1. DNS-based Failover

(cf. Fig. 2)

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(cf. Fig. 3)

- Oh Gosh! I'm running critical infrastructure!
- How I learned. . .
- . . . to stop worrying. . .
- . . . and love Amazon

2. The Problem

- Our institute admin once put my datacenter off the net for three days in a row. . .
- . . . our computation center recently almost drowned. . .
- . . . and yet the default registry TOPCAT queries is now reg.g-vo.org.
- How do I avoid downtimes when my DC's net connection fails?

3. Redunancy

Part one is easy: Set up mirrors of the relational registry part in

- Potsdam (thanks, Jochen, Harry, and Kristin)
- Paris (thanks, Pierre LS)

But: How do I tell TOPCAT to go there when Heidelberg fails?

4. Enter reg.g-vo.org

We've set up a DNS record for reg.g-vo.org that TOPCAT can use. But:

- I don't trust any DNS server in Heidelberg
- Typical production TTL of your average A record: 24 h.

Enter dns-api.com: git-based administration of Amazon DNS. Default TTL: 5 minutes. And DNS responses are fast nevertheless.

"Amazon DNS never failed" (well, Qantas never crashed)

5. Zonefile

If you've ever written a BIND zone file, you'll like this:

```
# This is the holy one.  It's used by TOPCAT by default to locate a
# registry mirror and must urgently be updated when something bad
# happens to either registry mirror

# GAVO Heidelberg
+reg.g-vo.org:129.206.112.245
# GAVO Potsdam, gavo.aip.de
#+reg.g-vo.org:141.33.4.71
# Observatoire de Paris, voparis-cdpp.obspm.fr
#+reg.g-vo.org:145.238.186.84
```

To update:

```
git commit -a -m "Heidelberg fell to Zombies,
  switching to Potsdam"
git push
```

6. Shameless Plugs

Mark T. and Kristin already have push privileges – committers from timezones wanted. If you're interested, talk to me. (Also: with mirrors on other continents, we might ward against a Europe-wide Zombie apocalypse.) If you want something similar: It's a quid a month. http://dns-api.com.

Disclaimer: I'm not affiliated to Steve Kemp other than being fellow Free software enthusiast. I still think Amazon sucks. In principle.