



Open Source based Network Management

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<http://www.cubit.at/lw04/>



The screenshot displays the Nagios monitoring interface. At the top, the CUBIT logo is visible with the tagline 'open source for enterprise' and 'linuxwochen'. Below this is a network diagram with nodes such as 'cube1-lan', 'cube1-kdntrans', and 'cube1-inet', each with a green 'Up' status indicator. A central node has a question mark, indicating a potential issue. The Nagios logo is prominently displayed in the middle. At the bottom, a performance graph shows a blue line fluctuating over time, with a red vertical line at 00:00. The text 'OpenSource Network Management' is at the bottom left.

Ziele

- Information wenn Dienste ausfallen
- über Systemstatus informieren und protokollieren (Verfügbarkeit)
- langfristige Statistiken als Grundlage für Entscheidungen (Aufrüstung bei Leistungsbedarf)
- Überprüfung von externen Dienstleistern (ISP, Telekom) und deren SLA
- zentrale Informationsstelle
- automatisiertes Reagieren auf Probleme
- automatisierte Behebung



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Strategien

- Blackbox Monitoring -- von außen zugreifen wie ein Anwender
- Whitebox Monitoring -- von innen alle Komponenten einzeln funktionsprüfen
- Schwellwert Monitoring: Überwachen von Messwerten
- richtige Eskalation der Notifizierung
- ggf. automatic response („self-repairing“)



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Strategien – Blackbox

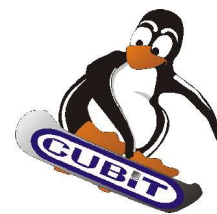
- Blackbox Monitoring -- von außen zugreifen wie ein Anwender
- für Standard-Protokolle mit vorhandenen Plugins für FTP,HTTP,NFS, SMB (Samba/CIFS), Citrix,DNS und viele andere
- für eigene Anwendungen durchaus auch automatische Überprüfung der Business-Logik
- zB: Webshop: automat. Einkaufen, erzeugen eines speziell markierten Auftrages, der nicht weiterverarbeitet wird



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Strategien – Messwerte

- laufende Überwachung von Leistungsdaten
- CPU, Netz, Plattenauslastung
- Überwachen von Tuningmaßnahmen, wie z.B. Cache-Hit-Ratio
- Alarm bei nicht optimaler Leistung
- Alarm bei bedrohlichem Zustand (Disk Full 90%)
- Alarm bei Aufrüstungsbedarf (80% Leitungsauslastung im Tagesmittel)



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Strategien – Whitebox

- Alle Teilkomponenten der Anwendung getrennt prüfen
- Notwendige Datenbanken, Anwendungen, Netzwerkequipment, Frontendserver, Netzwerke, Subsysteme,... ständig jeden einzeln prüfen
- Notwendig auch zur Problemlokalisierung
- liefert aber nicht gleiche Sicht wie Anwender sieht
- System- nicht Lösungsbezogen



open source for enterprise
linuxwochen

Nagios

OpenSource
Network Management

Built on Tobi Oetiker's
RRDTOOL

cricket
SNMP-Data
Data-based alerts



CUBIT

CUBIT HSP

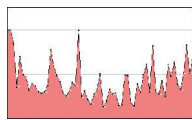
- Inventory
- Web integration
- History
- Link to other products



Integration of Vendor-Specific Management

- HP ASM
- Compaq Remote Insight
- IBM eDIRECTOR
- Dell OpenManager
- Bull ESMpro

ntop



Nagios

CUBIT

Agents:

- LogCheck
- ActivityCheck

Plugins and Checking Strategies for

- Oracle, MySQL, MS SQL, Progress
- MS Exchange
- SMB, CIFS, Samba
- Win NT, W2K, W2K3
- Process Check
- Kaspersky AntiVirus
- custom Application checks
- complex compound checks

CUBIT

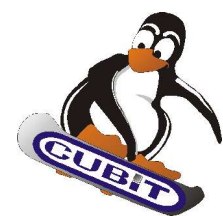
SNMPTrap

- HP
- CISCO
- Cyclade
- IBM
- Bull

CUBIT

Automated Operation

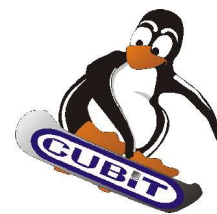
- unattended restart
- unattended problem solving



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Komponenten

- Nagios
- Cricket
- Integration von lokal laufenden Agenten: logcheck, activitycheck
- Integration von Syslog, SMTP, und anderen Diensten mit NSCA
- Einbindung SNMP Traps: trapreceiver
- HSP Portalsystem
- Alerting via SMS, Email, ICQ über Nagios
- ntop und rrd für Statistikdaten



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Komponenten: Nagios

- altbekannt; bis 2001 Netsaint, danach Nagios
- entwickelt von Ethan Galstad
- Best Of Breed: Vergleich mit MON und Big Brother
- zentrale Schaltstelle, „Information HUB“
- Offene Schnittstellen:
 - NSCA (Nagios Service Check Acceptor)
 - NRPE (Nagios Remote Plugin Executor)
- Ayamon Inc





Komponenten: Nagios -Web



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
- Event Log

Configuration

- View Config

Tactical Monitoring Overview
Last Updated: Thu Apr 24 18:21:36 CEST 2003
Updated every 90 seconds
Nagios@ - www.nagios.org
Logged in as *nagiosadmin*

Monitoring Performance

Check Execution Time: 0 / 30 / 1.478 sec
Check Latency: 0 / 500 / 18.442 sec
Active Checks: 441
Passive Checks: 85

Network Outages
0 Outages

Hosts

3 Down	0 Unreachable	68 Up	0 Pending
3 Scheduled		2 Disabled	
1 Disabled			

Services

24 Critical	10 Warning	12 Unknown	476 Ok	4 Pending
12 Unhandled Problems	6 Unhandled Problems	11 Unhandled Problems	83 Disabled	4 Disabled
10 on Problem Hosts	4 Disabled	1 on Problem Hosts		
2 Acknowledged				
2 Disabled				

Monitoring Features

Flap Detection	Notifications	Event Handlers	Active Checks	Passive Checks
Disabled	Enabled	Enabled	Enabled	Enabled
N/A	39 Services Disabled 3 Hosts Disabled	462 Services Disabled 71 Hosts Disabled	33 Services Disabled 3 Hosts Disabled	437 Services Disabled

Network Health

Host Health:

Service Health:





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Nagios



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Komponenten: Nagios (2)

Schnittstellen

- NSCA: Schnittstelle mit der anderes Programm einen Passive Alert ins Nagios zur Weiterverarbeitung senden kann. Wird extern angestossen.
- NRPE: Schnittstelle, mit der Nagios Plugins (zur Feststellung der Systemverfügbarkeit) auf einem entfernten System gestartet werden können. Die Ausgabe und Prüfung erfolgt zentral im Nagios Core; wird von Nagios aus gestartet





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Nagios Features

- Nagios Core Process zentral
- führt regelmäßig Plugins aus und wertet Ergebnis aus
- empfängt passive Alerts
- Status-Änderungen lösen Events aus
- Events können gehandelt werden (default ist Notify)
- Notifizierungen werden wiederholt solange sie lt. Konfiguration wiederholt werden sollen
- Eskalation bei Notifizierung möglich



Nagios Enterprise Console

The interface displays a network map with various nodes and their status (Up/Down). A large 'Nagios' logo is prominent. Below the map is a performance graph showing a fluctuating line over time, with markers for 12:00, 18:00, and 00:00.

Nagios

OpenSource Network Management

CUBIT
CORPORATE NETWORKS MONITORING

General

- Home
- Documentation

Monitoring

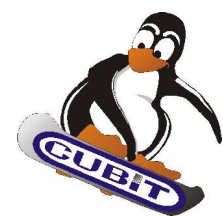
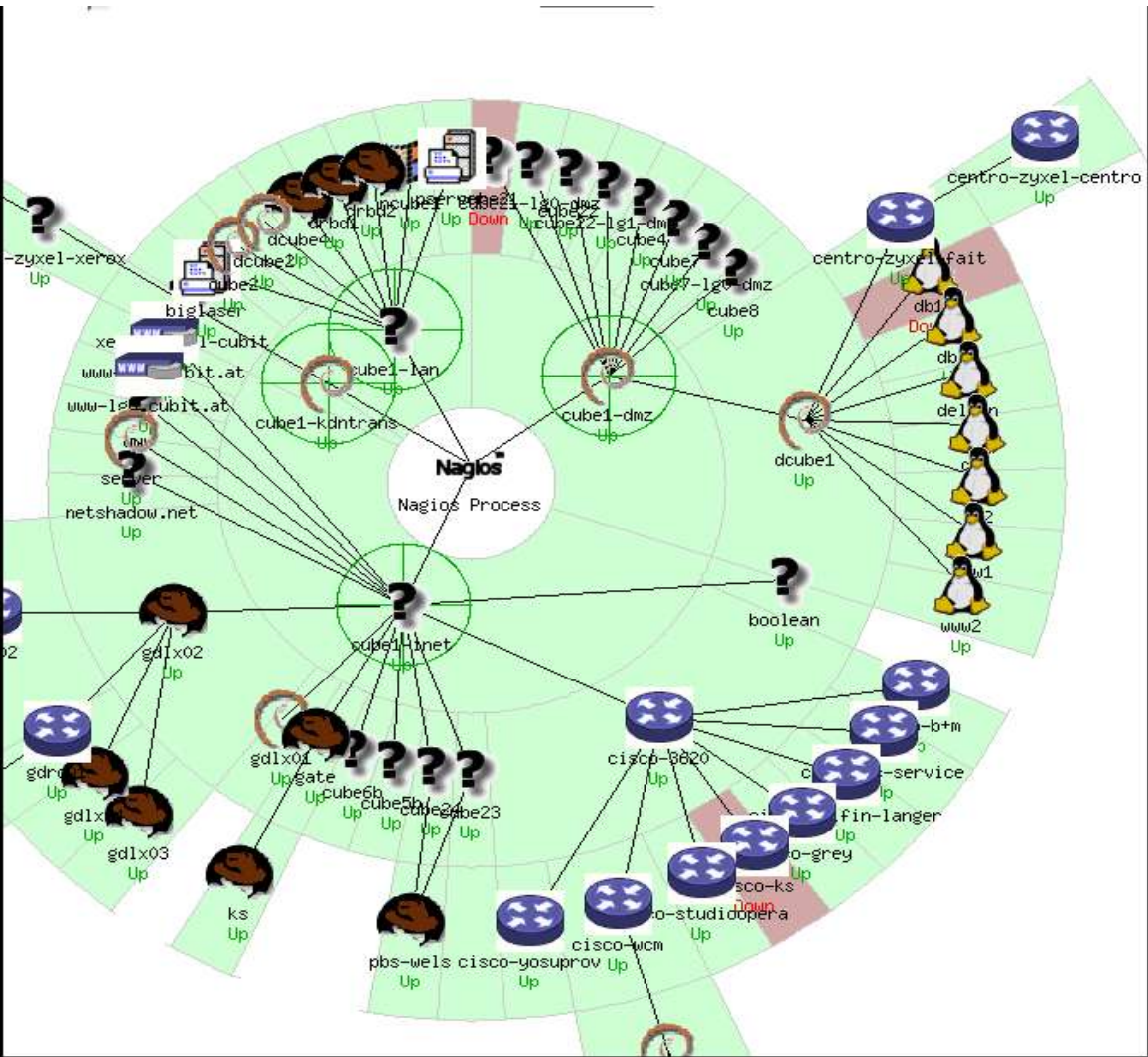
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Nagios Features (2)

- Optimiert: nicht-erreichbare Rechner und Dienste werden erst gar nicht geprüft
- Scheduling Queue Management
- Kann Messwerte auslesen und in RRDTool/Cricket einleiten
- Web-Interface und GNOME-Interface zu Nagios-Core
- Stati können auch anders ausgelesen werden, zB Website um direkt Anwender „freundlich“ zu Informieren
- kann via Email, SMS und ICQ notifizieren





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Nagios (3)

- rege Community
- enorme Anzahl Plugins verfügbar
- optional mod_perl-ähnlichen integrierten Interpreter um fork/exec/precompile Zyklen zu optimieren
- leichtes Plugin-Interface; Plugin-Erstellung einfach
- bestehende mon-Scripts und Eigenentwicklungen können leicht migriert werden

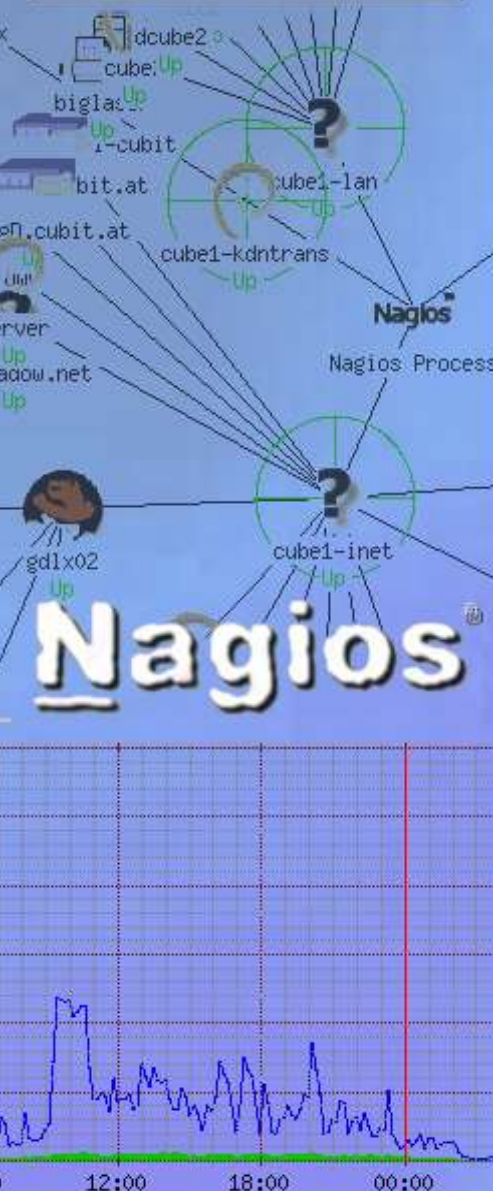


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Nagios-Konfiguration (4)

- althergebracht (mit Web-Konfiguration NAGAT)
- alternativ Template-basiert
- Vererbung mit Templates
- überlegte Struktur entscheidet über erfolgreiche Implementierung
- Generation der Initial-Config aus NMAP Scan möglich (sonst kein auto-discover)
- Nagios 1.2: Wildcards!





Nagios-Screenshot

Monitoring

- Tactical Overview
- Service Detail
- Host Detail
- Status Overview
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- Status Grid
- Status Map
- 3-D Status Map

● Service Problems

● Host Problems

● Network Outages

● Comments

● Downtime

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Cubit Web-Server (cubit-web-server)

Host	Services
boolean	PING
cube1-inet	PING
cube5b	Mountpoint root Mountpoint tmp Mountpoint usr Mountpoint var PING Production SSH System Load Zombie Processes
cube6b	Mountpoint root Mountpoint tmp Mountpoint usr Mountpoint var PING Production SSH System Load Zombie Processes
netshadow.net	PING
www-lqD.cubit.at	PING SSL VHost secure.allesmedia.at SSL VHost secure.lion.cc SSL VHost ssl.cubit.at Serviceadresse 80.78.231.72 Serviceadresse 80.78.231.77 VHost admin2.cubit.at VHost banner2.cubit.at VHost businessline.buchportal.at VHost businessline.buchportal.com VHost cmsdemo.cubit.at VHost da.cubit.at VHost hwd.at VHost intern.skribo.at VHost newuser.cubit.at VHost redaktion.buchportal.at VHost redaktion.buchportal.com VHost www.allesauto.at VHost www.ap-i.at VHost www.austrobuch.at VHost www.buchportal.at VHost www.buchportal.com VHost www.bueroprofi.at VHost www.derberater.com VHost www.elektro.at VHost www.harropirch.at VHost www.in-focus.or.at VHost www.minibuch.at VHost www.minibuch.com VHost www.moonlightning.tv VHost www.nullnullsieben.at VHost www.papermail.at VHost www.primus-buch.at
www-lqE.cubit.at	PING VHost banner2.cubit.at VHost newuser.cubit.at VHost simmoaq2.cubit.at VHost www.ambulantedienste.at VHost www.buerobedart-kirchner.de VHost www.buerobedart-zwickel.de VHost www.creditstocks.com VHost www.deks.at VHost www.eichthal.at VHost www.herzlinger.at VHost www.hilfswerkademie.at VHost www.maar.at VHost www.papeterie-hallberg.de VHost www.papeterie-pohl.de VHost www.pfh.at VHost www.pflegenotruf.at VHost www.redita.com VHost www.spacewalker.at



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Komponenten: Cricket

- altbekannter Vorgänger: MRTG
- Trennung Datenbank RRDTool und Präsentation (Cricket)
- entwickelt von Tobias Oetiker
- Speichern und Anzeigen von Messwerten; je weiter zurückliegend umso geringere Auflösung
- Messwernerfassung per SNMP oder anders
- Bsp Apache server-status
- Echtzeiterfassung notwendig!





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Nagios



Nagios



12:00 18:00 00:00

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Network Management

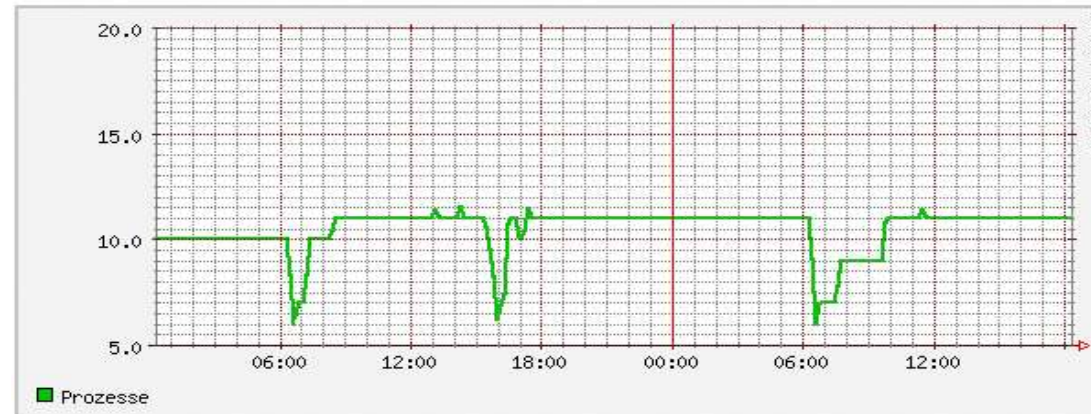
Komponenten: Cricket



Graphs for Proc-Counter (apache-ssl) (/server/cube1/proc-apache-ssl)

<p>Summary</p> <p>Values at last update: Prozesse (for the day): Cur: 11.00 Avg: 10.63 Max: 11.79 Last updated at Thu Apr 24 18:16:06 2003</p>	<p><i>Time Ranges:</i></p> <p>[Daily] Weekly Monthly Yearly Short-Term Long-Term All</p>
--	--

Daily graph



Cricket
Version 1.0.3

Bei Fragen zu den Grafiken kontaktieren Sie bitte
support@cubit.at

Built on **Tobi Oetiker's**
RRDTOOL



Komponenten: Cricket

- Apache Server-Status

Graphs for Overlay (/webserver/cubit-cluster)

Summary

Values at last update for www-lga.cubit.at:

Bearbeitete Zugriffe (for the day):

Cur: 3.01 Zugriffe/s

Avg: 3.32 Zugriffe/s

Max: 8.66 Zugriffe/s

[?]

Last updated at Thu Apr 24 18:17:08 2003

Values at last update for www-lgb.cubit.at:

Bearbeitete Zugriffe (for the day):

Cur: 0.09 Zugriffe/s

Avg: 0.00 Zugriffe/s

Max: 0.00 Zugriffe/s

[?]

Last updated at Thu Apr 24 18:17:08 2003

Time Ranges:

[Daily]

[Weekly](#)

[Monthly](#)

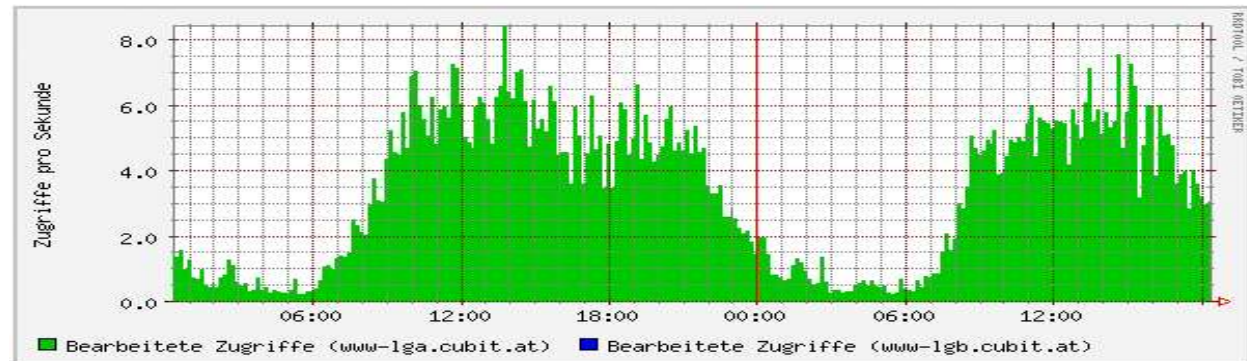
[Yearly](#)

[Short-Term](#)

[Long-Term](#)

[All](#)

Daily graph



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Komponenten: Agenten

- Eigenentwicklung CUBiT
- Activitycheck reagiert wenn Files sich nicht in definierten Zeitabständen ändern
- Logcheck liest Logfiles, reagiert auf per Regexp definierte Meldungsmuster
- Alarm ins Nagios per NSCA (exotische Plattformen per Email)
- Logcheck läuft als Cronjob, Activitycheck als Service





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Nagios

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Komponenten: Nagios Plugins

- vielfältig im Internet vorhanden
- in definierten Zeitabständen vom Nagios Core Prozess aufgerufen
- laufen auf dem Nagios Rechner oder mittels NRPE verteilt
- Returnwert im Nagios verarbeitet
- 4 Stati: OK, Warning, Critical, Unknown
- viele Standardprotokolle (Ftp,nfs, http,...) bereits abgedeckt
- neue Plugins sehr leicht erstellbar
- Migration von MON-Scripts z.B. einfach möglich





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Komponenten: SNMP (1)

- große Unterstützung von Herstellern von Geräten
- Server, Router, Switch, jede Hardware kann heute SNMP Variablen ausgeben und Traps senden
- Abfrage von SNMP-Variablen wie Interface-Traffic, Systembelastung, Plattenauslastung, Temperatur,...
- Einleitung in Cricket
- Bei Überschreitung von Schwellwerten Alarm via NSCA in Nagios



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Komponenten: Trapreceiver

- SNMP Trap Support:
- Geräte können bei Fehlern sog. Traps als Alarm generieren
- Dieser Event wird von außen ins Nagios eingeleitet
- Definition Linux Server als Trap Target in den Geräten
- trapreceiver empfängt Trap und leitet ihn via NSCA ins NAGIOS weiter
- einfachste Installation, im Gerät nur IP-Addr. des Trapreceiver-Hosts eingeben



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HSP Portalsystem

- Web-basiertes Portal (Apache/MySQL)
- verlinkt zu nachgelagerten Systemen
 - Vendor-SM, Ntop, Cricket, SSH, VNC,...
- Wartungs- und Zusatzinformationen
 - Wartungsverträge
 - Kontakte
 - Logbücher
- Hardware Profile Inventory
 - MAC-Adressen, CPU, Memory, Disks
- Daten auch zu anderen Zwecken nutzbar





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linuxwochen



Nagios

Nagios Process



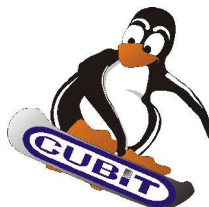
OpenSource
Network Management

HSP Portalsystem 2

CPU-Informationen					
vendor_id	cpu_family	model_name	cpu_mhz	cache_kb	Optionen
GenuineIntel	15	Intel(R) Xeon(TM) CPU 2.40GHz	2399.397	512 KB	

Netzwerk-Informationen			
interface	inet_addr	mac_addr	Optionen
eth1	172.23.64.68	00:0B:CD:37:4B:0E	
eth1	172.23.64.66	00:0B:CD:37:4B:0E	
eth3	172.24.128.66	00:05:5D:7D:2B:4D	
eth0	10.7.0.1	00:0B:CD:37:4B:77	

Festplatten			
filesystem	size	mounted on	Optionen
/dev/cciss/c0d0p7	6015880	/home	
/dev/cciss/c0d0p1	197546	/boot	
/dev/cciss/c0d0p3	1521984	/	
/dev/cciss/c0d0p2	5039856	/usr	
/dev/cciss/c0d0p5	20159916	/var	
/dev/sda1	10080488	/var/lib/mysql	



The screenshot displays the Nagios monitoring interface. At the top, the CUBIT logo is visible with the tagline 'open source for enterprise' and 'linuxwochen'. Below this is a network diagram with nodes labeled 'cube1-lan', 'cube1-kdntrans', 'cube1-inet', 'biglas', '1-cubit', 'bit.at', 'en.cubit.at', 'cubit', 'server', 'adow.net', and 'gd1x02'. A central node is marked with a question mark. The Nagios logo is prominently displayed in the middle. At the bottom, a performance graph shows a blue line fluctuating over time, with a red vertical line indicating a specific point. The text 'OpenSource Network Management' is at the bottom left.

Komponenten: SMTP-NSCA

- viele Geräte können von Haus aus Mails senden im Fehlerfall: Disk-Arrays, RAID-Treiber (3dm)
- Email-Alarm leicht integrierbar (CRON-Jobs, AS/400 Anwendungen)
- procmail-Filter generiert NSCA Aufruf bei einlangender SMTP Nachricht mit Textübergabe
- Einfache Anbindung existierender „Mail-Monitorings“



The screenshot displays the Nagios monitoring interface. At the top, the CUBIT logo is visible with the tagline 'open source for enterprise' and 'linuxwochen'. Below this, a network diagram shows several hosts connected to a central Nagios server. Hosts include 'cube2', 'cube1-lan', 'cube1-kdntrans', 'cube1-inet', 'biglas', '1-cubit', 'bit.at', 'efl.cubit.at', 'server', 'shadow.net', 'gdlx02', and 'Nagios Process'. A large question mark is placed over the central Nagios server icon. At the bottom, a performance graph shows a blue line fluctuating over time, with a red vertical line indicating a specific point in time. The x-axis is labeled with '12:00', '18:00', and '00:00'. The text 'OpenSource Network Management' is at the bottom left.

Event-Handling

- un-attended Operation
- automat. Reagieren auf Probleme
- Reduktion Service-Calls und Alarme um typisch 70%
- automat. Einhalten von Service-Profilen
- Event-Routing mit Notification Manager (geplant)
- GUI zum Routen der Events
- Vertretungsfunktion, Schablonen, Berechtigungen



The screenshot displays the Nagios web interface. At the top, the CUBIT logo is visible with the text 'open source for enterprise' and 'linuxwochen'. The main area shows a network topology diagram with nodes like 'cube1-lan', 'cube1-kdntrans', and 'cube1-inet'. A 'Nagios Process' node is also present. Below the diagram is a performance graph showing a blue line fluctuating over time, with a red vertical line indicating a specific point in time. The x-axis is labeled with '12:00', '18:00', and '00:00'. The text 'OpenSource Network Management' is at the bottom left.

ntop

- Open Source Tool: Echtzeit Netzwerkskan
- Statistiken und Web-Output
- rrd Output
- NetFlow/sFlow Input
- kann in Standorten mitinstalliert werden
- kann im Core dediziert laufen
- Achtung: Tuning der Tabellen für Performance und Speichermanagement notwendig
- Sonst potentiell Systemabsturz





open source for enterprise



Nagios

OpenSource
Network Management

Specials: Mix It Right

- besondere Betriebszustände mit eigenen Lösungen ansteuern
- SNMP Auslesen von Switchdaten, Netzwerkstrukturen, Ports
- Master-Checksysteme implementieren für komplexe Abbildungen
- durchaus auch eigene Clients für Protokolle entwickeln
- Diagnosesystem in Multi-Tier Anwendungen integrieren -- Selbstdiagnose die von Nagios-Plugin geparsed wird








Specials: Temperatur




Graphs for Rack001 (/temp/rack001)

Summary

Values at last update:

Temperature (for the day):

Cur: 25.15 °C

Avg: 24.87 °C

Max: 25.75 °C

[?]

Last updated at Thu Apr 24 18:17:05 2003

Time Ranges:

[Daily]

[Weekly](#)

[Monthly](#)

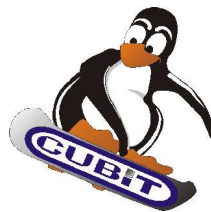
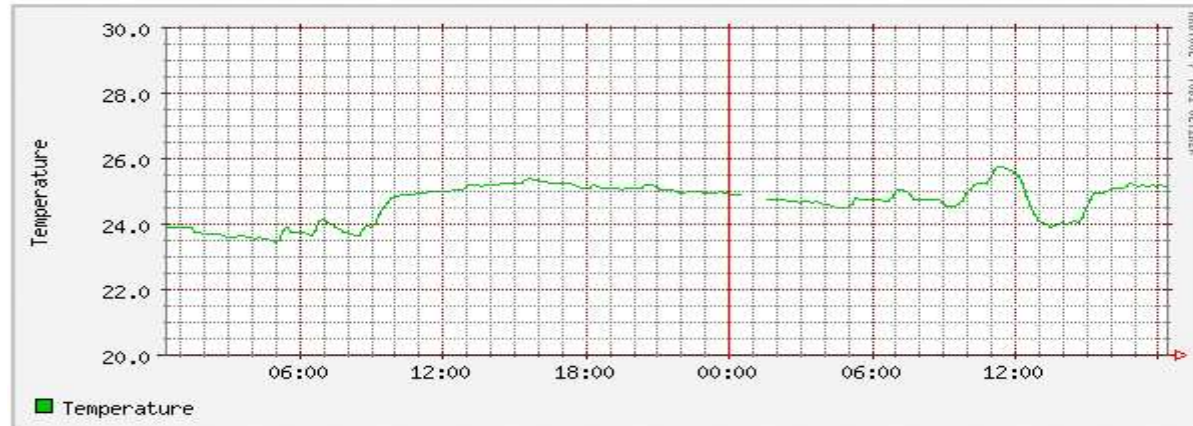
[Yearly](#)

[Short-Term](#)

[Long-Term](#)

[All](#)

Daily graph



The screenshot displays the Nagios Enterprise interface. At the top left is the CUBIT logo with the tagline 'open source for enterprise' and 'linuxwochen'. Below this is a network diagram with nodes like 'cube1-lan', 'cube1-kdntrans', and 'cube1-inet', some marked with 'Up' and others with a question mark. The Nagios logo is prominently displayed in the center. At the bottom, a line graph shows performance metrics over time, with a red vertical line indicating a specific point. The text 'OpenSource Network Management' is visible at the bottom left.

Specials: Mix It Right (2)

- Umsatz pro Minute von Shopsystemen: Kein Umsatz=Fehler (Heuristik!)
- Alarm bei Änderungen von Konfigurationsfiles -- Information wenn jemand Konfiguration ändert
- Direkte Einbindung von NSCA in Businesslogik -- eigene Anwendung spricht direkt mit Nagios Enterprise Konsole
- Antwortzeiten- und Ergebnisüberwachung
- Nagios leitet Alarme ggf. auch weiter -- an Nagios oder auch an BMC



The screenshot displays the Nagios monitoring interface. At the top, the CUBIT logo is visible with the text 'open source for enterprise' and 'linuxwochen'. Below this is a network diagram with nodes such as 'cube2', 'cube1-lan', 'cube1-kdntrans', 'cube1-inet', 'bit.at', 'biglas', 'i-cubit', 'bit.at', 'en.cubit.at', 'cubit', 'server', 'shadow.net', 'gdlx02', and 'Nagios Process'. A large question mark is overlaid on the diagram. At the bottom, a performance graph shows a blue line fluctuating over time, with a red vertical line at 00:00. The text 'OpenSource Network Management' is at the bottom left.

Praxiserfahrungen

- Vor- und Nachteile im Vergleich zu Big Brother und Mon
- Vor- und Nachteile im Vergleich zu kommerziellen Systemen
- Integration mit anderen Systemen



The screenshot displays the Nagios monitoring interface. At the top, the CUBIT logo is visible with the text 'open source for enterprise' and 'linuxwochen'. Below this is a network diagram with nodes such as 'cube1-lan', 'cube1-kdntrans', 'cube1-inet', 'biglas', 'bit.at', and 'gd1x02'. A central node is marked with a question mark. The Nagios logo is prominently displayed in the middle. At the bottom, a performance graph shows a blue line fluctuating over time, with a red vertical line indicating a specific point. The text 'OpenSource Network Management' is at the bottom left.

Unterschiede BB / Mon

- komplexere Konfiguration, mehr Möglichkeiten
- mehr „fertig“ im Vergleich zu Mon
- mehr Plugins verfügbar
- keine unnötigen Checks
- detailliertere Möglichkeiten
- objektorientierte Konfiguration – Template-based



The screenshot displays the Nagios monitoring interface. At the top left, the 'CUBIT' logo is visible with the tagline 'open source for enterprise'. Below it, the text 'linuxwochen' is shown in a stylized font. The main area features a network diagram with various nodes and connections, including labels like 'dcube2', 'cube:Up', 'biglas', 'i-cubit', 'bit.at', 'cube1-lan', 'cube1-kdntrans', 'Nagios', 'Nagios Process', 'cube1-inet', and 'gd1x02'. A large question mark is overlaid on the diagram. At the bottom, a performance graph shows a blue line fluctuating over time, with a red vertical line indicating a specific point. The text 'OpenSource Network Management' is at the bottom left.

Vergleich andere

- komplex genug
- keine Struktur, ein-dimensionale Gruppenstruktur mit nur einer Ebene
- daher Namensgebung und Wildcards wichtig!
- variabel Konfigurierbar
- Aufwand bei gleichem Ergebnis konstant
- Anzahl überwachter Systeme ist kostenneutral
- Aufwand Implementierung evtl. komplizierter, wenig Support für exotische kommerzielle Systeme



The screenshot displays the Nagios web interface. At the top left is the CUBIT logo with the tagline 'open source for enterprise' and 'linuxwochen'. The main area shows a network topology diagram with nodes like 'cube1-lan', 'cube1-kdntrans', and 'cube1-inet' connected to a central 'Nagios Core Process'. Below the diagram is a performance graph with a blue line showing fluctuations over time, with markers for 12:00, 18:00, and 00:00. The text 'OpenSource Network Management' is visible at the bottom left.

Integration

- via Host-spezifischer Website können Webtools eingebunden werden
- keine Ersatz für Management Tools (Switch Management, Server Management)
- zentrale Kommandozentrale
- Nagios Core Process als Information Hub
- Duale Information
- spezielle Systeme (Switch Management etc.) berichten an Nagios



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Projekterfahrung

- Bedarf muss gegeben sein (Netzwerkgröße, Dienstanzahl)
- für kleinere Anwendungen ASP-Ansatz (shared Nagios-Server, Mandantenfähig)
- Struktur in Abbildung wichtig (Org/Geo)
- Evtl. verteiltes Monitoring um Last zu teilen
- eigene Failover-Lösung: Checks die als „Backup“ fahren werden erst bei Versagen des Primärservers aktiv
- Statistiken wichtig



Projekterfahrung - Stats

Nagios

OpenSource Network Management

CUBIT

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
- Event Log

Configuration

- View Config

Host Alert Histogram
Last Updated: Thu Apr 24 18:31:47 CEST 2003
Nagios@ - www.nagios.org
Logged in as *nagiosadmin*

[View Trends For This Host](#)
[View Availability Report For This Host](#)
[View Status Detail For This Host](#)
[View History For This Host](#)
[View Notifications For This Host](#)

Host 'biglaser'

04-17-2003 18:31:47 to 04-24-2003 18:31:47
Duration: 7d 0h 0m 0s

Report period: [Current time range]

Breakdown type: Day of the Month

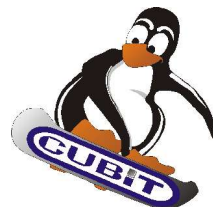
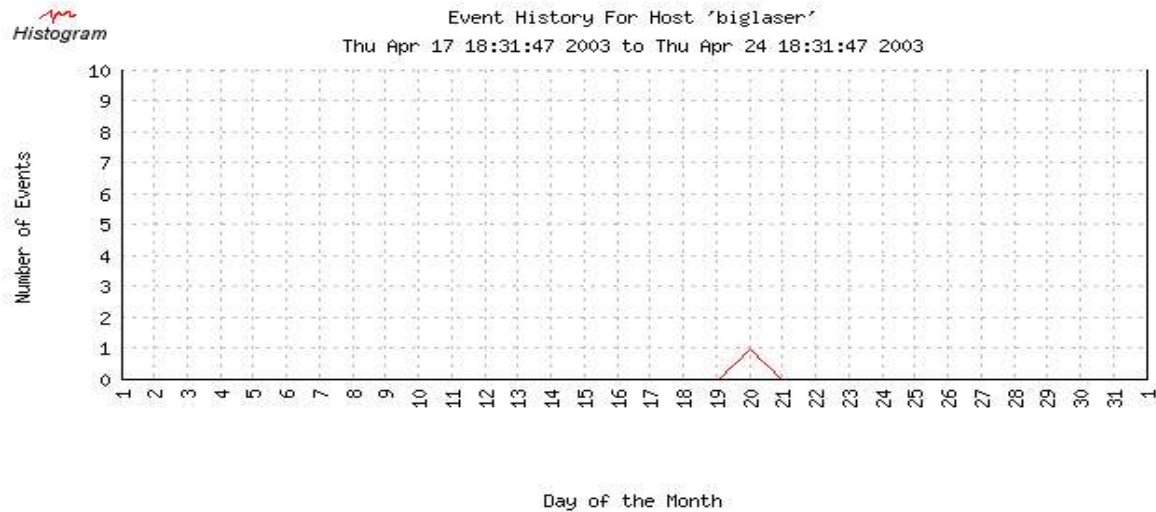
Events to graph: All host events

State types to graph: Hard and soft states

Assume state retention: yes

Initial states logged: no

Ignore repeated states: no



The screenshot displays the Nagios monitoring interface. At the top left, the CUBIT logo is visible with the text "open source for enterprise" and "linuxwochen". The main area shows a network diagram with several hosts, including "cube1-lan", "cube1-kdntrans", "cube1-inet", "biglas", "i-cubit", "bit.at", "cubit.at", "gdlx02", and "server". A central "Nagios Process" node is also shown. Below the diagram is a performance graph with a blue line and a red vertical line, indicating a specific time point. The graph is labeled "OpenSource Network Management".

Projekterfahrung (2)

- richtiger Nutzen erst mit spezifisch geschriebenen Plugins („Harry Potter Monitor“)
- standardisierte Schnittstelle in Multi-Tier Anwendungen sinnvoll um Aufwand für die Erstellung eigener Plugins zu senken
- Support für Industriestandard-Hardware oft nicht so gut, Verständnisproblem bei Anwendern
- Dienstleister kann Know-How einbringen, Consulting vor Allem bei Aufbau Template-Struktur und Monitoring-Strategie wichtig



The screenshot displays the Nagios monitoring interface. At the top, the CUBIT logo is visible with the text 'open source for enterprise' and 'linuxwochen'. Below this is a network diagram with nodes labeled 'cube1-lan', 'cube1-kdntrans', 'cube1-inet', 'biglas', 'i-cubit', 'bit.at', 'eN.cubit.at', 'server', 'adow.net', and 'gd1x02'. A central node is marked with a question mark. The Nagios logo is prominently displayed in the middle. At the bottom, a performance graph shows a blue line fluctuating over time, with a red vertical line indicating a specific point. The x-axis is labeled with '12:00', '18:00', and '00:00'. The text 'OpenSource Network Management' is at the bottom left.

Projekterfahrung (3)

- Implementierungsaufwand nicht negierbar
- Implementierungsaufwand relativ unabhängig von Lösung, relativ unabhängig davon, ob Lösung GPL/OS ist oder nicht
- viele IT-Teams sind zu klein um selbst voll zu Implementieren
- Dienstleister für Implementierung sinnvoll
- Netzwerkmonitoring/management via Nagios: Nagios als Auftragsvergabe zur Problembehebung durch externe Dienstleister

