dass IT
Maßgeschneiderte Open Source Lösungen
dass IT GmbH Köln
http://www.dass-it.de
Agenda

• Introduction
• Overview GroundWork and Monarch around Nagios
• Using Monarch profiles to efficiently configure Nagios
• Dassmonarch: Perl API to Monarch
• Live Demo
• Optional, if time left: the initial usecase behind dassmonarch: INFOline clustered and distributed monitoring environment
• Questions and answers
About dass IT

• Founded 2004 by former Suse Linux Senior Consultants
• No external investors
• Organical and sustainable growth
• Core business: tailormade open source solutions
• Consulting, support, development
  • Linux based infrastructure
  • Virtualization: XEN, Vmware
  • GroundWork / Nagios Monitoring
  • Backup: Bacula, SEP Sesam
  • Groupware with Open-Xchange
  • Desktop rollouts and management with Open Source:
    • Windows with OPSI, Linux with SmartClient
• Additional hardware selling to complete portfolio
GroundWork

• GroundWork Open Source, Inc. based in San Francisco
• Combines Nagios and other Open Source Tools to a complete Open Source monitoring suite:
  • Plus own developments:
    • Monarch – **Monitoring Architect**
    • JBoss based portal, including
      • Enhanced Status Viewer
      • Dashboards
      • Performance graph configuration and viewer
      • Windows NRPE – WMI Interface
• Commercial „Enterprise Edition“ is available:
  • Adds more features
  • Subscription modell with patches, upgrades and support
Monarch

• Webfrontend to configure almost all Nagios features
• Tooltips for every single configuration item
• Service Profiles:
  • A set of several single service checks
  • Can be assigned to hosts or hostgroups
  • Apply changes to all assigned hosts or hostgroups
• Host Profiles
  • All settings for hosts: templates, groups, escalations ...
  • Can combine several service profiles
  • Apply changes to all assigned hosts or hostgroups
Profile Sample

- Service Profile „Linux Standard Services“:
  - CPU load, partitions, processes, ...
- Service Profile „Linux Apache Services“
  - URL delivery
  - Apache process runs
  - Number of apache workers
- Host Profile „Linux Apache Server“
  - Contains both above named service profiles
  - Contains escalation tree settings and more
- Modular configuration
Live Demo – Part 1

• GroundWork Overview
  • Original Nagios view
  • Dashboard
• Monarch Overview
  • Service Example
  • Host Example
• Profiles
Architecture Overview

Local Perl custom script

Client webbrowser

dassmonarch API

Monarch WebGUI

Functions from monarch lib

GroundWork MySQL monarch

Nagios config files
Dassmonarch Features

• delete hosts and services
• create hosts, assign to profiles, parents and groups
• create or clone services, assign services to hosts
• assign escalations to hosts and services
• modify any property of a host or service
• get hosts, services, host- and servicegroups
• preflight check
• build instance
• commit
• a lot more...
#!/usr/local/groundwork/perl/bin/perl
use dassmonarch;

my $monarchapi = dassmonarch->new();
$monarchapi->import_host
    ("myhost","myalias",10.10.20.3,'myprofile',1);
$monarchapi->set_parents("myhost","myparent");
$monarchapi->assign_hostgroup("myhost","myhostgroup");
$monarchapi->generateAndCommit();
Live demo – Part 2

• Sample Perl script using dassmonarch
  • Script to create a host
  • Add some properties
  • Preflight check
  • Commit – creates Nagios config files
  • See results in web GUI
Benefits and Usecases

• Complete open programmable platform to create and adapt a Nagios or GroundWork configuration by Perl Scripts
• Combine GroundWork with CMDBs
  • Create GroundWork config out of CMDB
  • Create CMDB input out of GroundWork configuration
• Dynamic environments:
  • Unattended autoimport switches / ports with Nedi
  • Autoimport new servers (e.g. providers, large DCs)
  • VOIP phones
• Integration with any existing customer tools
• INFOOnline offers standardized indicators for the measurement of website traffic in Germany since 2002
• measures > 1300 customer websites, references:
  • Portals: AOL, T-online, yahoo.de, freenet
  • TV online: ARD, RTL, N-TV
  • More than 200 servers
  • Approx. 70 billion Page impressions per month
  • >1500 users work with INFOOnline analysis tools
Requirements

• Automated configuration of measurement infrastructure
  • Config database for measurement „Boxes“
• Configuration GUI for own changes, e.g. Switches, Mailservers
• Active – active clustering
• Continue to have Nagios as base solution
• Supported solution
Solution

• 1 GroundWork Server at main data center
• 1 Additional server at second data center
• 1st Server as primary administration point
• Automatic replication
• Active - active combination
• Development of a monarch API for
  • automatic host - service creation and deletion
  • configuration synchronisation at database layer +
  • on the fly config adaptations using dassmonarch API
  • commit
Active – active scenario

GW Server A

Datacenter A

GW B checks A

passive Checks Hosts B

GW Server B

Datacenter B

passive checks Hosts A

Host A

Host A

Host B

Host B
Config Sync

- GroundWork A is primary point for administration
- Synchronization by Database replication plus
- Adaptors (active - passive ) by dassmonarch based script
- Advantages:
  - Fully operational additional server
  - Server B activates notifications after failing server A
- Disadvantage:
  - Servers at site A not monitored, if server A is down and vice versa.
  - Acknowledgements do not get synchronized
Links

• Dassmonarch Doxygen class reference online: http://www.dass-it.de/doxygen/monarch-doxygen/
• Dassmonarch on MonitoringForge: http://monitoringforge.org/projects/dassmonarch
• GroundWork Community Edition on SourceForge: http://sourceforge.net/projects/gwmos/
• GroundWork company website: http://www.groundworkopensource.com
• dass IT GmbH company website: http://www.dass-it.de
Contact

Tailormade Linux und Open Source Solutions

• dass IT GmbH
  Händelstr. 25-29
  50674 Köln
• Telefon: +49 221 3565666-0
• Fax: +49 221 3565666-10
• Email: info@dass-it.de
• Web: http://www.dass-it.de