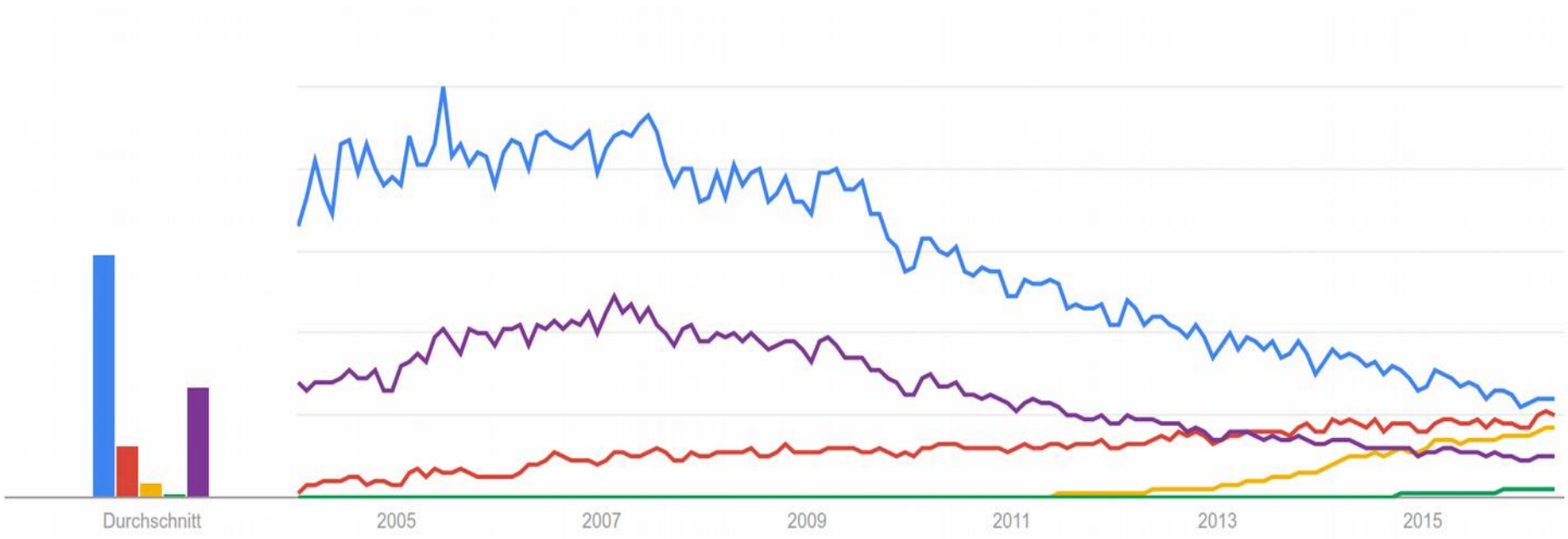
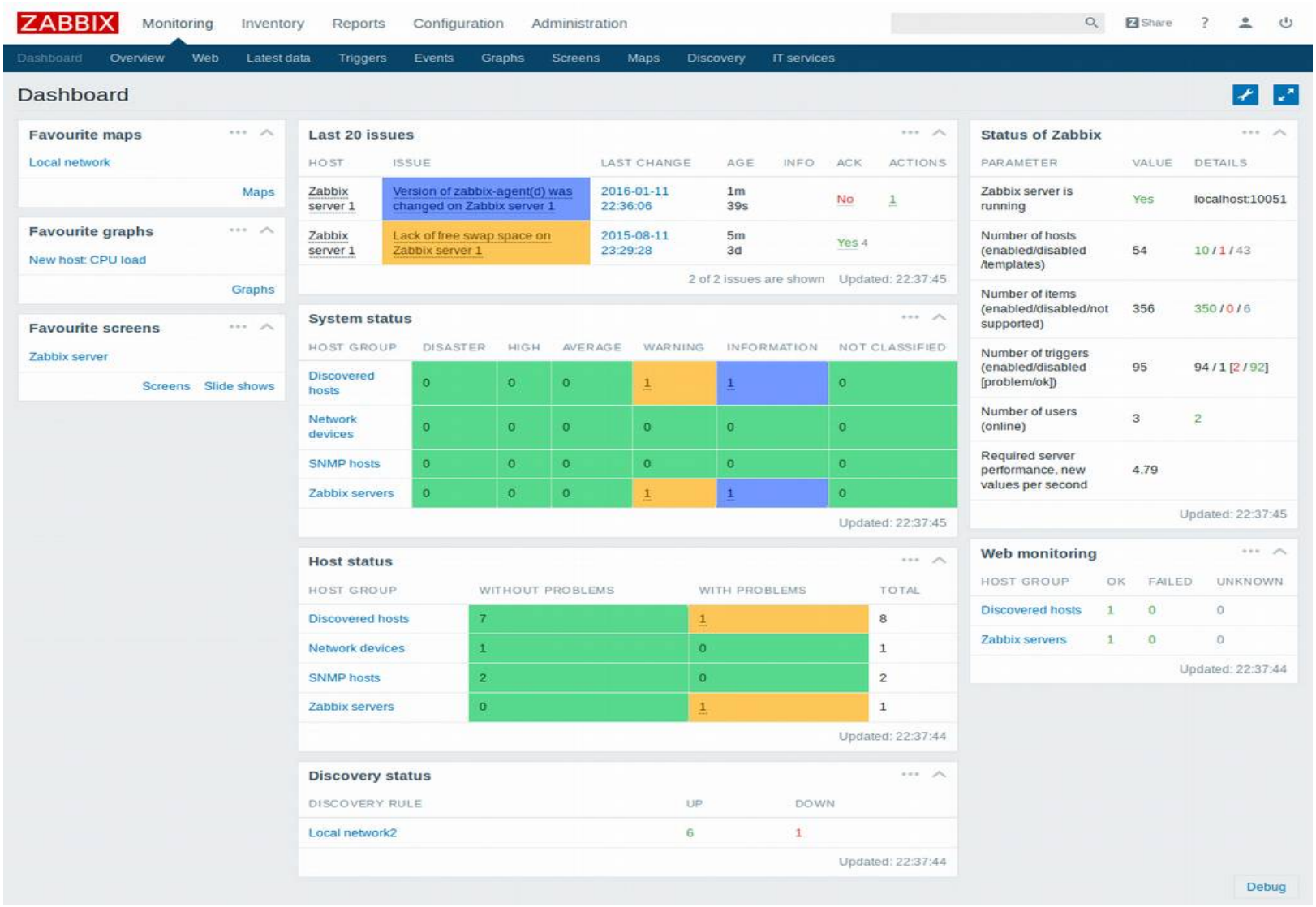


Agenda

- GUI walk-through
- Zabbix architecture
- Zabbix agent
- High-Availability
- Release 3.0 & Upcoming
- Monitoring & Analytics
- Q & A

GUI walk-through

- **Monitoring → Dashboard**



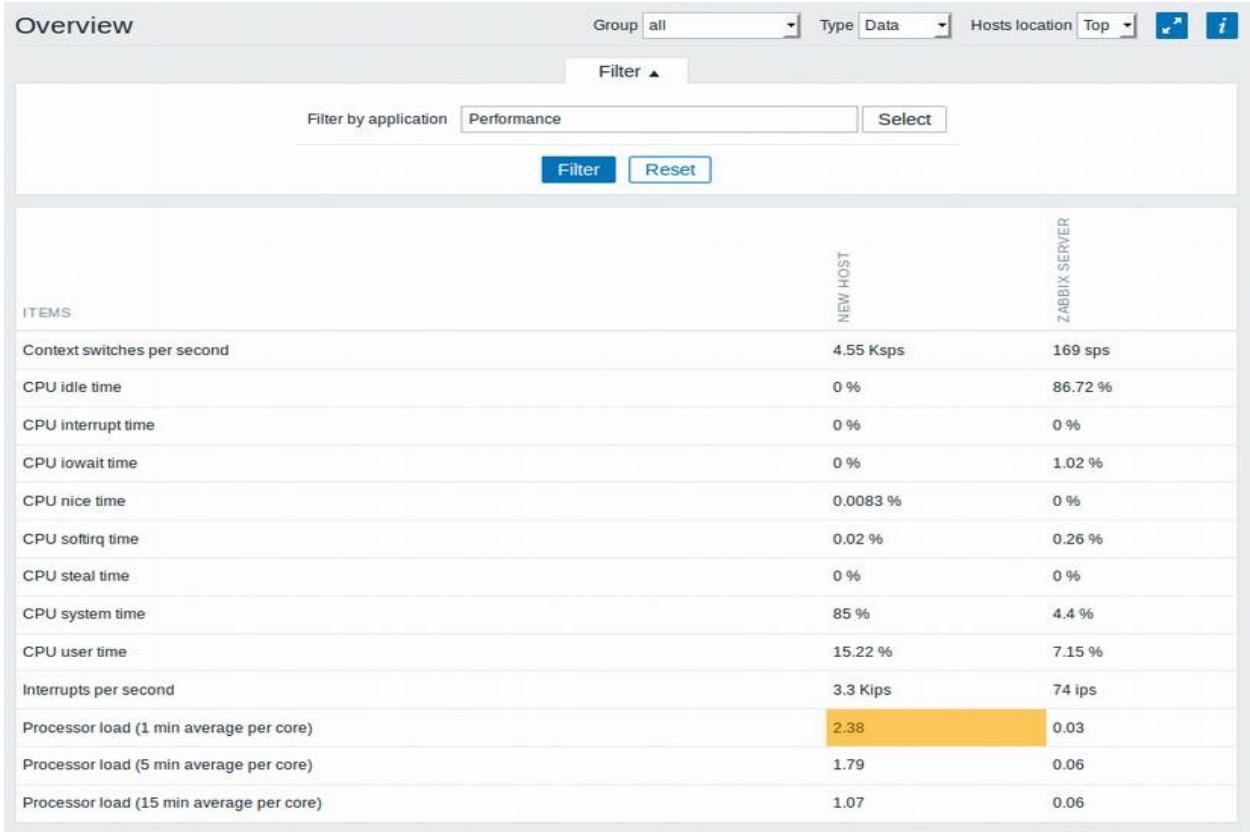
GUI walk-through

- **Search**
  - Search for a host, template and host group configuration
- **Zabbix Share (share.zabbix.com)**
- **Help (zabbix.com/documentation/3.0/)**
- **User Profile Settings**

- **Monitoring**
  - **Dashboard Setting**
  - **Dashboard**
    - Status of the Zabbix server, number of hosts, items, triggers, vps (values per second)
    - System status: Systems has any problem?: yes or no
    - Host status: Detailed status by severity
    - Latest issues: By default it only shows last 20 issues. This value can be changed. If you want to see all triggers, then use “Monitoring → Overview” or “Monitoring → Triggers”.
    - Graphs, screens, maps

GUI walk-through

- **Monitoring** → **Overview**
  - Filter monitoring metrics by application. Zabbix allows you very easy to assign monitoring metrics to an application. E.g. metrics of application “IMCP”: ICMP loss, ICMP response time, ICMP ping.
  - Filter Triggers
    - The Dashboard only shows last 20 issues by default. Here you can filter everything related to triggers (e.g. by severity, acknowledged or not)



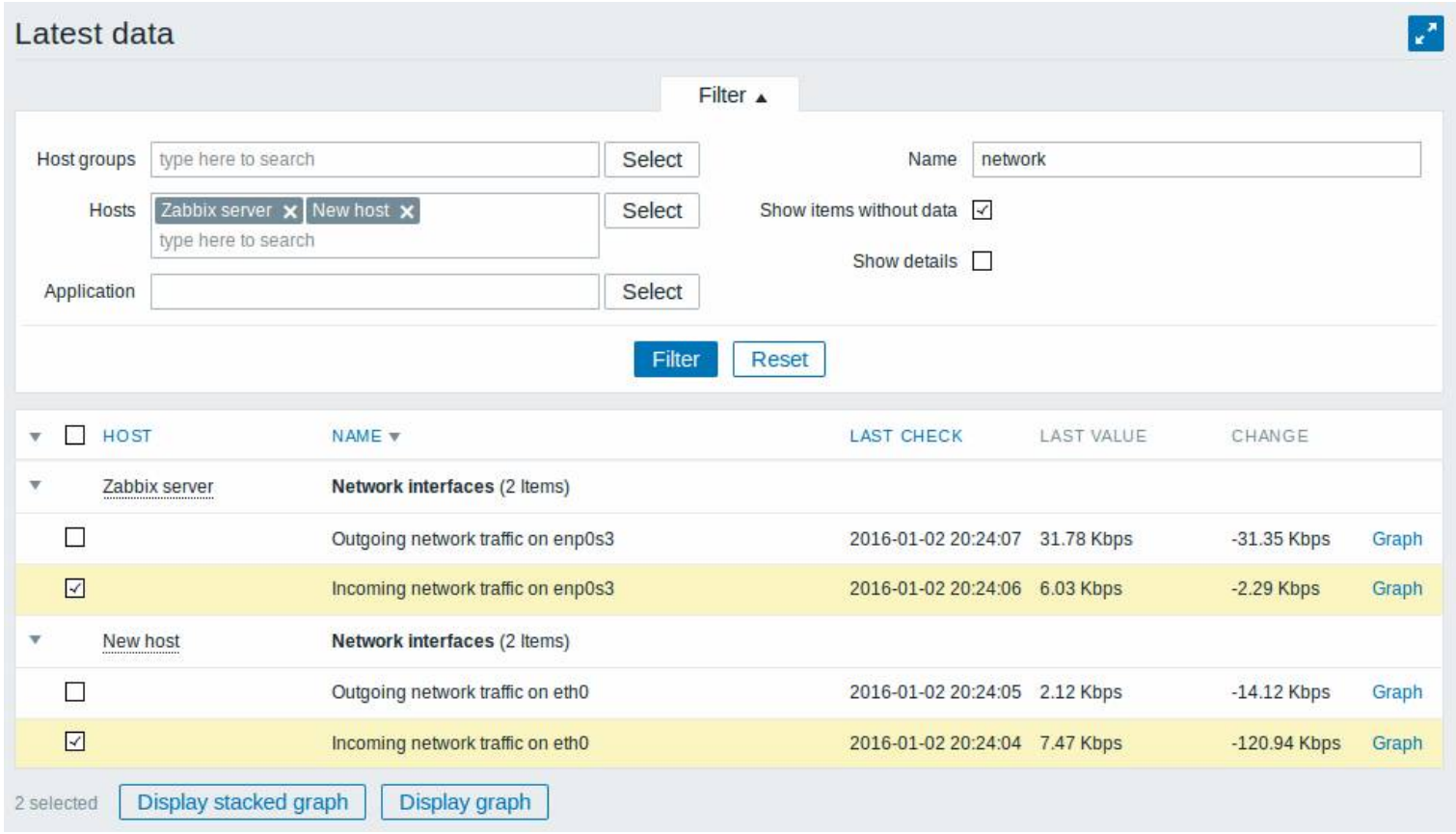
ITEMS	NEW HOST	ZABBIX SERVER
Context switches per second	4.55 Ksps	169 sps
CPU idle time	0 %	86.72 %
CPU interrupt time	0 %	0 %
CPU iowait time	0 %	1.02 %
CPU nice time	0.0083 %	0 %
CPU softirq time	0.02 %	0.26 %
CPU steal time	0 %	0 %
CPU system time	85 %	4.4 %
CPU user time	15.22 %	7.15 %
Interrupts per second	3.3 Kips	74 ips
Processor load (1 min average per core)	2.38	0.03
Processor load (5 min average per core)	1.79	0.06
Processor load (15 min average per core)	1.07	0.06

GUI walk-through

- **Monitoring** → **Web**
  - See status of agentless checks, which are executed directly from the Zabbix server
  - Filter such metrics by hostgroups or hosts

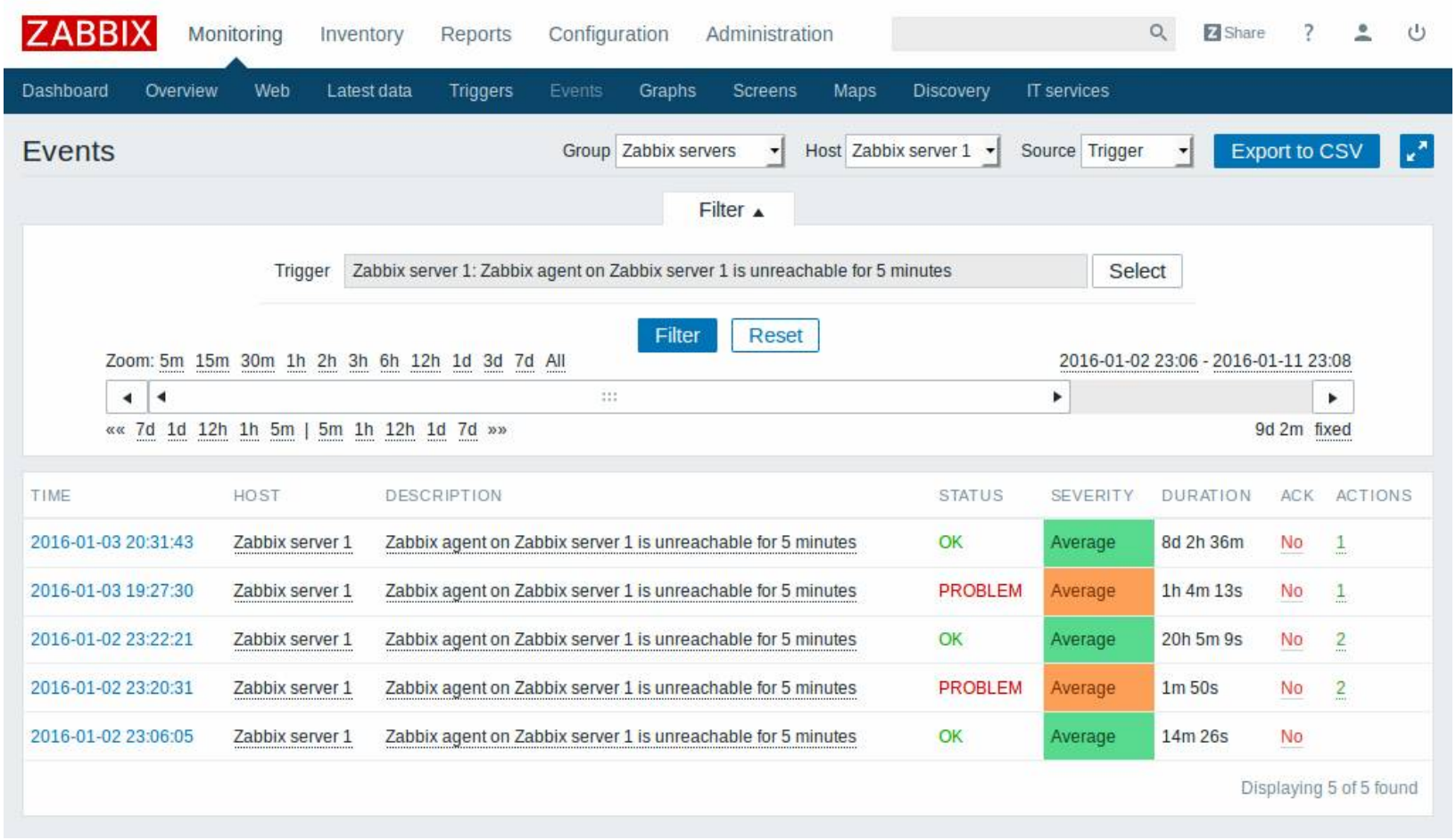
GUI walk-through

- **Monitoring** → **Latest data**
  - Fine grained metric filtering (by host group and hosts, as well as by application-, metric- or trigger name)
  - Triggers:
    - Fined grained trigger filtering, very similar to “Overview” → “Trigger”



GUI walk-through

- **Monitoring** → **Events**
  - When has a trigger thrown an alarm?
  - History of discovery actions.

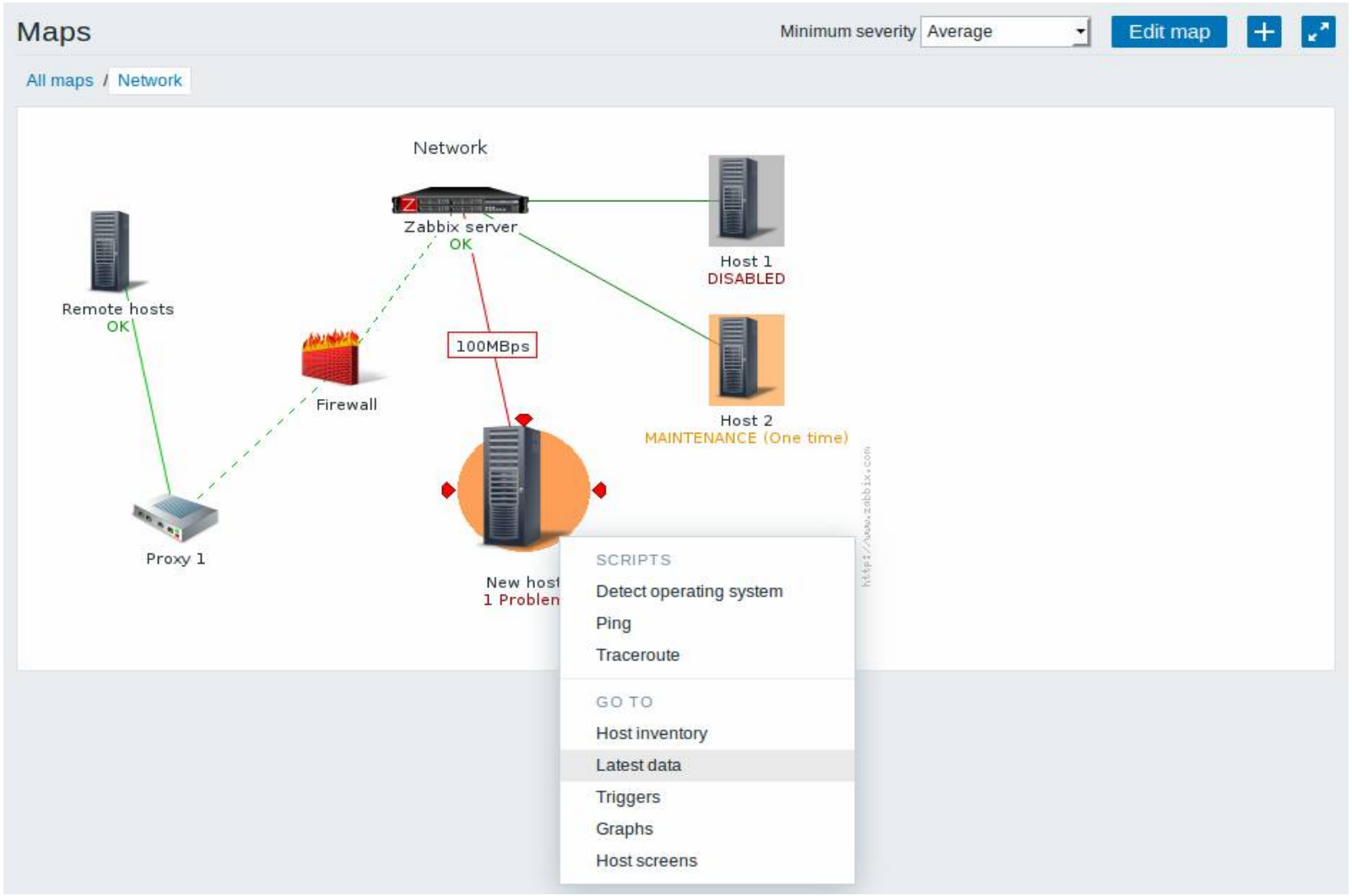


GUI walk-through

- **Monitoring** → **Graphs, Screens**

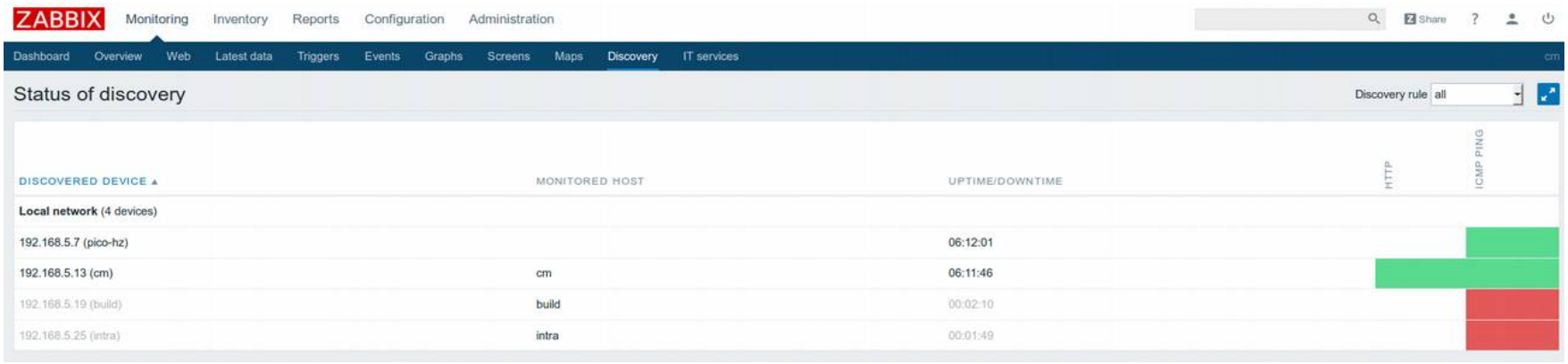
GUI walk-through

- **Monitoring** → **Maps**



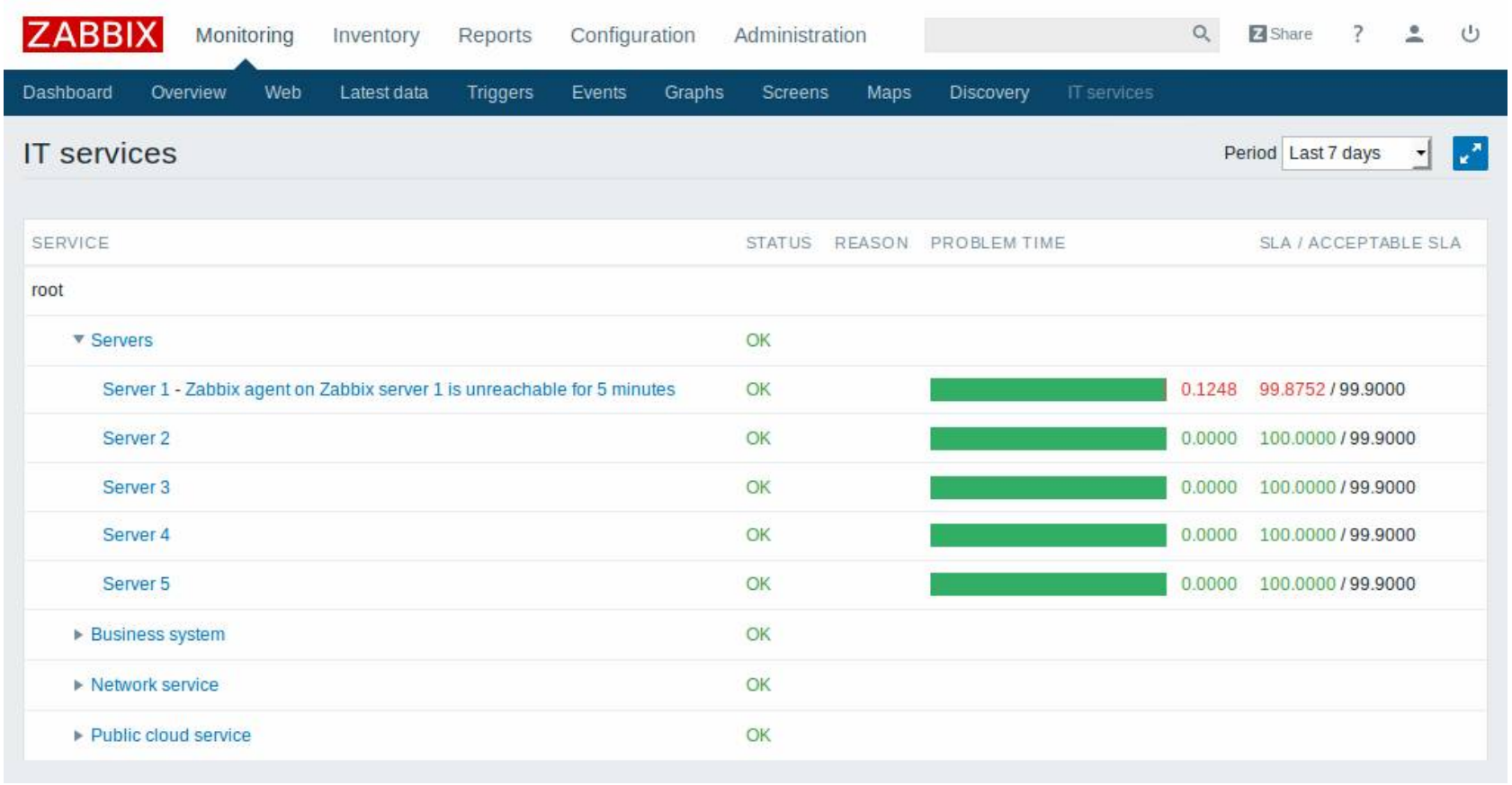
GUI walk-through

- **Monitoring** → **Discovery**
  - Results from automatic service discovery are shown on this screen, e.g. http, ftp, ssh, telnet, imap, NNTP, SNMP agents, Zabbix agents:



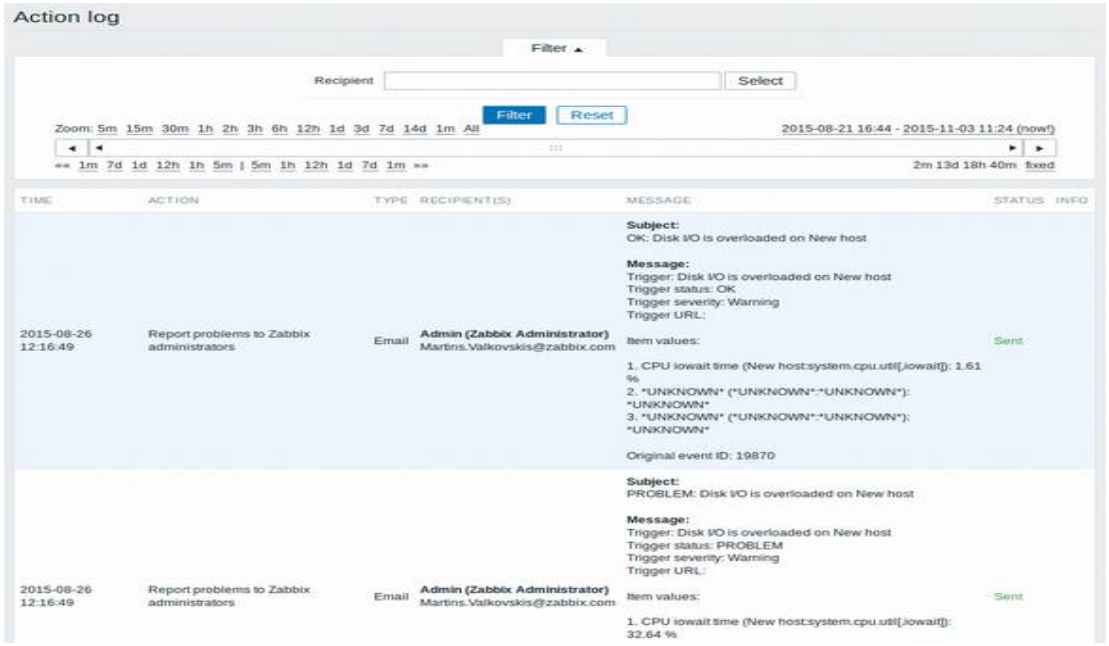
GUI walk-through

- **Monitoring** → **IT Services**
  - SLA information



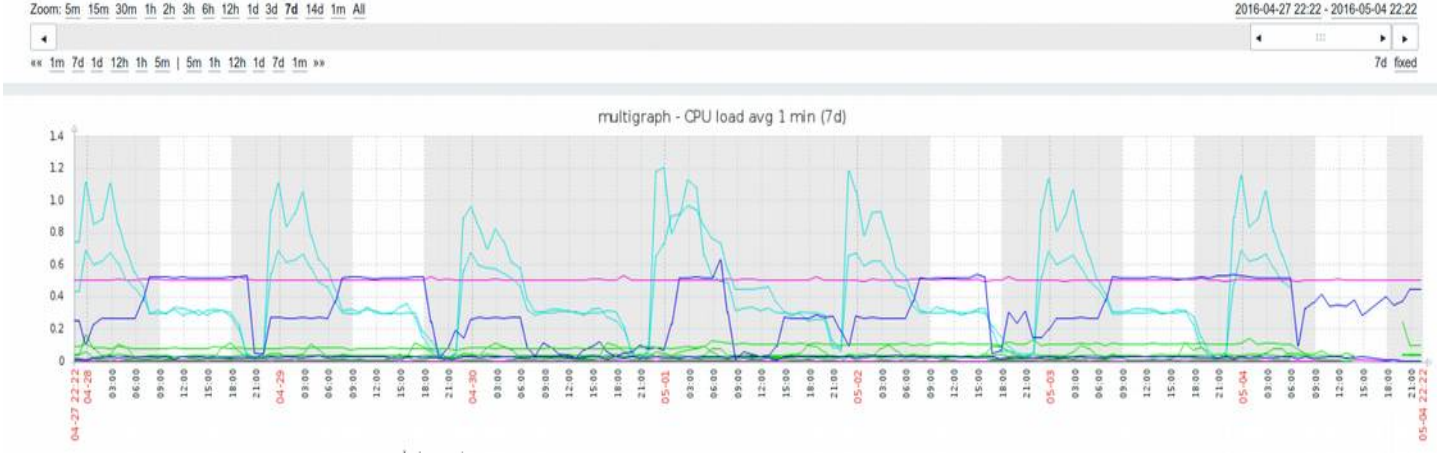
GUI walk-through

- **Inventory** → **Overview, Hosts**
  - CFDB-like
- **Reports** →
  - **Status of Zabbix**
  - **Availability Report**
    - Shows availability of every item over time.
  - **Triggers top 100**
    - Find the triggers with the most often status changes.
  - **Audit**
    - See the changes done per user within the Zabbix system.
  - **Action log**



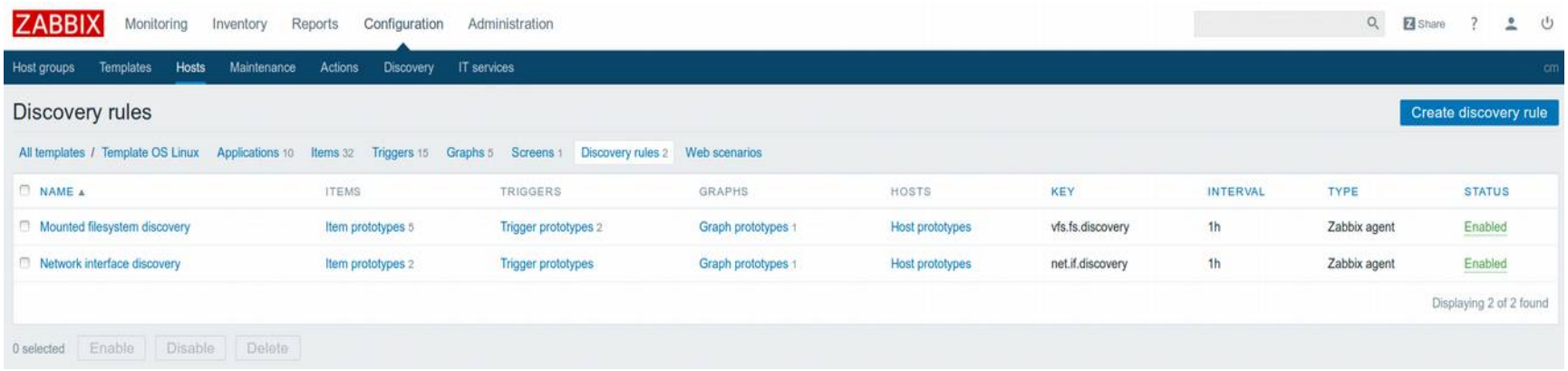
GUI walk-through

- **Configuration → Host groups**
  - Group hosts into host groups. One host can be assigned to multiple host groups.
- **Configuration → Templates**
  - Templates are pre-configured configurations, which can be assigned to host.
  - A Template consists of
    - Applications
    - Items (= metrics), e.g. "***CPU iowait***"
    - Triggers (= alarms), e.g. "***Disk I/O is overloaded on {HOST.NAME}***"
    - Graphs: pre-configured graph to show some selected metrics
    - Screens:
      - Pre-configured page to show multiple graphs on one page / system
      - Very useful are graphs or screens, which show a given metric for a host group:



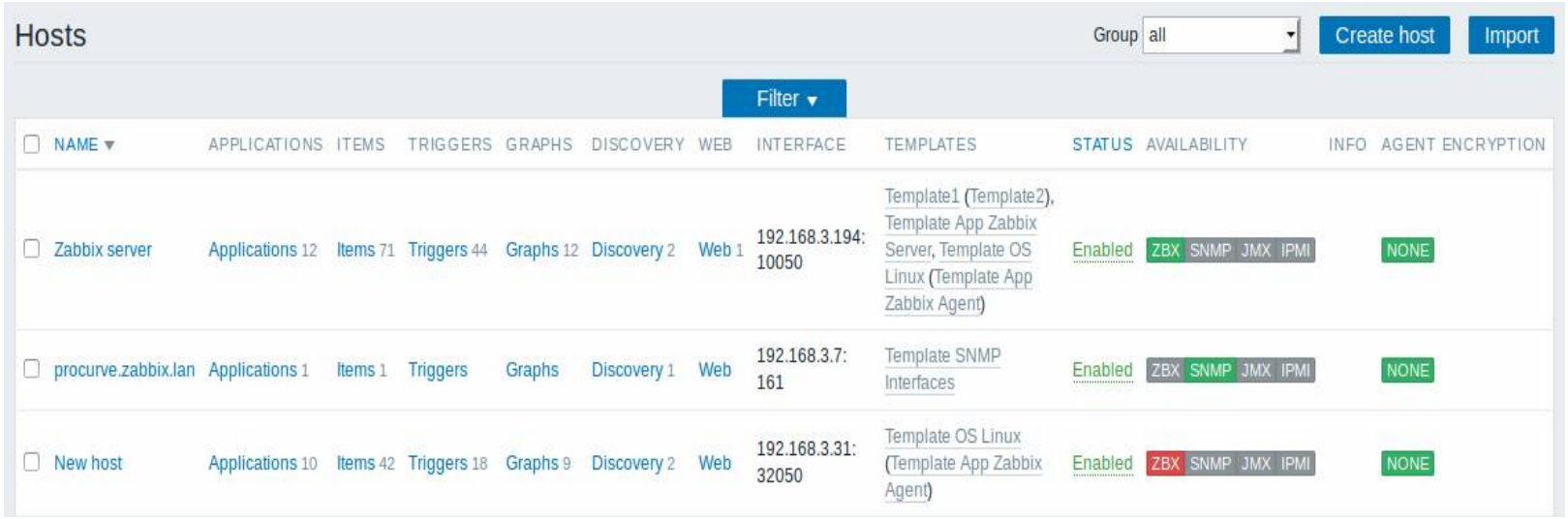
GUI walk-through

- **Configuration → Templates**
  - Discovery (LLD – Low Level Discovery)



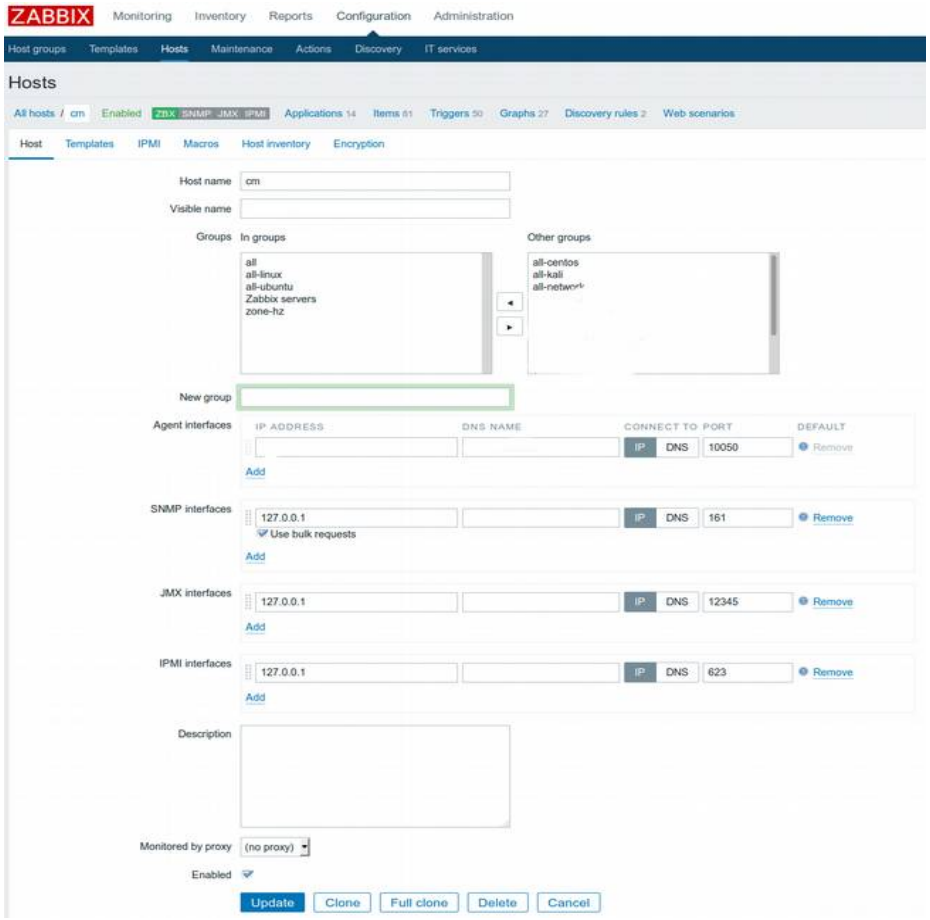
GUI walk-through

- **Configuration → Hosts**
  - Interface configuration
  - Templates can be linked hierarchical or just plain
  - Monitoring can be done agentless, Zabbix agent based, SNMP, JMX, IPMI
  - Zabbix 3.0 supports TLS encrypted agent-server configurations.
  - How to create new hosts:
    - Manually
    - Clone an existing host
    - Import an XML-based host configuration
    - E.g. define a ***discovery rule*** to detect hosts either trough ICMP, Zabbix agent or s.th. else. Define an ***action*** to assign all discovered hosts to host group xyz and link template T.



GUI walk-through

- **Configuration → Hosts**
  - 2nd optional host name
  - Assign host groups
  - Optional:
    - Select proxy, assign templates, configure IPMI, macros and encryption (agent → server, server → agent)



GUI walk-through

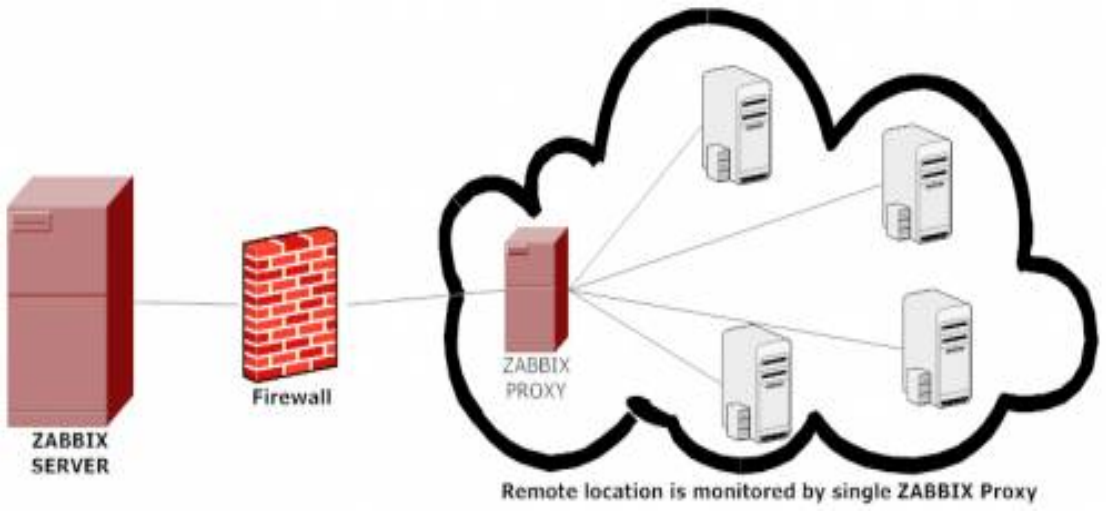
…. we skip over

- **Configuration → Maintenance**
- **Configuration → Actions**
- **Configuration → Discovery**
- **Configuration → IT services**

and talk about the Zabbix architecture, how to make Zabbix high available. We get some ideas if and how Zabbix scales...

Zabbix architecture

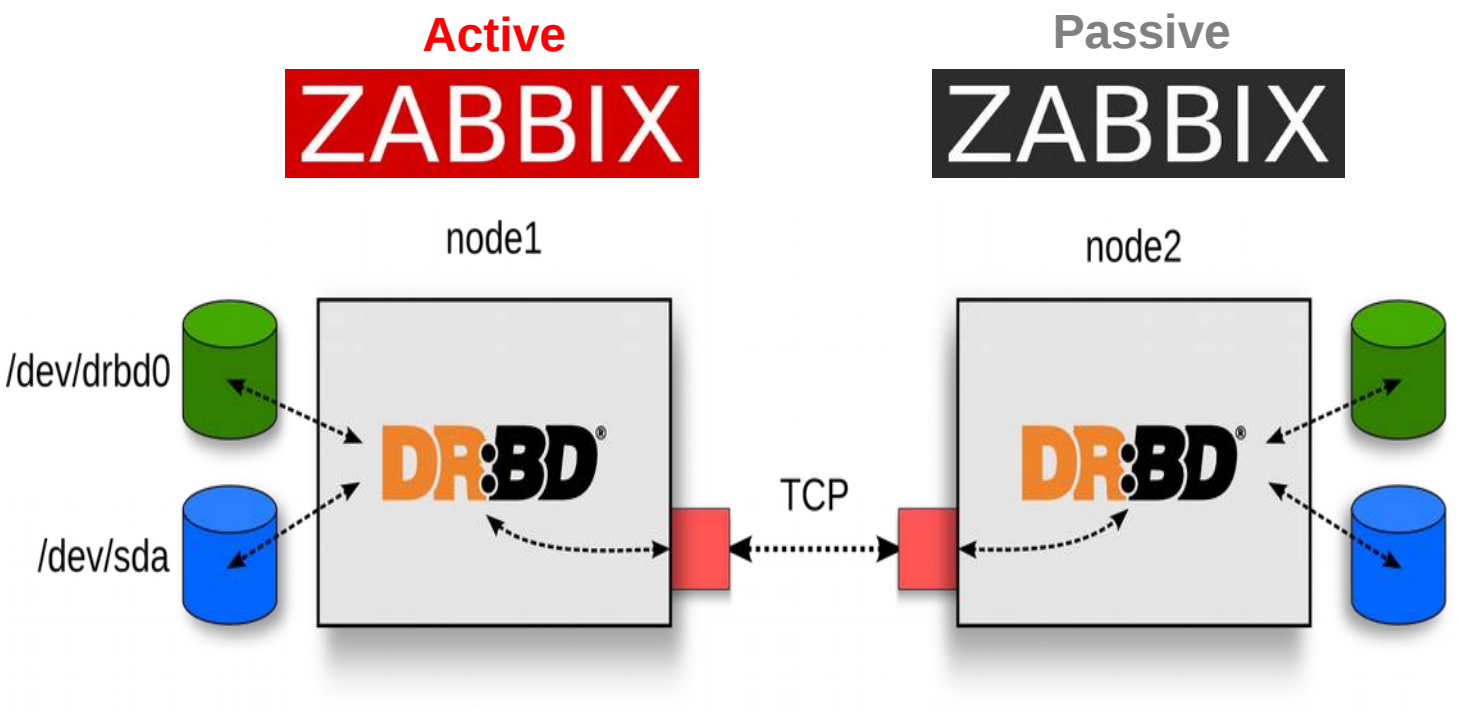
- Zabbix proxies
  - The traffic between the server and proxy is bundled into one TCP connection
  - The proxy can buffer monitoring data for some time
  - The Zabbix proxy does not process triggers, events or alerts.
  - The proxy can use an sqlite database, which make the proxy very lightweight



Zabbix agent

- Zabbix agent
  - https://www.zabbix.com/documentation/3.0/manual/config/items/itemtypes/zabbix_agent
    - Agent.*, kernel.* log[], net.*, proc.*, sensor[], system.*, vfs.*, vm.*, web.*
  - Functionality can be extended through scripts
    - A script can be assigned to a Zabbix key
    - This key-script mapping is configured under the Zabbix agent in
    - The key can be immediately used on the Zabbix server to trigger the execution of the mapped script

High-Availability



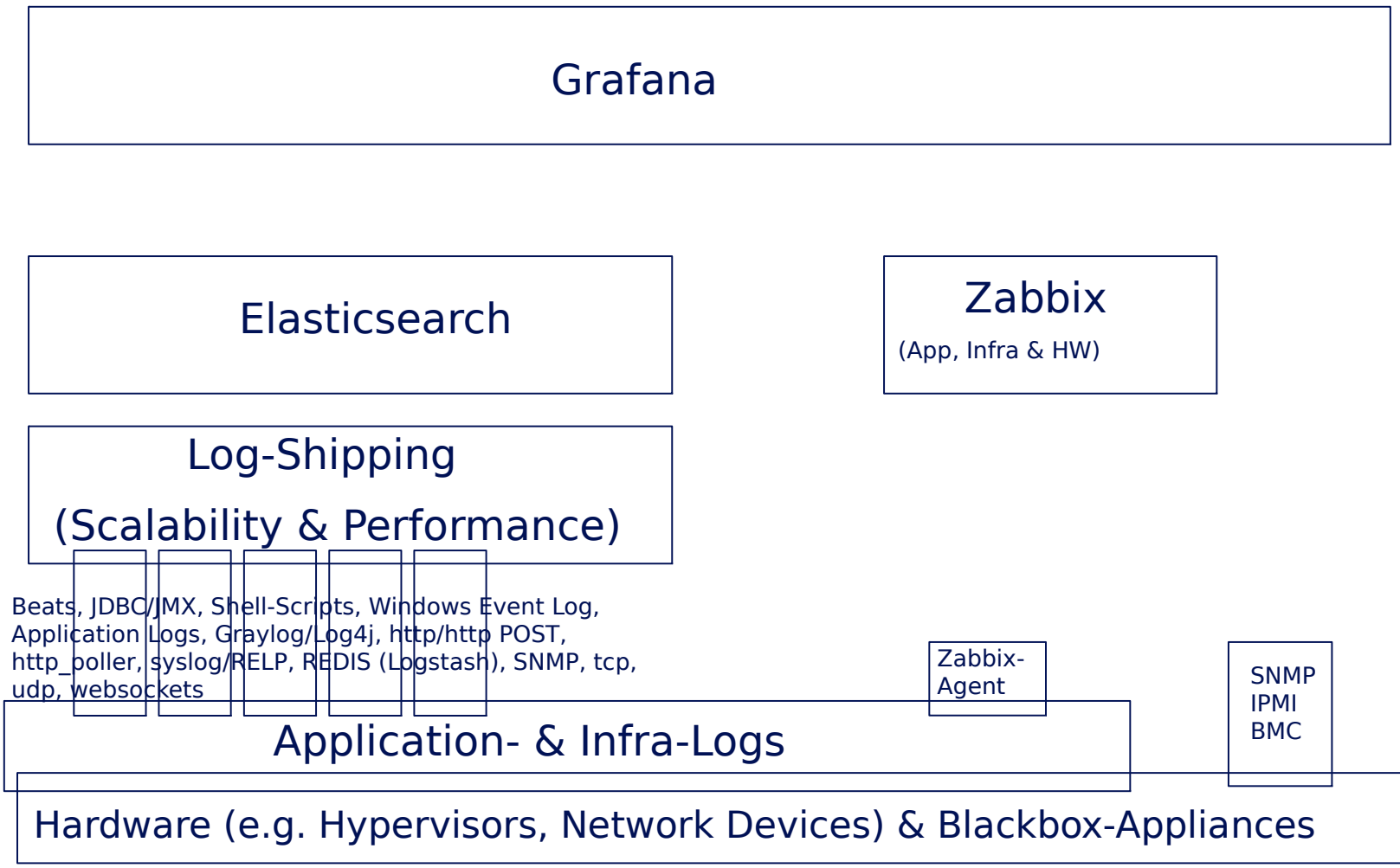
Release 3.0 & Upcoming

- TLS encryption (formerly external: SSH forwarding, stunnel or VPN)

- New GUI since 3.0
- The GUI will even be better in upcoming releases, e.g. a user will be able to create its own pages or extend existing ones
- Individual maps, screens, slideshows

- Different conditions/thresholds for problem state and recovery states / trigger hysteresis
- Automatic anomaly detection based on time slots
- Problem/trend prediction

Monitoring & Analytics



Q & A