system control and maintenance
• System allows for a great deal of flexibility
OSS PBX Benefits

- 70-90% initial cost savings
- Internal control of code
- No end-of-life
- Wider compatibility with other components and systems
Thank you!

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