NAGIOS

Server plugins - C++ code that modify the behaviour (services and protocols) of dedicated servers. They are used to provide everything from maintenance tools to additional game types.

Nagios runs on server as a daemon, periodically run plugins residing on the same server, they contact (ping,...) hosts and servers on your network, or on i-net. Also I can send info to Nagios → přes web interface par níže Xdávat "status information" a dostávat email, sms notification, když se něco stane + umožní na to reagovat event handlers.

Host definition:

Před monitoringem services → definovat host, který je spojený se services → soubor specifikovaný v "cfg files" nebo umístěný v celém "cfg dir"

Service definition:

Pro každou službu, kterou chci monitorovat → potřeba definovat service, který je spojen s vytvořenou host definition. umístění service def. → viz. výše.
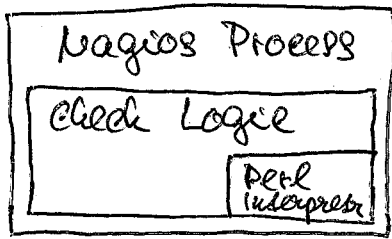
Monitoring HTTP:

Dio to je check-http plugin (rozumí protokolu HTTP a umíte monitorovat response-time, error codes, strings in returned HTML, server certificates,... → soubor commands. cfg obsahuje definici příkazu pro použití check-... pluginu

```
define command{
name check-http
command_name check-http
command-line $USER1$/check-http
     ↳ -I $HOSTADDRESS$ $ARG1$ }
define service {
use generic-service ; inherit values from
                         a template
host_name remotehost
service-description HTTP
check-command check-http}
```
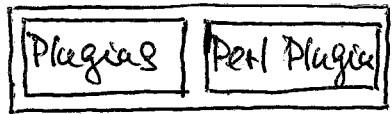
```
define host {
use generic-host;
host-name remotehost;
alias Some Remote Host
address
hostgroups allhosts;
     host groups this host is
     associated with }
```

Nagios velma zaklý nástroj mechanism pro kontrolu stavu služeb a sítě.
→ dělá to přes pluginy.

Plugin - script, musíe být run z comman ud line a kontroluje stav hosta nebo služeb, Nagios zpracuje výsledky, které dostal z pluginu a udělá akci (spustí event-handler, pošle notifikace...)

Send notification → decision is made in the service check and host

Check logic / zakladni < když nastane "hard state change"
< když je host v service v "hard non-OK" a uběhl ur ejt čas

Notifikuji → "contact-groups" option uvedne v host a service definition ..macro

$CONTACTEMAIL$ - email addres of the contact being notified
This value is taken from email directive → Contact definition
→ is used to identify someone who should by contacted in the event of problem of network.

define contact {
contact_name zdoe
host_notification-enabled 1/0
service_notification- —"— 1/0
host_notification-period 24x7
service- —"— 24x7
service_notification-options w,u,r,ct
host- —"— d,a,r
service_notification_commands notify-by-email
host- —"— host_notify-by-email
email zdoe@localhost.localdomain

Commands:
tkaž Nagios, který program, script, by měl
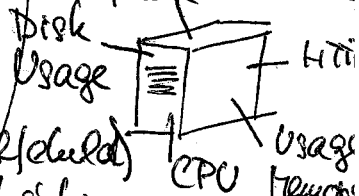provest: - Host-service check
- Notifications
- Event Handlers, ...

Objects: → all elements involved in the monitoring and notification logic (services, hosts, contacts, commands, time per,...)
- are defined in config. files (On quickstart → sample files are created)

Hl. typy objektu:
Hosts (fyzické zarizení, má IP nebo MAC adresu, má nekolik "service" napojenych na to, unitou být spojen s ostatní hosty jako parent/child)
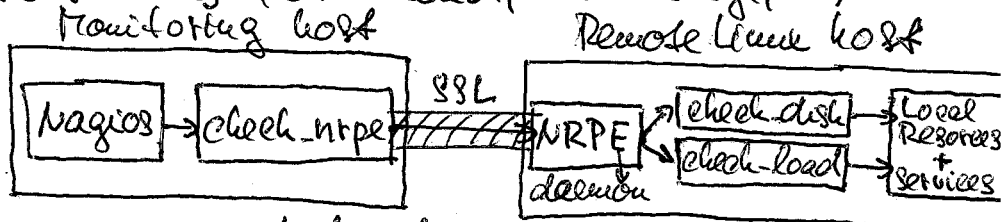Services (centrální objekt, je spojen s hostem a může být: -atributy hosta (CPU load, disk usage,...), -services provoced by the host (HTTP, POP3, SSH,...) -ostali věci spojené s hostem (DNS,...)
Contacts (lidé zainteresné u notifikaci, dostavají notifikace pro hosty

Monitoring Linux / Unix machines - NAGIOS

- to monitor private services (CPU load, Disk usage, ...)
  - NRPE addon
  - SSH keys

"Addon" - software package
that extends Nagio's functionality.

Direct:

Monitoring host

Nagios → check_nrpe ══SSL══ NRPE daemon → check_disk / check_load → Local Resources + Services

Remote Linux host

Indirect:

check-http → HTTP
check-ftp → FTP

Remote Web Server

① REMOTE HOST CONFIG:
  Remote Host Setup: → NRPE.pdf
    - to install the Nagios Plugins
    - to install xinetd
    - to install NRPE daemon
    - to test NRPE daemon locally
    - to open firewall rules by iptables
    - to customize NRPE commands
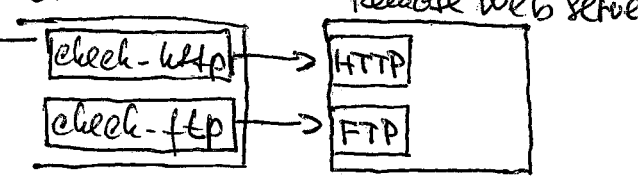
Monitoring Host Setup:
  - to install check-nrpe plugin
  - to test commun. with NRPE daemon
  - to create a command definition
  - to create host + service — " —
  - restart Nagios

vi /usr/local/nagios/etc/commands.cfg
define command{
command_name check_nrpe
command-line $USER1$/check_nrpe -H
$HOSTADDRESS$ -c $ARG1$ }

define service { ← Monitor CPU load on the remote host
use generic≠service
host-name ....
service-description CPU Load
check_command check-nrpe!check-load}   to je odesláno příkaze check_nrpe a to řekne NRPEd. aby spustil check_load příkaz definovaný v souboru nrpe.cfg

define service {
— " —
service-description Current Users
check-command check-nrpe!check-users} ← Monitor the currently logged users on the remote host

② MONITORING HOST CONFIG.
  → define new service for monitoring the swap usage on the remote host:
  define service{
  use generic-service
  host-name remotehost
  service-description Swap Usage
  check-command check-nrpe!check-swap}

→ check commande is passing "check-swap" to the check-nrpe command definition
→ this will cause the NRPEd. to run the check-swap command that was defined in the nrpe.cfg file on the remote host on the previous step.

Configuration - overview - NAGIOS

Nagios Daemon

CGIs

Main Config. File

CGI Config. Files

Resource File(s)

Object Defin. Files