

Federated services

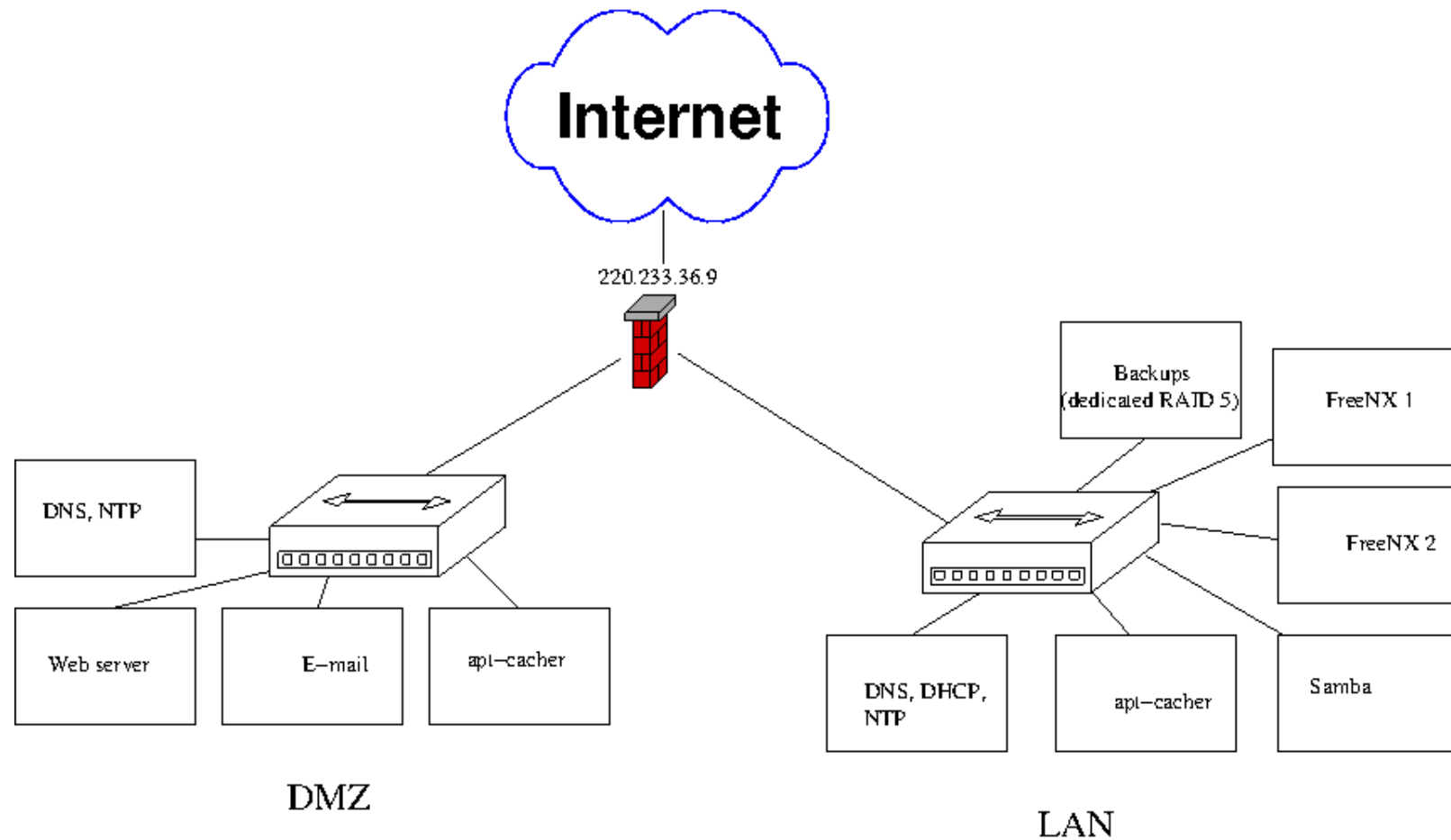
Federation allows communication across different clients and platforms.

- Mail
- Instant messaging
- StatusNet (OStatus)

Other online services

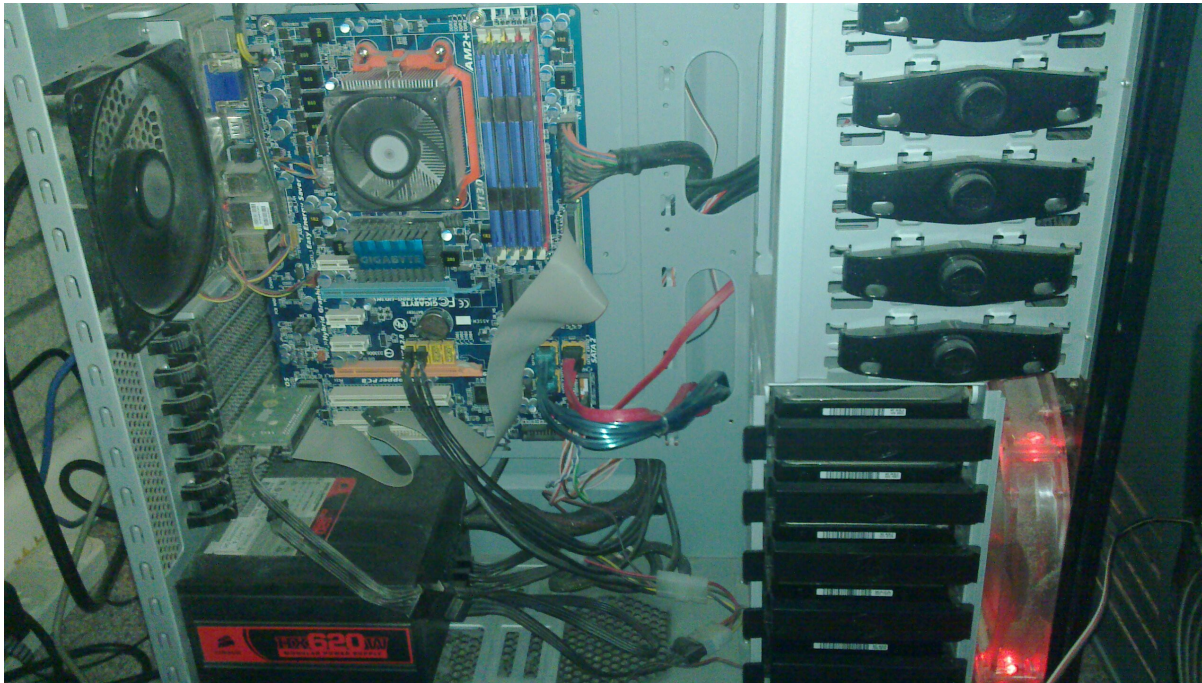
- Blogging. eg. WordPress, Diaspora*, pump.io (formally ActivityPump)
- Video hosting/browsing
- Downloads

How does it work?

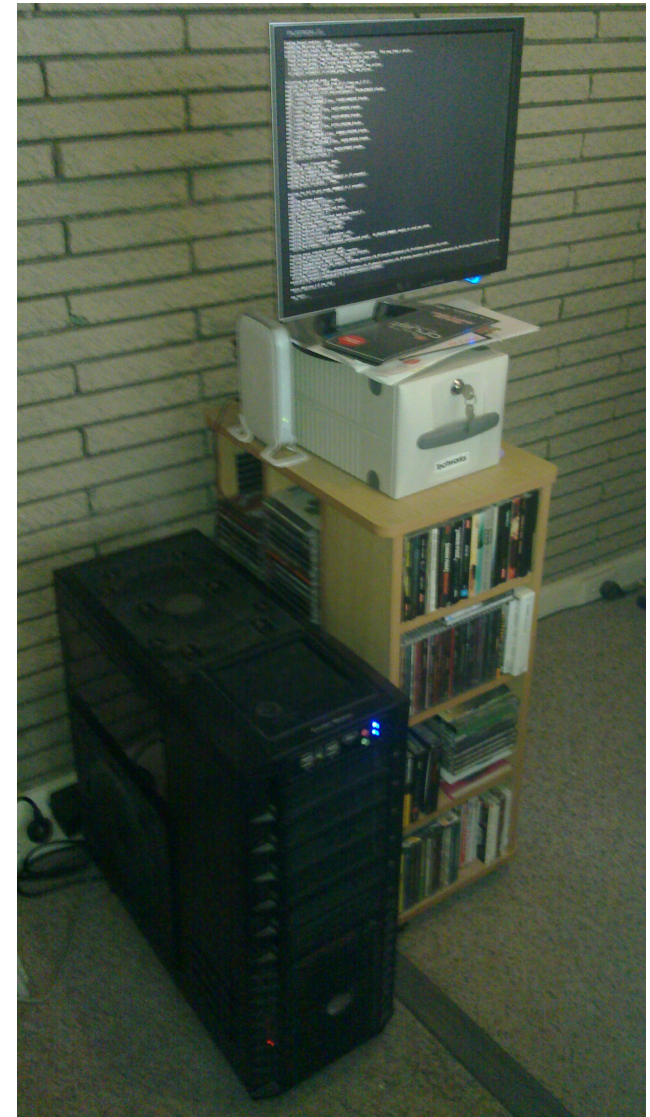


Infrastructure generally running 24x7

What does it look like?



Idle: 150W
Load: 183W



Requirements

- SSL certificate (~\$60 for 2 years)
- Static public IP
- PTR record (~\$20/year)
- Relatively high uptime (stable reliable power and Internet connection)
- Strong *NIX skills
- I found the following books helpful initially
 - The Book of Postfix
 - Running Xen
- Time

Not a requirement

- A lot of bandwidth (except maybe if running MediaGoblin with many videos). A common ADSL2+ connection seems plenty.

From my modem:

Connect Mode: ADSL2+

Down Stream: 13231 Kibit/s (1.61 MiB/s)

Up Stream: 665 Kibit/s (83.13 KiB/s)

Specifications

- Xen 4.2
- Debian GNU/Linux Squeeze 6.0
- 8Gb RAM
- 3x 1Tb HDDs
- 3x 2Tb HDDs
- Dual NICs (one for LAN, one for WAN)

or

- PCI pass-through the USB controller to the firewall Dom-U. IOMMU support is recommended.

Mail server

- Postfix
- Postgrey
- Dovecot
- Maildrop
- Mutt and Roundcube options configured

StatusNet

- Difficulties in deploying
 - Meteor
 - Patches take a long time to make it upstream
 - Slow release cycle
 - Many obvious bugs
- But running my own instance is still awesome! :)

Why Xen?

- Started with OpenVZ
- libvirt wasn't ready when I migrated to Xen
- Even now, I'm not sure how well tools like virsh stack up against the Xen management tools.
- Demo time!

Is virtualisation really necessary?

- No, but it helps keep me sane.
- Mess with a new service without the risk of breaking existing apps.
- New services can be brought up in a clean environment, which helps with debugging problems.
- Theoretically improves security.

Where to from here?

Software projects:

- Diaspora
- ownCloud (Files, Music, etc.)
- Gitorious
- Asterisk
- Game servers

Software configuration:

- Prioritisation through Traffic Control

Hardware:

- CompuLab Intense PC Pro Barebone?
- FreedomBox

Thanks

Add me on StatusNet! :)

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