

Introduction to Nagios

Systems Administration

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Our Problem

- ▶ We need to know when things break.
- ▶ We want to know about problems before things break.

Proposed Solutions

- ▶ ~~We perform various service checks on our systems regularly.~~
- ▶ ~~We write some scripts to automate these steps.~~
- ▶ ???
- ▶ Profit!
- ▶ We use a centralised monitoring tool.

Monitoring Tools

- ▶ Nagios
- ▶ Icinga
- ▶ Zabbix
- ▶ Spiceworks

Nagios is the best known and most widely used of these and is the one we will use in this paper.

Example Scenario

- ▶ We have a server, db.op-bit.nz, running the MySQL DBMS.
- ▶ We want to monitor server uptime and the MySQL service.
- ▶ One systems admin should be notified of any issues.
- ▶ We will use puppet to manage the Nagios config.

The Plan

We will define the following nagios resources in our Nagios Puppet module

- ▶ host: db.op-bit.nz
- ▶ hostgroup with our host as a member
- ▶ contact and contactgroup for the admin
- ▶ service: MySQL

Configuration File Overview

Contact

```
nagios_contact { 'cfrantz':  
  target => '/etc/nagios3/conf.d/ppt_contacts.cfg',  
  alias => 'C. Frantz',  
  service_notification_period => '24x7',  
  host_notification_period => '24x7',  
  service_notification_options => 'w,u,c,r',  
  host_notification_options => 'd,r',  
  service_notification_commands => 'notify-service-by-email',  
  host_notification_commands => 'notify-host-by-email',  
  email => 'root@localhost',  
}  
  
nagios_contactgroup { 'sysadmins':  
  target => '/etc/nagios3/conf.d/ppt_contactgroups.cfg',  
  alias => 'Systems Administrators',  
  members => 'cfrantz',  
}
```

Service

```
nagios_service { 'MySQL':  
  service_description => 'MySQL DB',  
  hostgroup_name => 'db-servers',  
  target => '/etc/nagios3/conf.d/ppt_mysql_service.cfg',  
  check_command => 'check_mysql',  
  max_check_attempts => 3,  
  retry_check_interval => 1,  
  normal_check_interval => 5,  
  check_period => '24x7',  
  notification_interval => 30,  
  notification_period => '24x7',  
  notification_options => 'w,u,c',  
  contact_groups => 'sysadmins',  
}
```

Host

```
nagios_hostgroup { 'db-servers':  
  target => '/etc/nagios3/conf.d/ppt_hostgroups.cfg',  
  alias => 'Database-Servers',  
  members => 'db.op-bit.nz',  
}  
  
nagios_host { 'db.op-bit.nz':  
  target => '/etc/nagios3/conf.d/ppt_hosts.cfg',  
  alias => 'db',  
  address => '10.25.1.18',  
  check_period => '24x7',  
  max_check_attempts => 3,  
  check_command => 'check-host-alive',  
  notification_interval => 30,  
  notification_period => '24x7',  
  notification_options => 'd,u,r',  
  contact_groups => 'sysadmins',  
}
```