

Icinga and Deutsche Welle

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 **NETWAYS**®

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www.netways.de

INTRODUCTION NETWAYS

INTRODUCTION DEUTSCHE WELLE

ICINGA

CHALLENGES

ARCHITECTURE & FACTS

USED ADDONS

DEMO

Q&A





INTRODUCING NETWAYS

NETWAYS Expertise

OPEN SOURCE SYSTEMS MANAGEMENT

- Monitoring & Reporting
- Configuration Management
- Service Management
- Knowledge Management
- Backup & Recovery

OPEN SOURCE DATA CENTER

- High Availability & Clustering
- Cloud Computing
- Load Balancing
- Virtualization
- Database Management

MANAGED SERVICES

MONITORING HARDWARE

CONFERENCES

NETWAYS Conferences



OSDC.de

OPEN SOURCE DATA
CENTER CONFERENCE

Open Source Data Center Conference 25 – 26 April 2012

- 100 attendees (2011)
- "Agile Infrastructures"
 - ▶ Devops & methods
 - ▶ Databases
 - ▶ Scalability & infrastructure



OPEN SOURCE
MONITORING
CONFERENCE

on Nagios

Open Source Monitoring Conference 17 – 18 October 2012

- 260 attendees (2011)
- Icinga / Nagios case studies & best practices
- Latest monitoring technologies & addons

Community Involvement



www.netways.org

- NETWAYS Addons
- NETWAYS Plugins



www.icinga.org

- Development
- Hosting



www.monitoringexchange.org

- Repository of Icinga / Nagios addons and plugins
- ~2000 projects



INTRODUCING DEUTSCHE WELLE

Overview Deutsche Welle

- Germany's international broadcaster
- Yearly budget of 270 million euro
- Located in Bonn and Berlin



Deutsche Welle - Mission

- Deutsche Welle is Germany's international broadcaster. It carries out its legally defined mission while remaining journalistically independent
- DW produces and provides media services throughout the world with TV, radio and online content and DW Akademie



Deutsche Welle - Impressions

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THE ICINGA PROJECT

Icinga Statistics

- Forked from Nagios in April 2009
- Over 172.000 downloads until now – more to come
- Different teams with independent responsibilities
 - ▶ Icinga Core
 - ▶ Icinga Web
 - ▶ Icinga Reporting
 - ▶ Icinga Marketing
 - ▶ Icinga Q&A
- 24 “active” members on the team

Tools and Platform

Icinga Quality, Testing and Community Support
Website and Open Source Ticketing System

Icinga Core

C based source
MySQL, PostgreSQL and Oracle

IDOUtils

IcingaMQ

NRPE and NSCA

Icinga Web

based on PHP
using Sencha,
Agavi MVC

Mobile

Icinga Doc

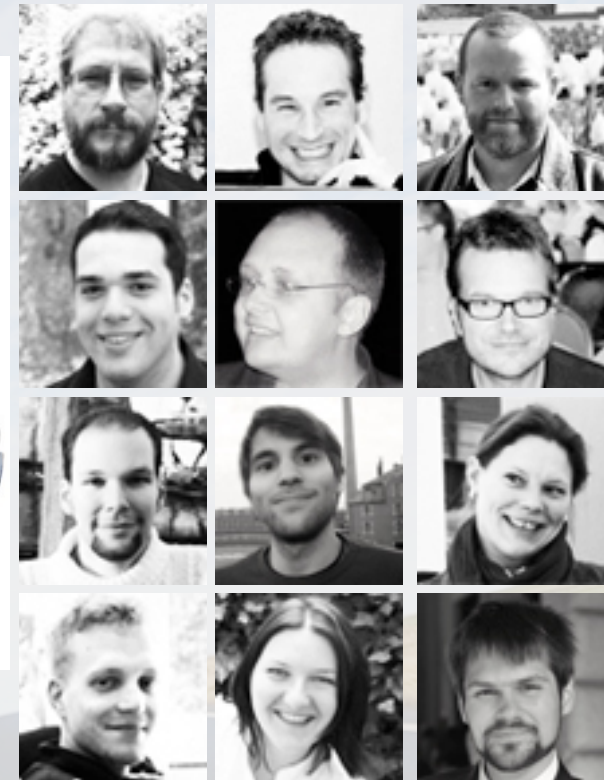
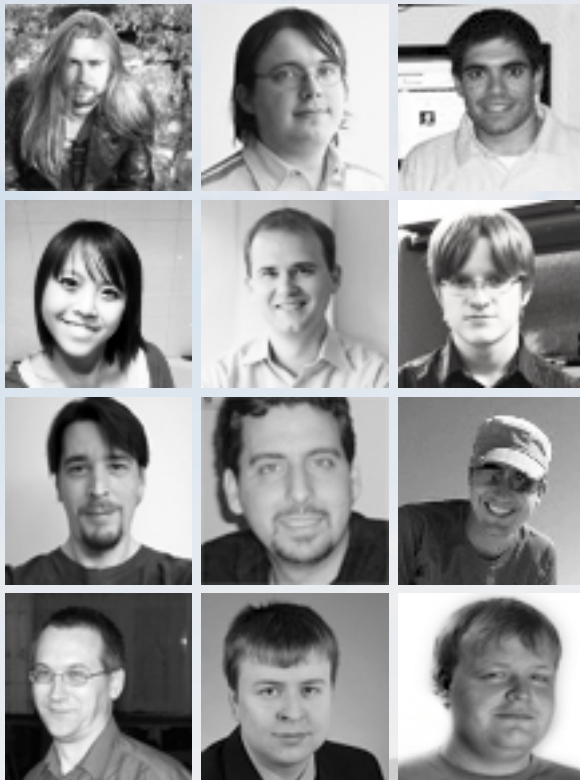
based on
Docbook in
English and
German

Icinga Reports

based on
Jasper Reports

Icinga Team

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THE CHALLENGE

Monitoring Targets

- TV Technologie
 - ▶ Crossbars
 - ▶ Evertz Multiviewer, Lynx signal enhancer
- Hybridsystems
 - ▶ VPMS, DIAS, Media Grid, Orad, Avid
 - ▶ Teleprompter, Encoder, Cutlistserver
- It Infrastructure
 - ▶ Servers
 - ▶ Network- and FC-Switches
 - ▶ Software and Services



“ Centralized control, independent monitoring ”

- Distributed monitoring clusters
- Central monitoring administration



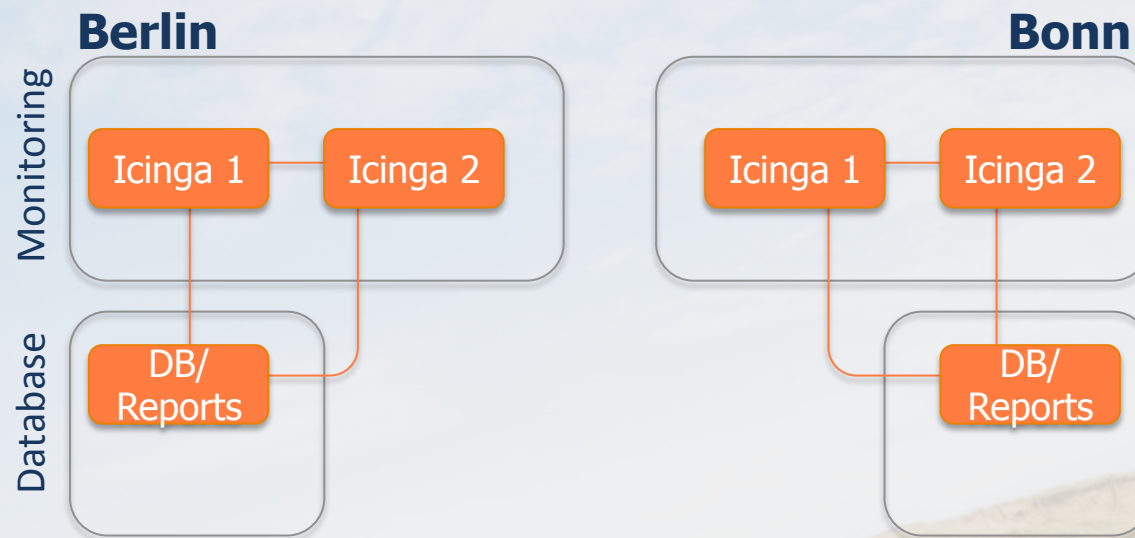
ARCHITECTURE & FACTS

Monitoring Facts

- 1.200 Hosts & 9.000 Service Checks / Midrange Server • Icinga Core & Icinga Web 1.3
- Pilot and Patches 1.5.2 / Staging
- Pilot NagVis 1.6rc3 – Current 1.5.5
- Nagios AddOn BPV 0.9.6
- pnp4nagios 0.6.10
- Performancetuning using PHP Cache (APC)

Components

[EventDB | NagVis | Jasper | PNP4Nagios | Business Process Monitoring]



Clustersetup

Cluster - Berlin

Corosync, Pacemaker and DRBD on SLES 11

Ems01

- MySQL
- Apache
- SNMP/Syslog

Ems02

- MySQL
- Apache
- SNMP/Syslog

EMS

- Icinga
- IPs

Emsdb

- Jasper Server
- SLAPD
- MySQL Slave

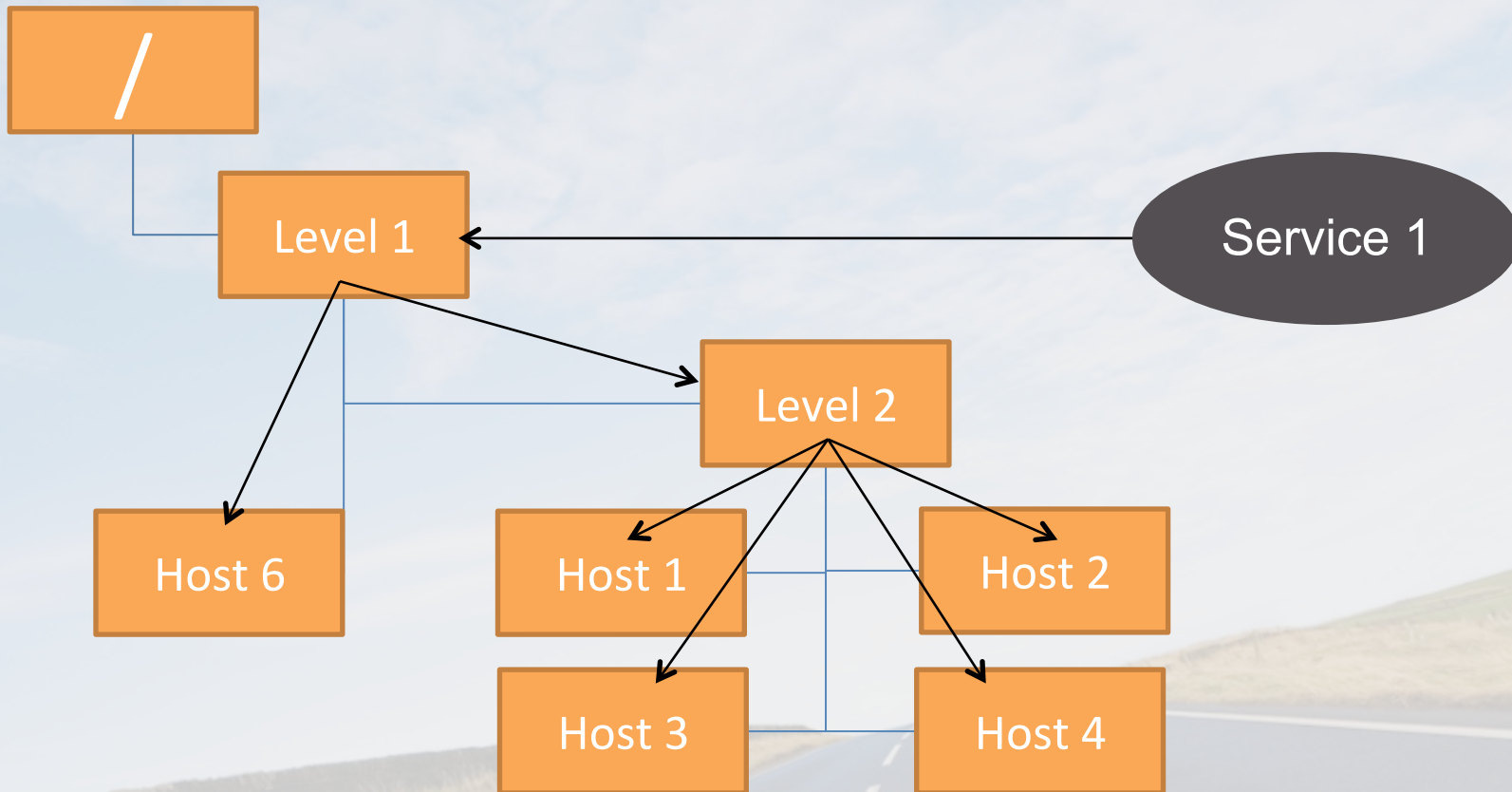
LDAP-Replication Bonn



USED ADDONS

- LConf is a LDAP-based configuration utility for Nagios/Icinga
- Perl-Backend
 - ▶ LConfExport.pl
 - ▶ LConfImport.pl
 - ▶ LConfSlaveExport.pl
- PHP-Frontend
 - ▶ Icinga module
 - ▶ Standalone frontend
- Hierarchical config management

Lconf - Concept



LConf - Screens



Current Status: **CRITICAL** (for 14d 1h 58m 54s)

Status Information: [CRITICAL]: 0.0.4:1 SDI Input 1: No Input
[CRITICAL]: 0.0.10:1 SDI Input 1: No Input
[CRITICAL]: 0.0.2:1 SDI Input 1: No Input
[CRITICAL]: 0.0.8:1 SDI Input 1: No Input
[CRITICAL]: 0.0.6:1 SDI Input 1: No Input

Performance Data:
Current Attempt: 1/1 (HARD state)
Last Check Time: 11-14-2011 17:38:17
Check Type: PASSIVE
Check Latency / Duration: N/A / 0.000 seconds
Next Scheduled Check: N/A
Last State Change: 11-14-2011 11:54:21
Last Notification: 11-14-2011 17:38:20 (notification 2)
Is This Service Flapping? N/A
In Scheduled Downtime? **NO**
Last Update: 11-28-2011 13:53:09 (0d 0h 0m 6s ago)

Active Checks: **DISABLED**
Passive Checks: **ENABLED**
Obsessing: **ENABLED**
Notifications: **ENABLED**
Event Handler: **ENABLED**
Flap Detection: **DISABLED**

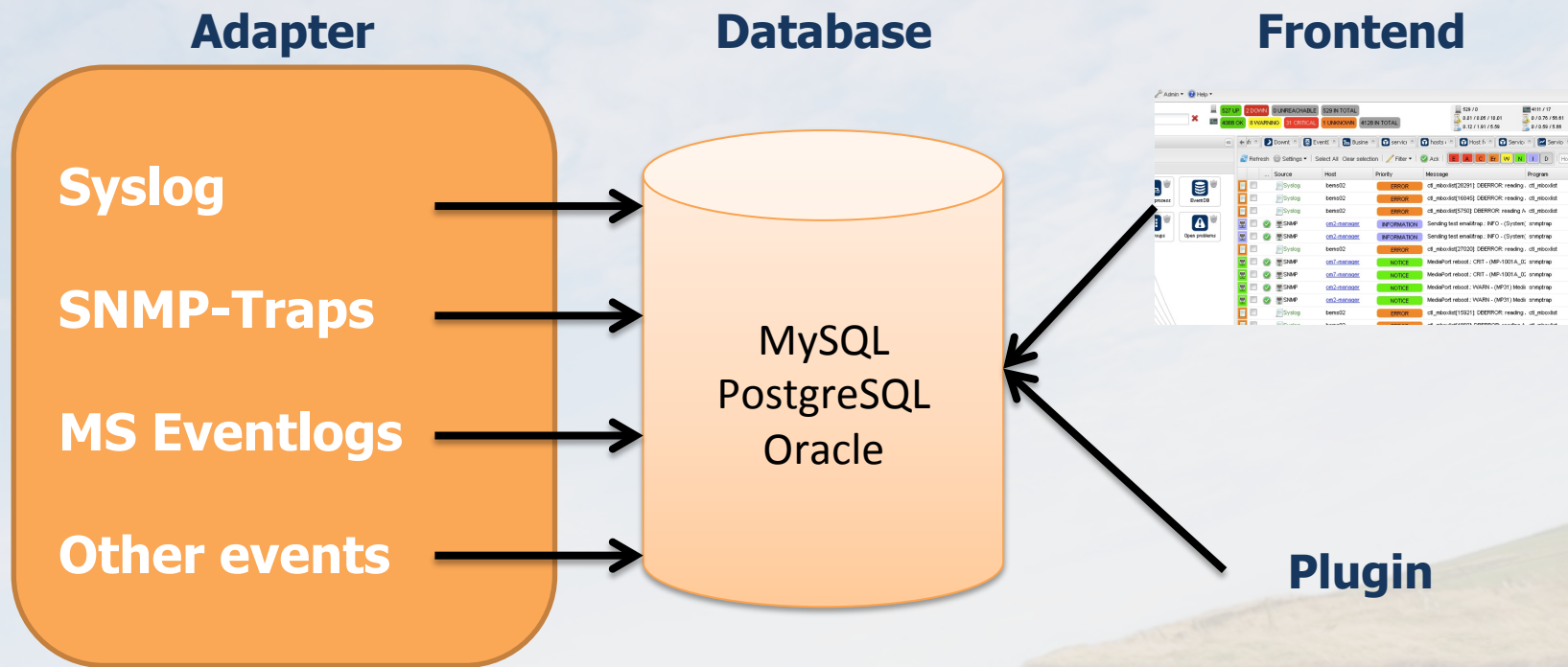
LDAP Bonn

- dc=dwelle,dc=de
 - LConf(3)
 - NagiosConfig(8)
 - Berlin(3)
 - Teams(8)
 - Benutzerservice(2)
 - DigitaleProduktion(8)
 - DVB-Support(4)
 - Grafische Systeme(2)
 - Netze(16)
 - Newsroom(5)
 - Rechenzentrum(12)
 - TV-Support(4)
 - Harris(1)
 - Lynx(8)
 - check_lynx_traps
 - lynx-56.12(3)
 - c_alle_events
 - c_stack_0_events
 - c_stack_0_frame_0_events
 - lynx-56.27(3)

EventDB

- Icinga/Nagios Addon for passive events
- Different import adapters
 - ▶ Syslog
 - ▶ SNMP-Traps
 - ▶ MS Eventlogs
 - ▶ SMTP
- PHP-Frontend
 - ▶ Icinga module
 - ▶ Standalone frontend
- Check_eventdb plugin

EventDB - Architecture



EventDB - Screen

The screenshot displays the Netways EventDB web interface. At the top, there are navigation menus for 'Admin' and 'Help'. Below this, a summary bar shows system status: 527 UP, 2 DOWN, 0 UNREACHABLE, 529 IN TOTAL, and 4128 IN TOTAL. A secondary summary bar shows 4088 OK, 8 WARNING, 31 CRITICAL, and 1 UNKNOWN. On the right, there are two sets of performance metrics with icons for CPU, memory, and disk usage.

The main content area features a table of events with columns for Source, Host, Priority, Message, and Program. The table includes a toolbar with 'Refresh', 'Settings', 'Select All', 'Clear selection', 'Filter', and 'Ack' buttons. A legend at the top right of the table shows color-coded priority levels: E (Error), A (Alert), C (Critical), Er (Error), W (Warning), N (Notice), I (Information), and D (Debug).

Source	Host	Priority	Message	Program
Syslog	bems02	ERROR	ctl_mboxlist[28291]: DBERROR: reading . ctl_mboxlist	
Syslog	bems02	ERROR	ctl_mboxlist[16845]: DBERROR: reading . ctl_mboxlist	
Syslog	bems02	ERROR	ctl_mboxlist[5750]: DBERROR: reading / \ ctl_mboxlist	
SNMP	om2-manager	INFORMATION	Sending test emailtrap.: INFO - (System) snmptrap	
SNMP	om2-manager	INFORMATION	Sending test emailtrap.: INFO - (System) snmptrap	
Syslog	bems02	ERROR	ctl_mboxlist[27020]: DBERROR: reading . ctl_mboxlist	
SNMP	om7-manager	NOTICE	MediaPort reboot.: CRIT - (MIP-1001A_02) snmptrap	
SNMP	om7-manager	NOTICE	MediaPort reboot.: CRIT - (MIP-1001A_02) snmptrap	
SNMP	om2-manager	NOTICE	MediaPort reboot.: WARN - (MP31) Media snmptrap	
SNMP	om2-manager	NOTICE	MediaPort reboot.: WARN - (MP31) Media snmptrap	
Syslog	bems02	ERROR	ctl_mboxlist[15921]: DBERROR: reading . ctl_mboxlist	
Syslog	bems02	ERROR	ctl_mboxlist[1890]: DBERROR: reading / \ ctl_mboxlist	

The logo for NETWAYS, featuring the word "NETWAYS" in a bold, white, sans-serif font. To the left of the text is a vertical orange bar with a white triangle pointing to the right at the top. A registered trademark symbol (®) is located to the right of the word.

NETWAYS®

DEMO



QUESTION & ANSWER



Question & Answer

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