

We are watching us

HA monitoring setup

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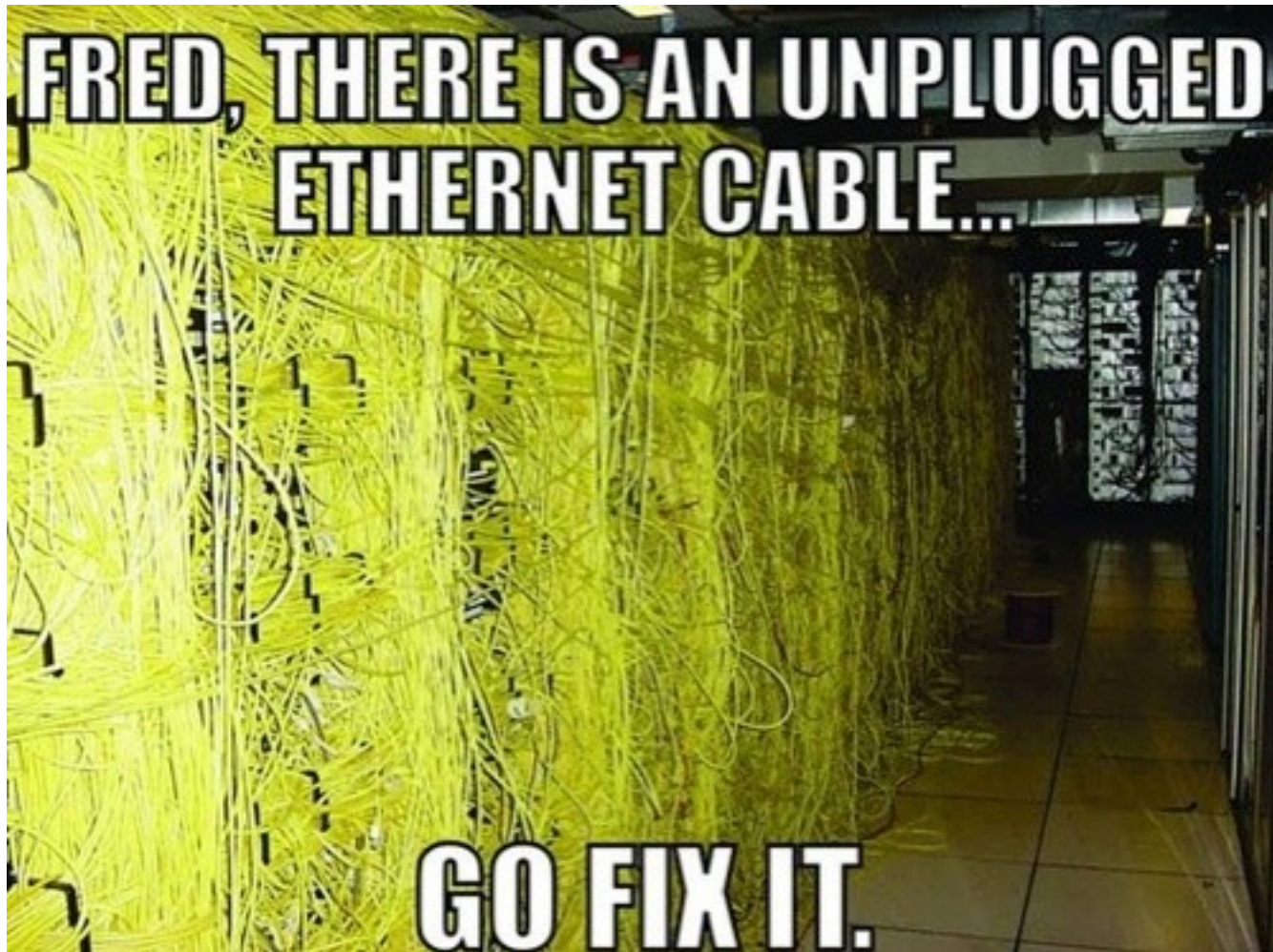


What we are watching ?

Server rooms

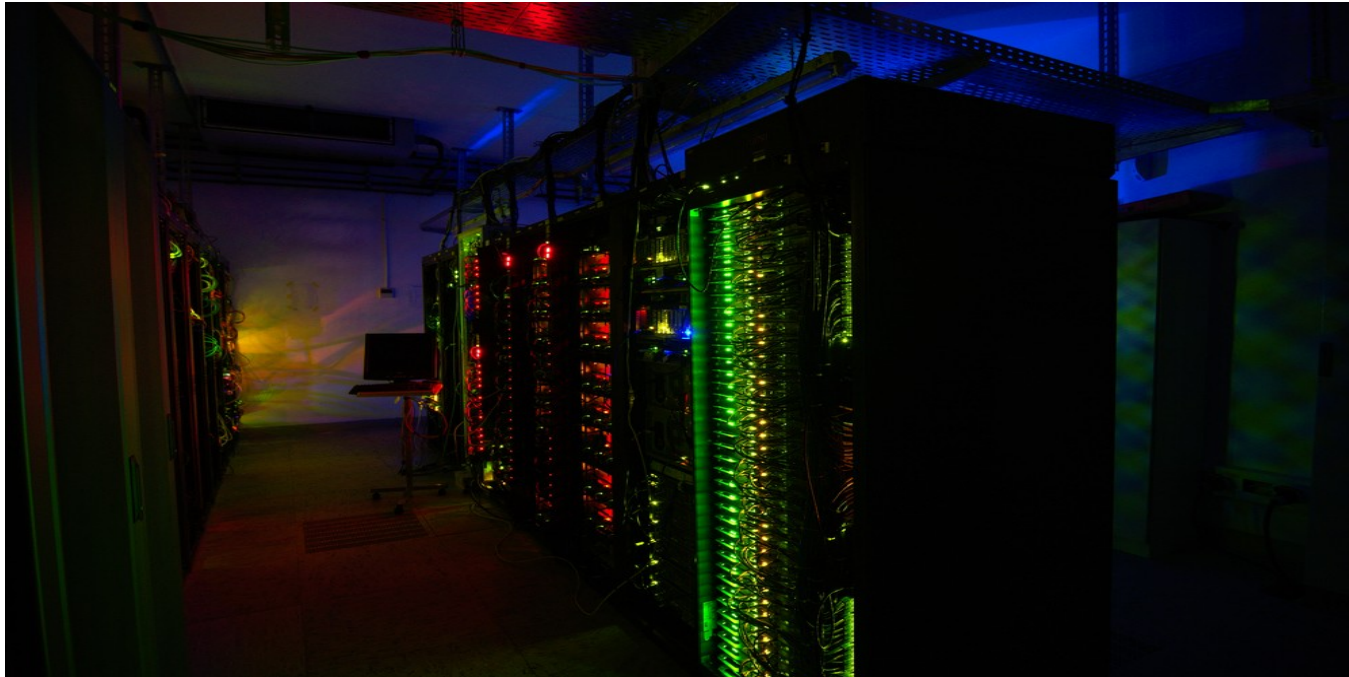


Server rooms



What do we really have.

- 3 locations in Europe and USA



- 520 hosts
- 5525 services totally
- 1787 are passive checks

Introduction to monitoring and HA

We are using Open Source projects



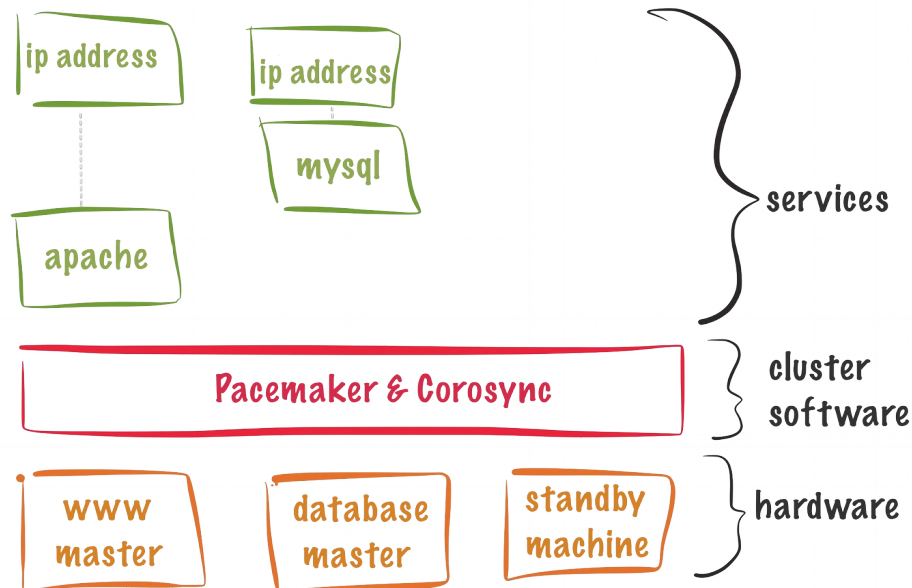
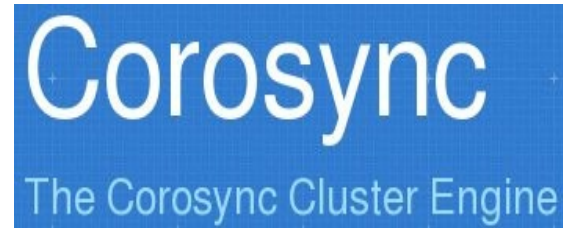
We are using Open Source projects



Monitoring Plugins



High Availability tools



The cluster setup

- The server setup

two servers

Processor 2x Intel(R) i3-2120 3.30GHz (2 cores with 4 Threads)

Memory 16GB RAM

1TB classical disk and 240 GB SSD disk

Stonith

IPMI support on both server

HA software setup

The pacemaker official web: <http://clusterlabs.org/>

The book sleha <http://goo.gl/NskwNo>

High availability setup for OpenVPN <http://goo.gl/jpexTt>



Basic rules

Services implementing HA on their own

Prefer the integrated solution

For example Mysql, DHCP, Named

Services can run independent on the node

Keep running independent (but monitor)

For example ido2db, NSCA, Gearman, Apache

You can run more then one DRBD via Pacemaker

Helps to run on different storage (SSD)

Helps with load balancing

Deep into the setup

MySQL cluster replication

Master <=> Master mode

- Simple, safe and elegant solution

few lines in the config files

Services (using MySQL) are using the local Mysq
database

- Link <http://goo.gl/rNaR5Z>

Independent running services

- Apache

Listen on all ip address (current and future)

No need restart during the migration

Data in /srv are changing during the migration

- NSCA

Listen on all ip address (current and future)

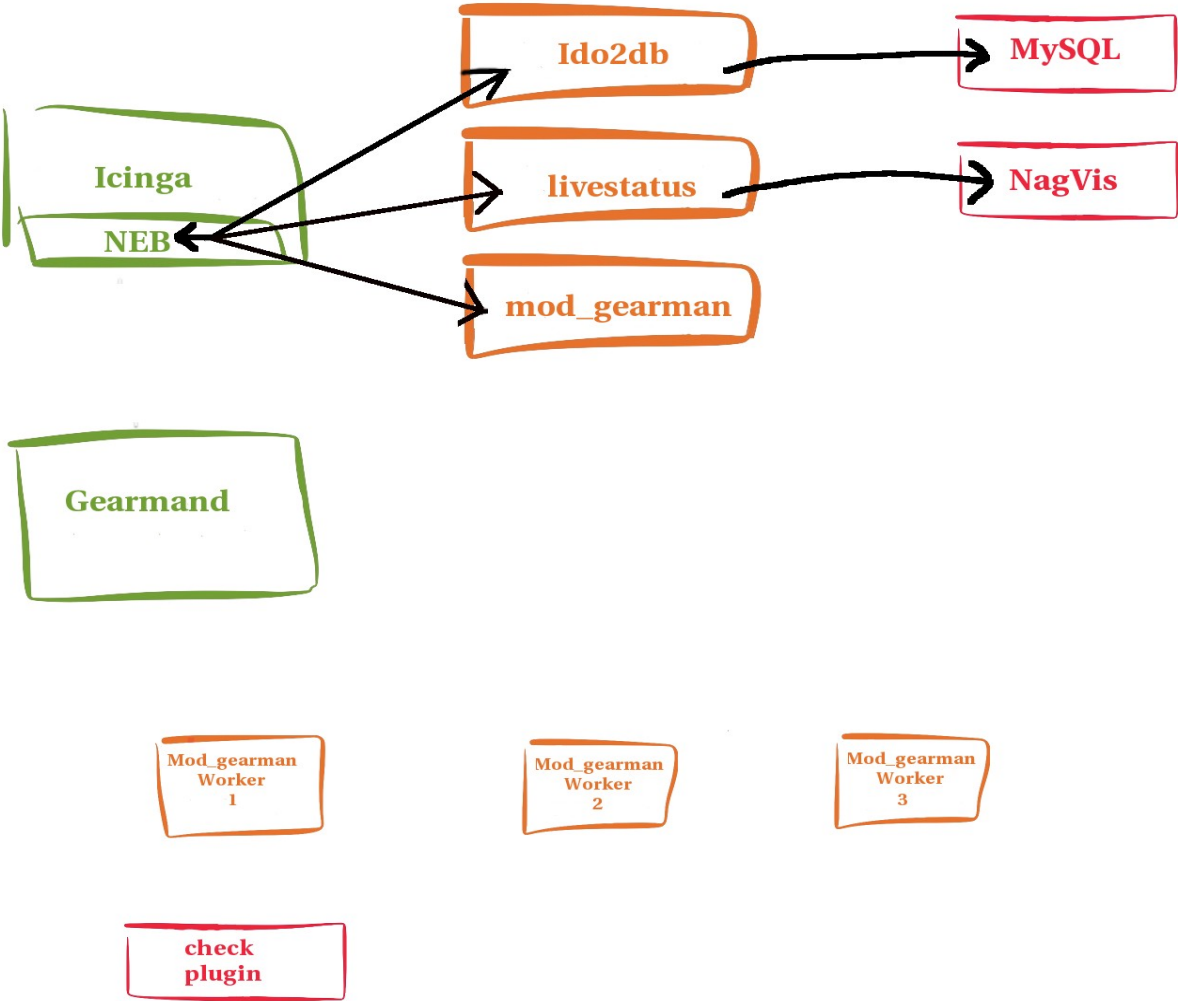
Check Result directory migrate with master server

Be sure the hosts sending NSCA results to master all the time

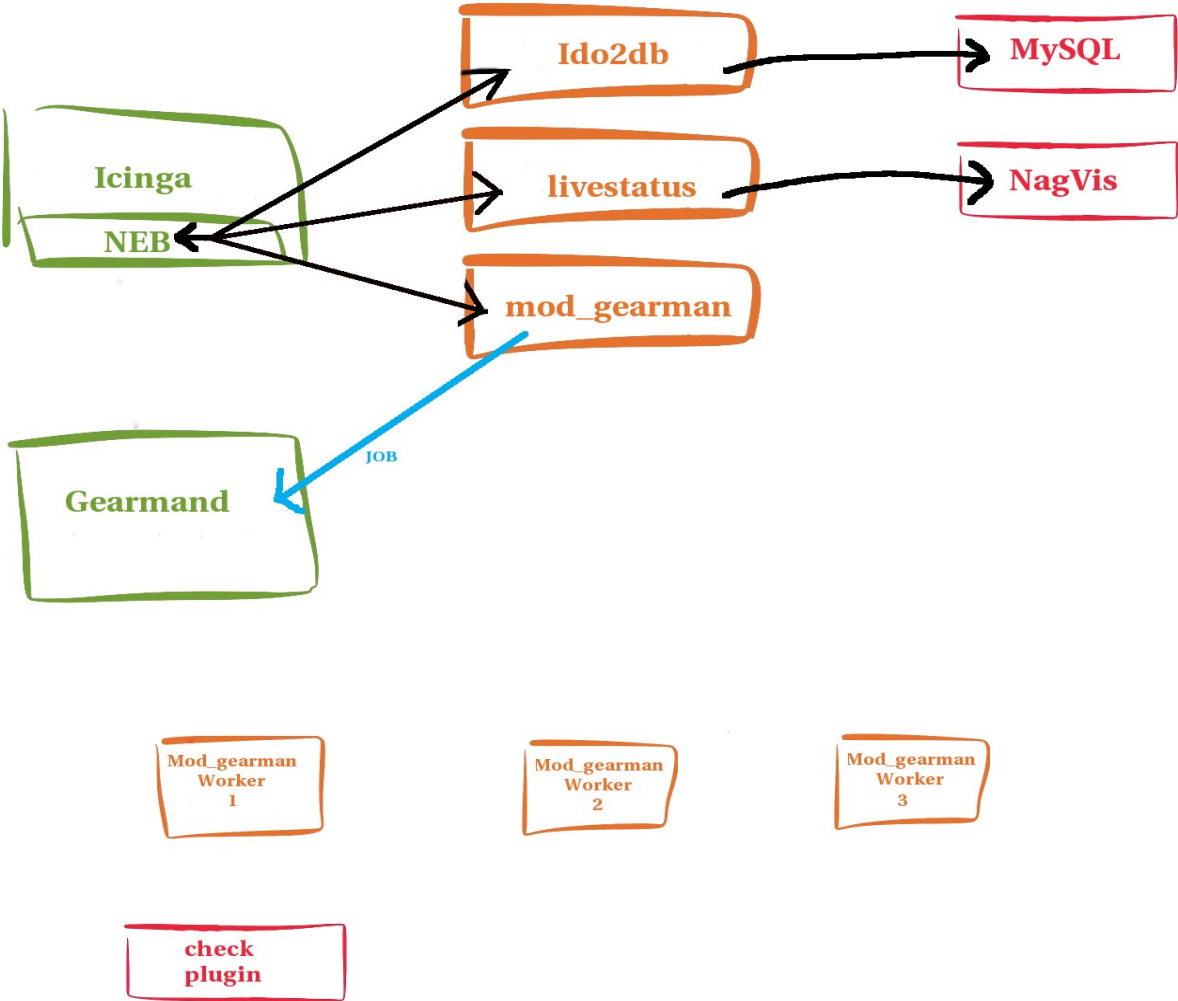
- Gearmen

See next slide ;-)

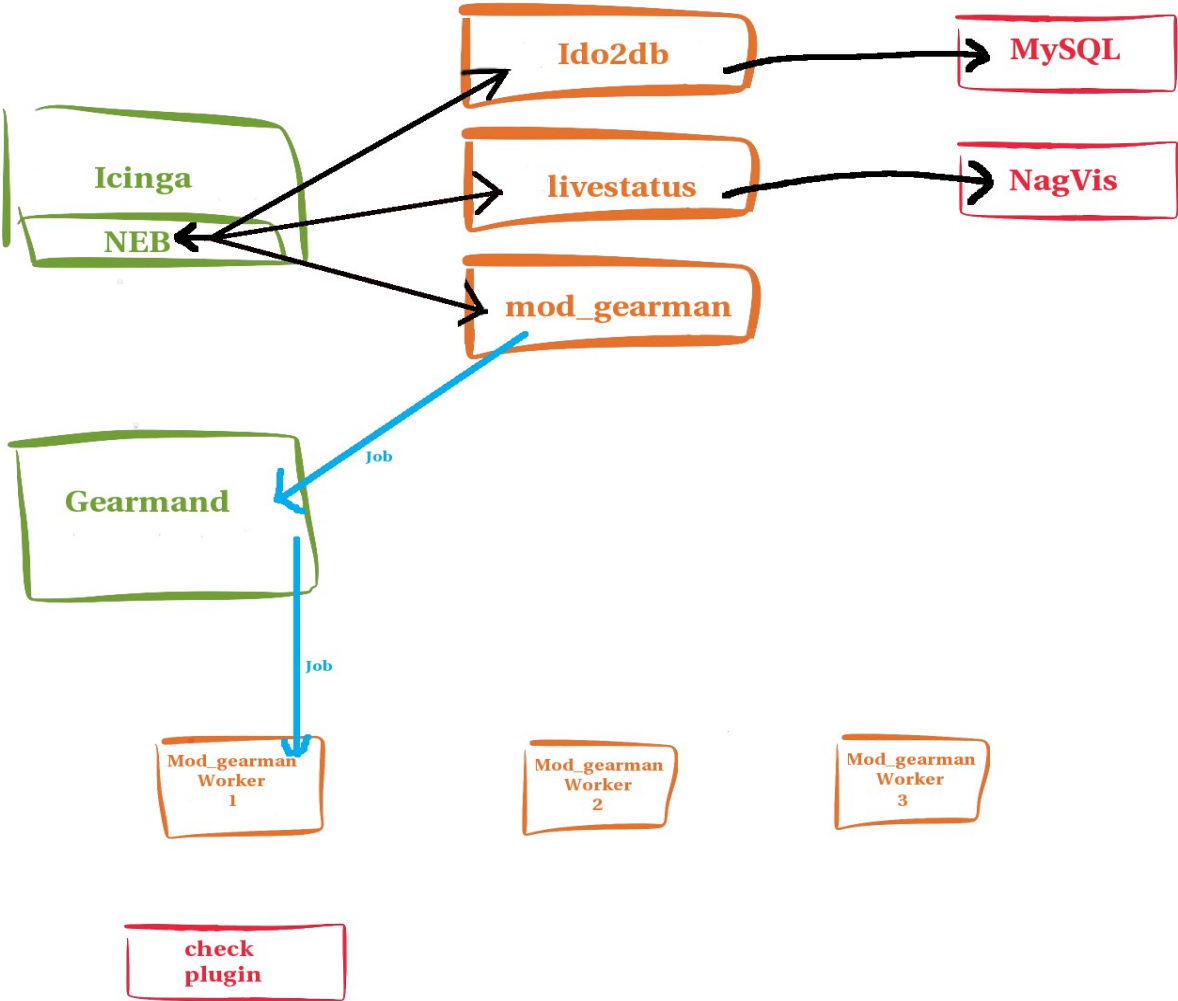
Gearman



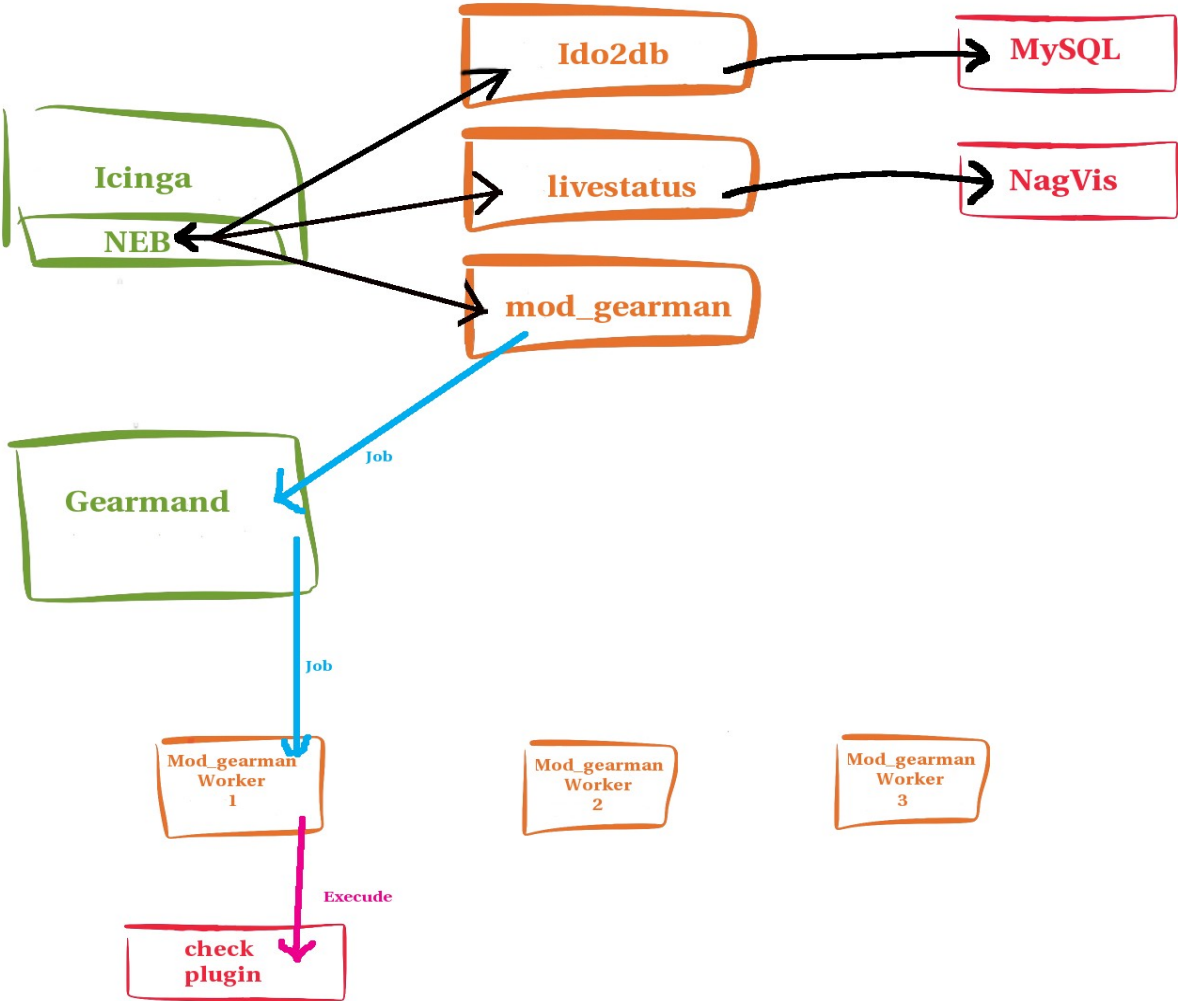
Gearman



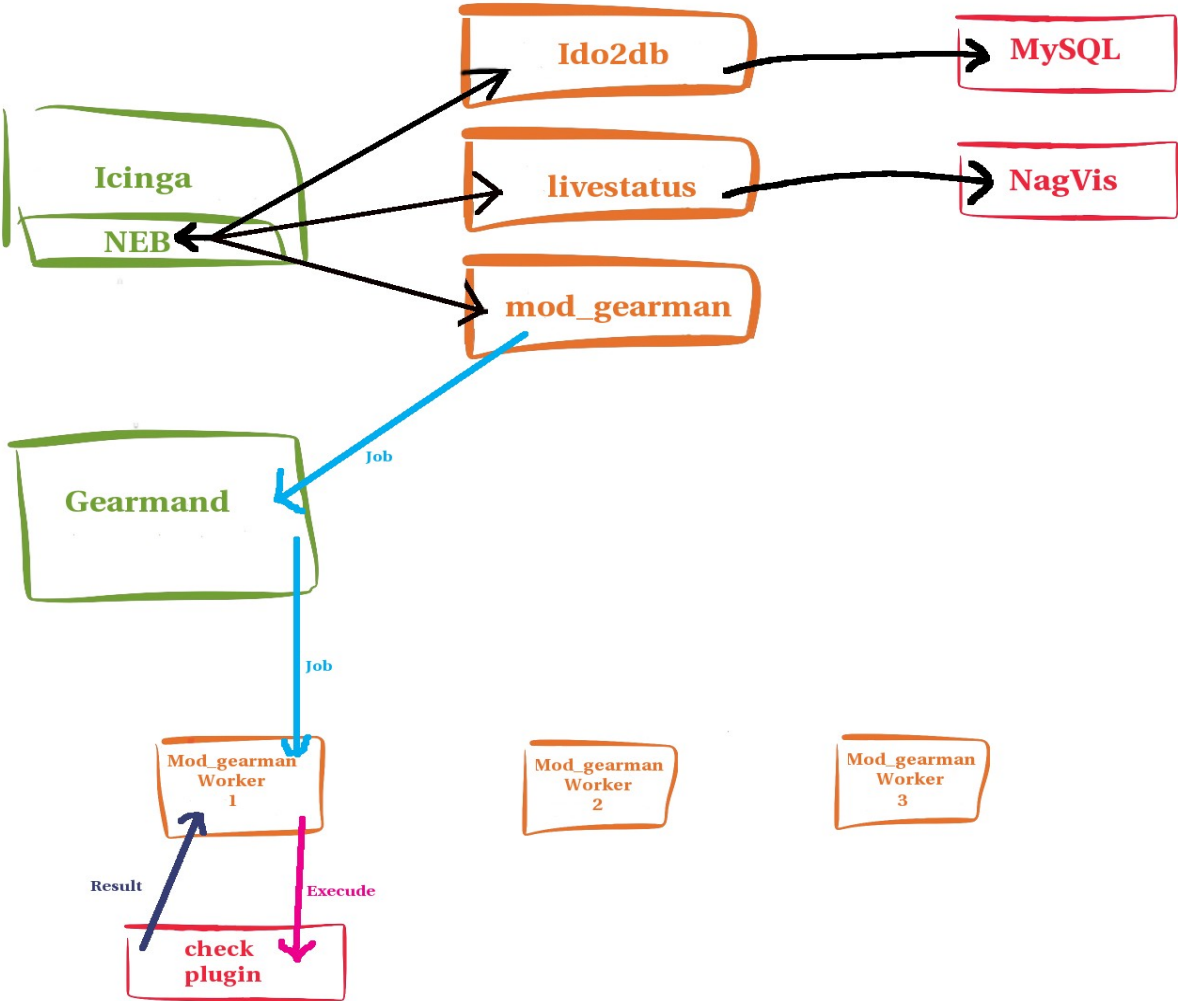
Gearman



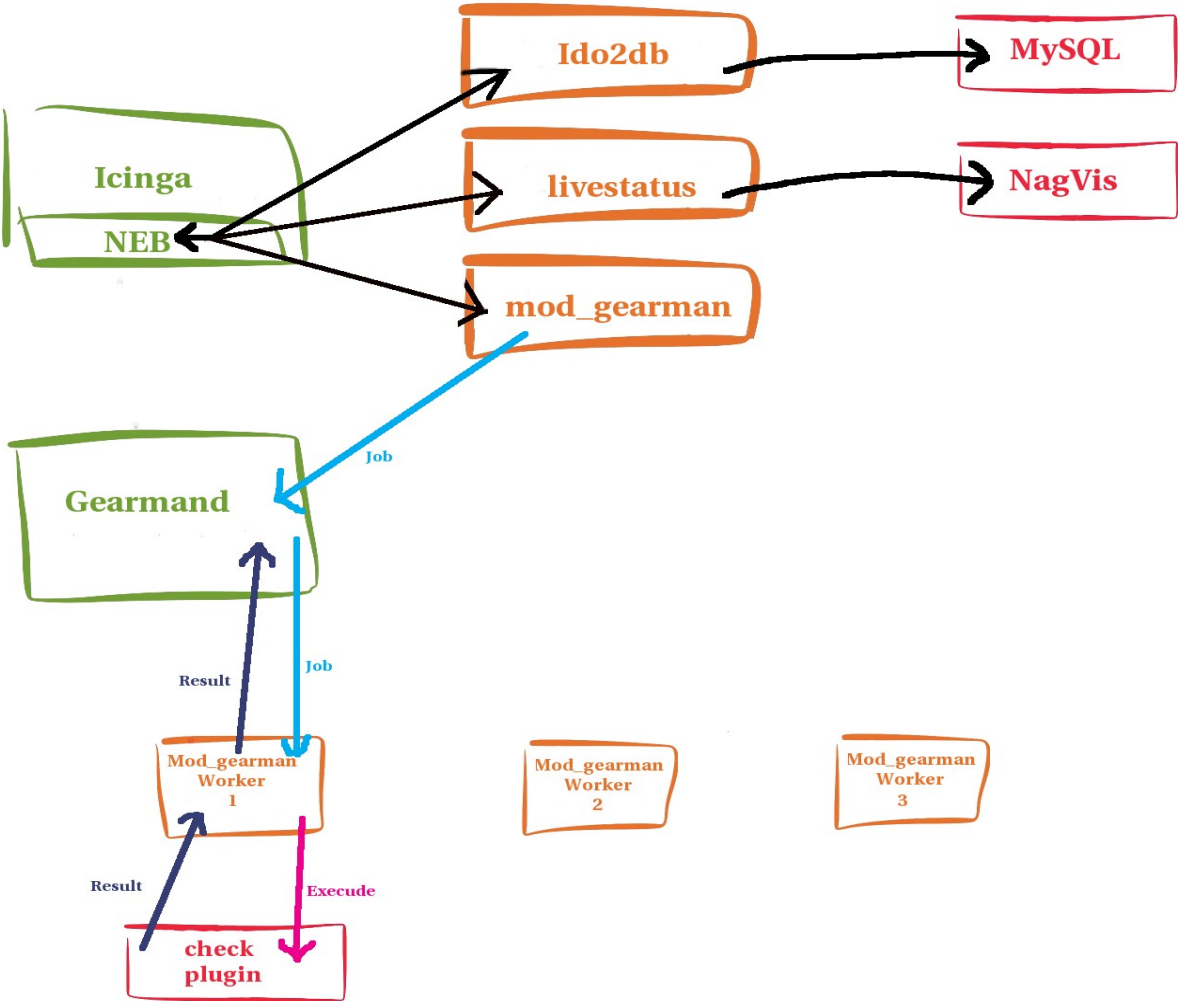
Gearman



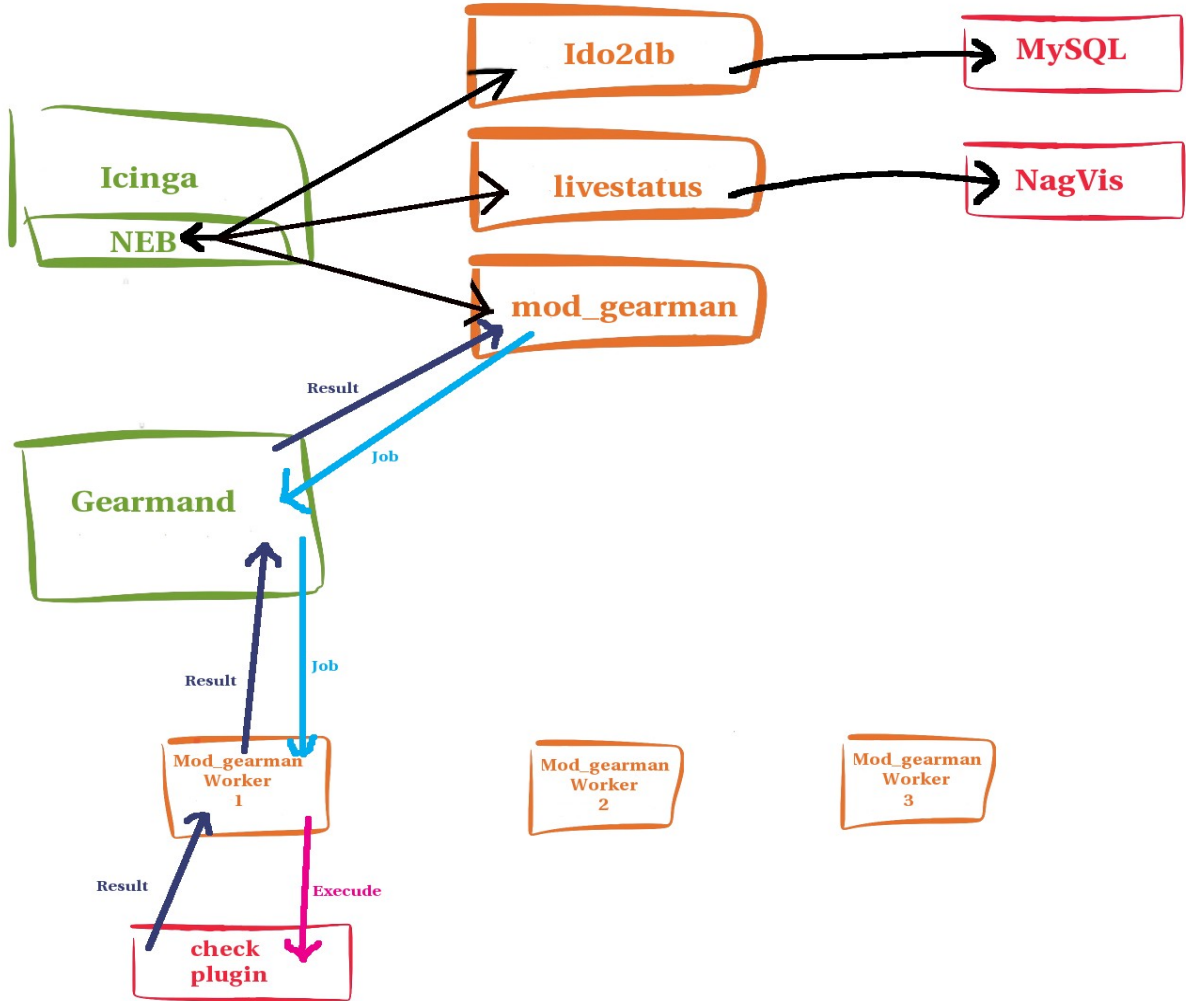
Gearman



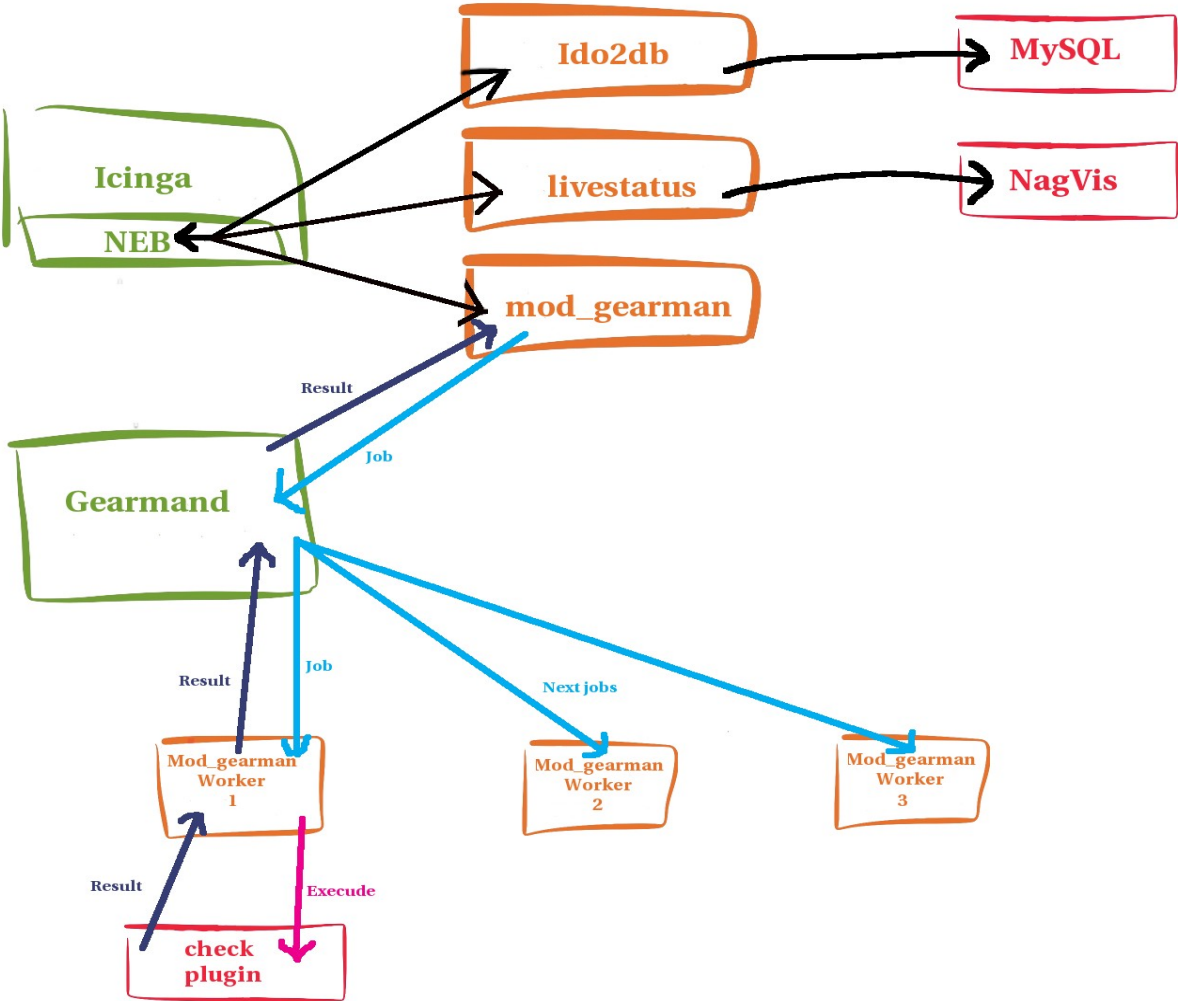
Gearman



Gearman



Gearman



Passive checks via check_MK

- The Check_MK-Project

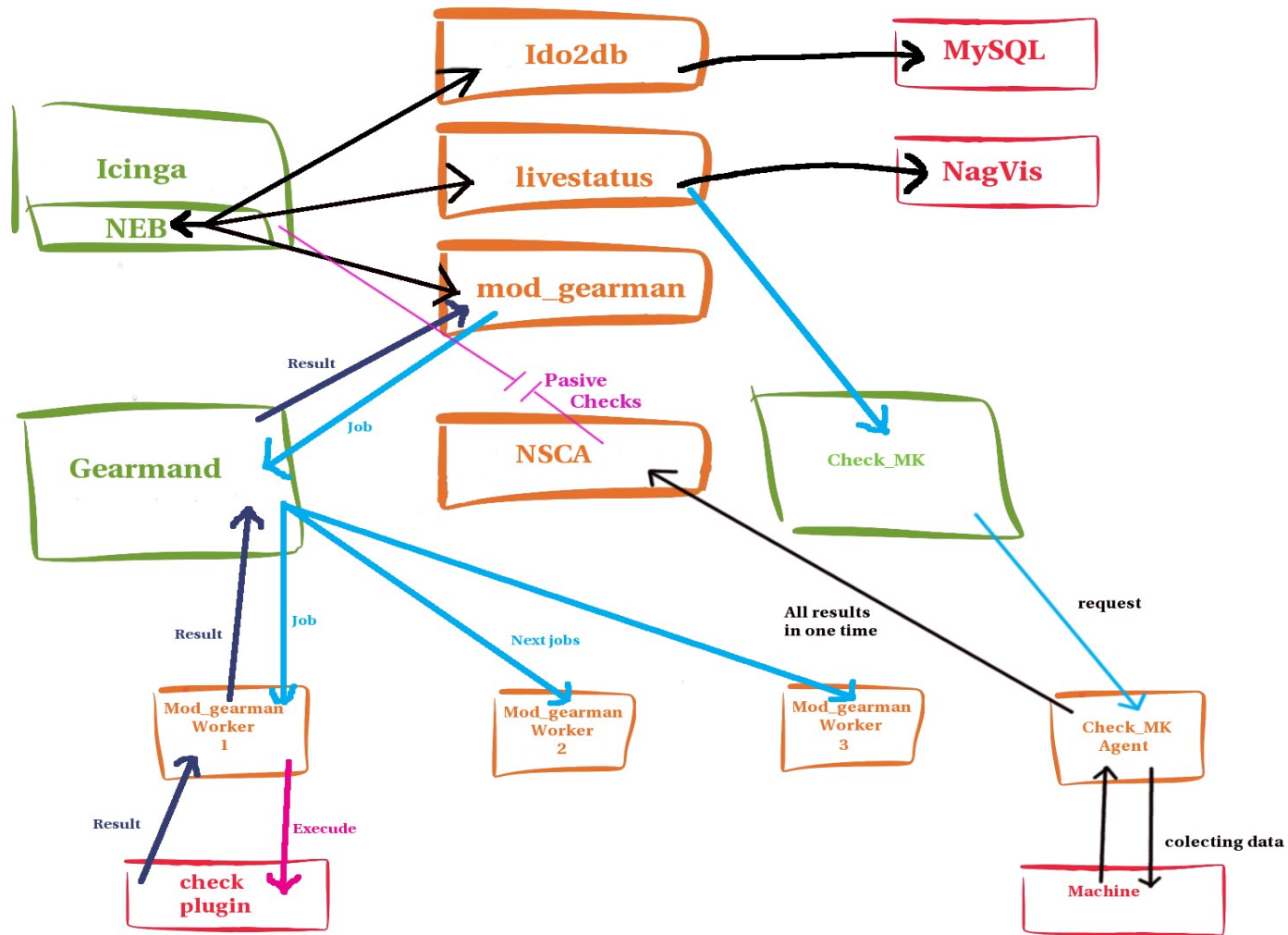
Collection of extensions for the IT-Monitoring

Its 100% Open-Source under the GNU GPL

Using auto-detection for list of services on hosts

Link <http://goo.gl/9ZaHrM>

Check MK



What happen if there is a problem ?

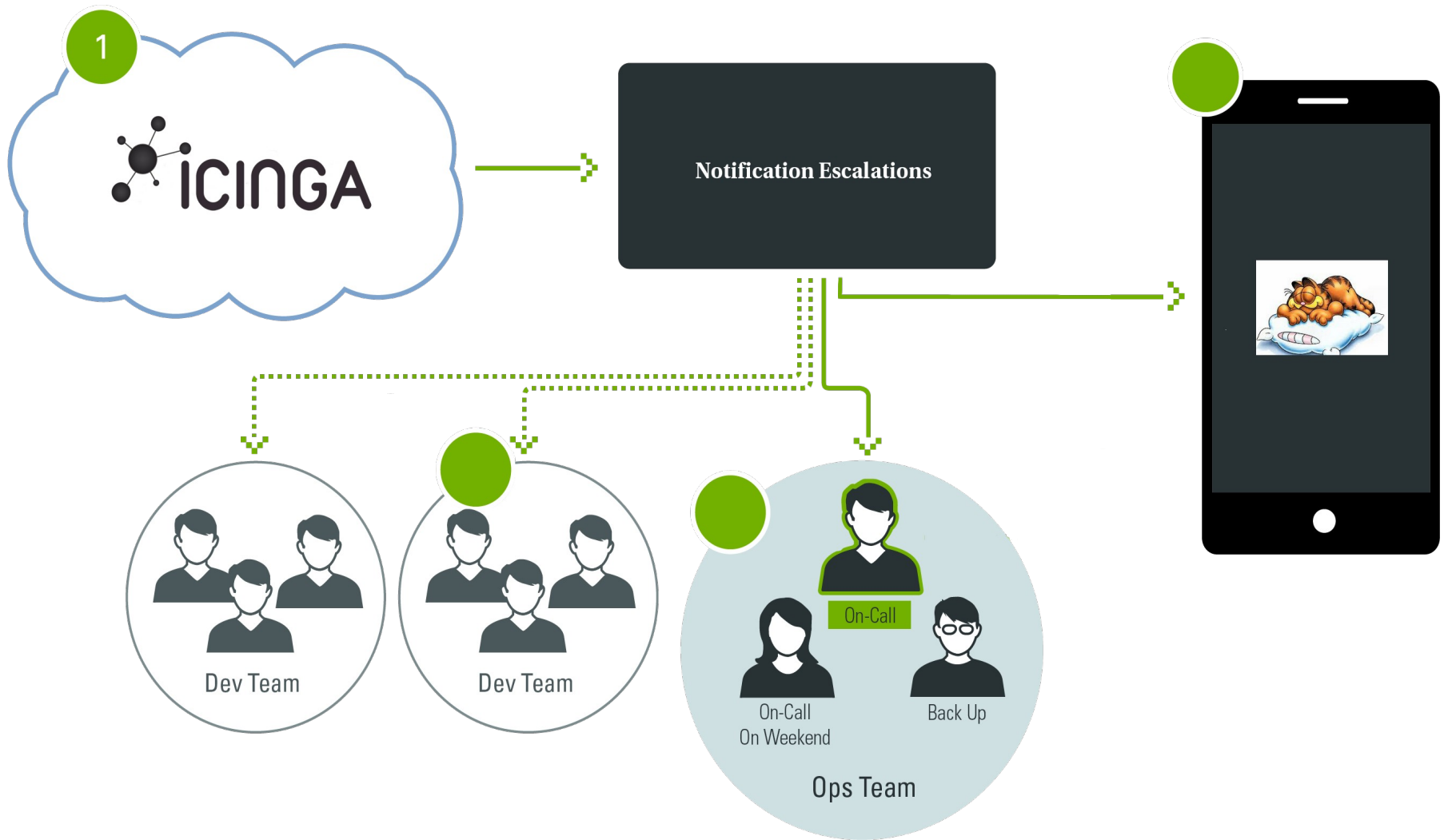
A problem in the server room



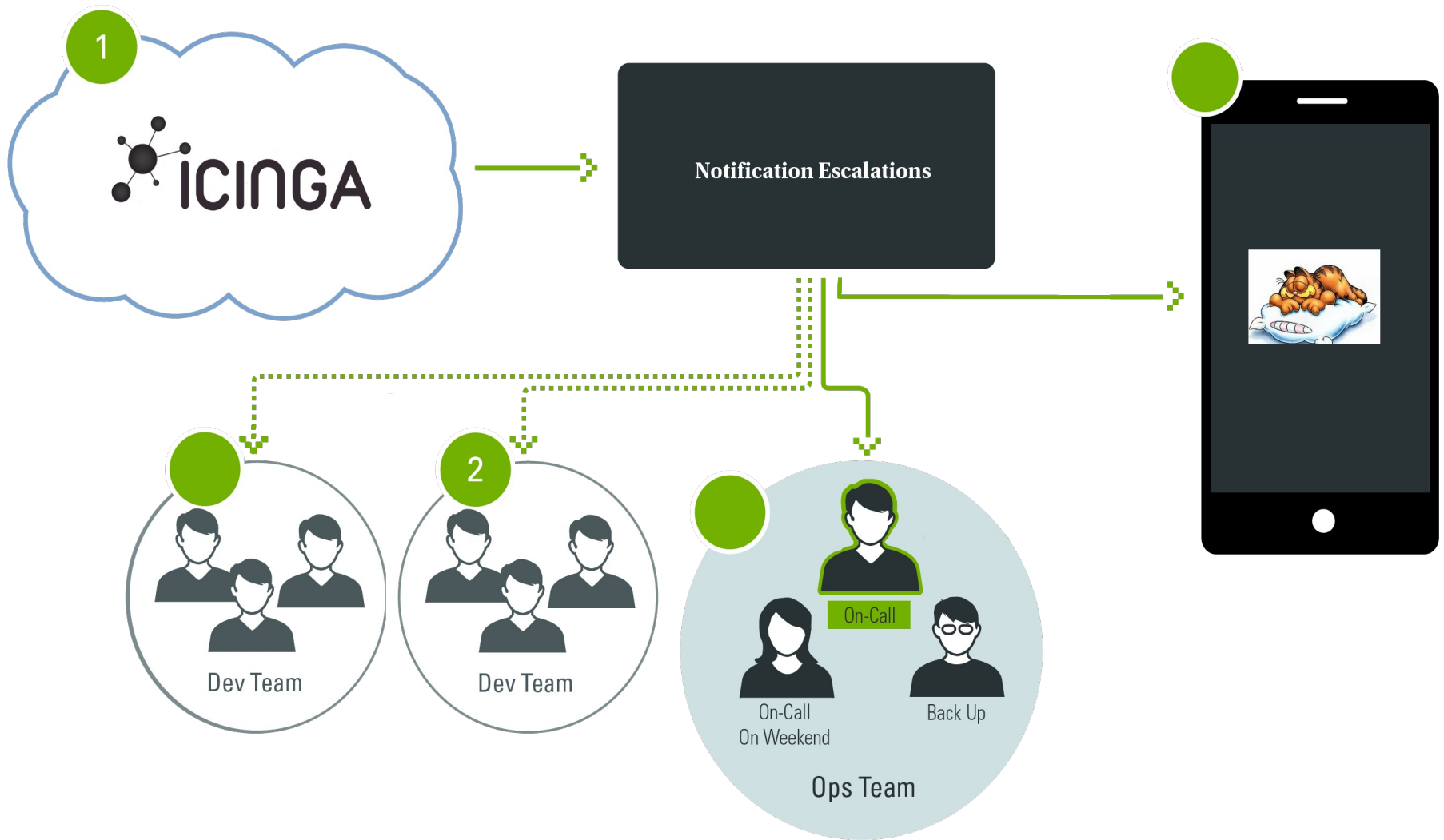
Monitoring issues...



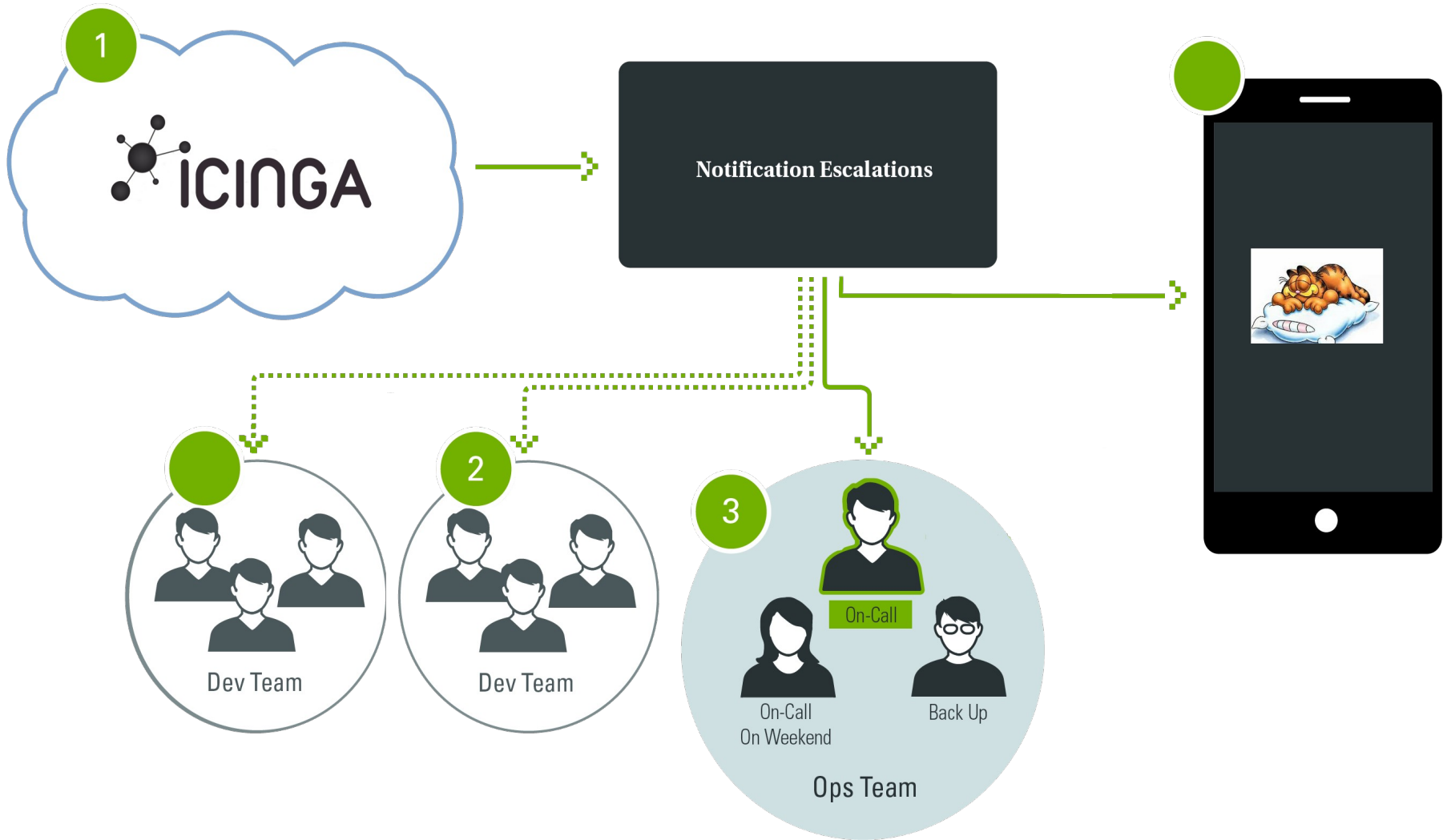
Escalations



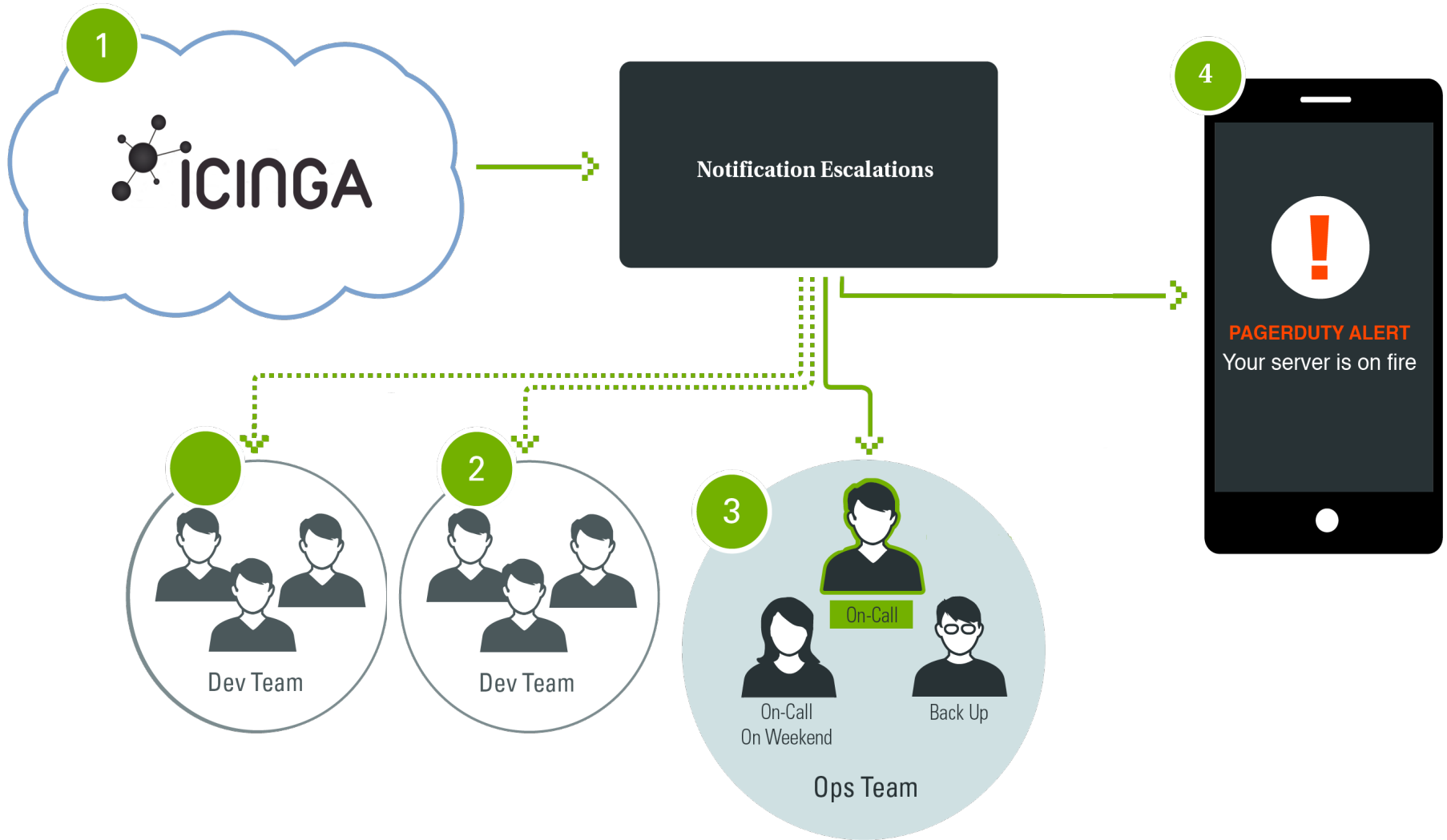
Escalations



Escalations



Escalations



Different ways to communicate

Mails ?



Mails

The screenshot shows a mail client interface with a folder tree on the left and a list of email messages in the main pane. The folder tree includes folders like 'sent-mail', 'trash (41)', 'drafts', 'templates', 'SUSE.com (0 + 1157)', 'suse.cz', 'Inbox (88)', 'A_done', 'A_O... (0 + 3156)', 'Bug-zilla (84)', 'Dodavatele', 'Drafts', 'Expense', 'Germany', 'Koncepty (2)', 'Konfe... (0 + 551)', 'Koš (1)', 'Nagios', 'Nagio... (156)', 'Nagios-suse-dr', 'Novell-spam', 'OBS', 'Odeslaná', 'OpenVpn-servers', 'Private', 'Root_mails', 'Sent', 'Spam', 'SPAM', 'Templates', 'Trash', and 'Undelivered_Mails'. The main pane displays a list of messages with columns for 'Subject', 'Sender', and 'Date'. The messages are service alerts from 'Monitoring User' with subjects like '** PROBLEM Service Alert: login.opensuse.org/Load is WARNING **' and '** RECOVERY Service Alert: software.opensuse.org/software test is OK **'. The dates range from 'Yesterday 20:5...' to 'Yesterday 14:1...'.

Name	Total	Subject	Sender	Date
sent-mail	472	** PROBLEM Service Alert: login.opensuse.org/Load is WARNING **	Monitoring User	Yesterday 20:5...
trash (41)	200	** PROBLEM Service Alert: login.opensuse.org/Load is CRITICAL **	Monitoring User	Yesterday 20:4...
drafts		** RECOVERY Service Alert: software.opensuse.org/software test is OK **	Monitoring User	Yesterday 20:1...
templates	2	** PROBLEM Service Alert: src-opensuse/Load is WARNING **	Monitoring User	Yesterday 20:0...
SUSE.com (0 + 1157)	3080	** PROBLEM Service Alert: fermi/Cron Process is CRITICAL **	Monitoring User	Yesterday 20:0...
suse.cz		** RECOVERY Service Alert: backend-opensuse/bs_sched is OK **	Monitoring User	Yesterday 19:5...
Inbox (88)	2577	** RECOVERY Service Alert: back-home-opensuse/bs_sched is OK **	Monitoring User	Yesterday 19:5...
A_done	4176	** RECOVERY Service Alert: src-opensuse/Load is OK **	Monitoring User	Yesterday 19:5...
A_O... (0 + 3156)	29020	** RECOVERY Service Alert: back-home-opensuse/bs_publish is OK **	Monitoring User	Yesterday 19:5...
Bug-zilla (84)	401	** RECOVERY Service Alert: backend-opensuse/bs_repserver is OK **	Monitoring User	Yesterday 19:5...
Dodavatele	409	** RECOVERY Service Alert: backend-opensuse/bs_publish is OK **	Monitoring User	Yesterday 19:5...
Drafts	6	** RECOVERY Service Alert: backend-opensuse/bs_warden is OK **	Monitoring User	Yesterday 19:5...
Expense	216	** RECOVERY Service Alert: back-home-opensuse/bs_warden is OK **	Monitoring User	Yesterday 19:5...
Germany	7	** RECOVERY Service Alert: back-home-opensuse/bs_repserver is OK **	Monitoring User	Yesterday 19:4...
Koncepty (2)	2	** RECOVERY Service Alert: back-home-opensuse/rsyncd is OK **	Monitoring User	Yesterday 19:4...
Konfe... (0 + 551)	6016	** RECOVERY Service Alert: backend-opensuse/rsyncd is OK **	Monitoring User	Yesterday 19:4...
Koš (1)	13	** PROBLEM Service Alert: src-opensuse/Load is WARNING **	Monitoring User	Yesterday 19:4...
Nagios		** PROBLEM Service Alert: back-home-opensuse/rsyncd is CRITICAL **	Monitoring User	Yesterday 19:3...
Nagio... (156)	173	** RECOVERY Service Alert: cantor2.suse.de/DNS is OK **	Monitoring User	Yesterday 19:3...
Nagios-suse-dr	10803	** PROBLEM Service Alert: backend-opensuse/bs_repserver is CRITICAL **	Monitoring User	Yesterday 19:2...
Novell-spam		** PROBLEM Service Alert: cantor2.suse.de/DNS is WARNING **	Monitoring User	Yesterday 19:1...
OBS	59	** RECOVERY Service Alert: cantor1.suse.de/DNS is OK **	Monitoring User	Yesterday 18:5...
Odeslaná	14	** RECOVERY Service Alert: back-home-opensuse/rsyncd is OK **	Monitoring User	Yesterday 18:5...
OpenVpn-servers	58	** PROBLEM Service Alert: pontifex3-opensuse/swap is CRITICAL **	Monitoring User	Yesterday 18:3...
Private	115	** PROBLEM Service Alert: cantor1.suse.de/DNS is WARNING **	Monitoring User	Yesterday 18:3...
Root_mails	11466	** RECOVERY Service Alert: pontifex3-opensuse/swap is OK **	Monitoring User	Yesterday 18:2...
Sent		** PROBLEM Service Alert: pontifex3-opensuse/swap is CRITICAL **	Monitoring User	Yesterday 18:1...
Spam		** RECOVERY Service Alert: backend-opensuse/bs_repserver is OK **	Monitoring User	Yesterday 16:3...
SPAM		** PROBLEM Service Alert: software.opensuse.org/software test is CRITICAL...	Monitoring User	Yesterday 14:2...
Templates	2	** PROBLEM Service Alert: backend-opensuse/rsyncd is CRITICAL **	Monitoring User	Yesterday 14:2...
Trash	23	** RECOVERY Service Alert: backend-opensuse/Load is OK **	Monitoring User	Yesterday 14:2...
Undelivered_Mails		** PROBLEM Service Alert: back-home-opensuse/rsyncd is CRITICAL **	Monitoring User	Yesterday 14:2...
		** RECOVERY Service Alert: back-home-opensuse/Load is OK **	Monitoring User	Yesterday 14:2...
		** PROBLEM Service Alert: back-home-opensuse/bs_publish is CRITICAL **	Monitoring User	Yesterday 14:1...
		** PROBLEM Service Alert: back-home-opensuse/bs_sched is CRITICAL **	Monitoring User	Yesterday 14:1...



Web page

329 UP 1 / 0 / 1 DOWN 0 / 0 / 0 UNREACHABLE 0 PENDING 2 / 331 TOTAL

3506 OK 17 / 12 / 1 WARNING 4 / 17 / 27 CRITICAL 1 / 0 / 0 UNKNOWN 4 PENDING 83 / 3589 TOTAL

Displaying Result 1 - 1 of 1 Matching Hosts

General

- Home
- Documentation
- Search:

Status

- Tactical Overview
- Host Detail
- Service Detail
- Hostgroup Overview
- Hostgroup Summary
- Servicegroup Overview
- Servicegroup Summary
- Status Map

Problems

- Service Problems
- Unhandled Services
- Host Problems
- Unhandled Hosts
- All Unhandled Problems
- All Problems
- Network Outages

System

- Comments
- Downtime
- Process Info
- Performance Info
- Scheduling Queue

Reporting

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

Configuration

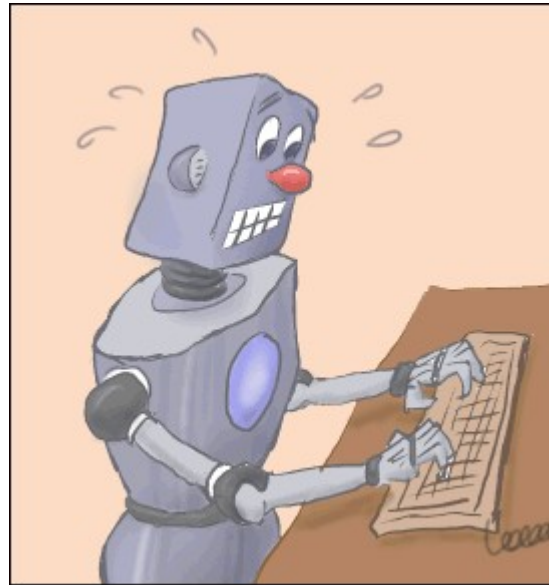
- View Config

Service Status Details For All Hosts

Host	Service	Status	Last Check	Duration	Attempt	Status Information
active-doc.opensuse.org	Uprdate	WARNING	07-04-2014 20:53:03	0d 15h 22m 19s	4/4	Updates WARNING : 1 recommended update(s): 1 package
backend-opensuse	Ma	WARNING		61d 12h 54m 46s	4/4	WARNING: only 5 weeks left:
devcon	Up	CRITICAL		1d 21h 12m 59s	1/4	Updates CRITICAL : 1 security update(s): 1 package update
dist	sp	WARNING		1d 10h 17m 12s	4/4	DISK WARNING - free space: /dist 278 GB (3% inode=98%)
fermi	ba	WARNING		1d 4h 37m 37s	4/4	DISK WARNING - free space: /backup 653736 MB (2% inode=99%)
ia64-hassium	qa	WARNING		1d 1h 12m 19s	1/1	WARNING: Backup for module: qalog is not done on the 10.1
ia64-lutetium	Lot	WARNING		1d 0h 16m 16s	3/3	WARNING - load average: 2.13, 2.21, 2.14
ia64-lutetium	abuild partition	WARNING	08-04-2014 12:07:41	0d 0h 17m 44s	4/4	DISK WARNING - free space: /abuild 5 GB (8% inode=70%);
ia64-nobelium	Load	WARNING	08-04-2014 12:10:01	0d 0h 6m 20s	3/3	WARNING - load average: 1.38, 1.92, 2.02
ia64-samarium	Load	WARNING	08-04-2014 12:04:52	0d 0h 11m 33s	3/3	WARNING - load average: 2.32, 2.41, 2.26
langley	space partition	WARNING	08-04-2014 04:15:48	0d 21h 26m 34s	4/4	DISK WARNING - free space: /space 84 GB (14% inode=99%)
	space1 partition	WARNING	08-04-2014 05:11:16	4d 19h 1m 9s	4/4	DISK WARNING - free space: /space/srv/ftp 205717 MB (11
lists4	space partition	WARNING	08-04-2014 03:37:35	1d 10h 4m 48s	4/4	DISK WARNING - free space: /mounts 2 GB (5% inode=-);
music	root partition	WARNING	08-04-2014 12:09:56	1d 2h 17m 12s	4/4	DISK WARNING - free space: /1 GB (6% inode=85%);
netapp-cl	VOLUME	CRITICAL	08-04-2014 12:07:13	2d 7h 58m 44s	3/3	CRITICAL: CRIT: vol vs_opensuse/tun_atreju_data 95% (452 92% (4134.51 GB / 4688.25 GB) , WARN: vol vs_loki_nfs/pe
obs-devel-opensuse	bs_sched	CRITICAL	08-04-2014 12:11:34	7d 20h 9m 26s	4/4	PROCS CRITICAL: 10 processes with args 'bs_sched', UID :



IRC bot



- `nagios-eventhandlers-send_messages`
generate notification Emails or IRC messages with Nagios
Link <http://goo.gl/JoJZYR>

GSM Gateway

- GSM Modem
Siemens ES75i
Modem ES75



SMS Server Tools 3

- Its 100% Open-Source under the GNU GPL
- <http://goo.gl/iXvNI9>

SUSE is Growing and We're Hiring!

Open source is in our genes.

035

Jobs currently available at
SUSE

Explore the job opportunities at

<https://www.suse.com/company/careers/>

We **ARE**
enterprise
Linux and
more.



Time for questions ?

Thank you.

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