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İçindekiler

Ön Söz

Bu belge temel olarak Nagios monitoring sisteminin CentOS işletim sistemine kurulumunu ele almaktadır.

Belge mümkün olduğu kadar kısa ve basit tutulmuş ve en temel şekli ile Nagios kurulumunu ve kullanımını örnekler ile incelemeniz için gerekli rehberliği yapacak şekilde hazırlanmıştır. Belgenin yeni sürümlerine <http://www.cehturkiye.com> adresinden ulaşabilirsiniz.

Belge **Ozan UÇAR** tarafından yazılmıştır ve yazarın ismine sadık kalmak kaydı ile belge izin alınmaksızın her şekilde paylaşılabilir ve dağıtılabilir.

Nagios ile Alt Yapı Yönetimi

Nagios ile Neler Yapabilirsiniz ?

Nagios kullanarak yapabilecekleriniz;

Tüm altyapı ve iş süreçlerini izleyebilirsiniz.

Altyapı değişikliği için önceki sistemlerin başarısızlıklarını gözlemleyebilirsiniz.

Tepit edilen problemleri otomatik olarak çözebilirsiniz.

Kuruluşunuzun altyapısındaki kesintileri minimuma indirebilirsiniz.

Raporlama ve istatistiksel bilgiler toplayabilirsiniz.

Nagios Kurulumu

Bu yazıda anlatılan işlemler CentOS işletim sistemini kapsamaktadır. Kullandığınız diğer linux dağıtımı için ayarlar farklılık gösterir.

Kurulum öncesi hazırlık

```
# yum -y install httpd gcc gd gd-devel  
  
# chkconfig --level 2345 httpd on
```

Kurulum

```
# yum install nagios  
  
# yum install nagios-plugins
```

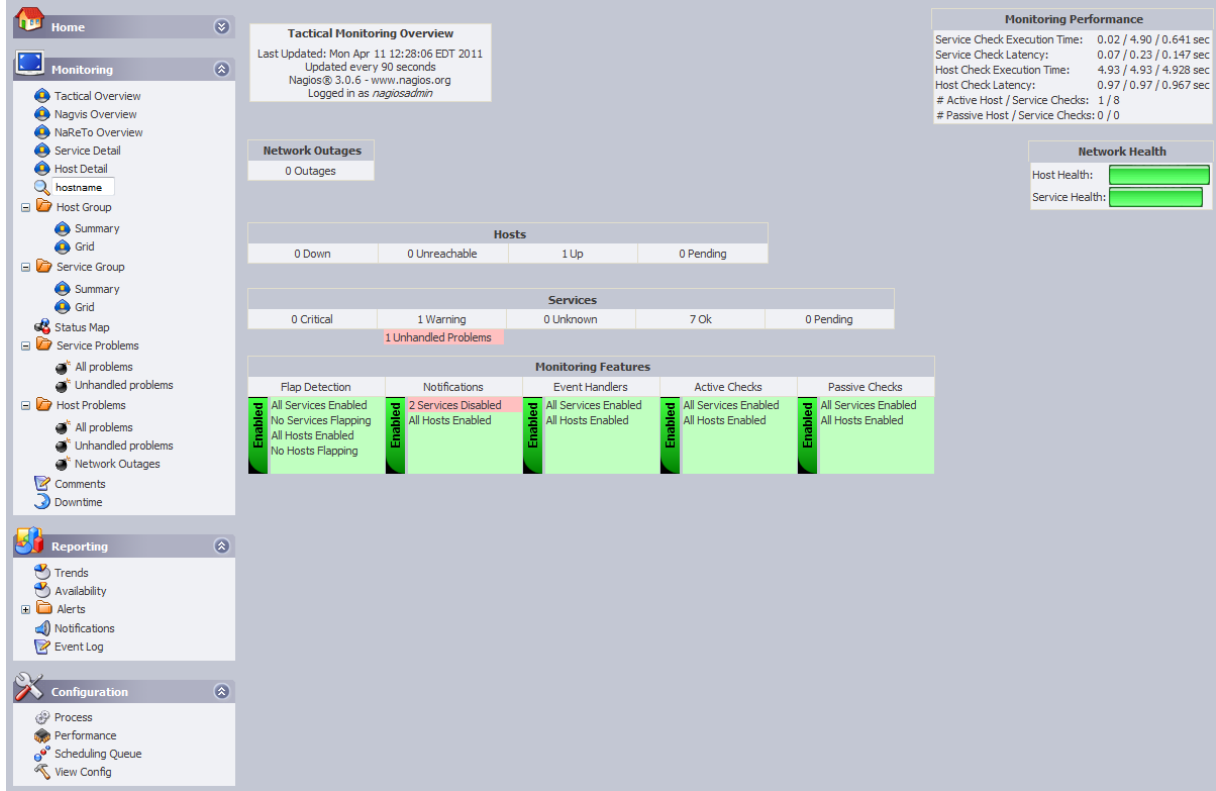
Nagiosadmin kullanıcının parolasını sıfırlamak için;

```
# htpasswd -c /etc/nagios/htpasswd.users nagiosadmin
```

Nagios Başlatılması

```
# service nagios start
```

Kurulum sonrası ekran görüntüsü



Yeni Host Grubu, Host ve Servis Ekleme

Nagios'a ait tüm ayarlar dosyaları **/etc/nagios/** dizininde bulunur. **/etc/nagios/objects/** dizini altında **cehturkiyenetworks.cfg** dosyası oluşturup hostları, kontrol edilecek servisleri bu dosyada tutabiliriz.

Örnek Host ve Servis (http,ssh,ping) Tanımları;

```
#####
#####
#
# HOST DEFINITION
#
#####
#####

# Define a host for the local machine

define host{
    use                CEHTURKIYE-servers
server host template definition.
    host_name         AGRI
    alias              CEHTURKIYE NETWORKs
    address            99.9.88.17
}
```

```

define host{
    use                                CEHTURKIYE-servers

server host template definition.
    host_name                        ADANA
    alias                            CEHTURKIYE NETWORKs
    address                          95.11.44.43

#####
#####
# HOST GROUP DEFINITION
#
#####
#####

# Define an optional hostgroup for Linux machines

define hostgroup{
    hostgroup_name    CEHTURKIYE-servers ; The name of the hostgroup
    alias              CEHTURKIYE Cehturkiye Networks ; Long name of the group
    members            *          ; Comma separated list of hosts that belong to this
group
    }

#####
#####
#
# SERVICE DEFINITIONS
#
#####
#####

# Define a service to "ping" the local machine

define service{
    use                                CEHTURKIYE-services          ; Name of
service template to use
    hostgroup_name                    CEHTURKIYE-servers
    service_description                PING
    check_command                      check_ping!100.0,20%!500.0,60%
    }

# check that ssh services are running
define service {
    hostgroup_name                    CEHTURKIYE-servers
    service_description                SSH
    check_command                      check_ssh!-p2222
    use                                CEHTURKIYE-services
    notification_interval              0 ; set > 0 if you want to be renotified
}

# Define a service to check HTTP on the local machine.
# Disable notifications for this service by default, as not all users may have HTTP
enabled.

define service{

```

```

    use                                CEHTURKIYE-services          ; Name of
service template to use
    hostgroup_name                     CEHTURKIYE-servers
    service_description                 HTTP
    check_command                       check_http!9390
    notifications_enabled               0
}
```

Template Oluşturmak

Hostlar ve servisleri hangi aralıkla kontrol edilecek, bu bilgiler `/etc/nagios/objects/templates.cfg` dosyasında tutulur. Bu dosyayı kendimize göre düzenleyebiliriz.

Örneğimizdeki templates.cfg dosyası;

```
# cat templates.cfg

#####
#####
#
# CONTACT TEMPLATES
#
#####
#####

# Generic contact definition template - This is NOT a real contact, just a
template!

define contact{
    name generic-contact ; The name of this
contact template
    service_notification_period 24x7 ; service
notifications can be sent anytime
    host_notification_period 24x7 ; host
notifications can be sent anytime
    service_notification_options w,u,c,r,f,s ; send
notifications for all service states, flapping events, a nd
scheduled downtime events
    host_notification_options d,u,r,f,s ; send
notifications for all host states, flapping events, and
scheduled downtime events
    service_notification_commands notify-service-by-email ; send service
notifications via email
    host_notification_commands notify-host-by-email ; send host
notifications via email
    register 0 ; DONT REGISTER
THIS DEFINITION - ITS NOT A REAL CONTACT, JUST A TEMPLATE!
}

#####
#####
#
# HOST TEMPLATES
#
#####
#####

# Generic host definition template - This is NOT a real host, just a template!

define host{
    name CEHTURKIYE-hosts ; The name of this host
template
    notifications_enabled 1 ; Host notifications are
enabled
```

```

        event_handler_enabled      1          ; Host event handler is
enabled
        flap_detection_enabled     1          ; Flap detection is enabled
        failure_prediction_enabled 1          ; Failure prediction is
enabled
        process_perf_data          1          ; Process performance data
        retain_status_information  1          ; Retain status information
across program restarts
        retain_nonstatus_information 1        ; Retain non-status
information across program restarts
        notification_period        24x7      ; Send host notifications
at any time
        register                   0          ; DONT REGISTER THIS
DEFINITION - ITS NOT A REAL HOST, JUST A TEMPLATE!
    }

```

Linux host definition template - This is NOT a real host, just a template!

```

define host{
    name                CEHTURKIYE-servers ; The name of this host
template
    use                 CEHTURKIYE-hosts   ; This template
inherits other values from the generic-host template
    check_period        24x7              ; By default, Linux hosts
are checked round the clock
    check_interval      5                  ; Actively check the host
every 5 minutes
    retry_interval      1                  ; Schedule host check
retries at 1 minute intervals
    max_check_attempts  100               ; Check each Linux host 10
times (max)
    check_command        check-host-alive ; Default command to check
Linux hosts
    notification_period  workhours         ; Linux admins hate to be
woken up, so we only notify during the day
                                           ; Note that the
notification_period variable is being overridden from
                                           ; the value that is
inherited from the generic-host template!
    notification_interval 120              ; Resend notifications
every 2 hours
    notification_options  d,u,r           ; Only send notifications
for specific host states
    contact_groups        admins          ; Notifications get sent to
the admins by default
    register              0               ; DONT REGISTER THIS
DEFINITION - ITS NOT A REAL HOST, JUST A TEMPLATE!
}

```

```

#####
#####
#
# SERVICE TEMPLATES
#
#####
#####

```

Generic service definition template - This is NOT a real service, just a template!

```

define service{
    name                CEHTURKIYE-services ; The 'name' of
this service template

```

```

        active_checks_enabled            1                ; Active service
checks are enabled
        passive_checks_enabled          1                ; Passive service
checks are enabled/accepted
        parallelize_check               1                ; Active service
checks should be parallelized (disabling this      can lead to
major performance problems)
        obsess_over_service             1                ; We should obsess
over this service (if necessary)
        check_freshness                 0                ; Default is to NOT
check service 'freshness'
        notifications_enabled           1                ; Service
notifications are enabled
        event_handler_enabled           1                ; Service event
handler is enabled
        flap_detection_enabled          1                ; Flap detection is
enabled
        failure_prediction_enabled      1                ; Failure
prediction is enabled
        process_perf_data               1                ; Process
performance data
        retain_status_information       1                ; Retain status
information across program restarts
        retain_nonstatus_information    1                ; Retain non-status
information across program restarts
        is_volatile                    0                ; The service is
not volatile
        check_period                   24x7              ; The service can
be checked at any time of the day
        max_check_attempts             100               ; Re-check the
service up to 3 times in order to determine its      final (hard)
state
        normal_check_interval          10                ; Check the service
every 10 minutes under normal conditions
        retry_check_interval           2                 ; Re-check the
service every two minutes until a hard state can      be
determined
        contact_groups                 admins             ; Notifications get
sent out to everyone in the 'admins' group
        notification_options            w,u,c,r           ; Send
notifications about warning, unknown, critical, and reco      very
events
        notification_interval          60                ; Re-notify about
service problems every hour
        notification_period             24x7              ; Notifications can
be sent out at any time
        register                       0                 ; DONT REGISTER
THIS DEFINITION - ITS NOT A REAL SERVICE, JUST      A TEMPLATE!
    }

```

Local service definition template - This is NOT a real service, just a template!

```

define service{
    name                local-service                ; The name of this
service template
    use                  CEHTURKIYE-services          ; Inherit
default values from the generic-service definition
    max_check_attempts  100                          ; Re-check the
service up to 4 times in order to determine its      final (hard)
state
    normal_check_interval  5                          ; Check the service
every 5 minutes under normal conditions
    retry_check_interval   1                          ; Re-check the
service every minute until a hard state can be d      etermined
    register              0                          ; DONT REGISTER
THIS DEFINITION - ITS NOT A REAL SERVICE, JUST      A TEMPLATE!
}

```

Host ve servis tanımlarımız (cehturkiyenetworks.cfg) ile bu sistemleri kontrol edeceğimiz template (templates.cf) bilgilerimiz hazır. Artık nagios'a bu işlemler yapması için gerekli ayarı yapmak kalıyor.

/etc/nagios/nagios.cfg dosyasında aşağıdaki gibi ekleme yapılır;

cfg_file=/etc/nagios/objects/cehturkiyenetworks.cfg

Herşey yolunda mı ? Son kontrol;

nagios -v /etc/nagios/nagios.cfg

...
...
...

Total Warnings: 0

Total Errors: 0

Things look okay - No serious problems were detected during the pre-flight check

Nagios servisini yeniden başlatıp, hostları izlemeye başlayabiliriz.

service nagios restart

Hostlara ait ekran görüntüsü

Host detayları

Home

Monitoring

Tactical Overview

Nagvis Overview

NaReTo Overview

Service Detail

Host Detail

hostname

Host Group

Summary

Grid

Service Group

Summary

Grid

Status Map

Service Problems

All problems

Unhandled problems

Host Problems

All problems

Unhandled problems

Network Outages

Comments

Downtime

Reporting

Configuration

Current Network Status

Last Updated: Mon Apr 11 13:27:43 EDT 2011

Updated every 90 seconds

Nagios® 3.0.6 - www.nagios.org

Logged in as nagiosadmin

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
70	9	0	0
All Problems		All Types	
9		79	

Service Status Totals

Ok	Warning	Unknown	Critical	Pending
198	11	4	29	0
All Problems			All Types	
44			242	

Host Status Details For All Host Groups

Host	Status	Last Check	Duration	Status Information
ADANA	UP	04-11-2011 13:27:25	0d 0h 28m 48s	PING OK - Packet loss = 0%, RTA = 71.30 ms
ADIYAMAN	UP	04-11-2011 13:27:25	0d 0h 28m 45s	PING OK - Packet loss = 0%, RTA = 169.69 ms
AFYON	UP	04-11-2011 13:22:25	0d 0h 28m 43s	PING OK - Packet loss = 0%, RTA = 40.23 ms
AGRI	UP	04-11-2011 13:22:25	0d 0h 26m 13s	PING OK - Packet loss = 0%, RTA = 83.04 ms
AKSARAY	UP	04-11-2011 13:27:25	0d 0h 28m 40s	PING OK - Packet loss = 0%, RTA = 182.72 ms
AMASYA	UP	04-11-2011 13:22:35	0d 0h 28m 38s	PING OK - Packet loss = 0%, RTA = 41.91 ms
ANTALYA	UP	04-11-2011 13:22:35	0d 0h 28m 36s	PING OK - Packet loss = 0%, RTA = 40.11 ms
ARDAHAN	DOWN	04-11-2011 13:26:35	0d 0h 0m 27s	(Host Check Timed Out)
ARTVIN	UP	04-11-2011 13:22:45	0d 0h 28m 33s	PING OK - Packet loss = 0%, RTA = 64.98 ms
AYDIN	UP	04-11-2011 13:22:45	0d 0h 28m 31s	PING OK - Packet loss = 0%, RTA = 146.40 ms
BALIKESIR	UP	04-11-2011 13:22:55	0d 0h 28m 28s	PING OK - Packet loss = 0%, RTA = 29.27 ms
BARTIN	UP	04-11-2011 13:22:55	0d 0h 25m 59s	PING OK - Packet loss = 0%, RTA = 143.03 ms
BATMAN	UP	04-11-2011 13:22:55	0d 0h 28m 26s	PING OK - Packet loss = 0%, RTA = 58.09 ms
BAYBURT	DOWN	04-11-2011 13:27:25	0d 0h 0m 7s	check_ping: Invalid hostname/address - 95.009.65.43
BILECIK	UP	04-11-2011 13:23:05	0d 0h 28m 21s	PING OK - Packet loss = 0%, RTA = 29.05 ms
BINGOL	UP	04-11-2011 13:23:15	0d 0h 25m 51s	PING OK - Packet loss = 0%, RTA = 56.66 ms
BITLIS	DOWN	04-11-2011 13:25:35	0d 0h 1m 27s	(Host Check Timed Out)
BOLU	UP	04-11-2011 13:23:15	0d 0h 28m 16s	PING OK - Packet loss = 0%, RTA = 69.35 ms
BURDUR	UP	04-11-2011 13:27:05	0d 0h 28m 13s	PING OK - Packet loss = 0%, RTA = 55.95 ms
BURSA	UP	04-11-2011 13:23:25	0d 0h 25m 44s	PING OK - Packet loss = 0%, RTA = 27.80 ms
CANAKKALE	UP	04-11-2011 13:23:25	0d 0h 28m 11s	PING OK - Packet loss = 0%, RTA = 39.20 ms
CANKIRI	UP	04-11-2011 13:23:35	0d 0h 28m 9s	PING OK - Packet loss = 0%, RTA = 38.55 ms
CORUM	UP	04-11-2011 13:23:35	0d 0h 28m 6s	PING OK - Packet loss = 0%, RTA = 45.48 ms
DENIZLI	UP	04-11-2011 13:23:45	0d 0h 25m 36s	PING OK - Packet loss = 0%, RTA = 40.27 ms
DIYARBAKIR	UP	04-11-2011 13:23:45	0d 0h 28m 4s	PING OK - Packet loss = 0%, RTA = 51.50 ms

Servis Durumları

<div>Home</div> <div>Monitoring</div> <div><div>Tactical Overview</div><div>Nagvis Overview</div><div>NaReTo Overview</div><div>Service Detail</div><div>Host Detail</div><div>hostname</div><div>Host Group</div><div>Summary</div><div>Grid</div><div>Service Group</div><div>Summary</div><div>Grid</div><div>Status Map</div><div>Service Problems</div><div><div>All problems</div><div>Unhandled problems</div></div><div>Host Problems</div><div><div>All problems</div><div>Unhandled problems</div><div>Network Outages</div></div><div>Comments</div><div>Downtime</div></div> <div>Reporting</div> <div>Configuration</div>		SSH		OK	04-11-2011 13:24:01 0d 0h 24m 53s	1/100	SSH OK - OpenSSH_5.1p1 FreeBSD-20080901 (protocol 2.0)
	AMASYA	HTTP		OK	04-11-2011 13:26:31 0d 0h 22m 23s	1/100	HTTP OK: HTTP/1.0 200 OK - 601 bytes in 0.097 second response time
		PING		OK	04-11-2011 13:19:04 0d 0h 29m 50s	1/100	PING OK - Packet loss = 0%, RTA = 41.31 ms
		SSH		OK	04-11-2011 13:21:34 0d 0h 27m 20s	1/100	SSH OK - OpenSSH_5.1p1 FreeBSD-20080901 (protocol 2.0)
	ANTALYA	HTTP		OK	04-11-2011 13:24:03 0d 0h 24m 51s	1/100	HTTP OK: HTTP/1.0 200 OK - 601 bytes in 0.092 second response time
		PING		OK	04-11-2011 13:26:33 0d 0h 22m 21s	1/100	PING OK - Packet loss = 0%, RTA = 40.24 ms
		SSH		OK	04-11-2011 13:19:06 0d 0h 29m 48s	1/100	SSH OK - OpenSSH_5.1p1 FreeBSD-20080901 (protocol 2.0)
	ARDAHAN	HTTP		CRITICAL	04-11-2011 13:21:36 0d 0h 27m 18s	1/100	CRITICAL - Socket timeout after 10 seconds
		PING		CRITICAL	04-11-2011 13:24:06 0d 0h 24m 48s	1/100	PING CRITICAL - Packet loss = 100%
		SSH		CRITICAL	04-11-2011 13:26:35 0d 0h 22m 19s	1/100	CRITICAL - Socket timeout after 10 seconds
	ARTVIN	HTTP		CRITICAL	04-11-2011 13:27:09 0d 0h 29m 45s	15/100	Connection refused
		PING		OK	04-11-2011 13:21:39 0d 0h 27m 15s	1/100	PING OK - Packet loss = 0%, RTA = 61.20 ms
		SSH		CRITICAL	04-11-2011 13:28:08 0d 0h 24m 46s	13/100	Connection refused
	AYDIN	HTTP		OK	04-11-2011 13:26:38 0d 0h 22m 16s	1/100	HTTP OK: HTTP/1.0 200 OK - 601 bytes in 0.151 second response time
		PING		OK	04-11-2011 13:19:11 0d 0h 29m 43s	1/100	PING OK - Packet loss = 0%, RTA = 77.65 ms
		SSH		OK	04-11-2011 13:21:41 0d 0h 27m 13s	1/100	SSH OK - OpenSSH_5.1p1 FreeBSD-20080901 (protocol 2.0)
	BALIKESIR	HTTP		OK	04-11-2011 13:24:11 0d 0h 24m 43s	1/100	HTTP OK: HTTP/1.0 200 OK - 601 bytes in 0.148 second response time
		PING		OK	04-11-2011 13:26:40 0d 0h 22m 14s	1/100	PING OK - Packet loss = 0%, RTA = 30.32 ms
		SSH		OK	04-11-2011 13:19:14 0d 0h 29m 40s	1/100	SSH OK - OpenSSH_5.1p1 FreeBSD-20080901 (protocol 2.0)
	BARTIN	HTTP		OK	04-11-2011 13:21:43 0d 0h 27m 11s	1/100	HTTP OK: HTTP/1.0 200 OK - 601 bytes in 0.284 second response time
		PING		WARNING	04-11-2011 13:28:13 0d 0h 24m 41s	13/100	PING WARNING - Packet loss = 0%, RTA = 137.13 ms
		SSH		OK	04-11-2011 13:26:43 0d 0h 22m 11s	1/100	SSH OK - OpenSSH_5.1p1 FreeBSD-20080901 (protocol 2.0)
	BATMAN	HTTP		OK	04-11-2011 13:19:16 0d 0h 29m 38s	1/100	HTTP OK: HTTP/1.0 200 OK - 601 bytes in 0.134 second response time
		PING		OK	04-11-2011 13:21:46 0d 0h 27m 8s	1/100	PING OK - Packet loss = 0%, RTA = 60.18 ms
		SSH		OK	04-11-2011 13:24:16 0d 0h 24m 38s	1/100	SSH OK - OpenSSH_5.1p1 FreeBSD-20080901 (protocol 2.0)
	BAYBURT	HTTP		CRITICAL	04-11-2011 13:26:45 0d 0h 22m 9s	1/100	Name or service not known
		PING		UNKNOWN	04-11-2011 13:19:19 0d 0h 29m 35s	1/100	check_ping: Invalid hostname/address - 95.009.65.43
		SSH		UNKNOWN	04-11-2011 13:21:48 0d 0h 27m 6s	1/100	check_ssh: Could not parse arguments
	BILECIK	HTTP		OK	04-11-2011 13:24:18 0d 0h 24m 36s	1/100	HTTP OK: HTTP/1.0 200 OK - 601 bytes in 0.073 second response time
		PING		OK	04-11-2011 13:26:48 0d 0h 22m 6s	1/100	PING OK - Packet loss = 0%, RTA = 29.70 ms
		SSH		OK	04-11-2011 13:19:21 0d 0h 29m 33s	1/100	SSH OK - OpenSSH_5.1p1 FreeBSD-20080901 (protocol 2.0)
	BINGOL	HTTP		OK	04-11-2011 13:21:51 0d 0h 27m 3s	1/100	HTTP OK: HTTP/1.0 200 OK - 601 bytes in 0.129 second response time
		PING		OK	04-11-2011 13:24:21 0d 0h 24m 33s	1/100	PING OK - Packet loss = 0%, RTA = 55.39 ms

Referanslar

<http://nagios.org/documentation>

<http://www.syslogs.org/nagios-kurulumu-ve-yapilandirmasi/>