



Network Management & Monitoring

Presenting Your NOC



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The Network Operations Center

NOC = Network Operations Center

- Come in many forms and depend on the size of your organization and your goals.
- “One or more locations from which control is exercised over your network.”
- NOCs can be:
 - Virtual
 - Located at the core of your network
 - With your help desk
 - Built in pieces
 - Etc.

The Network Operations Center

For purposes of this class each of you will create a virtual NOC using the project management software Trac already installed and partially configured on your machines.

A BIG NOC



There are even bigger NOCs out there...

A small NOC



In the same room there is a desk with a phone, another computer and a monitor. This acted as the group's Help Desk.

Many network problems could be detected and solved on the spot!

Our Virtual NOC

We are working towards something like this:



Advanced Registry Operations Curriculum Network Operations Center

This 5-day course provides the principles and components of expanding the technical operation of a registry through effective network management as well as the use of advanced tools and Best Practices. Students will learn concepts and their application to a registry by installation, configuration and operation of these tools.

NOC

Access to our network monitoring and management softwares used during the workshop.

- [Cacti](#)
- [CVSWeb](#)
- [DSC Sample](#)
- [Nagios](#)
- [Netflow graphs](#)
- [Request Tracker](#) (RT Ticket Management System)
- [Smokeping](#)

Network Configuration

- [Network Diagram](#)
- Hardware Descriptions
 - [PCs](#)
 - [Routers](#)
 - [Switches](#)
- [Software Installs](#)

Utilities

- [Configuration files](#) for installed software (Nagios, Smokeping, etc.)
- [Sample Scripts](#) for classroom machine management

Your assignment during the week

Document your network!

- After each software install and configuration link to the new software.
- Create an entry for your PC, other PCs, routers and switches in the classroom.
- Create or copy a classroom network diagram.
- Create a repository of configuration files and link to this.

Your assignment cont.

Documenting your network...

- Make note of what software is installed and versions.
- Document anything else that you think will make managing and monitoring your network easier.
- By the end of the week you should have a Wiki instance similar to or better than the instance installed and configured on the workshop NOC machine.

Versioning and Documentation

Version Control Systems are part of any good documentation project.

During the week you will be exposed to this concept several more times.

There are many version control systems:

- CVS
- Subversion
- Mercurial
- etc...

Wikipedia has a good article on the concepts of “Revision Control”: