

RANCID / Version Control

AfNOG 11, Kigali/Rwanda



Agenda



- What is RANCID?
- What can I do with RANCID?
- Version Control Systems
- Setting up RANCID
- A few more considerations

What is RANCID?

- **Really Awesome New Cisco Config Differ**
 - Not only for Cisco now though
- Monitors a set of routers/devices configuration and hardware status and keeps track of changes
- Keeps configurations in a versioning system (CVS or subversion)
- Can notify by email on configuration changes

What can I do with RANCID?

- Backup configurations of your network devices (in case of emergency) and keep inventory
- Keep track of changes (when did we put in this line/this linecard)
- Be informed when someone with access does changes to the ACLs or something similar
- Help with network monitoring
 - Not everything can be checked via SNMP
 - Great ideas in NANOG 2005 techtalk

Version Control systems

- Rancid uses version control system CVS (or subversion)
- Version control systems keep history of a file, when and how it was changed, after it was changed
- Used mostly by programmers to keep track of changes or be able to rollback changes
- You can look at the log, differences between any versions, find who is to blame for a change
 - Juniper users have one for the last few changes built into the OS
- If you're unfamiliar CVS might be hard to use
 - `cvs log/cvs diff` might be the first things to look at
 - there's long man pages, guides (see last slide)
 - or use a web client which is easier (CVSWeb)

Setting up RANCID

- Author speaks of an "easy 12-step install process"
- The first two are taken care off with current Ubuntu and apt-get
(`sudo apt-get install rancid-core rancid-util build-essential expect`)
- We'll go through the rest, but a few concepts:
 - You have groups of devices in `rancid.conf`
 - Every group has a `routers.db` file which lists status
 - Login to devices through a tool called `clogin` (or `jlogin/flogin` etc.), has it's own configuration
 - If you want the email functionality, it uses your MTA (like `sendmail/exim`) so configure that correctly
 - Run it every hour or so by using a cronjob

A few more considerations

- Security
 - RANCID needs permissions to run "show running-configuration" - on Cisco that means a user with privilege 15
 - Make sure to secure your box (password is in cleartext), and ACL the router, or restrict RANCID user to show commands with TACACS
- clogin/jlogin
 - These tools to login to routers might be useful for yourself if you do it often
 - Same security questions apply
- Seriously, you can do so much more with the data collected
 - Check Stephen Stuart's NANOG 2005 techtalk for a few ideas

References

- RANCID homepage
<http://www.shrubbery.net/rancid/>
- NANOG 26, Stephen Stuart's Presentation
<http://goo.gl/E580>
- CVS for new users
http://ximbiot.com/cvs/cvshome/new_users.html
- CVSWeb
<http://www.freebsd.org/projects/cvsweb.html>
- Exercises for these slides