

## Daniel Wells – 02/09/2008 – MSc in Computer Science

### Progress Report:

#### --Conferences and other

- SATNAC 2008
  - Was interesting, great venue, great food
  - Presented my honours work as a full paper and Richard Barnett's work-in-progress paper on his masters
  - Both presentations were well received, Barns' presentation was quite short due to only a small amount of notes he gave me
  - Lots of presentations by students about telecommunication stuff, like weather affecting signal propagation and other physics related things
- USA Visa
  - Got a 10 year tourism Visa for USA (wow!)

#### --Masters Progress

- FreeBSD
  - Skills are improving, getting the bigger picture
  - Which is great because I can do more things and quicker
- Beginnings of a Quota System
  - Squid Delay pools for HOSTS
    - Read a lot and learnt about delay pools and how they work
    - Two pools (slight and significant)
    - ACL for each, points to a file with hosts (`/usr/local/etc/squid/lists/`)
    - If a host is not in either pool then no delay is administered (default is no delay)
  - DaloRadius installed on ACR to modify user information on freeradius server
    - Provides user management
    - Allows adding, deleting and editing users
    - Putting users into groups
- Some applications similar to my project (research):
  - Been looking at similar applications to gain better understanding of what is required in a management and monitoring application, and what applications I can integrate to produce my appliance
  - Hyperic HQ
    - [http://www.hyperic.com/products/hq\\_oss.html](http://www.hyperic.com/products/hq_oss.html)
    - Open Source, can download a VMware Appliance
    - Server, agent and command line tools
    - Monitor multiple systems on different platforms
    - Alerting, control and diagnostic capabilities

- **Monitoring**
  - Network Monitoring using FreeBSD
    - <http://web.irtnog.org/howtos-orig/freebsd-netmon>
    - A bunch of interesting points
    - syslog-ng (<http://www.balabit.com/network-security/syslog-ng/opensource-logging-system/>)
      - Can be used to create a flexible and reliable logging infrastructure
      - Open source
      - <http://sourceforge.net/projects/php-syslog-ng> - php front end
    - Argus
      - <http://argus.tcp4me.com/>
      - System and network monitoring application
    - Flow-tools
      - For collecting and processing NetFlow data
      - <http://www.splintered.net/sw/flow-tools/>
    - Net-SNMP
      - <http://www.net-snmp.org/>
    - Applications Manager
      - [http://manageengine.adventnet.com/products/applications\\_manager/freebsd-monitoring.html](http://manageengine.adventnet.com/products/applications_manager/freebsd-monitoring.html)
      - Monitors performance of FreeBSD systems

## --Next Up

- Quota System
  - Delay pools for USERS
    - Slight and Significant (same as HOST based)
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- User Management
  - DaloRadius
    - Finish configuring system
    - Certain scripts fail (however they are not very important scripts)
      - Like reading information from */proc/*
      - CPU, memory, uptime, hostname, interfaces, etc...
      - Graphs
    - Sections on Accounting and Billing
      - Look into and get working
- Cacti and net-snmp
  - Play with and get up and running with pretty graphs
- Virtual Network Document and SNRG wiki
  - Document!