Preparing plugin for nagios

Alessandro Paolini

Nagios Plugin

- The sites status has to be sent to SuperB portal in order to prevent the job submission to bad behaviour sites
- This can be done by writing a proper nagios plugin
- A plugin is an external program that does all the dirty work: checking the status of hosts and services, executing particular operations,…

HOST STATES

- Hosts that are checked can be in one of three different states:
  - UP
  - DOWN
  - UNREACHABLE
- Host checks are performed by plugins, which can return a state of OK, WARNING, UNKNOWN, or CRITICAL.

Host State Changes

- When Nagios checks the status of hosts, it will be able to detect when a host changes between UP, DOWN, and UNREACHABLE states and take appropriate action
- These state changes result in different state types (HARD or SOFT), which can trigger event handlers to be run and notifications to be sent out.
- Detecting and dealing with state changes is what Nagios is all about
- When hosts change state too frequently they are considered to be "flapping"

Service States

- Services that are checked can be in one of four different states:
  - OK
  - WARNING
  - UNKNOWN
  - CRITICAL
- Service checks are performed by plugins, which can return a state of OK, WARNING, UNKNOWN, or CRITICAL. These plugin states directly translate to service states. For example, a plugin which returns a WARNING state will cause a service to have a WARNING state
- Services State changes in the same way of Host state changes

State Types

- The current state of monitored services and hosts is determined by two components:
  - The status of the service or host (i.e. OK, WARNING, UP, DOWN, etc.)
  - The *type of state the service or host is in*
- There are two state types in Nagios - SOFT states and HARD states. These state types are a crucial part of the monitoring logic, as they are used to determine when event handlers are executed and when notifications are initially sent out.
- In order to prevent false alarms from transient problems, Nagios allows you to define how many times a service or host should be (re)checked before it is considered to have a "real" problem.

Macros

- One of the main features that make Nagios so flexible is the ability to use macros in command defintions
- Macros allow you to reference information from hosts, services, and other sources in your commands.
- Several standard Macros:
  - Service checks $SERVICESTATE$ $SERVICESTATETYPE$ $SERVICEDESC$
  - Service notifications $NOTIFICATIONTYPE$ $NOTIFICATIONRECIPIENTS$
  - Host checks: $HOSTNAME$ $HOSTSTATE$ $HOSTSTATETYPE$
  - Host notifications

What to do

- Write a plugin that retrieves hosts and services status and properly updates the production system DB