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OPENSER
AND
ASTERISK
- A PERFECT MATCH

Olle E. Johansson
Asterisk Developer, member of the Asterisk Advisory Council

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What is Asterisk?

- ~ An Open Source Modular Multiprotocol PBX



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Not Asterisk

- ~ A scalable IP communications platform
- ~ A user-focused platform
- ~ A secure platform (not yet :-)



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I LOVE ASTERISK,

but it's telephony!!!



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THE FUTURE

Text

Audio

Realtime

White-board

Video

IP

3D
Hologr

Communicati

????

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...SO IN MY DAILY WORK

- Asterisk is not the focus, the main server
- SER/OpenSER is the main platform
- Asterisk delivers services on the SIP network
 - *Voicemail*
 - *PSTN gateway*
 - *Conference*

*Which is why I ended up improving
the Asterisk SIP stack!*

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TOO SEPARATE ISLANDS ON THE NET...

Asterisk.org

Postfix.org

Ejabberd

Ekiga

OpenSER

MythTV

VideoLAN

Speex.org

SEMS

ReSIProcate

KDE

???

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WHAT HAPPENS IF WE COOPERATE MORE?

- Let's build an Open Realtime Platform!
- We need to teach other non-telephony Open Source projects!

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SERVICE PROVIDERS BUILD LIKE THIS

We have the same user base, at least in the service provider area!

Open
SER

Open
SER

Asterisk

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Asteri

Asterisk

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THINGS I MISS IN ASTERISK/OPENSER INTEGRATION

- MWI notification to unregistered users by sip URI
- Presence integration
 - *Asterisk handles call states*
 - *Simple/jabber is user states*
- Dialog between OpenSER and Asterisk developers/
users

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Asterisk 1.4 for SIP users

A preview without any guarantees

Text and pictures by
Olle E. Johansson, Edvina.net



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Big changes

- Asterisk 1.0 was managed by Mark and two additional committers with small dedicated areas of source to manage
- Asterisk 1.2 was managed by Mark and Kevin
- Asterisk 1.4 has been managed by a larger team - over 10 committers working on all or parts of the code under Kevin's supervision
- An development advisory council is formed to manage the process

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Generic Jitterbuffer

- A jitterbuffer for all channels
- IAX2, SIP, Skinny, zap, jingle
- Developed by Securax in Belgium



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No re-invites needed

- If we know at call setup that we can release media, we will do that directly
- This replaces the re-invites Asterisk used in earlier versions



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SIP transfers

- Enhanced support for REFER
- Support for INVITE/Replaces
- Ability to control REFER support
 - `allowtransfer = yes | no`



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Blinking lamps

- Continued improvements
- You can now disable SUBSCRIBE
 - `allowssubscribe=yes` | `no`
- Support for parking lots and conferences (meetme)

Asterisk 1.4
THE SUMMER OF '06 RELEASE

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Video support improved

- You can now enable video support per peer in sip.conf
- You can also set maximum bitrate allowed
- Asterisk will not include video stream in outbound call when there's no video in the inbound call
- Passthrough support for H.264

Asterisk 1.4
THE SUMMER OF '06 RELEASE

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Other 1.4 News in short

- Tons of bug fixes
- Timed RTP transmission
- T.38 fax passthrough support (UDPTL)
- Configurable RTP packetization
- Separate ToS settings for SIP, Audio and Video



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Going forward

- Sign the Edvina.net NDA and I'll tell you...



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Psst... Codename Pineapple!

- Forking from the standard chan_sip
 - *Not a single 17.000 line source code file*
- Configuration per SIP domain
- Adding transaction states
- Support for forking SIP proxies (branch/tag etc)
- No pedantic mode!
- No more peer/user type's
 - *Trunk, Service, Phone*
- New realtime model
- Preparing for new things
 - *SIP outbound*
 - *GRUU*
 - *Remote RTP handling*
 - *TCP/TLS*



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...when?

- Depends on funding...
- Current sponsor: Voop, Norway



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A FINAL WORD: SECURITY IN VOIP...



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THANK YOU!

OEJ@EDVINA.NET



*Codename
PineApple*

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