NOC TOOLS

nagios

AfNOG 2008, SI-E, Friday, 3 of 5

nagios

- How do you know when your routers and switches have a problem?
- How do you know if your ISP stopped working?
    - *(hint: “because the customer called us and said so” is not the right answer!)*

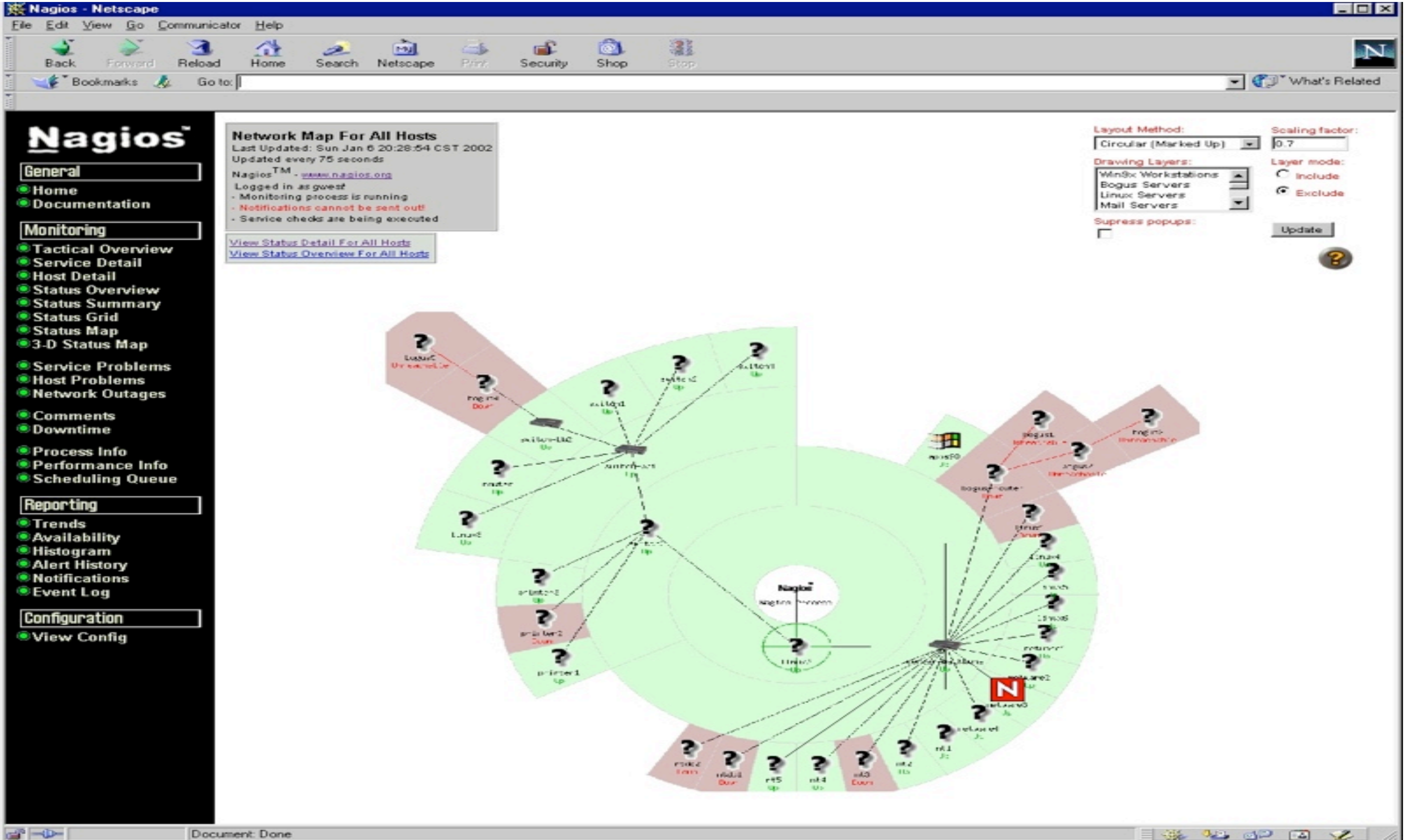
nagios

- nagios is a tool for automatically testing whether things are working
  - servers, routers, switches
  - http server processes
  - disk space, CPU load, number of users, etc
  - anything you can write a script to check

When Things Happen

- What happens when a test fails?
  - depends on how nagios is configured
  - maybe make beeping noises
  - show red on the status screen
  - send an SMS to someone

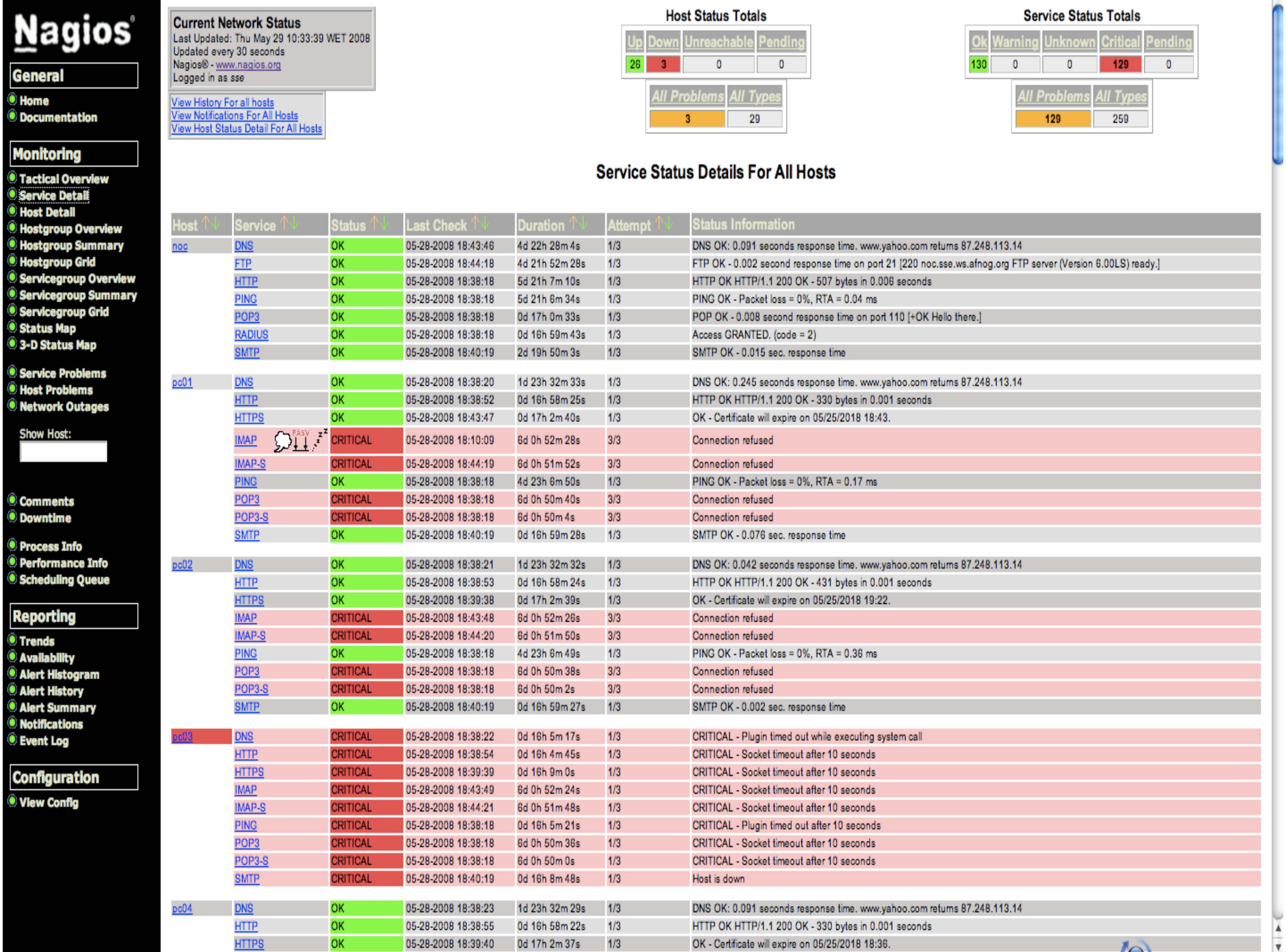
Screenshots



Network Map For All Hosts
Last Updated: Sun Jan 6 20:28:54 CST 2002
Updated every 75 seconds
Nagios^{TM} - www.nagios.org
Logged in as guest
- Monitoring process is running
- Notifications cannot be sent out!
- Service checks are being executed

View Status Detail For All Hosts
View Status Overview For All Hosts

Layout Method: Circular (Marked Up)
Scaling factor: 0.7
Drawing Layers: Win9x Workstations, Bogus Servers, Linux Servers, Mail Servers
Layer mode: ○ Include ● Exclude
Supress popups: □



Current Network Status
Last Updated: Thu May 29 10:33:39 WET 2008
Updated every 30 seconds
Nagios® - www.nagios.org
Logged in as *sse*

View History For all hosts
View Notifications For All Hosts
View Host Status Detail For All Hosts

Host Status Totals

Up	Down	Unreachable	Pending
26	3	0	0

All Problems	All Types
3	29

Service Status Totals

Ok	Warning	Unknown	Critical	Pending
130	0	0	129	0

All Problems	All Types
129	259

Service Status Details For All Hosts

Host ↑↓	Service ↑↓	Status ↑↓	Last Check ↑↓	Duration ↑↓	Attempt ↑↓	Status Information
noc	DNS	OK	05-28-2008 18:43:46	4d 22h 28m 4s	1/3	DNS OK: 0.091 seconds response time. www.yahoo.com returns 87.248.113.14
	FTP	OK	05-28-2008 18:44:18	4d 21h 52m 28s	1/3	FTP OK - 0.002 second response time on port 21 [220 noc.sse.ws.afnog.org FTP server (Version 6.00LS) ready.]
	HTTP	OK	05-28-2008 18:38:18	5d 21h 7m 10s	1/3	HTTP OK HTTP/1.1 200 OK - 507 bytes in 0.006 seconds
	PING	OK	05-28-2008 18:38:18	5d 21h 6m 34s	1/3	PING OK - Packet loss = 0%, RTA = 0.04 ms
	POP3	OK	05-28-2008 18:38:18	0d 17h 0m 33s	1/3	POP OK - 0.008 second response time on port 110 [+OK Hello there.]
	RADIUS	OK	05-28-2008 18:38:18	0d 16h 59m 43s	1/3	Access GRANTED. (code = 2)
	SMTP	OK	05-28-2008 18:40:19	2d 19h 50m 3s	1/3	SMTP OK - 0.015 sec. response time
pc01	DNS	OK	05-28-2008 18:38:20	1d 23h 32m 33s	1/3	DNS OK: 0.245 seconds response time. www.yahoo.com returns 87.248.113.14
	HTTP	OK	05-28-2008 18:38:52	0d 16h 58m 25s	1/3	HTTP OK HTTP/1.1 200 OK - 330 bytes in 0.001 seconds
	HTTPS	OK	05-28-2008 18:43:47	0d 17h 2m 40s	1/3	OK - Certificate will expire on 05/25/2018 18:43.
	IMAP PASV	CRITICAL	05-28-2008 18:10:09	6d 0h 52m 28s	3/3	Connection refused
	IMAP-S	CRITICAL	05-28-2008 18:44:19	6d 0h 51m 52s	3/3	Connection refused
	PING	OK	05-28-2008 18:38:18	4d 23h 6m 50s	1/3	PING OK - Packet loss = 0%, RTA = 0.17 ms
	POP3	CRITICAL	05-28-2008 18:38:18	6d 0h 50m 40s	3/3	Connection refused
	POP3-S	CRITICAL	05-28-2008 18:38:18	6d 0h 50m 4s	3/3	Connection refused
	SMTP	OK	05-28-2008 18:40:19	0d 16h 59m 28s	1/3	SMTP OK - 0.076 sec. response time
pc02	DNS	OK	05-28-2008 18:38:21	1d 23h 32m 32s	1/3	DNS OK: 0.042 seconds response time. www.yahoo.com returns 87.248.113.14
	HTTP	OK	05-28-2008 18:38:53	0d 16h 58m 24s	1/3	HTTP OK HTTP/1.1 200 OK - 431 bytes in 0.001 seconds
	HTTPS	OK	05-28-2008 18:39:38	0d 17h 2m 39s	1/3	OK - Certificate will expire on 05/25/2018 19:22.
	IMAP	CRITICAL	05-28-2008 18:43:48	6d 0h 52m 26s	3/3	Connection refused
	IMAP-S	CRITICAL	05-28-2008 18:44:20	6d 0h 51m 50s	3/3	Connection refused
	PING	OK	05-28-2008 18:38:18	4d 23h 6m 49s	1/3	PING OK - Packet loss = 0%, RTA = 0.36 ms
	POP3	CRITICAL	05-28-2008 18:38:18	6d 0h 50m 38s	3/3	Connection refused
	POP3-S	CRITICAL	05-28-2008 18:38:18	6d 0h 50m 2s	3/3	Connection refused
	SMTP	OK	05-28-2008 18:40:19	0d 16h 59m 27s	1/3	SMTP OK - 0.002 sec. response time
pc03	DNS	CRITICAL	05-28-2008 18:38:22	0d 16h 5m 17s	1/3	CRITICAL - Plugin timed out while executing system call
	HTTP	CRITICAL	05-28-2008 18:38:54	0d 16h 4m 45s	1/3	CRITICAL - Socket timeout after 10 seconds
	HTTPS	CRITICAL	05-28-2008 18:39:39	0d 16h 9m 0s	1/3	CRITICAL - Socket timeout after 10 seconds
	IMAP	CRITICAL	05-28-2008 18:43:49	6d 0h 52m 24s	1/3	CRITICAL - Socket timeout after 10 seconds
	IMAP-S	CRITICAL	05-28-2008 18:44:21	6d 0h 51m 48s	1/3	CRITICAL - Socket timeout after 10 seconds
	PING	CRITICAL	05-28-2008 18:38:18	0d 16h 5m 21s	1/3	CRITICAL - Plugin timed out after 10 seconds
	POP3	CRITICAL	05-28-2008 18:38:18	6d 0h 50m 36s	1/3	CRITICAL - Socket timeout after 10 seconds
	POP3-S	CRITICAL	05-28-2008 18:38:18	6d 0h 50m 0s	1/3	CRITICAL - Socket timeout after 10 seconds
	SMTP	CRITICAL	05-28-2008 18:40:19	0d 16h 8m 48s	1/3	Host is down
pc04	DNS	OK	05-28-2008 18:38:23	1d 23h 32m 29s	1/3	DNS OK: 0.091 seconds response time. www.yahoo.com returns 87.248.113.14
	HTTP	OK	05-28-2008 18:38:55	0d 16h 58m 22s	1/3	HTTP OK HTTP/1.1 200 OK - 330 bytes in 0.001 seconds
	HTTPS	OK	05-28-2008 18:39:40	0d 17h 2m 37s	1/3	OK - Certificate will expire on 05/25/2018 18:36.

Installing Nagios

- On FreeBSD, it is very easy
  - `cd /usr/ports/net-mgmt/nagios`
  - `make install`
- Packages are available on other platforms, too
- See http://www.nagios.org/ for details

Configuring nagios?

- The FreeBSD port comes with default configuration, which is good enough to get it running
- Look in `/usr/local/etc/nagios/`

SS-E Nagios

- SS-E uses nagios to monitor student computers, to see which services are up and running
- http://noc.sse.ws.afnog.org/nagios/

Demonstration