How do you know when your routers and switches have been reconfigured?

Suppose you find out that you had a customer problem that started at 3pm, four days ago

how do you tell what configuration change caused the problem?
rancid

- RANCID stands for **Really Awesome Network Config Differ**
- very silly name
- sorry about that
rancid

- rancid is a collection of scripts which will
  - log into a router or switch
  - retrieve the config, and a bunch of other stuff
  - store the information
  - if there are changes, send notification mail
Version History

- Rancid stores its configuration in CVS
- Concurrent Versioning System
- normally used by software developers to manage source code
- CVS provides the ability to retrieve old versions of files, and to compare different versions of files
How Often?

• By default, rancid will try to contact every router every hour
  • but you can change that, if you want
• Contacts several routers in parallel
• Writes logs describing what happened, and sends mail if it can’t contact a router for a long time (4 hours, normally)
Pile of Configs

- What can you do when you have a collection of router configs stored in a directory?
- What kinds of questions can you now answer quickly?
Examples

• `grep 196.200.223.254 *`
• `grep ‘Started’ *`
• `grep ‘Image: Software:’ *`
• `grep ’12.2(15)’ *`
More JAbley Examples

- Lots of scripts there which do exotic things
  - checking config
  - making maps, etc
How to Install

- On FreeBSD, it’s easy, it’s in ports:
  - cd /usr/ports/net-mgmt/rancid
  - make install

- It’s also easy to install from source

- hint: find and read the file “README”
After Installing...

- ... there is a little bit of configuration work to do
  - make “rancid” user and group
  - fix some ownership, permissions
  - edit a configuration file
  - run a setup script
  - edit rancid’s crontab
Extra Fun

- CVSWeb is a tool which can show you CVS version history without having to understand CVS
  - works through a browser
  - installed on noc.ws.afnog.org
  - [http://noc.ws.afnog.org/cvsweb.cgi](http://noc.ws.afnog.org/cvsweb.cgi)
Exercise