Network Management & Monitoring

Configuration Management RANCID
What is RANCID?

The ”Really Awesome New Cisco config Differ” – Really!

A configuration management tool:
- Keeps track of changes in the configs of your network equipment (Cisco, HP, Juniper, Foundry, etc.)
- Works on routers and switches
What is RANCID?

Automates retrieval of the configurations and archives them

Functions as:
  • Backup tool - "woops, my router burned"
  • Audit tool - "how did this error get in?"
  • Blame allocation :) - "who did it?"

The data is stored in a VCS (Version Control System) – supported are:
  • CVS (Concurrent Versions Systems)
  • SVN (SubVersioN)
How does it work?

Run (manually or automated)

Lookup list of groups

For each device in each list of groups

- Connect to the equipment (telnet, ssh, …)
- Run "show" commands – config, inventory, ...
- Collect, filter/format data
- Retrieve the resulting config files
- CVS check-in the changes
- Generate a diff from the previous version
- E-mail the diff to a mail address (individual or group)
What to use it for?

- Track changes in the equipment configuration
- Track changes in the hardware (S/N, modules)
- Track version changes in the OS (IOS, CatOS versions)
- Find out what your colleagues have done without telling you!
- Recover from accidental configuration errors (anyone have stories?)
Post processing

• Run traditional filtering commands on your configs (grep, sed, for information)
• Re-use the automated login tools to build your own batch tools or do interactive login
• On large configurations, you can parallelize operations
Other applications

• Automated checks (verify configs for strange/inconsistent setup)
• Generate DNS file from equipment list
• Use IP address adjacency to produce a graph of your network
References

- RANCID Project Home Page
  http://www.shrubbery.net/rancid/
- Subversion (SVN) Home Page
  http://subversion.apache.org/
- Good, Short RANCID Presentation
  http://www.shrubbery.net/rancid/NANOG29/
- RANCID HowTo’s