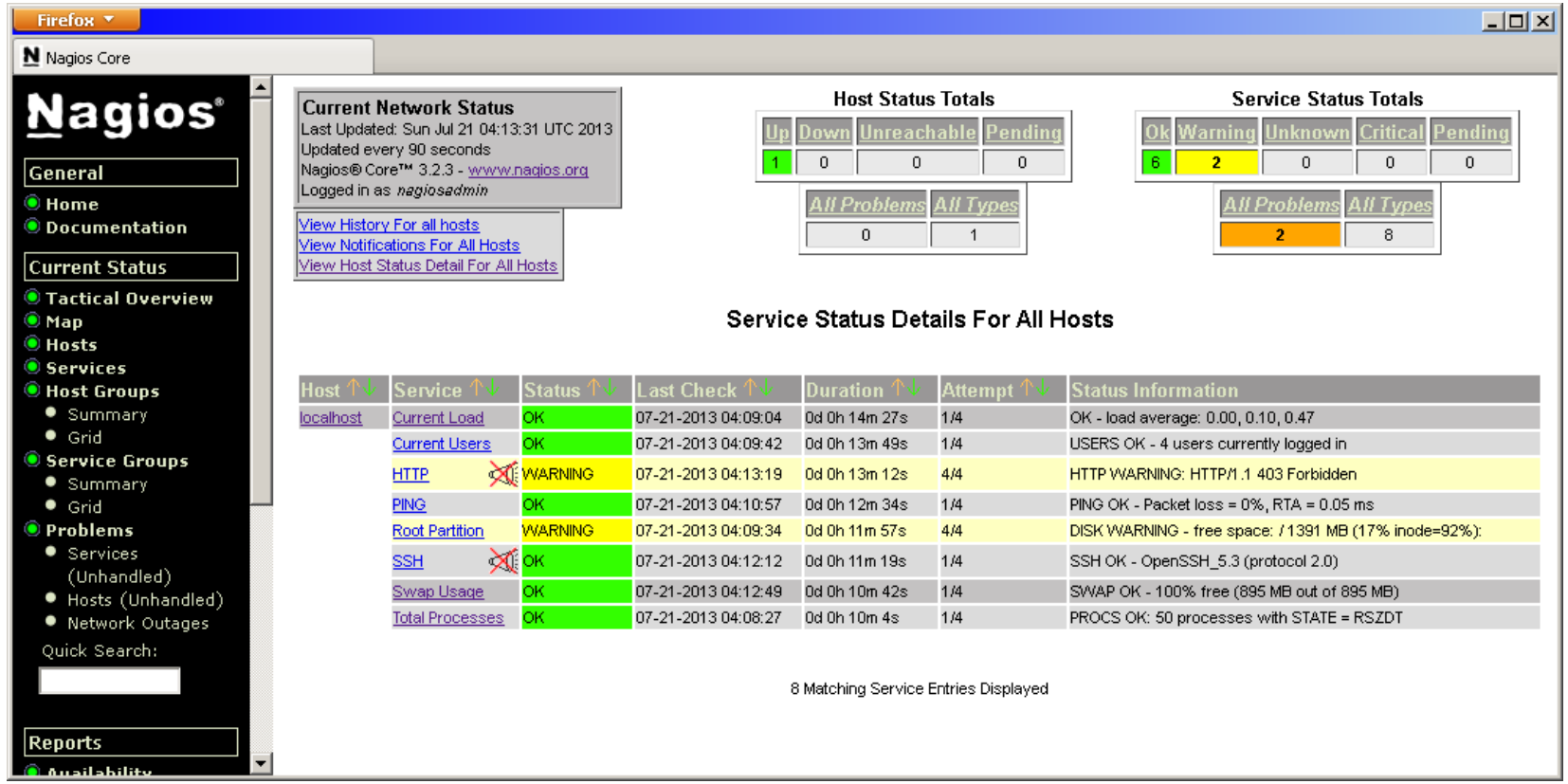
Monitoring Availability with Nagios

Module Overview

- Nagios monitoring
- Installing Nagios Core on Ubuntu
- Defining host entries
- Defining service entries
- Monitoring MySQL

Nagios Monitoring

- Monitoring of Network Services
- Monitoring of Host Resources
- Open Source GPL V2
- NSClient++ for Windows



- NTP Synchronization
- MySQL Servers

```
$ sudo apt-get install tasksel
$ grep Task /usr/share/tasksel/ubuntu-tasks.desc
$ sudo tasksel OR
$ sudo tasksel install lamp-server
```

Nagios will be installed on Ubuntu

First we install the LAMP stack, we may choose to add **tasksel** first to ease the installation of LAMPS

Configure password for MySQL root

```
$ sudo apt-get install nagios3
```

Installing Nagios

The package is part of the default repositories

Prompted to configure SMTP and add password for nagiosadmin

Apache is restarted at the end of the install

Demo: Installing LAMP and Nagios

Resolving Disk Critical Event

DISK CRITICAL - /home/user/.gvfs is not accessible: Permission denied

The Gnome VFS is not accessible to the nagios user account

This is normal but Danny needs to ignore the error in some way

/etc/nagios-plugins/config/disk.cfg

-A -i '.gvfs'

Demo: Post-Installation tasks

Define Host Entries

```
define host{
        use                             generic-host
        host_name                       localhost
        alias                           localhost
        address                         127.0.0.1
}
```

Define Nagios Host Entries

```
define host {
        host_name tick
        alias     tick NTP Server
        address 192.168.0.3
        use       generic-host
 }
```

```
$ sudo nagios3 -v /etc/nagios3/nagios.cfg
$ sudo service nagios3 restart
```

Pre-flight Checks

Before restarting Nagios to implement changes we can test the configuration.

Nagios will report a warning that there are no services associated with the new host

Demo: Viewing host data

```
$ sudo vi /etc/ntp.conf
restrict 192.168.0.163
AVOIDS: CRITICAL – Socket timeout after 10 seconds
```

NTP Changes

- We will add a service definition for NTP later.
- But, first we fix the NTP configuration
- The Nagios server will need NTP restrictions removed

Service Entries

NTP	OK	2014-12-30 15:57:11	0d 0h 11m 27s	1/4	NTP OK: Offset -0.000682 secs

```
define service {
    host_name tick
    service_description NTP
    check_command check_ntp
    use generic-service
 }
$ sudo /usr/lib/nagios/plugins/check_ntp_peer -H tick
```

Demo: Service entries and monitor NTP

Monitor MySQL

Create MySQL Account

Define Nagios Hostgroup

Define Nagios Service

```
CREATE USER ‘nagios’@’192.168.0.163’ IDENTIFIED BY
‘Password1;’
FLUSH PRIVILEGES;
```

On each MySQL Server

As the MySQL root create a new account limited to access from the Nagios server

```
define hostgroup {
    hostgroup_name  mysql-servers
    alias           MySQL Servers
    members         mysql1,mysql2
}
```

Create a Hostgroup

As we have more than one MySQL server

The MySQL Service can be associated with the hostgroup

```
define service {
hostgroup_name mysql-servers
service_description MYSQL
check_command check_mysql_cmdlinecred!nagios!Password1
use generic-service
}
```

Define MySQL Service

Demo: Monitoring MySQL

Additional monitoring tools include MRTG and Cacti

MRTG

The Multi Router Traffic Grapher - Used to monitor router traffic so long as the device is SNMP enabled

http://oss.oetiker.ch/mrtg/

Cacti

In many standard repositories such as Ubuntu and SUSE and provides web access to graphical performance data a little like collectd

Summary

- Monitored availability with Nagios
- Installed Nagios on Ubuntu 14.04
- Created hosts, hostgroups and service entries
- Monitored NTP and MySQL