

Putting the N back into GNOME... with Avahi!

GUADEC 2007

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Who am I?

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Introduction

What is Zeroconf?

“Zero Configuration Networking”

- Automatic IPv4 Address Allocation (IPv4LL)
- Name Resolution (mDNS)
- Service Discovery (DNS-SD)

IPv4 Address Allocation? (IPv4LL)

Link Local assignment - 169.254.0.0/16

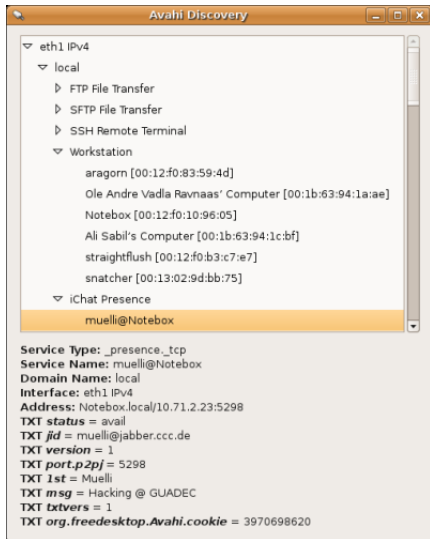
Name Resolution? (mDNS)

Name Resolution? (mDNS)

```
lathiat@straightflush:~$ ping aragorn.local  
PING aragorn.local (10.71.1.216) 56(84) bytes of data.  
64 bytes from aragorn.local (10.71.1.216): icmp_seq=1 ttl=64  
64 bytes from aragorn.local (10.71.1.216): icmp_seq=2 ttl=64
```

Service Discovery? (DNS-SD)

Service Discovery? (DNS-SD)



The screenshot shows the Avahi Discovery window with a tree view of services. The 'iChat Presence' service for 'muelli@Notebox' is selected and highlighted in orange. Below the tree view, the service details are displayed:

Service Type: `_presence._tcp`
Service Name: `muelli@Notebox`
Domain Name: `local`
Interface: `eth1 IPv4`
Address: `Notebox.local/10.71.2.23:5298`
TXT status = `avail`
TXT jid = `muelli@jabber.ccc.de`
TXT version = `1`
TXT port.p2pj = `5298`
TXT 1st = `Muelli`
TXT msg = `Hacking @ GUADEC`
TXT txtvers = `1`
TXT org.freedesktop.Avahi.cookie = `3970698620`

Terms

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Bling

Bling bling *bzzzt*

News

Stats

- 50+ software applications
- 15+ major distributions (and most enable it by default)
- 3 embedded distributions
- 3 embedded hardware devices

Common applications...

- OLPC
- Rhythmbox
- Vino
- Apache 2.0
- Gajim
- Telepathy-salut
- KTorrent
- Gobby
- Elisa

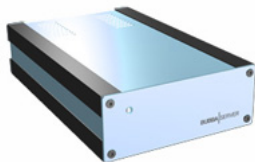
Other applications...

- Pulseaudio
- XMMS2
- GNU Bayonne
- apt-zeroconf
- Thousand Parsec
- WengoPhone
- Glom
- mpd

Devices



- Armadillo
- Bubba Mini Home Server



Working on/Needs help

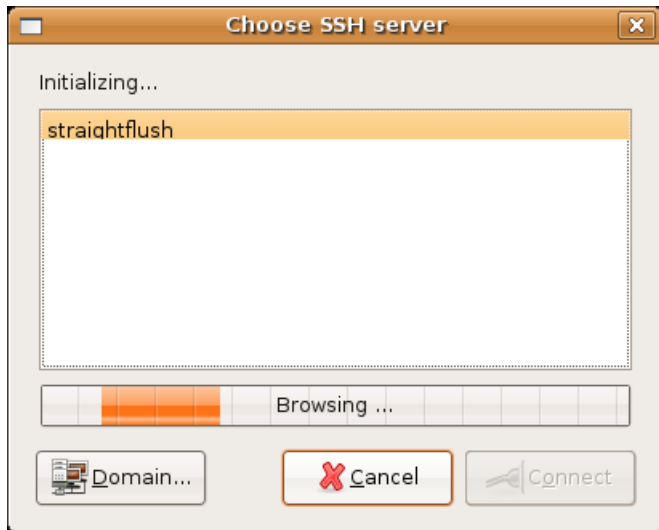
- Wide-area publishing
- NAT-PMP
- Duplicate service detection

Where to now...

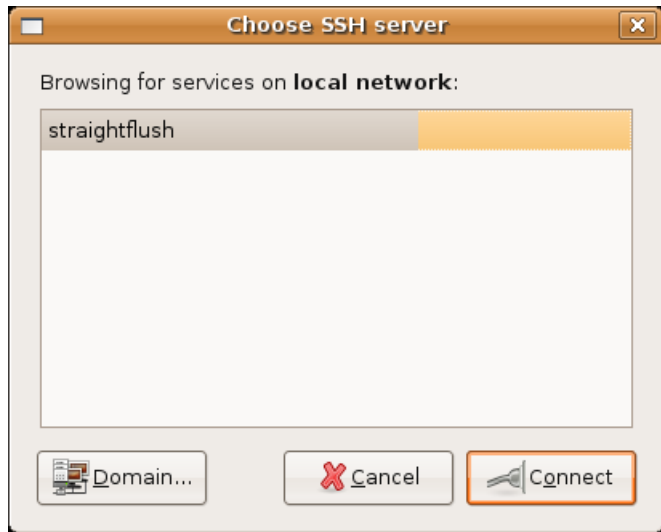
Where to now...

- 2 types of applications

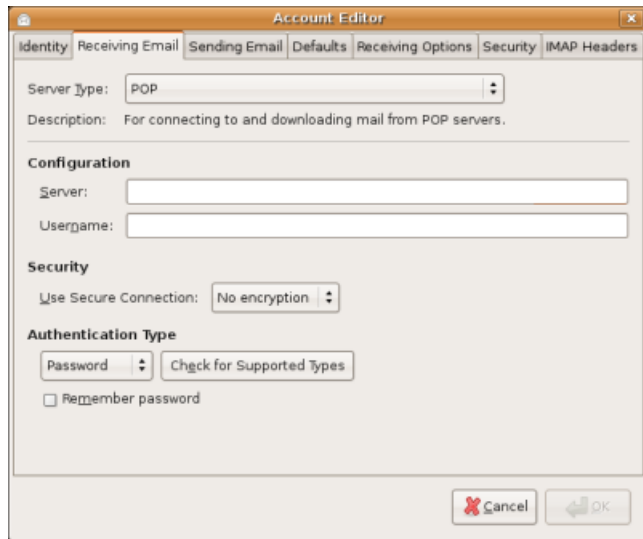
Step 1 - Server Chooser UI



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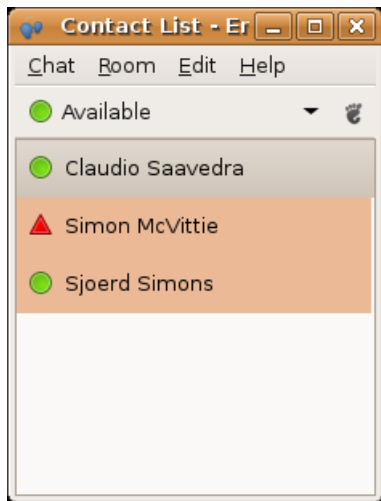
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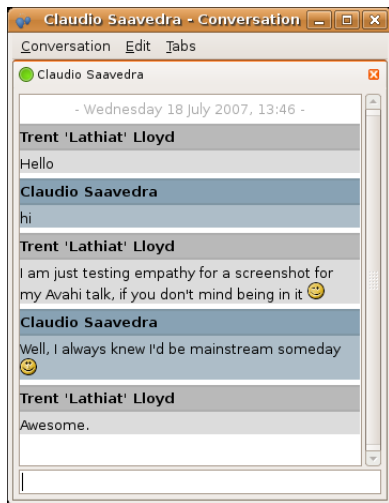
Step 1 - Applications that could benefit

- Terminal Services Client
- gnome-games
- Evolution
- Thunderbird
- Abiword-collab

Step 2 - Better integration



Step 2 - Better integration



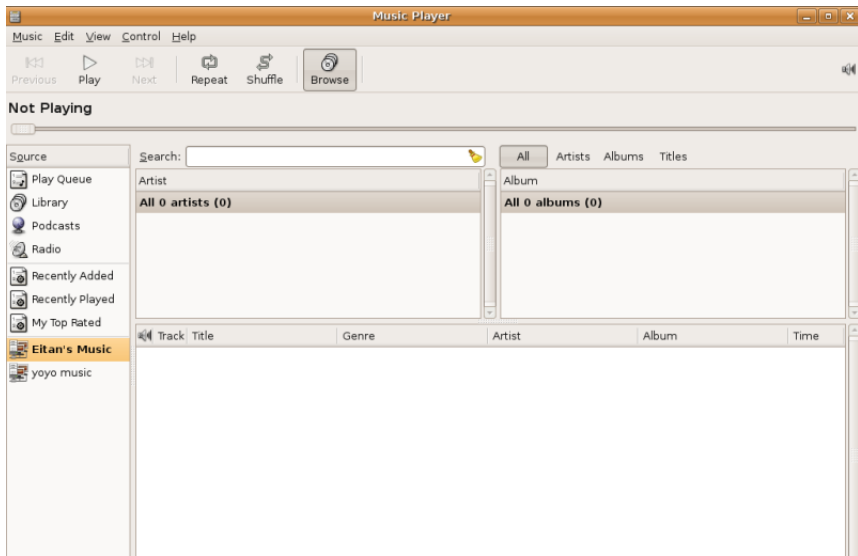
Step 2 - Better integration



Step 2 - Better integration



Step 2 - Better integration



Step 2 - Applications that could benefit

- Ekiga
- Firefox
- f-spot

Step 3 - Better contact presence

- Telepathy
 - Abiword-collab
 - gnome-games

That's all, folks. Any questions?

Avahi

`http://avahi.org/ http://lathiat.net/talks`

`#avahi on irc.freenode.org`

