Monit

Monit is a utility for managing and monitoring processes, programs, files, directories and filesystems on a Unix system. Monit conducts automatic maintenance and repair and can execute meaningful causal actions in error situations. E.g. Monit can start a process if it does not run, restart a process if it does not respond and stop a process if it uses too much resources. You can use Monit to monitor files, directories and filesystems for changes, such as timestamps changes, checksum changes or size changes.

Monit is controlled via an easy to configure control file based on a free-format, token-oriented syntax. Monit logs to syslog or to its own log file and notifies you about error conditions via customisable alert messages. Monit can perform various TCP/IP network checks, protocol checks and can utilise SSL for such checks. Monit provides a HTTP(S) interface and you may use a browser to access the Monit program.

Installing Monit on Ubuntu

Step 1: Install Monit Package

sudo apt update

sudo apt install monit

After installing Monit, the commands below can be used to stop, start and enable Monit service….

sudo systemctl stop monit.service

sudo systemctl start monit.service

sudo systemctl enable monit.service

Step 2: Configure Monit Service

Open Monit main config file and make the highlighted changes below, then save the file..

sudo nano /etc/monit/monitrc

The highlighted changes will allow HTTP access to Monit web interface…

Monit has an embedded HTTP interface which can be used to view status of

services monitored and manage services from a web interface. The HTTP

interface is also required if you want to issue Monit commands from the

command line, such as 'monit status' or 'monit restart service' The reason

for this is that the Monit client uses the HTTP interface to send these

```
## commands to a running Monit daemon. See the Monit Wiki if you want to
## enable SSL for the HTTP interface.
#
 set httpd port 2812 and
     use address localhost  # only accept connection from localhost
     allow localhost        # allow localhost to connect to the server and
     allow admin:monit      # require user 'admin' with password 'monit'
#    #with ssl {            # enable SSL/TLS and set path to server certificate
#    #    pemfile: /etc/ssl/certs/monit.pem
#    #}
```

Restart Monit service by running the commands below:

```
sudo systemctl restart monit.service
```

Configuring The System Services

The System

The example below, demonstrate how to test general key performance numbers on your host, such as load average, memory usage and CPU usage. The CPU usage parts, user, system and wait, can be tested individually. The $HOST variable is expanded by Monit to the host's DNS name. If your host does not have a DNS name, just write a string, naming your host and this name will be used as the host-name in alerts and in Monit's UI.

```
check system $HOST
    if loadavg (5min) > 3 then alert
    if loadavg (15min) > 1 then alert
    if memory usage > 80% for 4 cycles then alert
    if swap usage > 20% for 4 cycles then alert
    # Test the user part of CPU usage
    if cpu usage (user) > 80% for 2 cycles then alert
    # Test the system part of CPU usage
    if cpu usage (system) > 20% for 2 cycles then alert
    # Test the i/o wait part of CPU usage
    if cpu usage (wait) > 80% for 2 cycles then alert
    # Test CPU usage including user, system and wait. Note that
    # multi-core systems can generate 100% per core
    # so total CPU usage can be more than 100%
```

if cpu usage > 200% for 4 cycles then alert

By following for the above process for crowsoft , below was the result on monitoring the application