

Nagios

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Nagios®

Introduction

- A key measurement tool for actively monitoring availability of devices and services.
- Possible the most used open source network monitoring software.
- Has a web interface.
 - Uses CGIs written in C for faster response and scalability.
- Can support up to thousands of devices and services.

Features

- Verification of availability is delegated to plugins:
 - The product's architecture is simple enough that writing new plugins is fairly easy in the language of your choice.
 - There are many, many plugins available.
- *Nagios uses parallel checking and forking.*
 - *Version 3 of Nagions does this better.*

Features cont.

- Has intelligent checking capabilities. Attempts to distribute the server load of running Nagios (for larger sites) and the load placed on devices being checked.
- Configuration is done in simple, plain text files, but that can contain much detail and are based on templates.
- Nagios reads it's configuration from an entire directory. You decide how to define individual files.

Yet More Features...

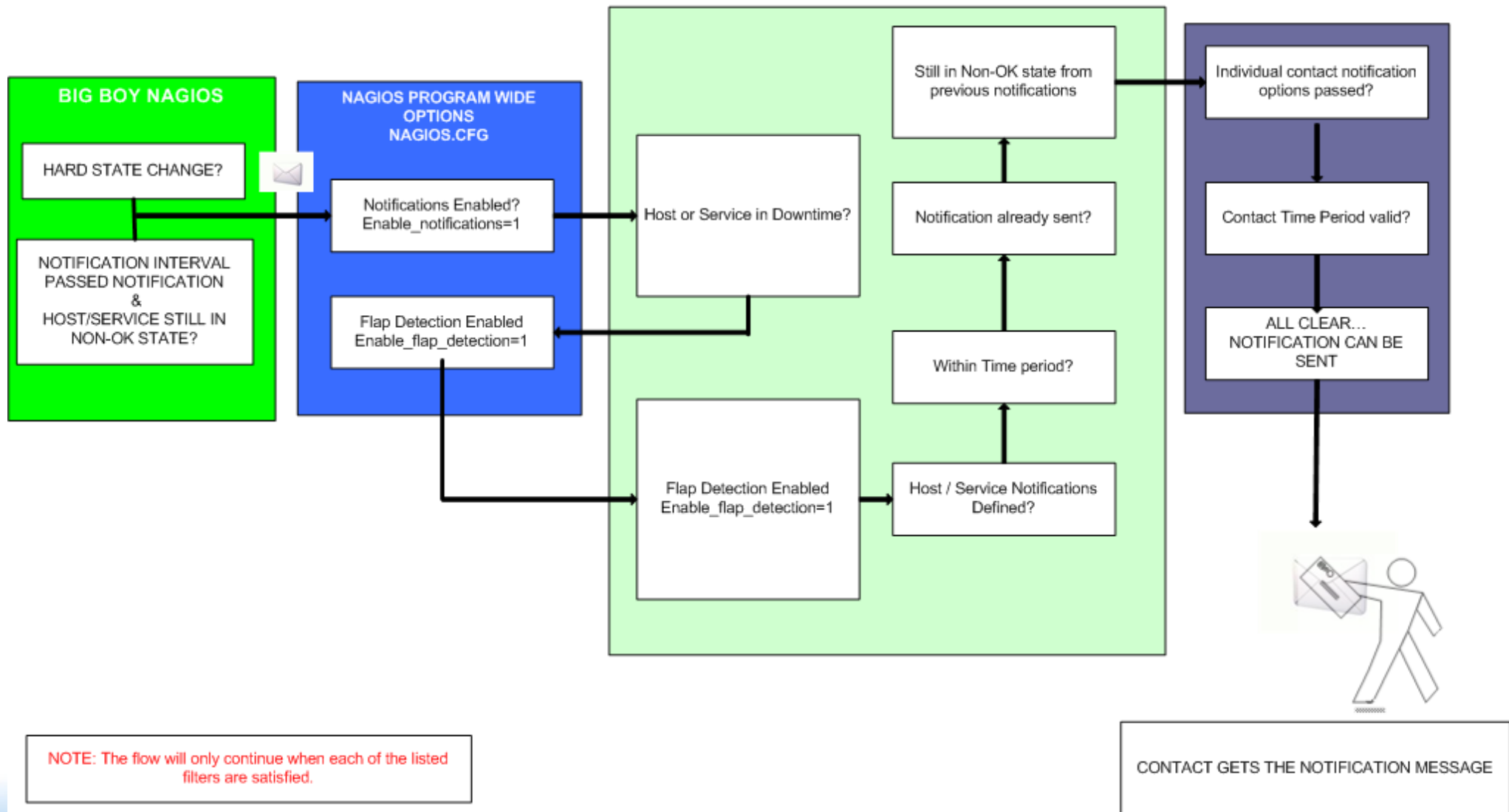
- Utilizes topology to determine dependencies.
 - *Nagios differentiates between what is down vs. what is not available. This way it avoids running unnecessary checks.*
- *Nagios allows you to define how you send notifications based on combinations of:*
 - *Contacts and lists of contacts*
 - *Devices and groups of devices*
 - *Services and groups of services*
 - *Defined hours by persons or groups.*
 - *The state of a service.*

And, even more...

Service state:

- When configuring a service you have the following notification options:
 - **d: DOWN:** The service is down (not available)
 - **u: UNREACHABLE:** When the host is not visible
 - **r: RECOVERY:** (OK) Host is coming back up
 - **f: FLAPPING:** When a host first starts or stops or its state is undetermined.
 - **n: NONE:** Don't send any notifications

NAGIOS - NOTIFICATION FLOW DIAGRAM



Features, features, features

- Allows you to acknowledge an event.
 - A user can add comments via the GUI
- You can define maintenance periods
 - By device or a group of devices
- Maintains availability statistics.
- Can detect *flapping* and suppress additional notifications.
- Allows for multiple notification methods such as:
 - e-mail, pager, SMS, winpopup, audio, etc...
- *Allows you to define notification levels. Critical feature.*

How Checks Work

- A node/host/device consists of one or more service checks (PING, HTTP, MYSQL, SSH, etc)
- Periodically Nagios checks each service for each node and determines if state has changed. State changes are:
 - CRITICAL
 - WARNING
 - UNKNOWN
- For each state change you can assign:
 - Notification options (as mentioned before)
 - Event handlers

How Checks Work

- Parameters
 - Normal checking interval
 - Re-check interval
 - Maximum number of checks.
 - Period for each check
- Node checks only happen when on services respond (assuming you've configured this).
 - A node can be:
 - DOWN
 - UNREACHABLE

How Checks Work

In this manner it can take some time before a host change's its state to “down” as Nagios first does a service check and then a node check.

By default Nagios does a node check 3 times before it will change the nodes state to down.

You can, of course, change all this.

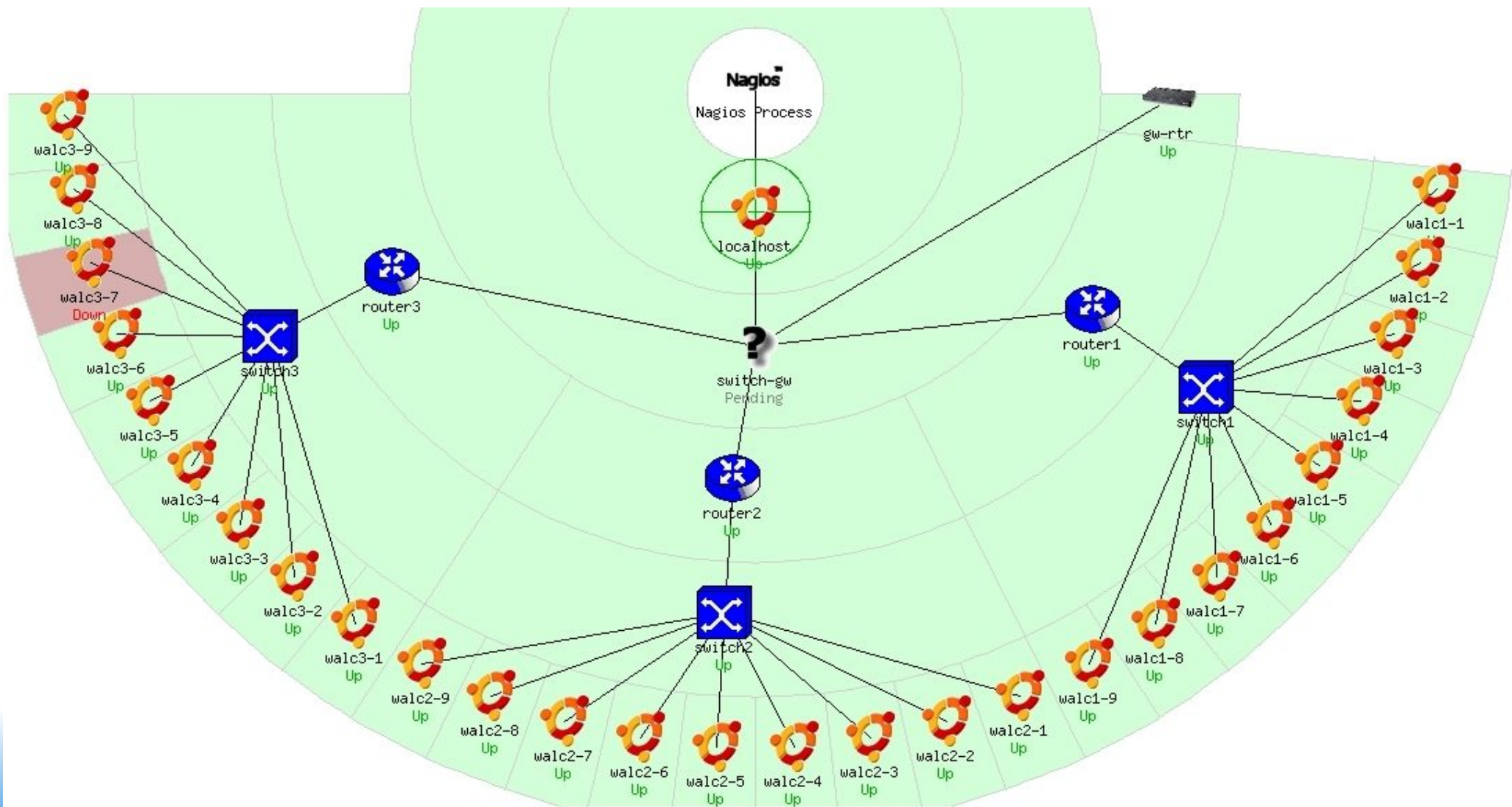
The Concept of “Parents”

- Nodes can have parents.
 - For example, the parent of a PC connected to a switch would be the switch.
 - This allows us to specify the network dependencies that exist between machines, switches, routers, etc.
 - This avoids having Nagios send alarms when a parent does not respond.
 - A node can have multiple parents.

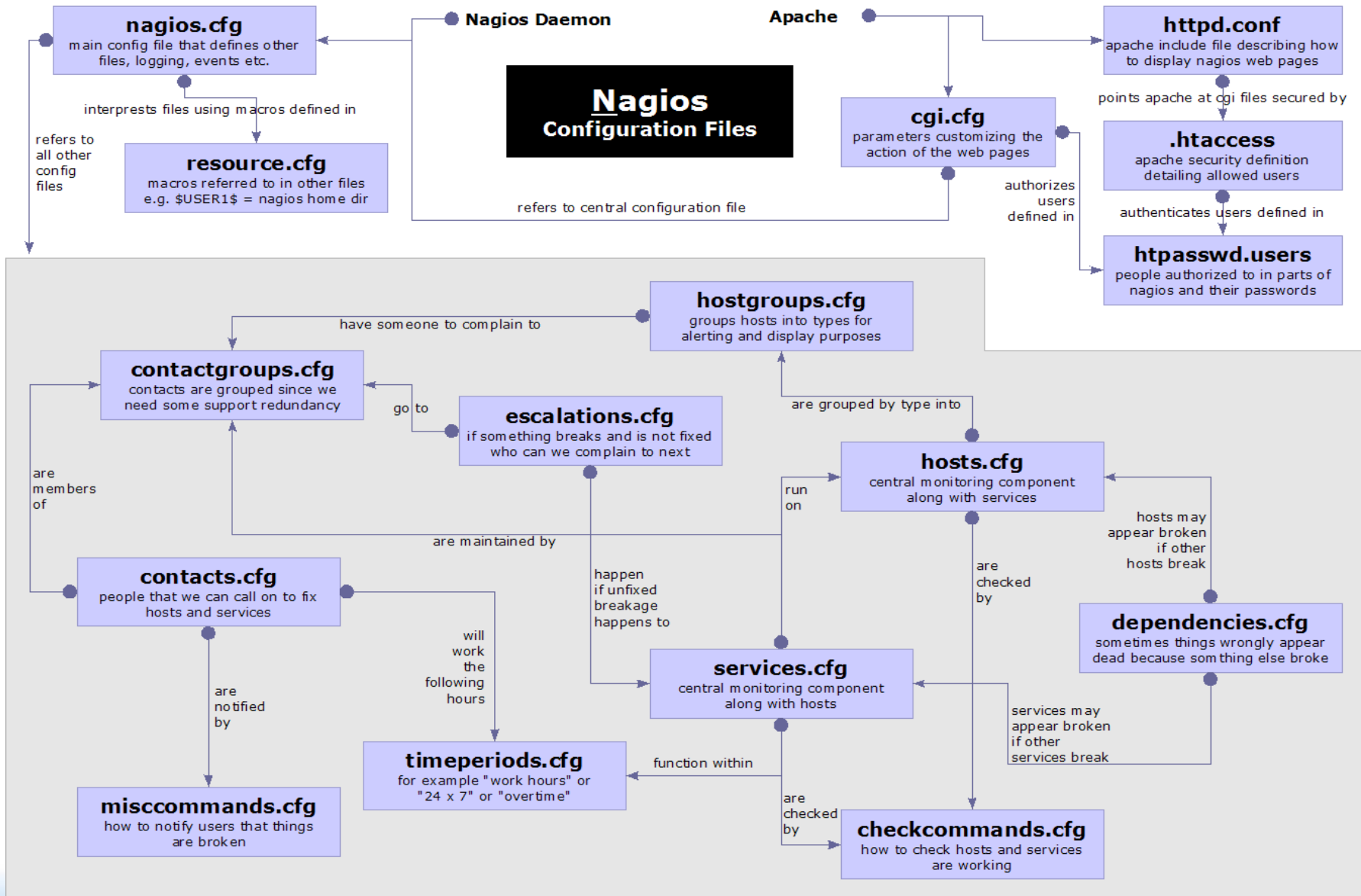
The Idea of Network Viewpoint

- Where you locate your Nagios server will determine your point of view of the network.
- Nagios allows for parallel Nagios boxes that run at other locations on a network.
- Often it makes sense to place your Nagios server nearer the border of your network vs. in the core.

Network Viewpoint



Nagios Configuration Files



Configuration Files

- Located in /etc/nagios3/
- Important files include:
 - `cgi.cfg` Controls the web interface and security options.
 - `commands.cfg` The commands that Nagios uses for notifications.
 - `nagios.cfg` Main configuration file.
 - `conf.d/*` All other configuration goes here!

Configuration Files

Under conf.d/* (*sample only*)

- `contacts_nagios3.cfg` users and groups
- `generic-host_nagios2.cfg` default host template
- `generic-service_nagios2.cfg` default service template
- `hostgroups_nagios2.cfg` groups of nodes
- `services_nagios2.cfg` what services to check
- `timeperiods_nagios2.cfg` when to check and who to notify

Configuration Files

Under conf.d some other possible configfiles:

- `host-gateway.cfg` Default route definition
- `extinfo.cfg` Additional node information
- `servicegroups.cfg` Groups of nodes and services
- `localhost.cfg` Define the Nagios server itself
- `pcs .cfg` Sample definition of PCs (hosts)
- `switches.cfg` Definitions of switches (hosts)
- `routers.cfg` Definitions of routers (hosts)

Plugin Configuration

The Nagios package in Ubuntu comes with a bunch of pre-installed plugins:

apt.cfg breeze.cfg dhcp.cfg disk-smb.cfg
disk.cfg dns.cfg dummy.cfg flexlm.cfg
fping.cfg ftp.cfg games.cfg hppjd.cfg
http.cfg ifstatus.cfg ldap.cfg load.cfg
mail.cfg mrtg.cfg mysql.cfg netware.cfg
news.cfg nt.cfg ntp.cfg pgsql.cfg
ping.cfg procs.cfg radius.cfg real.cfg rpc-
nfs.cfg snmp.cfg ssh.cfg tcp_udp.cfg
telnet.cfg users.cfg vsz.cfg

Main Configuration Details

- Global settings
- File: `/etc/nagios2/nagios.cfg`
 - Says where other configuration files are.
 - General Nagios behavior:
 - For large installations you should tune the installation via this file.
 - See: *Tunning Nagios for Maximum Performance*
http://nagios.sourceforge.net/docs/2_0/tuning

CGI Configuration

- Archivo: `/etc/nagios3/cgi.cfg`
 - You can change the CGI directory if you wish
 - Authentication and authorization for Nagios use.
 - Activate authentication via Apache's `.htpasswd` mechanism, or using RADIUS or LDAP.
 - Users can be assigned rights via the following variables:
 - `authorized_for_system_information`
 - `authorized_for_configuration_information`
 - `authorized_for_system_commands`
 - `authorized_for_all_services`
 - `authorized_for_all_hosts`
 - `authorized_for_all_service_commands`
 - `authorized_for_all_host_commands`

Time Periods

- This defines the base periods that control checks, notifications, etc.
 - Defaults: 24 x 7
 - Could adjust as needed, such as work week only.
 - Could adjust a new time period for “outside of regular hours”, etc.

```
# '24x7'
define timeperiod{
    timeperiod_name 24x7
    alias            24 Hours A Day, 7 Days A Week
    sunday           00:00-24:00
    monday           00:00-24:00
    tuesday          00:00-24:00
    wednesday        00:00-24:00
    thursday         00:00-24:00
    friday           00:00-24:00
    saturday         00:00-24:00
}
```

Configuring Service/Host Checks

Define how you are going to test a service.

```
# 'check-host-alive' command definition
define command{
    command_name    check-host-alive
    command_line    $USER1$/check_ping -H $HOSTADDRESS$ -w 2000.0,60% -c 5000.0,100%
    -p 1 -t 5
}
```

Located in /etc/nagios-plugins/config, then adjust in /etc/nagios3/conf.d/services_nagios2.cfg

Notification Commands

- Allows you to utilize any command you wish. We'll do this for our generating tickets in RT.

```
# 'notify-by-email' command definition
define command{
    command_name      notify-by-email
    command_line       /usr/bin/printf "%b" "Service: $SERVICEDESC$\nHost:
$HOSTNAME$\nIn: $HOSTALIAS$\nAddress: $HOSTADDRESS$\nState:
$SERVICESTATE$\nInfo: $SERVICEOUTPUT$\nDate: $SHORTDATETIME$" | /bin/mail -s
'$NOTIFICATIONTYPE$: $HOSTNAME$/$SERVICEDESC$ is $SERVICESTATE$'
$CONTACTEMAIL$
}
```

From: nagios@nms.localdomain
To: grupo-redes@localdomain
Subject: Host DOWN alert for switch1!
Date: Thu, 29 Jun 2006 15:13:30 -0700

Host: switch1
In: Core_Switches
State: DOWN
Address: 111.222.333.444
Date/Time: 06-29-2006 15:13:30
Info: CRITICAL - Plugin timed out after 6 seconds

Nodes and Services Configuration

- Based on templates
 - This saves lots of time avoiding repetition
 - *Similar to Object Oriented programming*
- Create default templates with default parameters for a:
 - generic node
 - generic service
 - generic contact

Generic Node Configuration

```
define host{
    name                generic-host
    notifications_enabled 1
    event_handler_enabled 1
    flap_detection_enabled 1
    process_perf_data    1
    retain_status_information 1
    retain_nonstatus_information 1
    check_command         check-host-alive
    max_check_attempts    5
    notification_interval 60
    notification_period   24x7
    notification_options   d,r
    contact_groups         nobody
    register              0
}
```

Individual Node Configuration

```
define host{  
    use                generic-host  
    host_name          switch1  
    alias              Core_switches  
    address            192.168.1.2  
    parents            router1  
    contact_groups     switch_group  
}
```

Generic Service Configuration

```
define service{
    name                                generic-service
    active_checks_enabled                1
    passive_checks_enabled               1
    parallelize_check                    1
    obsess_over_service                  1
    check_freshness                      0
    notifications_enabled                1
    event_handler_enabled                1
    flap_detection_enabled               1
    process_perf_data                    1
    retain_status_information            1
    retain_nonstatus_information         1
    is_volatile                          0
    check_period                         24x7
    max_check_attempts                   5
    normal_check_interval                5
    retry_check_interval                 1
    notification_interval                60
    notification_period                  24x7
    notification_options                 c,r
    register                             0
}
```

Individual Service Configuration

```
define service{  
    host_name          switch1  
    use                generic-service  
    service_description PING  
    check_command      check-host-alive  
    max_check_attempts 5  
    normal_check_interval 5  
    notification_options c,r,f  
    contact_groups      switch-group  
}
```

Automation

- To maintain large configurations by hand becomes tiresome.
 - It's better to simplify and automate using scripts.
 - <http://ns.uoregon.edu/~cvicente/download/nagios-config-s>
 - Or, export device (node) information from tools like Netdot, netdisco, OpenNMS, etc.

Beeper/SMS Messages

- It's important to integrate Nagios with something available outside of work
 - Problems occur after hours... (unfair, but true)
- A critical item to remember: an SMS or message system should be independent from your network.
 - You can utilize a modem and a telephone line
 - Packages like sendpage or qpage can help.

Some References

- <http://www.nagios.org>: Nagios web site
- <http://sourceforge.net/projects/nagiosplug>: Nagios plugins site
- *Nagios. System and Network Monitoring* by Wolfgang Barth. Good book on Nagios
- <http://www.nagiosexchange.org>: Unofficial Nagios plugin site
- <http://www.debianhelp.co.uk/nagios.htm>: A Debian tutorial on Nagios
- <http://www.nagios.com/>: Commercial Nagios support

And, the O'Reilly book you received in class!

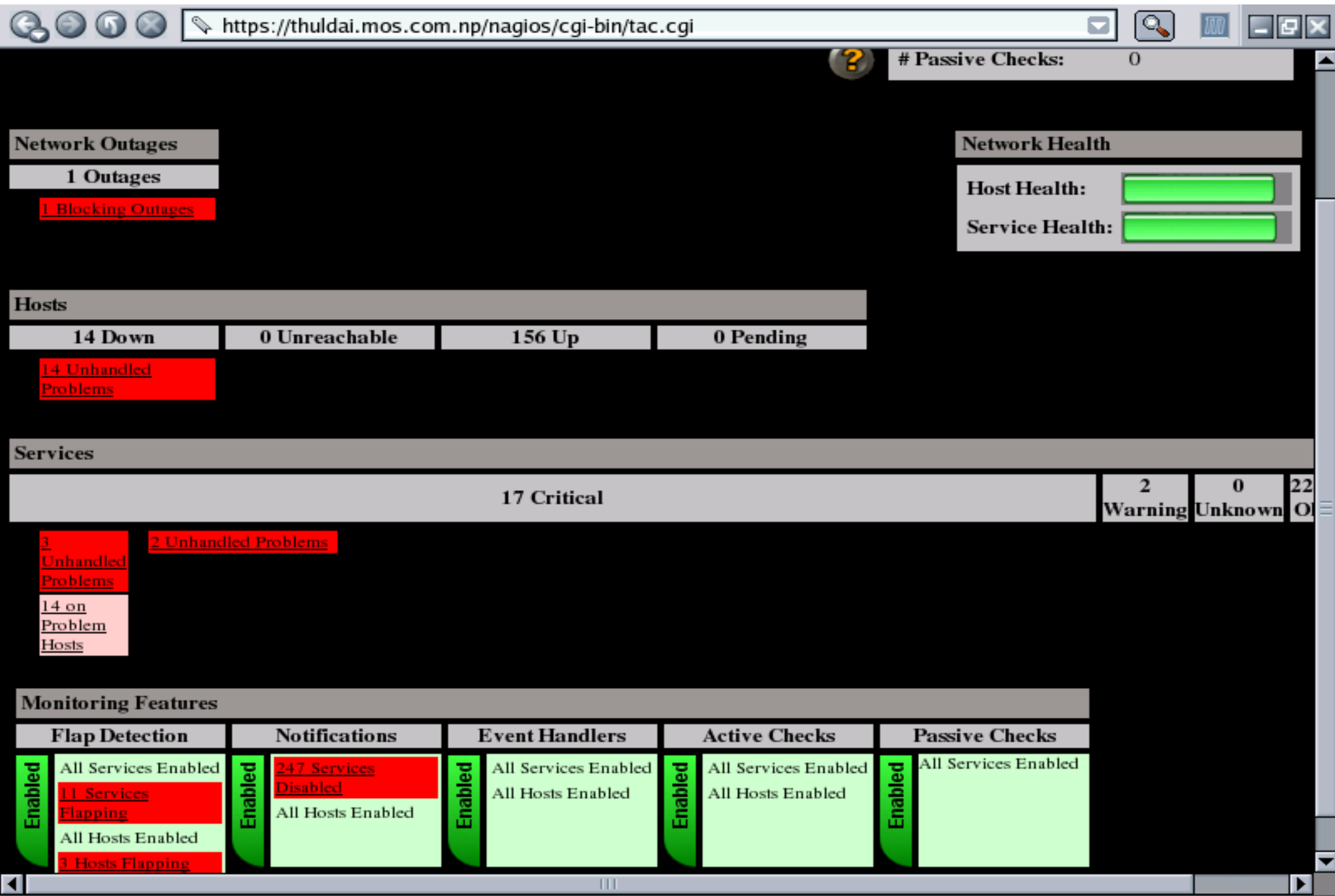


Reference Slides

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Nagios – Vista General (Tactical Overview)



Pantalla de Status Detail

https://thuldai.mos.com.np/nagios/index.html

Nagios®

General

- Home
- Documentation

Monitoring

- Tactical Overview
- Service Detail
- Host Detail
- Status Overview
- Status Summary
- Status Grid
- Status Map
- 3-D Status Map
- Service Problems
- Host Problems**
- Network Outages
- Comments
- Downtime
- Process Info
- Performance Info
- Scheduling Queue

Reporting

- Trends
- Availability
- Alert Histogram
- Alert History
- Alert Summary
- Notifications

Current Network Status
 Last Updated: Sun Feb 1 12:17:48 NPT 2004
 Updated every 90 seconds
 Nagios® - www.nagios.org
 Logged in as dhruba

[View Service Status Detail For All Host Groups](#)
[View Status Overview For All Host Groups](#)
[View Status Summary For All Host Groups](#)
[View Status Grid For All Host Groups](#)

Host Status Totals

Up	Down	Unreachable	Pending
155	15	0	0

[All Problems](#) [All Types](#)

15	170
----	-----

Service Status Totals

Ok	Warning	Unknown	Critical	Pending
226	5	0	16	0

[All Problems](#) [All Types](#)

21	247
----	-----

Display Filters:

Host Status Types: All problems
 Host Properties: Any
 Service Status Types: All
 Service Properties: Any

Host Status Details For All Host Groups

Host ↑↓	Status ↑↓	Last Check ↑↓	Duration ↑↓	Status Information
CHILDREN-FIRST	DOWN	02-01-2004 12:13:59	1d 19h 10m 33s	PING CRITICAL - Packet loss = 100%
DANIDA	DOWN	02-01-2004 12:15:55	1d 0h 43m 12s	PING CRITICAL - Packet loss = 100%
DASS	DOWN	02-01-2004 12:08:59	4d 0h 40m 42s	PING CRITICAL - Packet loss = 100%
FNCCI	DOWN	02-01-2004 12:12:38	4d 0h 40m 2s	PING CRITICAL - Packet loss = 100%
ITLINK	DOWN	02-01-2004 12:15:55	0d 1h 37m 12s	PING CRITICAL - Packet loss = 100%
Laz-cnet	DOWN	02-01-2004 12:12:38	4d 0h 38m 53s	PING CRITICAL - Packet loss = 100%

Pantalla de Service Detail

The screenshot shows a Mozilla browser window at the URL https://thuldai.mos.com.np/nagios/cgi-bin/status.cgi?host=all. The page features several summary boxes: 'Current Network Status' with update info and links; 'Host Status Totals' showing 155 Up, 15 Down, 0 Unreachable, and 0 Pending hosts; 'Service Status Totals' showing 228 Ok, 3 Warning, 0 Unknown, 16 Critical, and 0 Pending services. Below these are two tables for 'All Problems' (15) and 'All Types' (170). A large table titled 'Service Status Details For All Hosts' lists five hosts: ACTIONAID, AFP, AGNIPAGE, BRTSCHOOL, and Ban-cat, all with 'OK' status. The bottom of the screen shows a Windows taskbar with various icons and the system clock reading Sun Feb 01, 9:26 PM.

Tipos de Servicios

Current Service Status - Mozilla

File Edit View Go Bookmarks Tools Window Help

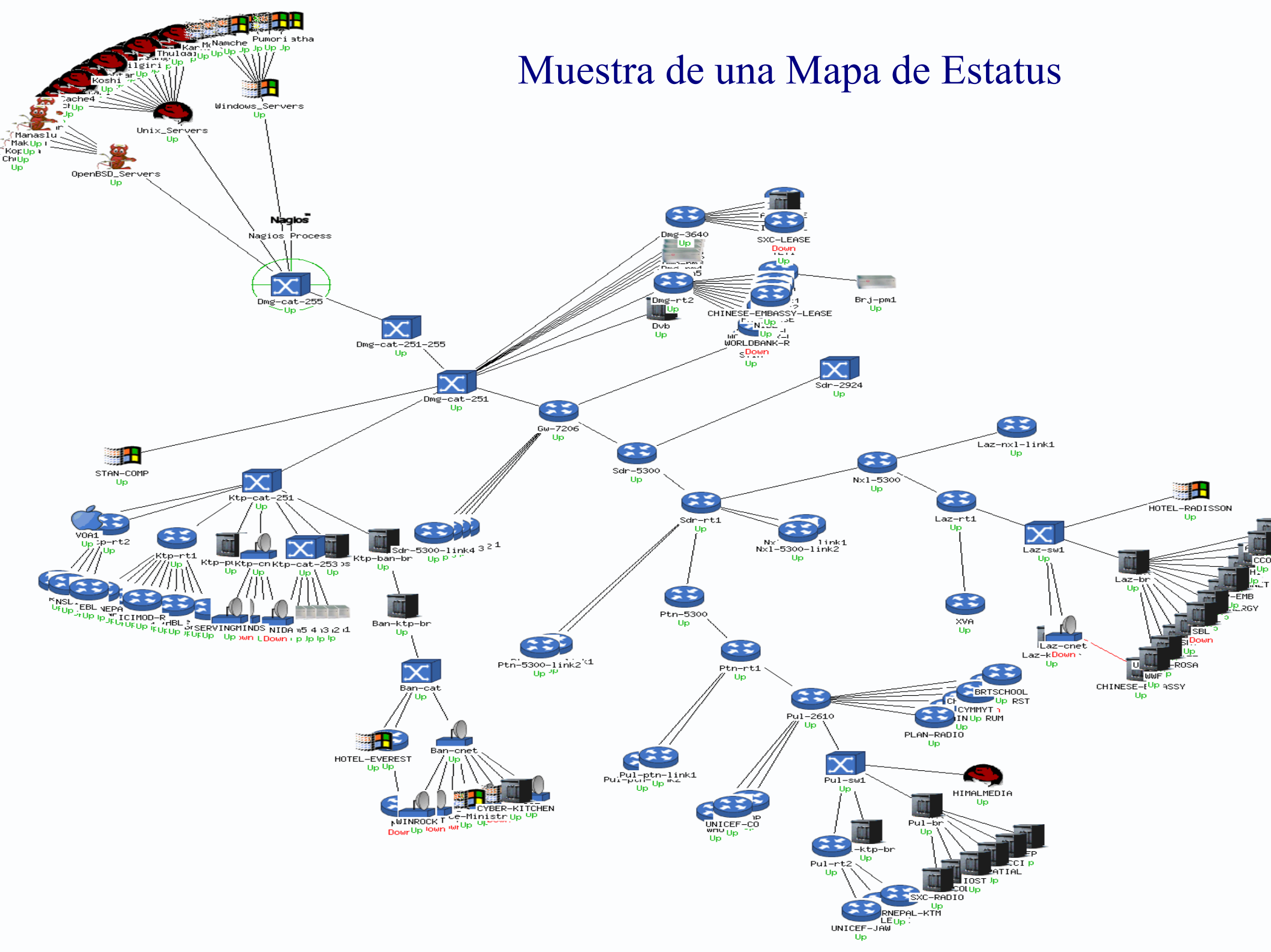
https://thuldai.mos.com.np/nagios/cgi-bin/status.cgi?host=all Search

Host	Service	Status	Output
Kailash	Cpu-usage	OK	SNMP OK: usr-cpu:1, sys-cpu:1,
	FTP	OK	FTP OK - 0.007 second response time port 21 [220 kailash.mos.com.np FTP server ready.]
	Free-Memory	OK	SNMP OK: Ram-Free:3100,
	HTTP	OK	HTTP ok: HTTP/1.1 200 OK - 0.021 second response time
	Load	OK	SNMP OK: 1MIN-Load:0.08, 5MIN-Load:0.05, 15MIN-Load:0.00,
	Ping	OK	PING OK - Packet loss = 0%, RTA = 0 ms
	disk_usage	OK	Disk utilization: All disks OK
Karnali	Ping	OK	PING OK - Packet loss = 0%, RTA = 1 ms
Kopila	Cpu-usage	OK	SNMP OK: usr-cpu:0, sys-cpu:1,
	Free-Memory	OK	SNMP OK: Ram-Free:3808,
	Load	OK	SNMP OK: 1MIN-Load:0.18, 5MIN-Load:0.19, 15MIN-Load:0.18,
	POP	OK	POP OK - 0.028 second response time port 110 [+OK <8832.1075610415@kopila.mos.com
	Ping	OK	PING OK - Packet loss = 0%, RTA = 1 ms
Koshi	Ping	OK	PING OK - Packet loss = 0%, RTA = 9 ms

Done

Mozilla-bi [root@dhr] Sun Feb 01, 9:56 PM

Muestra de una Mapa de Estatus



Vista General de Estatus (Status Overview)



[All Routers @Durbar Marg-KTM \(Routers@DMG\)](#)

Host	Status	Services	Actions
Dmg-3640	UP	1 OK	
Dmg-rt2	UP	1 OK	
Gw-7206	UP	1 OK	

[All Routers @Kantipath-KTM \(Routers@KP\)](#)

Host	Status	Services	Actions
Ktp-rt1	UP	1 OK	
Ktp-rt2	UP	1 OK	




[All Routers @Lazim](#)

Host	Status	Services
Laz-nxl-link1	UP	1 OK
Laz-rt1	UP	1 OK

[All Routers @POPs w/ Lease Link \(Routers@POPsL\)](#)

Host	Status	Services	Actions
Bri-gw	UP	1 OK	
Bri-gw	UP	1 OK	
Bri-link1	UP	1 OK	
Bri-link2	UP	1 OK	
Htd-lease	DOWN	1 CRITICAL	



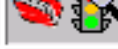
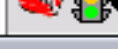
[All Routers @POPs w/ VSAT Link \(Routers@POPsV\)](#)

Host	Status	Services	Actions
Brj-2501	UP	1 OK	
Btl-vsai	UP	1 OK	
Htd-vsai	UP	1 WARNING	
Nam-gw	UP	1 OK	


[All Routers @Sundhara](#)

Host	Status	Services
Ptn-rt1	UP	1 OK



[All Routers @Pulchowk-KTM \(Routers@PUL\)](#)

Host	Status	Services	Actions
Pul-2610	UP	1 OK	
Pul-ptn-link1	UP	1 OK	
Pul-ptn-link2	UP	1 OK	
Pul-rt2	UP	1 OK	

[All Routers @Sundhara \(Routers@SDR\)](#)

Host	Status	Services	Actions
Sdr-rt1	UP	1 OK	

[All Routers @Xpressway \(Routers@X\)](#)

Host	Status
AGNIPAGE	
BRTSCHOOL	

Vista Sumaria de Hostgroups

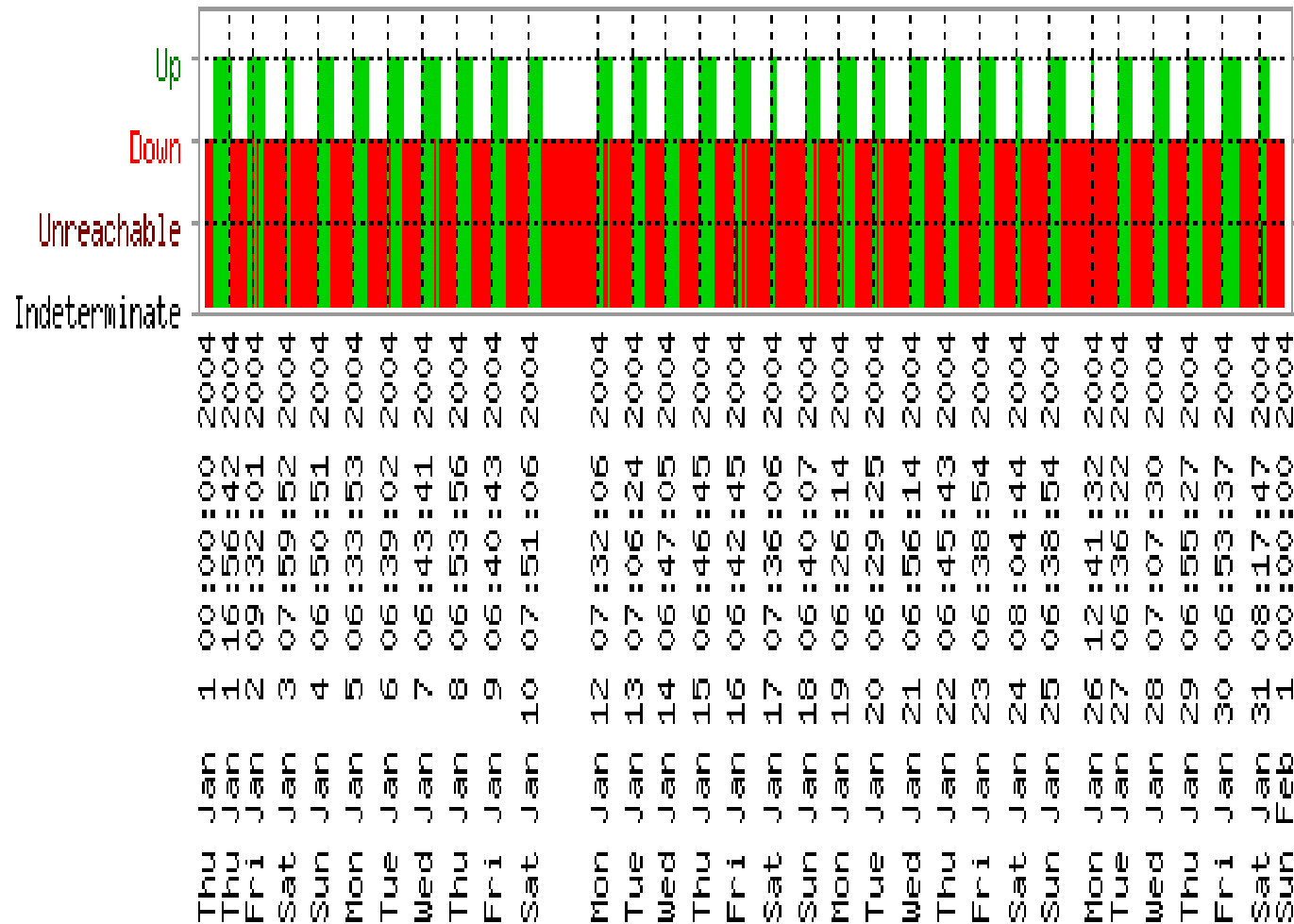
https://thuldai.mos.com.np/nagios/cgi-bin/status.cgi?hostgroup=all&style=summary		
Status Summary For All Host Groups		
Host Group	Host Status Totals	Service Status Totals
Access Servers@KTM (AS@KTM)	11 UP	11 OK
All Routers @KTM (Routers@KTM)	7 UP	7 OK
All Routers @MIX Customers w/ Radio Link (Routers@MIXR)	1 UP	1 OK
All Routers @Xpreway Customers w/ Radio Link (Routers@XprewayR)	19 UP 1 DOWN	19 OK 1 CRITICAL
All Routers @Xpreway Customers w/ Radio Link (Cnet Clients@XprewayR)	6 UP 4 DOWN	5 OK 5 CRITICAL
All Cnets @KTM (Cnets@KTM)	2 UP 1 DOWN	2 OK 1 CRITICAL
All Co-located Servers (Co-locators)	2 UP	2 OK
Ipricot DVB @DMG (DVB@DMG)	1 UP	1 OK
All Email-alert-only Boxes (E-boxes)	1 UP	1 OK
All Livingston Portmasters @Kathmandu (Portmasters@KTM)	10 UP	10 OK
All Livingston Portmasters @MC-POPs (Portmasters@POPs)	1 UP	1 WARNING
All Routers @Baneshor (Routers@BAN)	1 UP	1 OK
All Routers @Durbar Marg-KTM (Routers@DMG)	3 UP	3 OK
All Routers @Kantipath-KTM (Routers@KP)	2 UP	2 OK
All Routers @Lazimpat (Routers@LAZ)	2 UP	2 OK
All Routers @POPs w/ Lease Link (Routers@POPsL)	4 UP 1 DOWN	4 OK 1 CRITICAL

Historia o Tendencias de Hosts

Apr
Trends

State History For Host 'Don_Bosco'

Thu Jan 1 00:00:00 2004 to Sun Feb 1 00:00:00 2004

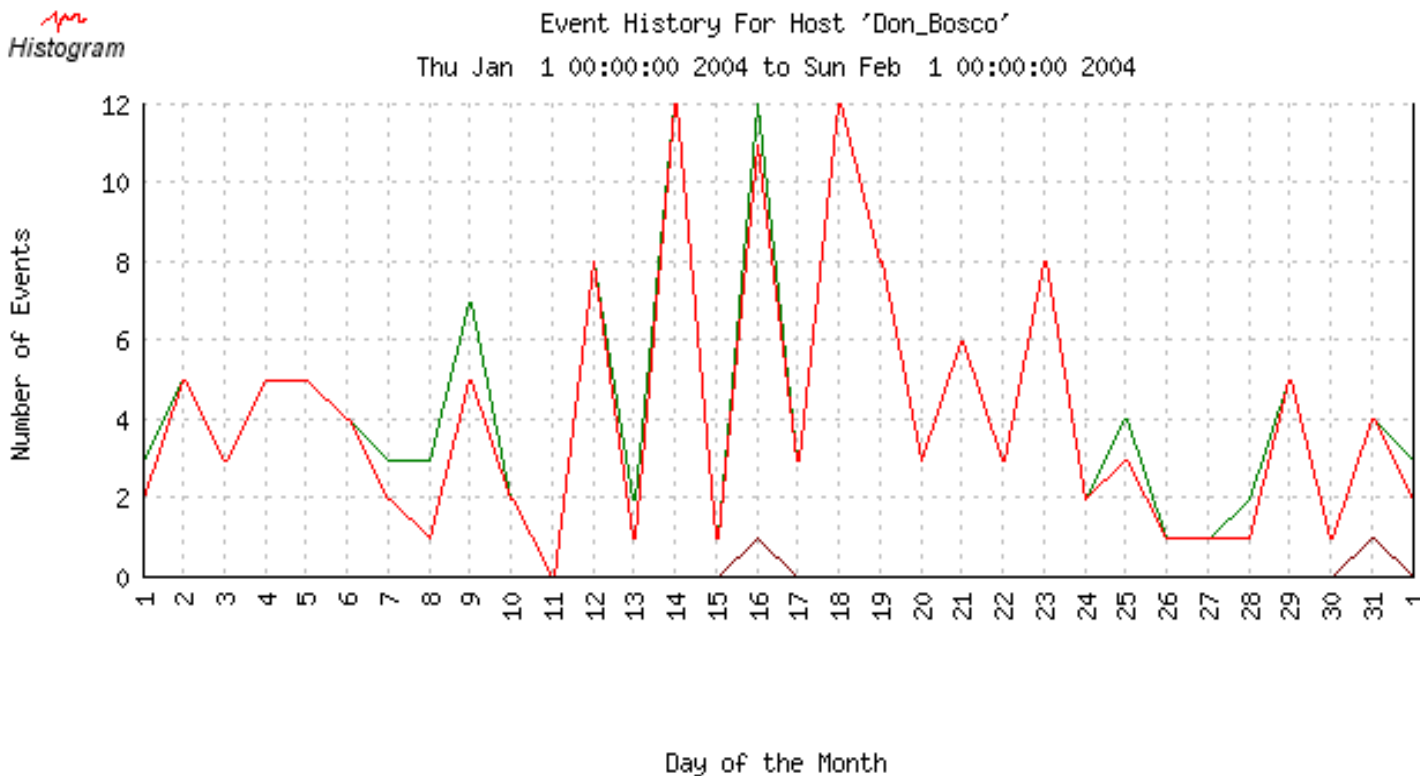


State Breakdowns:

Up : (32.6%) 10d 2h 21m 41s
 Down : (67.1%) 20d 19h 17m 27s
 Unreachable : (0.3%) 0d 2h 5m 12s
 Indeterminate: (0.0%) 0d 0h 15m 40s



Histogram de un Host



EVENT TYPE	MIN	MAX	SUM	AVG
Recovery (Up):	0	12	138	4.45
Down:	0	12	128	4.13
Unreachable:	0	1	2	0.06



Event Logs

https://thuldai.mos.com.np/nagios/cgi-bin/showlog.cgi

Current Event Log

Last Updated: Sun Feb 1 12:15:31 NPT 2004
Nagios® - www.nagios.org
Logged in as *dhruba*

Latest
Archive



Log File Navigation

Sun Feb 1 00:00:00
NPT 2004
to
Present..

☐ Older Entries First:

Update



File: /usr/local/nagios/var/nagios.log

February 01, 2004 12:00

- [02-01-2004 12:14:28] HOST NOTIFICATION: Amod;WORLDBANK-R;DOWN;host-notify-by-email;PING CRITICAL - Packet loss = 100%
- [02-01-2004 12:14:28] HOST NOTIFICATION: Amod;WORLDBANK-R;DOWN;host-notify-by-epager;PING CRITICAL - Packet loss = 100%
- [02-01-2004 12:14:28] HOST NOTIFICATION: DeepakA;WORLDBANK-R;DOWN;host-notify-by-epager;PING CRITICAL - Packet loss = 100%
- [02-01-2004 12:14:28] HOST NOTIFICATION: Krishna;WORLDBANK-R;DOWN;host-notify-by-epager;PING CRITICAL - Packet loss = 100%
- [02-01-2004 12:14:27] HOST NOTIFICATION: NirajS;WORLDBANK-R;DOWN;host-notify-by-email;PING CRITICAL - Packet loss = 100%
- [02-01-2004 12:14:27] HOST NOTIFICATION: Prabhu;WORLDBANK-R;DOWN;host-notify-by-epager;PING CRITICAL - Packet loss = 100%
- [02-01-2004 12:14:27] HOST NOTIFICATION: Ravin;WORLDBANK-R;DOWN;host-notify-by-email;PING CRITICAL - Packet loss = 100%
- [02-01-2004 12:14:27] HOST NOTIFICATION: Ravin;WORLDBANK-R;DOWN;host-notify-by-epager;PING CRITICAL - Packet loss = 100%
- [02-01-2004 12:14:27] HOST NOTIFICATION: Upendra;WORLDBANK-R;DOWN;host-notify-by-email;PING CRITICAL - Packet loss = 100%
- [02-01-2004 12:12:16] SERVICE ALERT: SDC;Ping;WARNING;HARD;1;PING WARNING - Packet loss = 60%, RTA = 23.73 ms
- [02-01-2004 12:12:16] HOST ALERT: SDC;DOWN;HARD;1;PING CRITICAL - Packet loss = 100%
- [02-01-2004 12:11:09] SERVICE ALERT: Htd-vsats;Ping;WARNING;HARD;3;PING WARNING - Packet loss = 40%, RTA = 674.22 ms
- [02-01-2004 12:10:26] SERVICE ALERT: Htd-lease;Ping;WARNING;HARD;3;PING WARNING - Packet loss = 40%, RTA = 385.85 ms
- [02-01-2004 12:08:58] SERVICE FLAPPING ALERT: WORLDBANK-R;Ping;STOPPED; Service appears to have stopped flapping (3.8% change < 5.0% threshold)
- [02-01-2004 12:08:49] HOST NOTIFICATION: Gyanu;Htd-lease;UP;host-notify-by-email;PING OK - Packet loss = 30%, RTA = 357.24 ms
- [02-01-2004 12:08:48] HOST NOTIFICATION: Ishwar;Htd-lease;UP;host-notify-by-email;PING OK - Packet loss = 30%, RTA = 357.24 ms
- [02-01-2004 12:08:48] HOST NOTIFICATION: Kedar;Htd-lease;UP;host-notify-by-epager;PING OK - Packet loss = 30%, RTA = 357.24 ms
- [02-01-2004 12:08:48] HOST NOTIFICATION: MSurya;Htd-lease;UP;host-notify-by-email;PING OK - Packet loss = 30%, RTA = 357.24 ms

Quien Recibe

Notifications

Contact Notifications

Last Updated: Sun Feb 1 12:07:59 NPT 2004
Nagios® - www.nagios.org
Logged in as *dhruba*

All Contacts

Log File Navigation

Sun Feb 1 00:00:00
NPT 2004
to
Present..

Latest
Archive



Notification detail level for all contacts:

All notifications

Older Entries First:

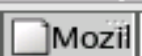
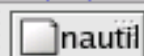


Update



File: /usr/local/nagios/var/nagios.log

Host	Service	Type	Time	Contact	Notification Command	Information
WORLDBANK-R	N/A	HOST DOWN	02-01-2004 11:13:12	Amod	host-notify-by-email	PING CRITICAL - Packet loss = 100%
WORLDBANK-R	N/A	HOST DOWN	02-01-2004 11:13:12	Amod	host-notify-by-epager	PING CRITICAL - Packet loss = 100%
WORLDBANK-R	N/A	HOST DOWN	02-01-2004 11:13:11	DeepakA	host-notify-by-epager	PING CRITICAL - Packet loss = 100%
WORLDBANK-R	N/A	HOST DOWN	02-01-2004 11:13:11	Krishna	host-notify-by-epager	PING CRITICAL - Packet loss = 100%
WORLDBANK-R	N/A	HOST DOWN	02-01-2004 11:13:11	NirajS	host-notify-by-email	PING CRITICAL - Packet loss = 100%
WORLDBANK-R	N/A	HOST DOWN	02-01-2004 11:13:11	Prabhu	host-notify-by-epager	PING CRITICAL - Packet loss = 100%
WORLDBANK-R	N/A	HOST DOWN	02-01-2004 11:13:11	Ravin	host-notify-by-email	PING CRITICAL - Packet loss = 100%
WORLDBANK-R	N/A	HOST DOWN	02-01-2004 11:13:10	Ravin	host-notify-by-epager	PING CRITICAL - Packet loss = 100%
WORLDBANK-R	N/A	HOST DOWN	02-01-2004 11:13:08	Upendra	host-notify-by-email	PING CRITICAL - Packet loss = 100%
Laz-cnet	N/A	HOST DOWN	02-01-2004 11:07:49	Amod	host-notify-by-email	PING CRITICAL - Packet loss = 100%
Laz-cnet	N/A	HOST DOWN	02-01-2004 11:07:49	Amod	host-notify-by-epager	PING CRITICAL - Packet loss = 100%
Laz-cnet	N/A	HOST DOWN	02-01-2004 11:07:49	DeepakA	host-notify-by-epager	PING CRITICAL - Packet loss = 100%
Laz-cnet	N/A	HOST DOWN	02-01-2004 11:07:49	Krishna	host-notify-by-epager	PING CRITICAL - Packet loss = 100%
Laz-cnet	N/A	HOST DOWN	02-01-2004 11:07:49	Prabhu	host-notify-by-epager	PING CRITICAL - Packet loss = 100%
Laz-cnet	N/A	HOST DOWN	02-01-2004 11:07:48	Ravin	host-notify-by-email	PING CRITICAL - Packet loss = 100%
Laz-cnet	N/A	HOST DOWN	02-01-2004 11:07:48	Ravin	host-notify-by-epager	PING CRITICAL - Packet loss = 100%
Laz-cnet	N/A	HOST DOWN	02-01-2004 11:07:48	Upendra	host-notify-by-email	PING CRITICAL - Packet loss = 100%
Htd-lease	N/A	HOST DOWN	02-01-2004 10:56:06	Gyanu	host-notify-by-email	PING CRITICAL - Packet loss = 100%
Htd-lease	N/A	HOST DOWN	02-01-2004 10:56:06	Ishwar	host-notify-by-email	PING CRITICAL - Packet loss = 100%



Sun Feb 01, 11:37 PM