

# We are watching us

HA monitoring setup

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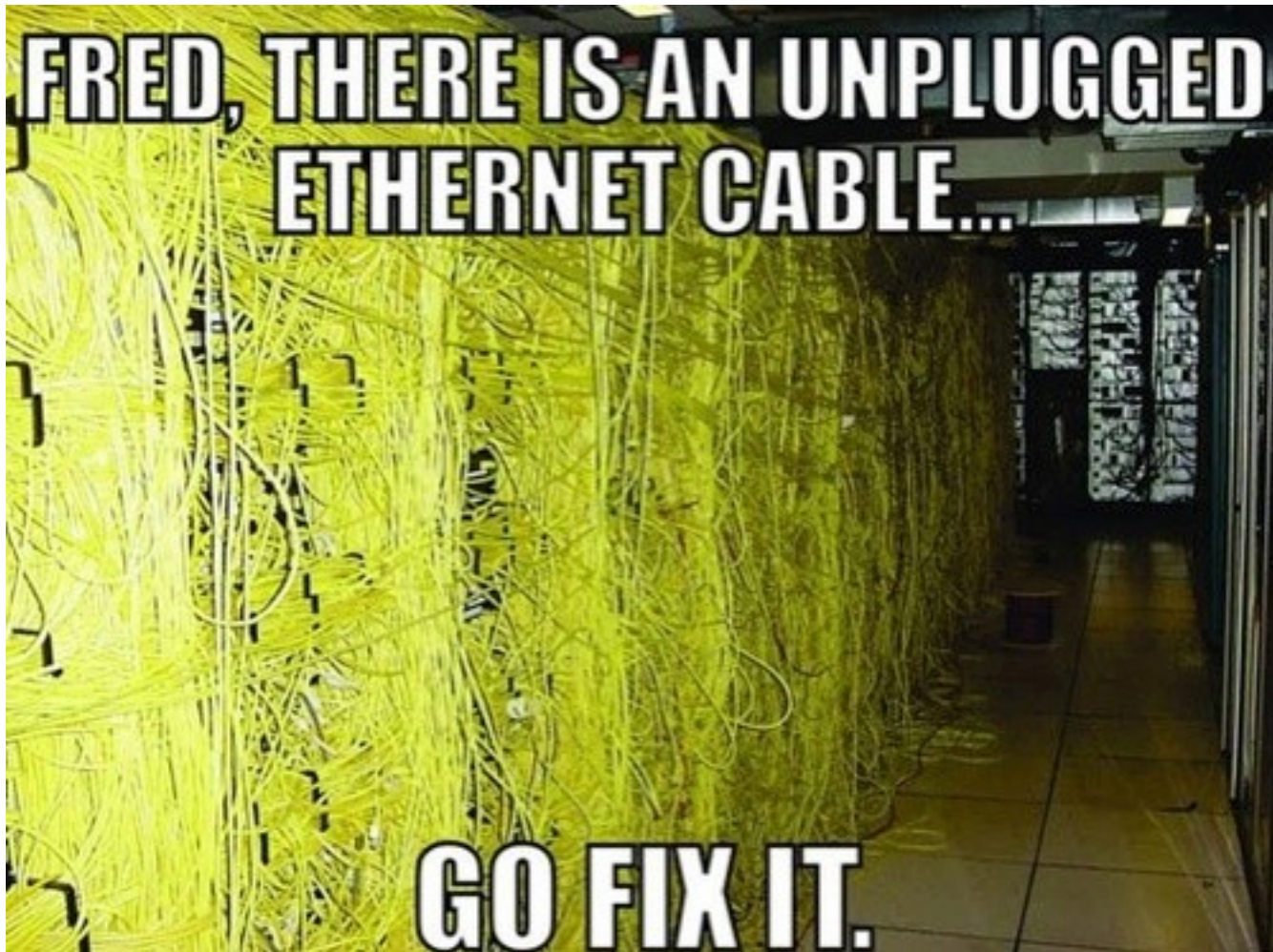


What we are watching ?

# Server rooms



# Server rooms



# What do we really have.

- 3 locations in Europe and USA



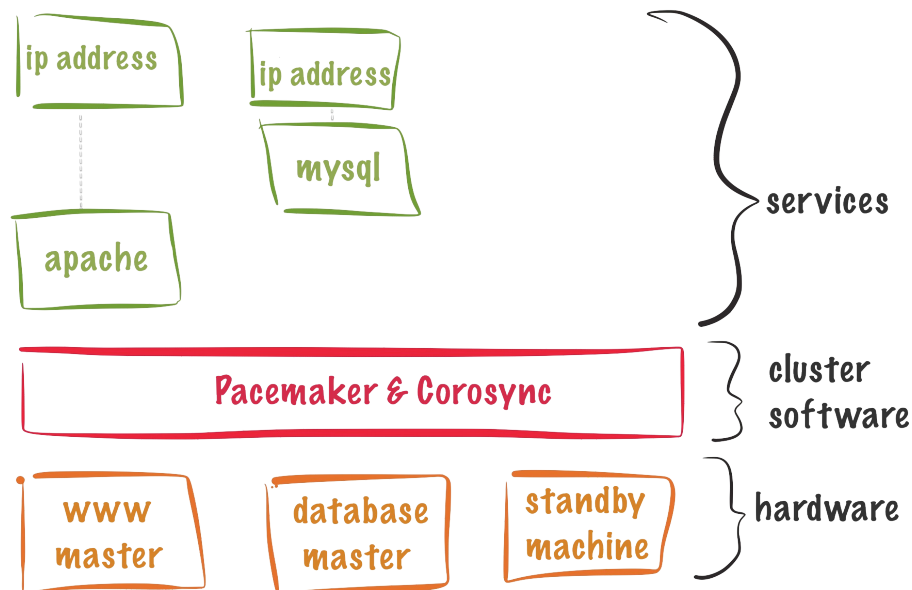
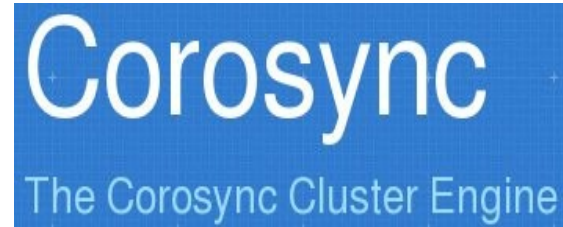
- 520 hosts
- 5525 services totally
- 1787 are passive checks

# Introduction to monitoring and HA

# We are using Open Source projects



# 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

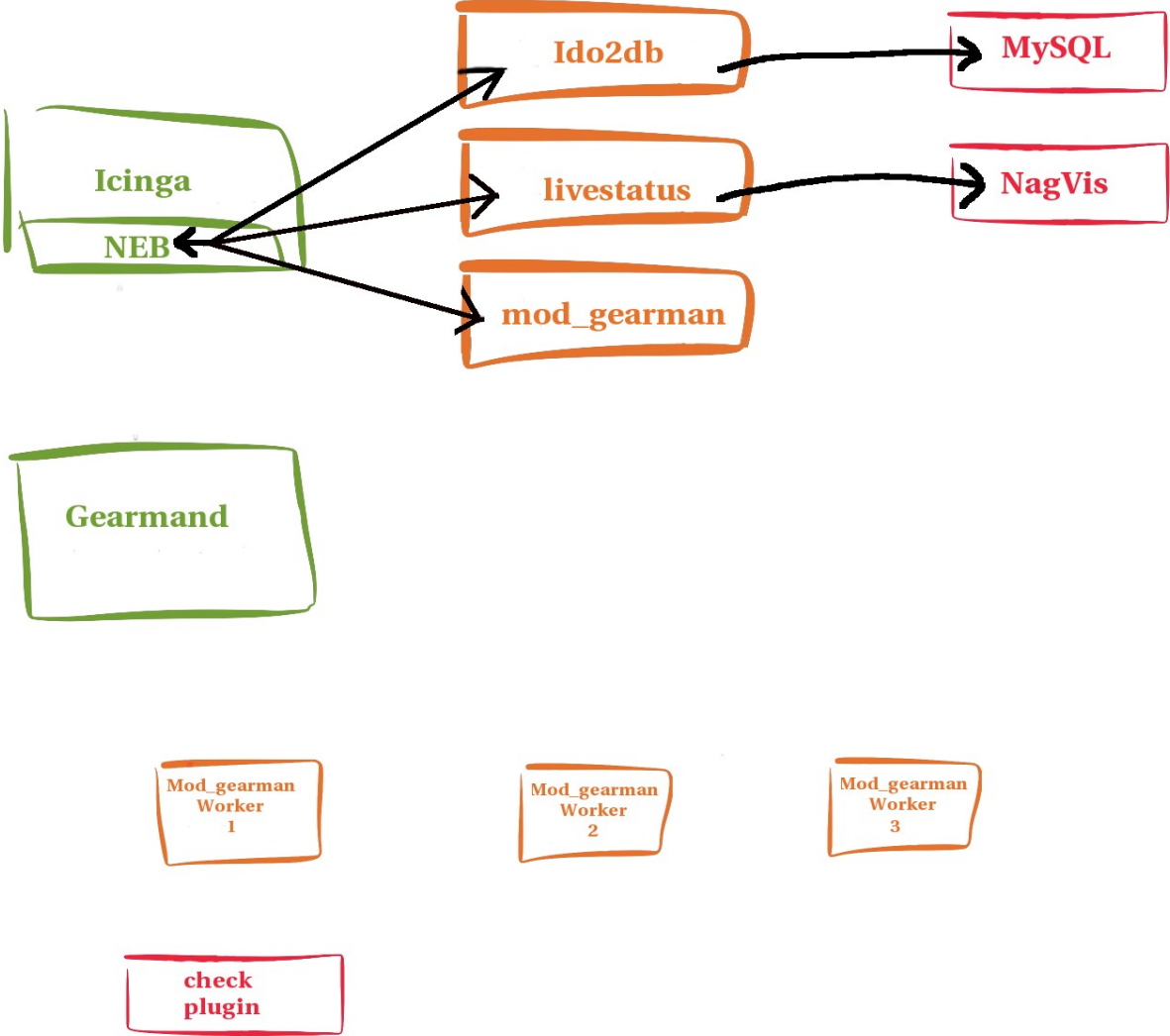
Services (using MySQL) are using the local Mysql database

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

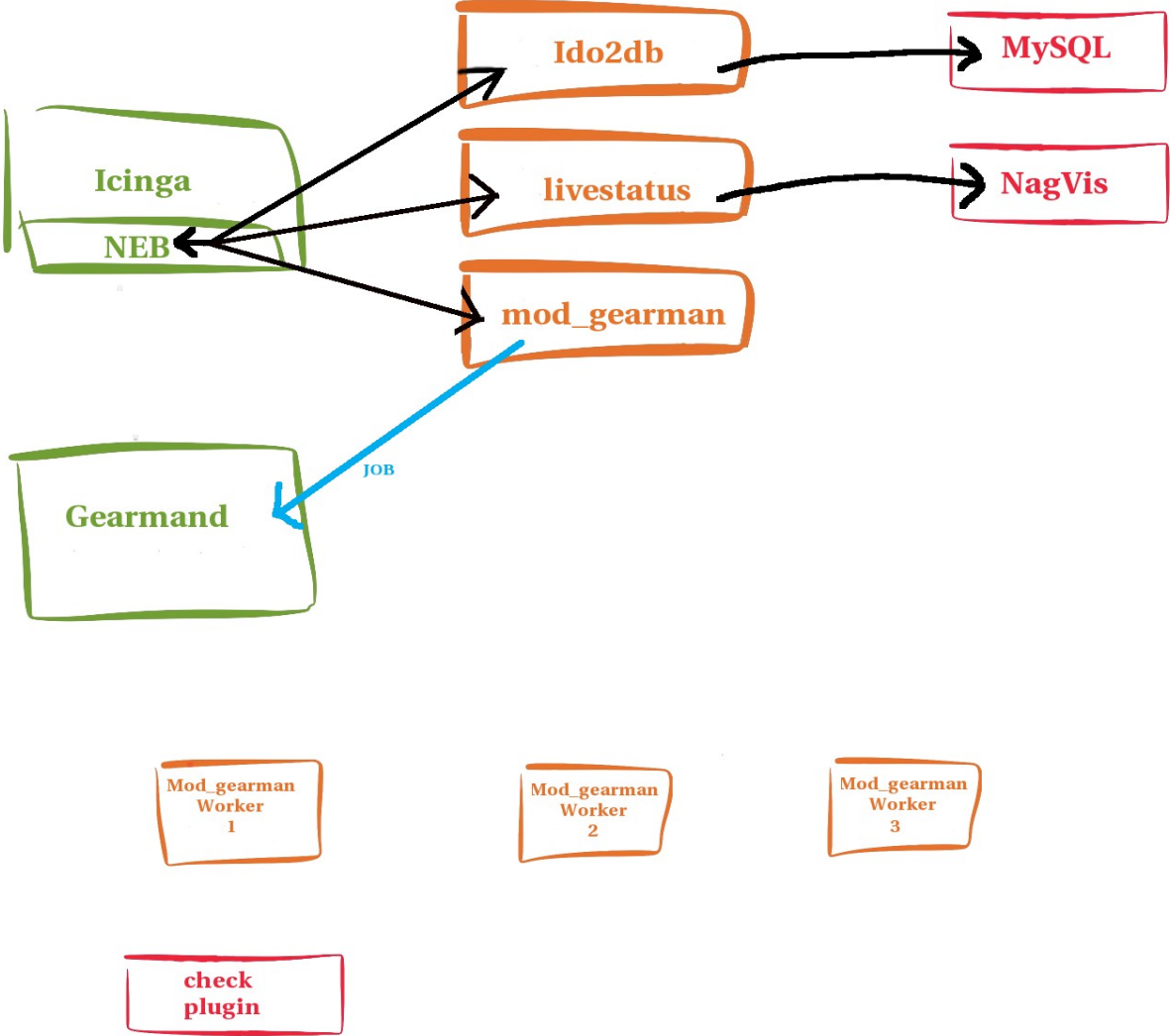
# Independent running services

- 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 ;-)

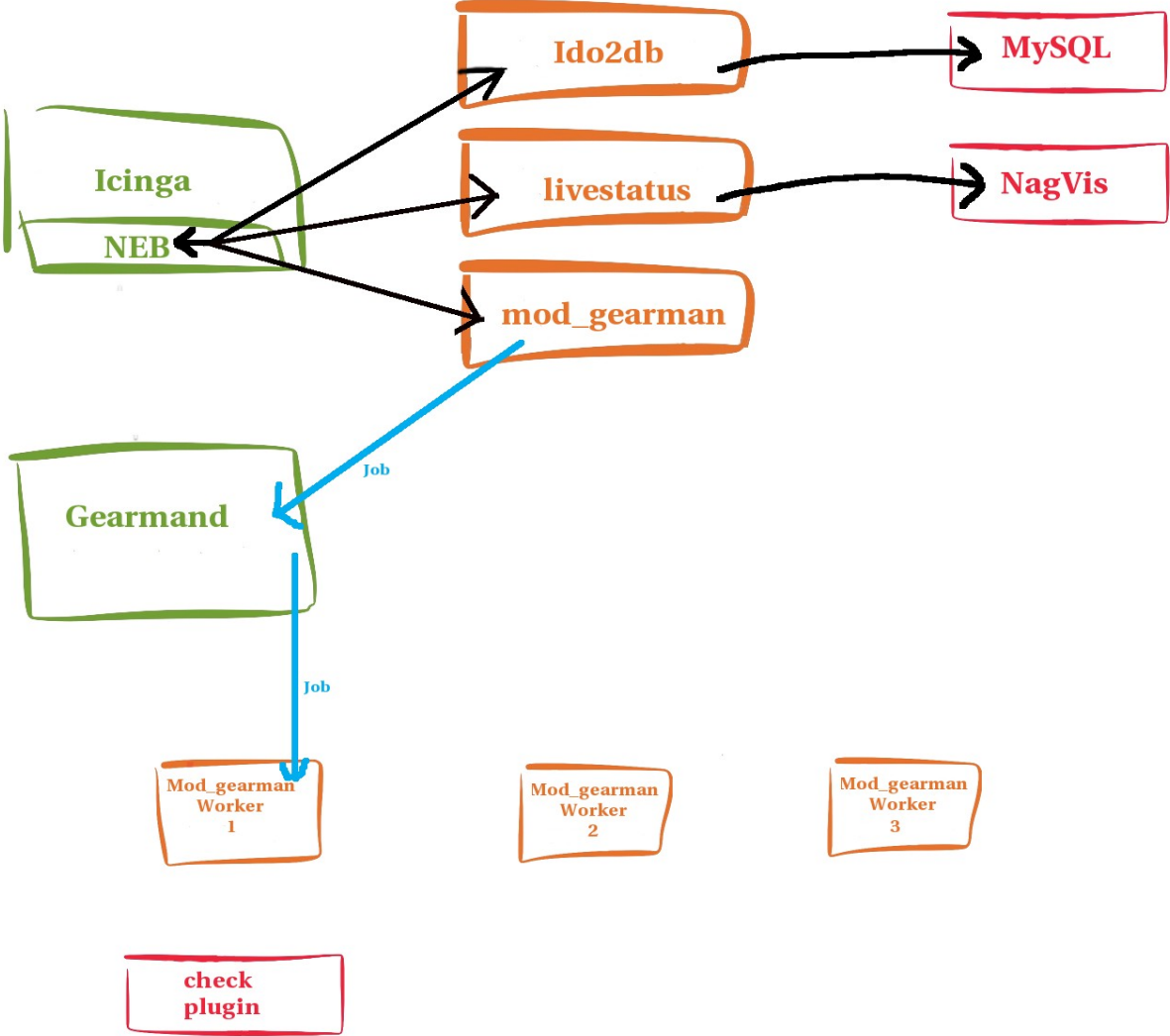
# Gearman



# Gearman

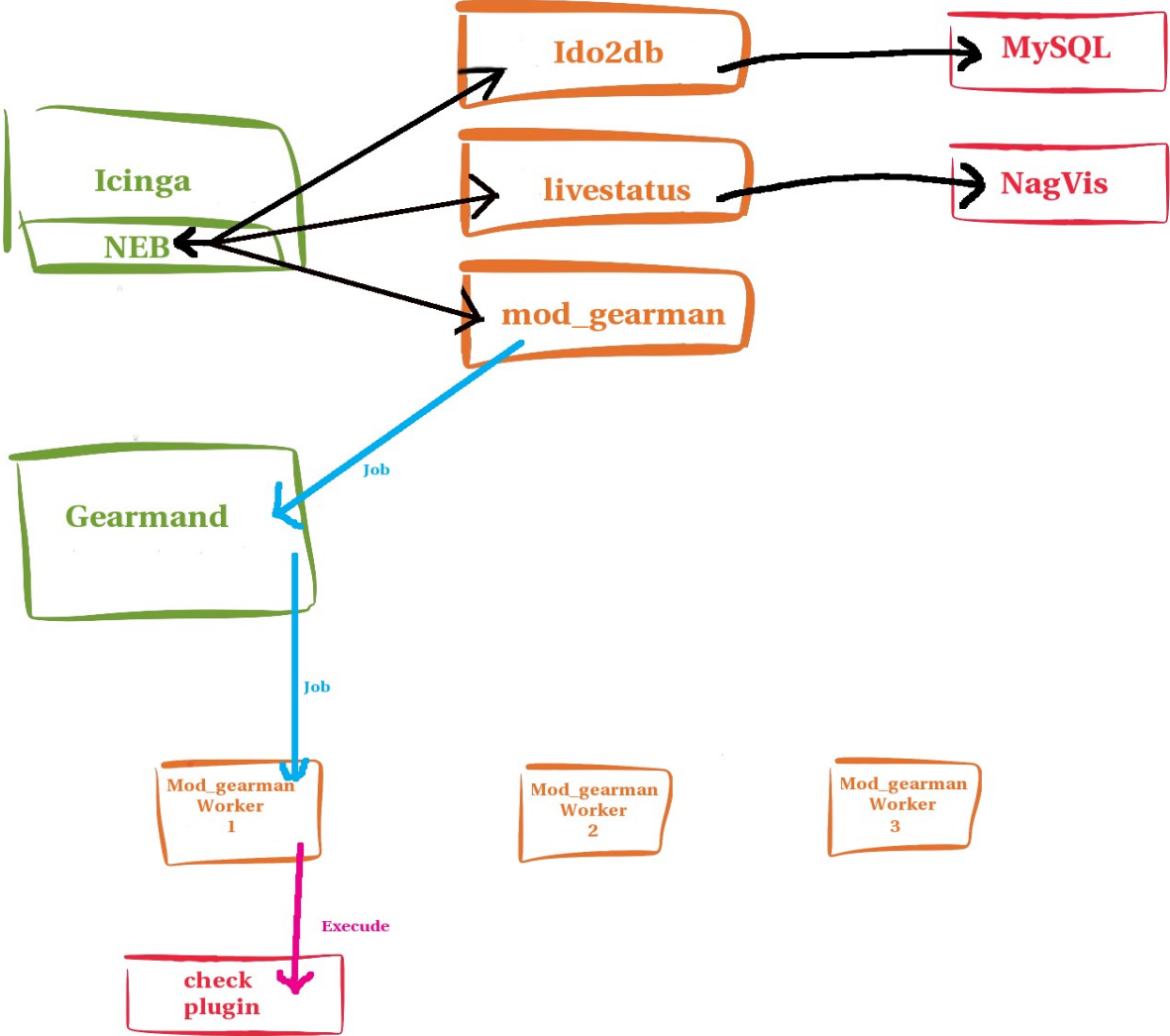


# Gearman

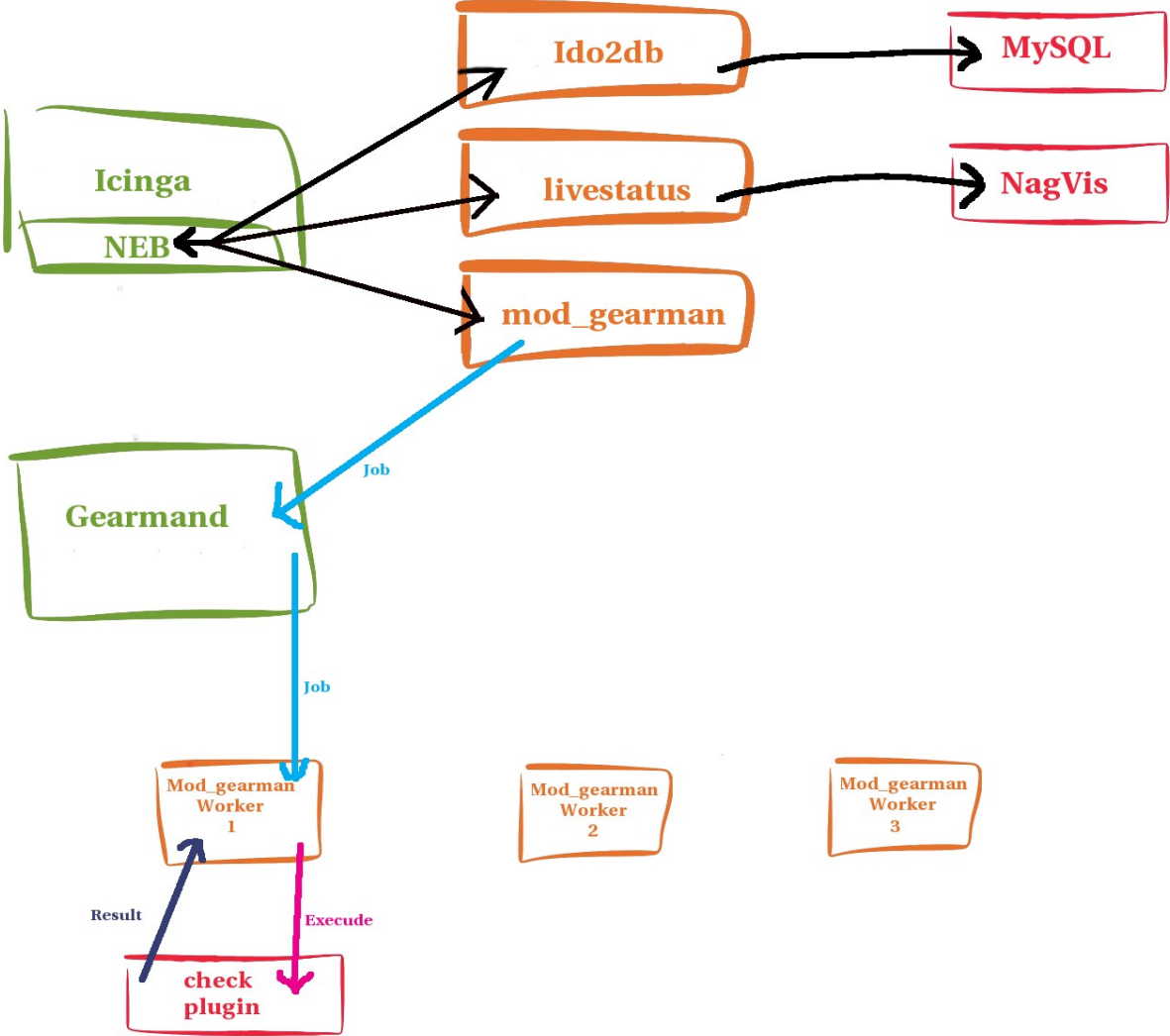




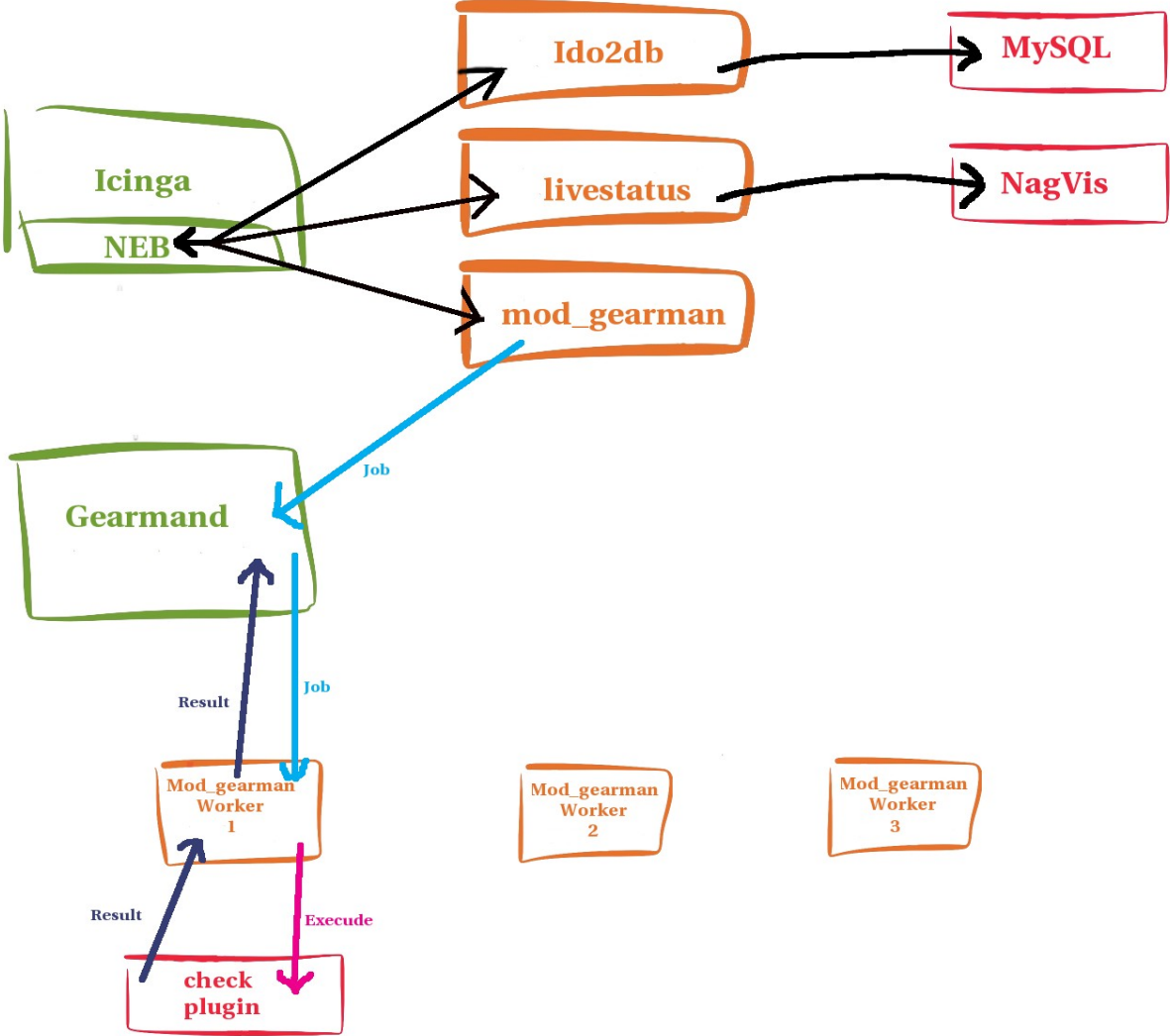
# Gearman



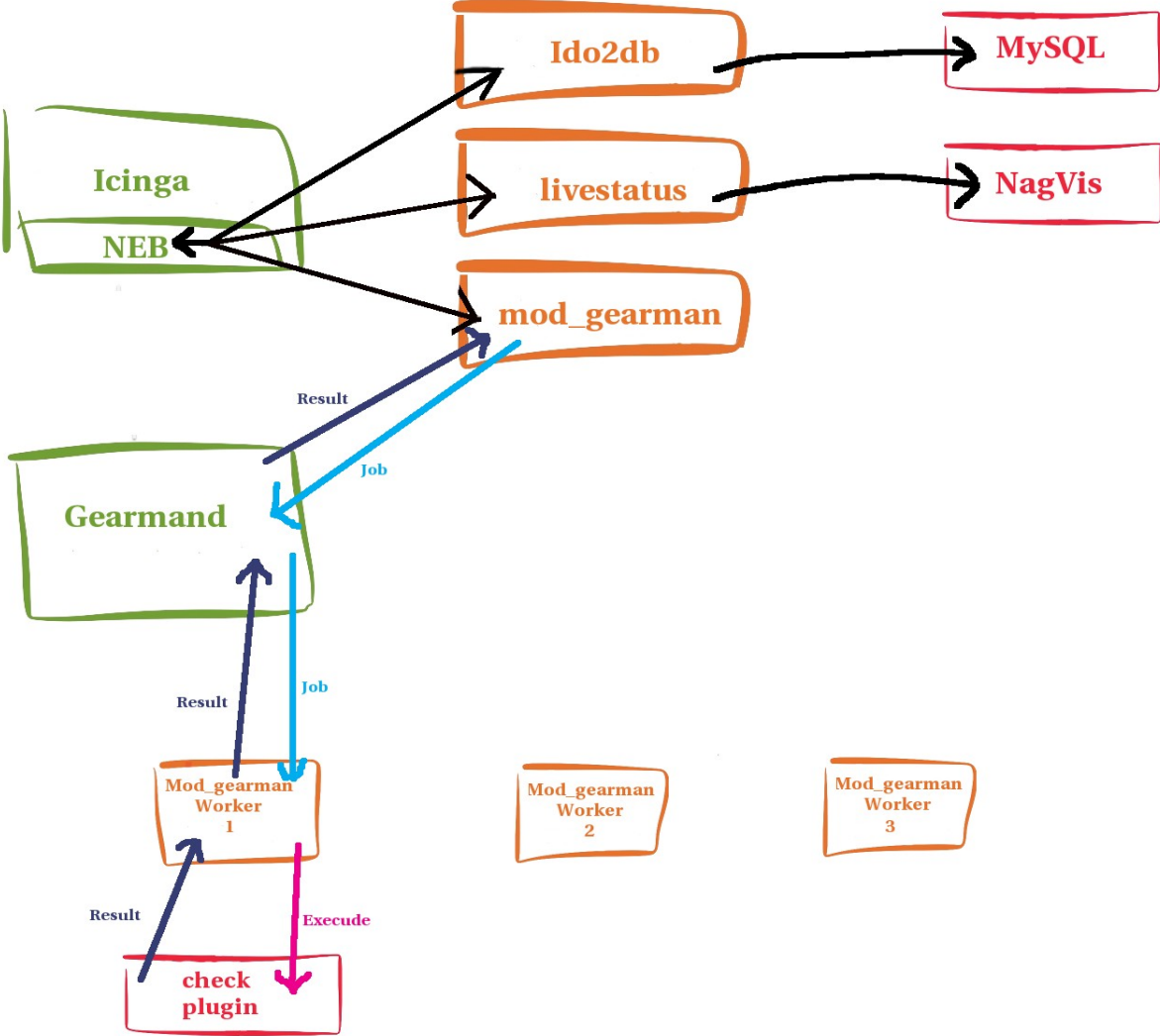
# Gearman



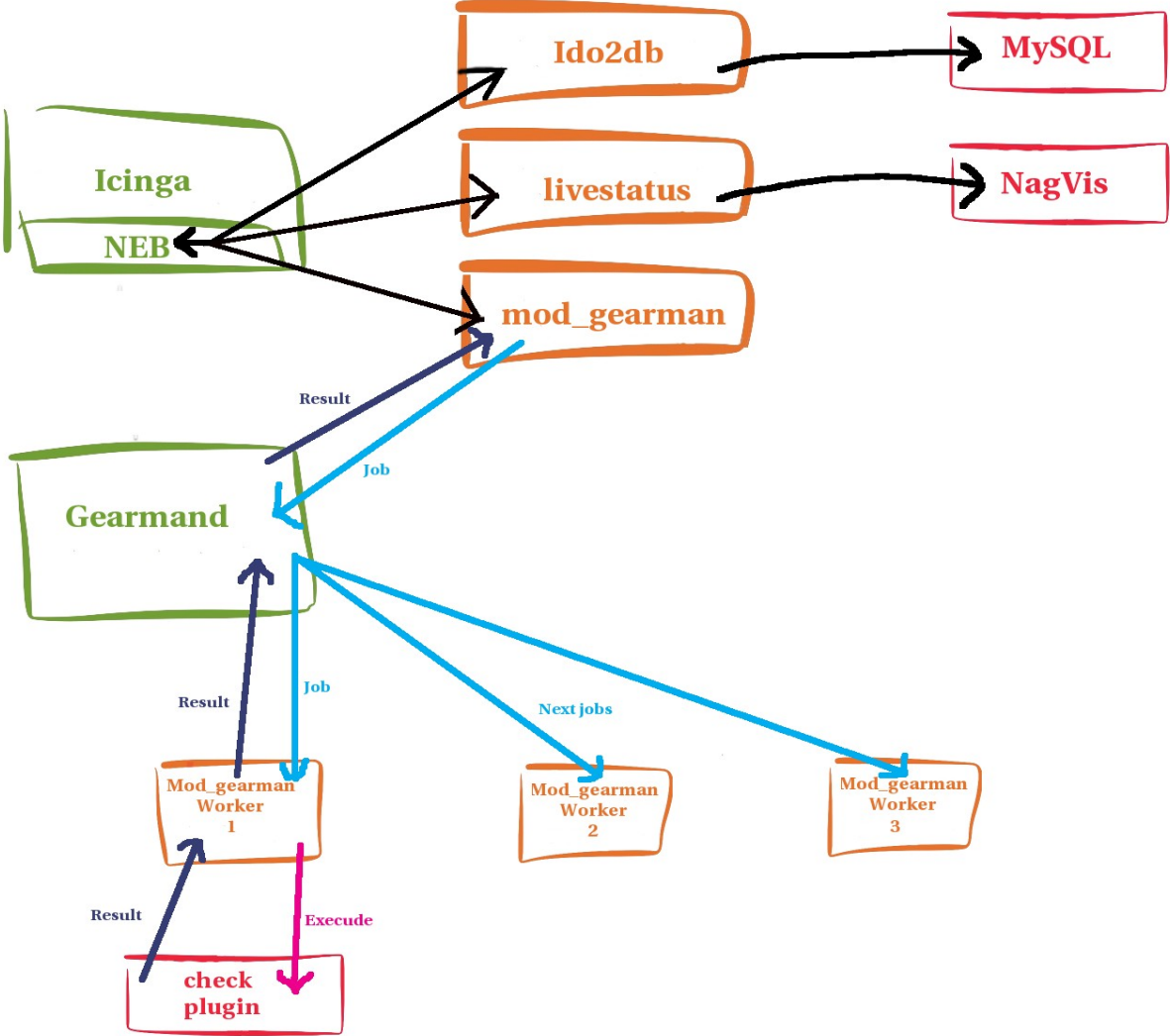
# Gearman



# Gearman



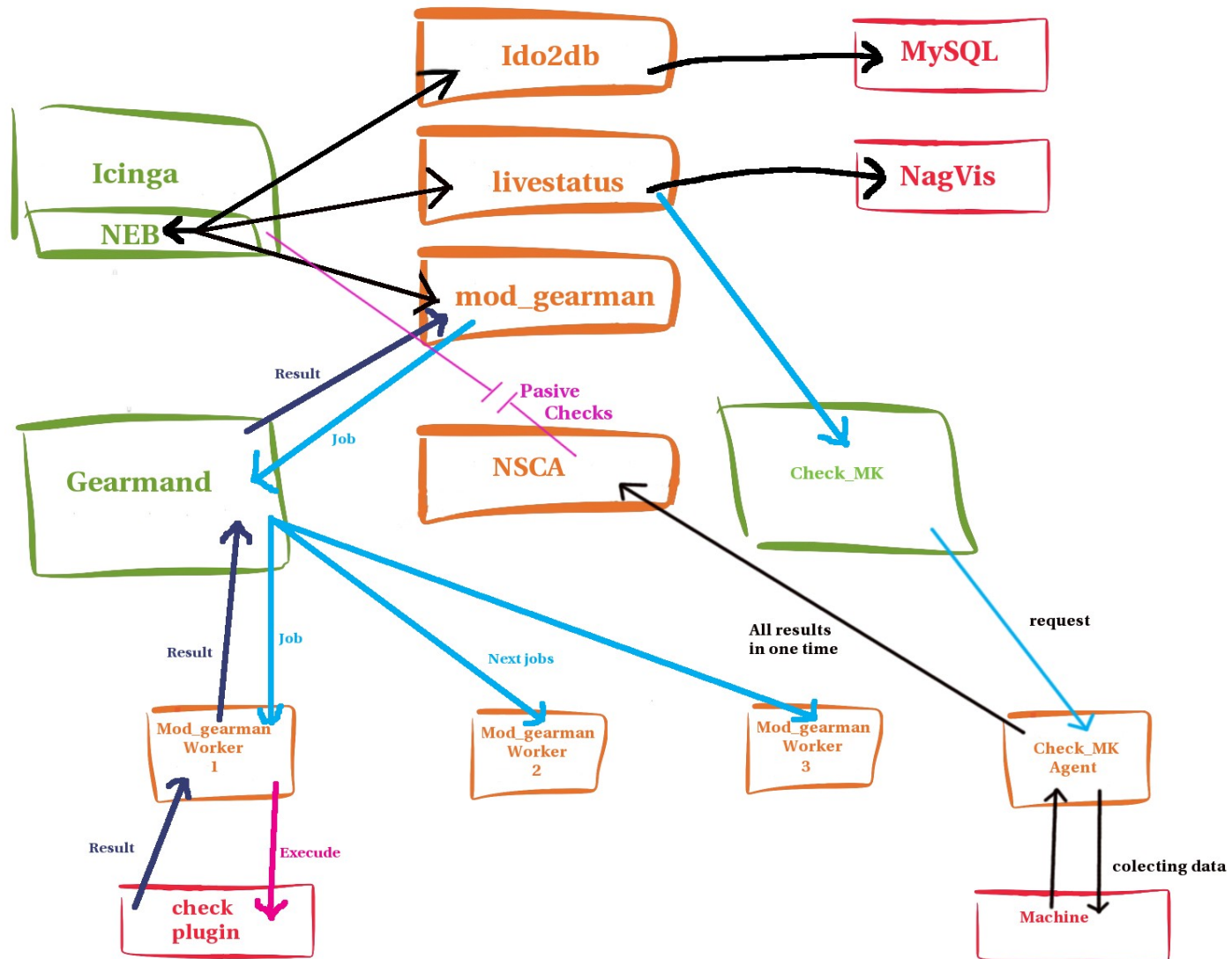
# Gearman



# 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 ?



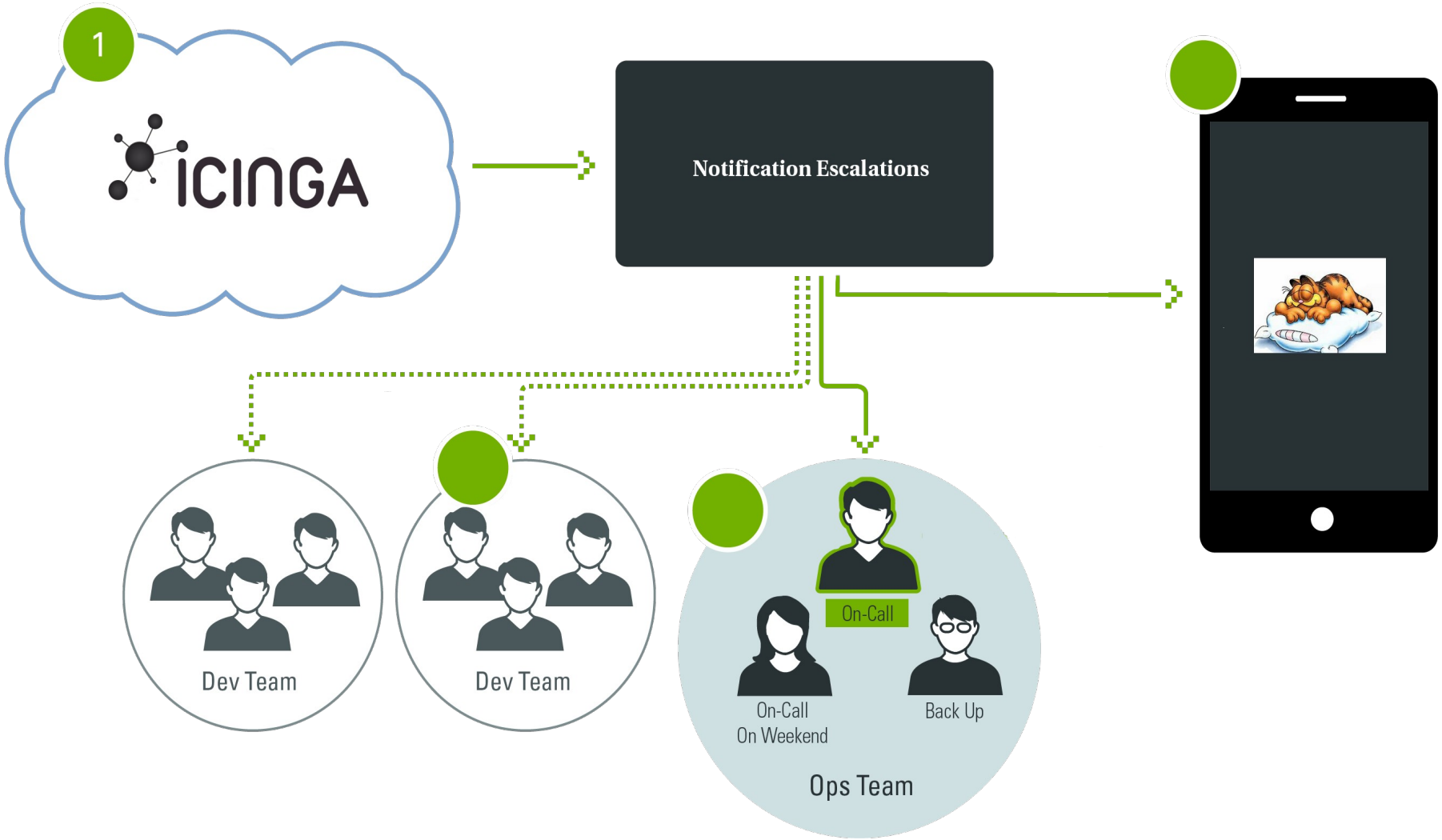
# A problem in the server room



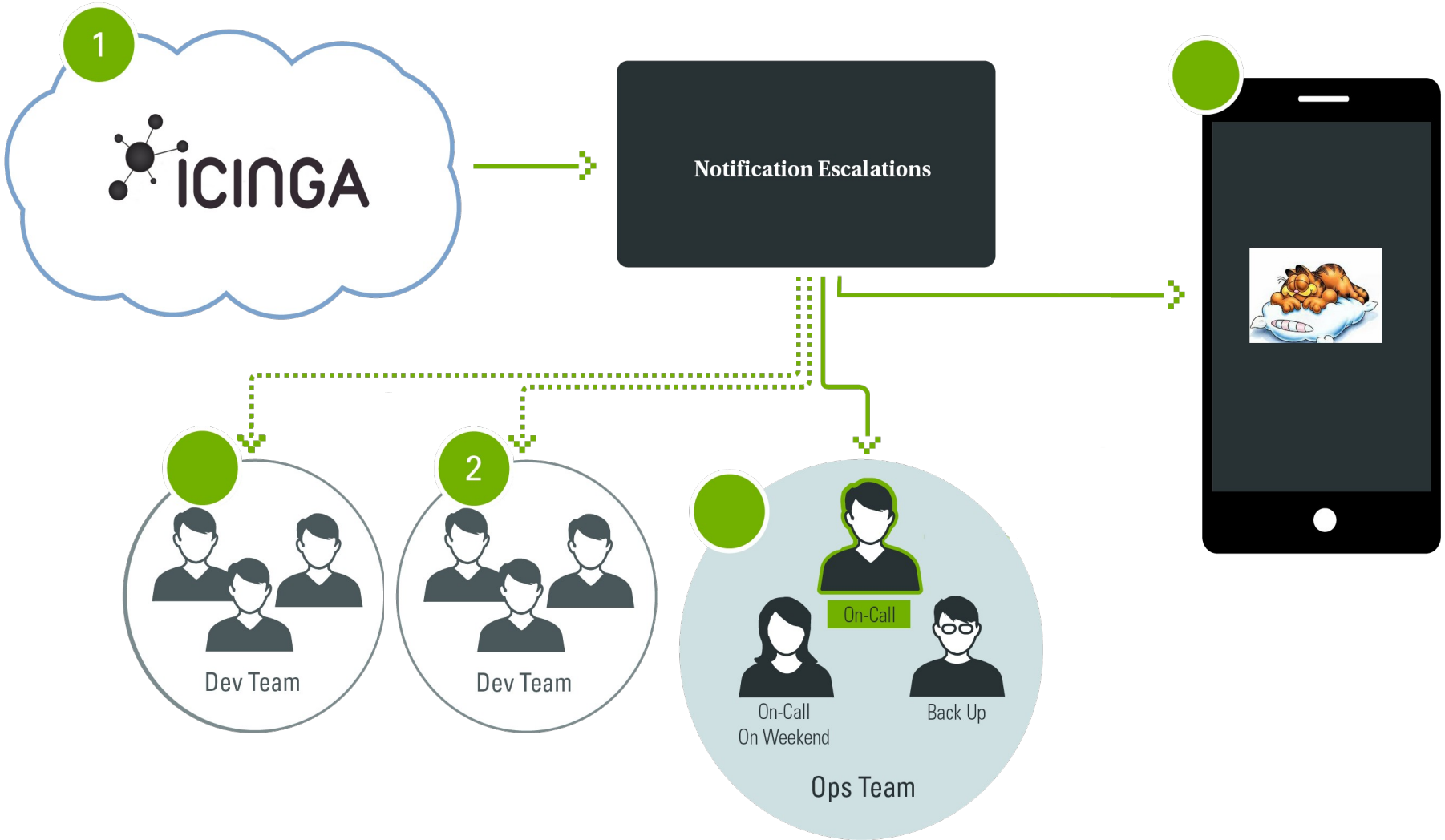
# Monitoring issues...



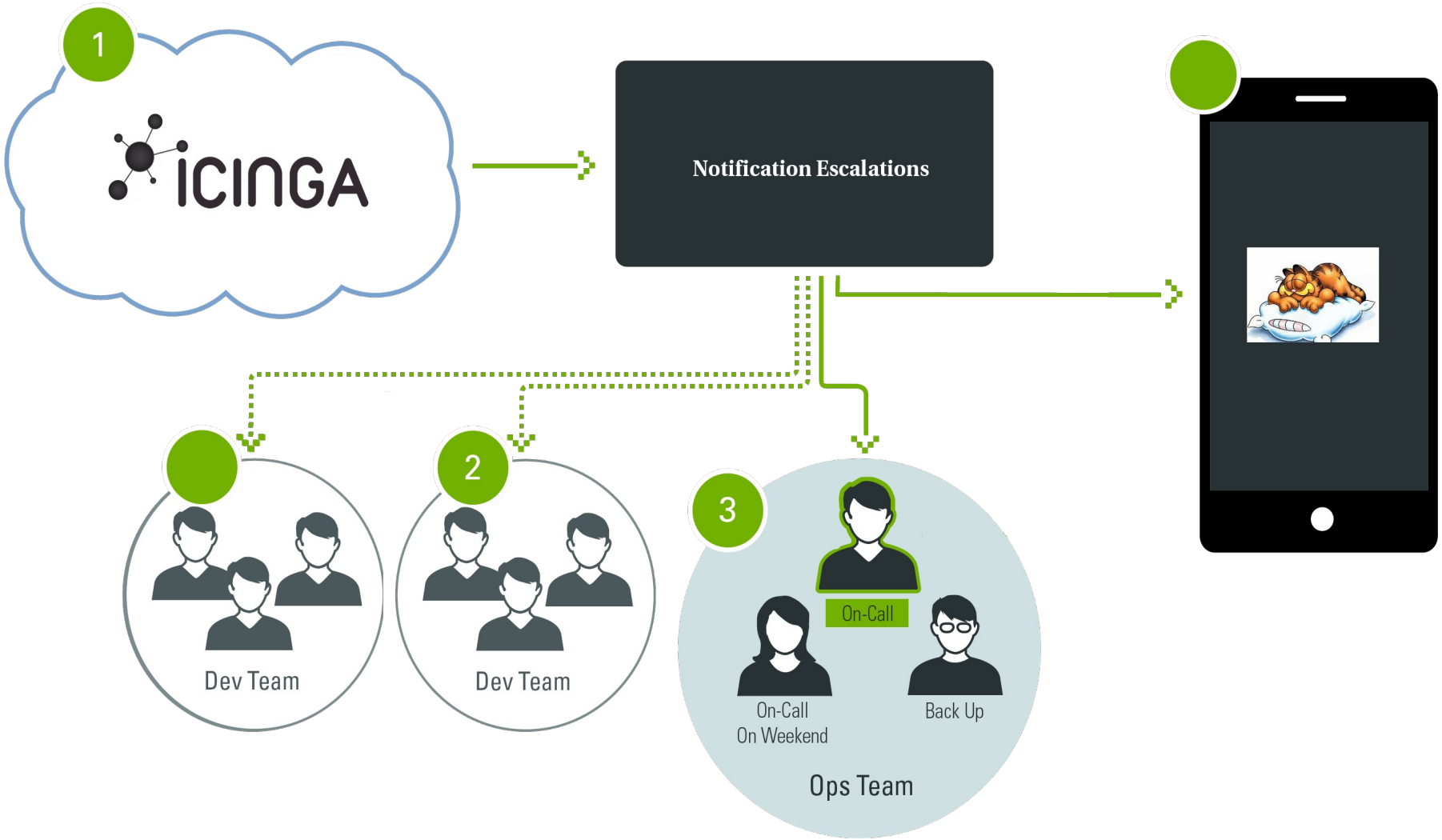
# Escalations



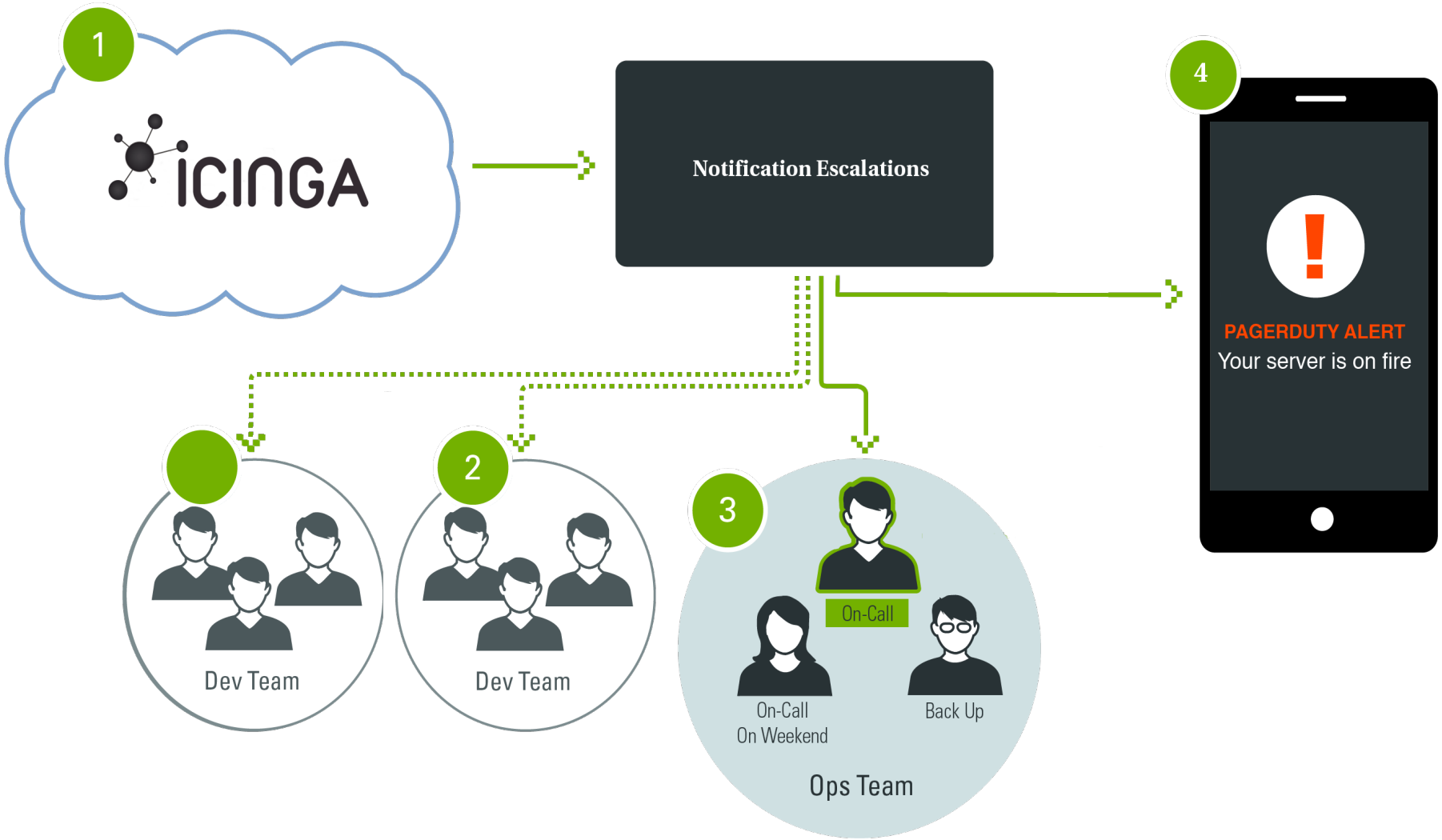
# Escalations



# Escalations



# Escalations



Different ways to communicate

# Mails ?





# Mails

The screenshot displays 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:

- sent-mail (472)
- trash (41) (200)
- drafts
- templates (2)
- SUSE.com (0 + 1157) (3080)
- suse.cz (2577)
  - Inbox (88) (4176)
    - A\_done (4176)
    - A\_O... (0 + 3156) (29020)
    - Bug-zilla (84) (401)
    - Dodavatele (409)
    - Drafts (6)
    - Expense (216)
    - Germany (7)
    - Koncepty (2) (2)
    - Konfe... (0 + 551) (6016)
    - Koš (1) (13)
    - Nagios (173)
      - Nagio... (156) (173)
      - Nagios-suse-dr (10803)
    - Novell-spam (59)
    - OBS (14)
    - Odeslaná (58)
    - OpenVpn-servers (115)
    - Private (11466)
    - Root\_mails (11)
    - Sent
    - Spam
    - SPAM
    - Templates (2)
    - Trash (23)
    - Undelivered\_Mails

The main pane shows a list of email messages with columns for Subject, Sender, and Date. The messages are categorized by status (PROBLEM or RECOVERY) and include details like subject, sender, and date.

Subject	Sender	Date
** PROBLEM Service Alert: login.opensuse.org/Load is WARNING **	Monitoring User	Yesterday 20:5...
** PROBLEM Service Alert: login.opensuse.org/Load is CRITICAL **	Monitoring User	Yesterday 20:4...
** RECOVERY Service Alert: software.opensuse.org/software test is OK **	Monitoring User	Yesterday 20:1...
** PROBLEM Service Alert: src.opensuse.org/Load is WARNING **	Monitoring User	Yesterday 20:0...
** PROBLEM Service Alert: fermi/Cron Process is CRITICAL **	Monitoring User	Yesterday 20:0...
** RECOVERY Service Alert: backend-opensuse/bs_sched is OK **	Monitoring User	Yesterday 19:5...
** RECOVERY Service Alert: back-home-opensuse/bs_sched is OK **	Monitoring User	Yesterday 19:5...
** RECOVERY Service Alert: src-opensuse/Load is OK **	Monitoring User	Yesterday 19:5...
** RECOVERY Service Alert: back-home-opensuse/bs_publish is OK **	Monitoring User	Yesterday 19:5...
** RECOVERY Service Alert: backend-opensuse/bs_repserver is OK **	Monitoring User	Yesterday 19:5...
** RECOVERY Service Alert: backend-opensuse/bs_publish is OK **	Monitoring User	Yesterday 19:5...
** RECOVERY Service Alert: backend-opensuse/bs_warden is OK **	Monitoring User	Yesterday 19:5...
** RECOVERY Service Alert: back-home-opensuse/bs_warden is OK **	Monitoring User	Yesterday 19:5...
** RECOVERY Service Alert: back-home-opensuse/bs_repserver is OK **	Monitoring User	Yesterday 19:4...
** RECOVERY Service Alert: back-home-opensuse/rsyncd is OK **	Monitoring User	Yesterday 19:4...
** RECOVERY Service Alert: backend-opensuse/rsyncd is OK **	Monitoring User	Yesterday 19:4...
** PROBLEM Service Alert: src-opensuse/Load is WARNING **	Monitoring User	Yesterday 19:4...
** PROBLEM Service Alert: back-home-opensuse/rsyncd is CRITICAL **	Monitoring User	Yesterday 19:3...
** RECOVERY Service Alert: cantor2.suse.de/DNS is OK **	Monitoring User	Yesterday 19:3...
** PROBLEM Service Alert: backend-opensuse/bs_repserver is CRITICAL **	Monitoring User	Yesterday 19:2...
** PROBLEM Service Alert: cantor2.suse.de/DNS is WARNING **	Monitoring User	Yesterday 19:1...
** RECOVERY Service Alert: cantor1.suse.de/DNS is OK **	Monitoring User	Yesterday 18:5...
** RECOVERY Service Alert: back-home-opensuse/rsyncd is OK **	Monitoring User	Yesterday 18:5...
** PROBLEM Service Alert: pontifex3-opensuse/swap is CRITICAL **	Monitoring User	Yesterday 18:3...
** PROBLEM Service Alert: cantor1.suse.de/DNS is WARNING **	Monitoring User	Yesterday 18:3...
** RECOVERY Service Alert: pontifex3-opensuse/swap is OK **	Monitoring User	Yesterday 18:2...
** PROBLEM Service Alert: pontifex3-opensuse/swap is CRITICAL **	Monitoring User	Yesterday 18:1...
** RECOVERY Service Alert: backend-opensuse/bs_repserver is OK **	Monitoring User	Yesterday 16:3...
** PROBLEM Service Alert: software.opensuse.org/software test is CRITICAL...	Monitoring User	Yesterday 14:2...
** PROBLEM Service Alert: backend-opensuse/rsyncd is CRITICAL **	Monitoring User	Yesterday 14:2...
** RECOVERY Service Alert: backend-opensuse/Load is OK **	Monitoring User	Yesterday 14:2...
** 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**

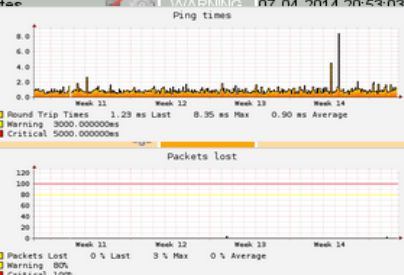
- Trends
- Availability
- Alert Histogram
- Alert History
- Alert Summary
- Notifications
- Event Log

**Configuration**

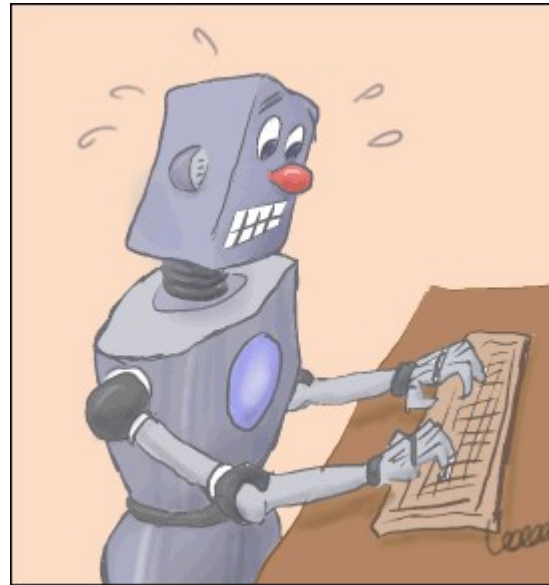
- View Config

**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	Lo	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/fun_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>

# SMS Gateway

- GMS Modem
  - Siemens ES75i
  - Modem ES75



- **SMS Server Tools 3**
  - <http://smstools3.kekekasvi.com/>

Time for questions ?

Thank you.

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