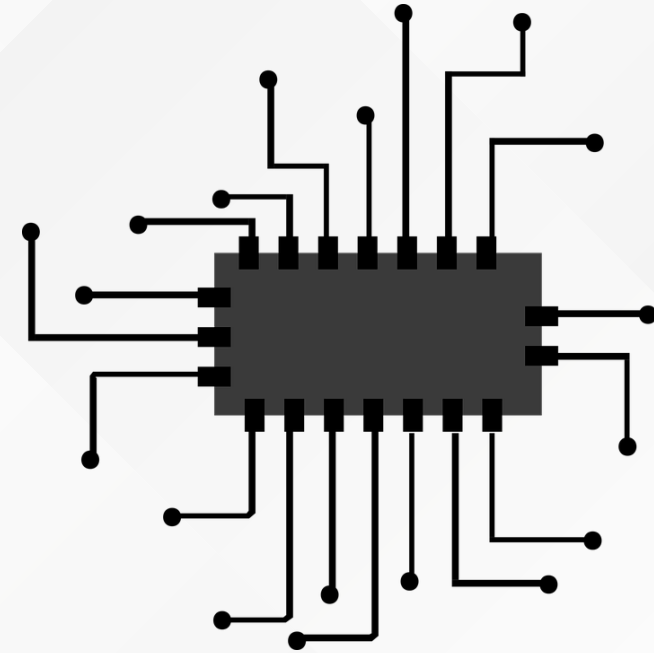


ZABBIX

Product and feature overview



Who am I?



Nathan Liefing
Zabbix Consultant / Trainer

WHY MONITOR?

- Prevent downtime
- Make big IT environments transparent & easy to manage
- Collect and visualize real-time data, analyze and make trend-predictions
- Enable better planning & purchasing

WHAT 1 MINUTE OF DOWNTIME COSTS:

AIRLINES

Delays

\$65



DATA CENTERS

Unplanned outages

\$8.651

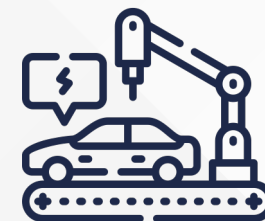


oicts.com

AUTO INDUSTRY

Unexpected stoppages

\$22.000



Opensource ICT Solutions

2

19 YEARS OF EXPERIENCE

300.000+
INSTALLATIONS
WORLDWIDE

100%
OPEN-SOURCE

USER INTERFACE
IN **15** LANGUAGES

INTEGRATE WITH
ANY SOLUTION

24x7
TECHNICAL
SUPPORT

VISUALIZE FOR
BETTER ANALYSIS

MONITOR **OVER**
100 000 DEVICES

COLLECT **OVER**
10 000 000
METRICS

ENCRYPT
CONNECTIONS
BETWEEN ZABBIX
COMPONENTS



BASIC ARCHITECTURE

HOST

Anything you wish to monitor:

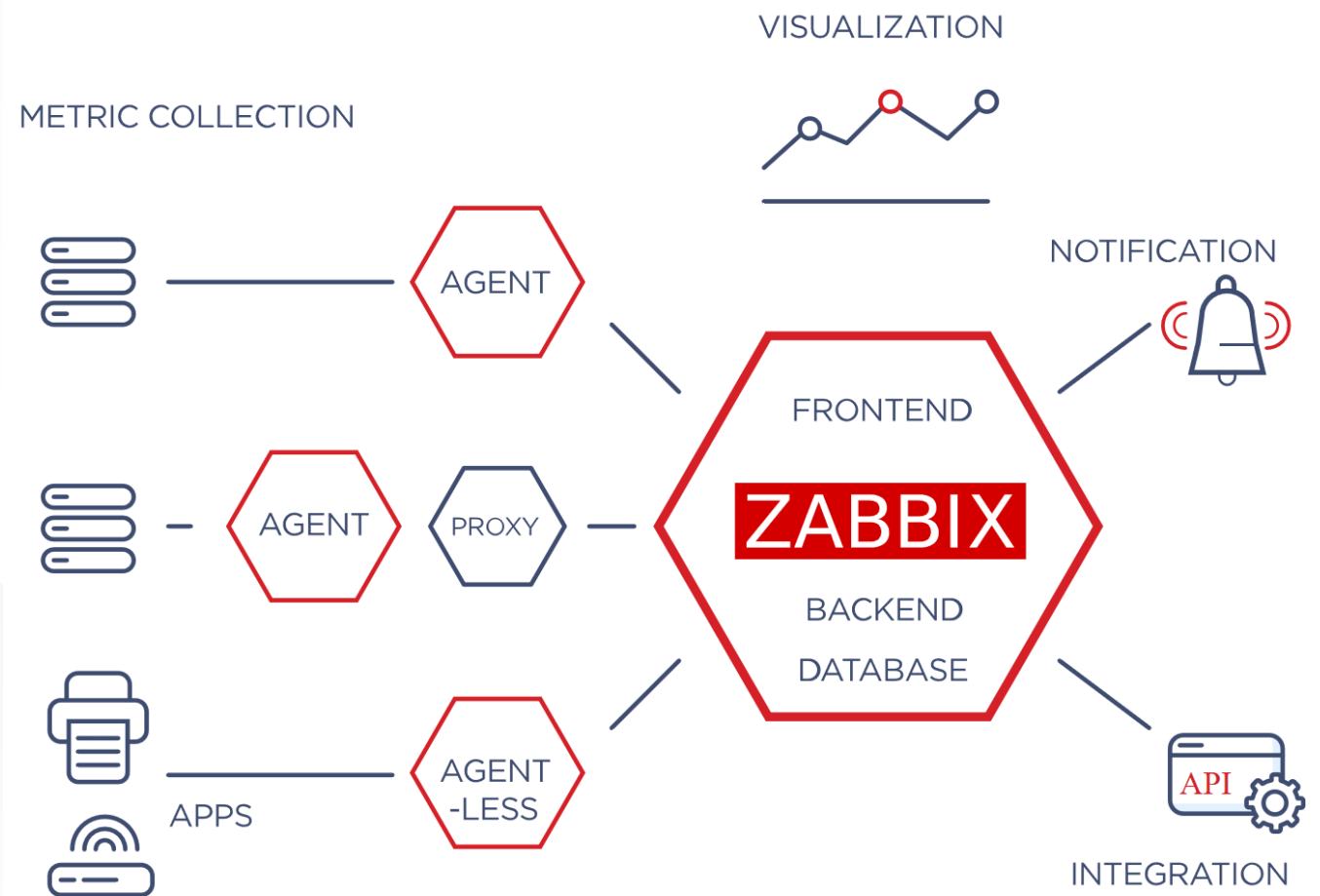
- Server
- Switch
- UPS
- Application
- Database
- Website, etc.

AGENT

Monitoring of devices, resources and applications.

PROXY

Monitoring of distributed locations.



BASIC ARCHITECTURE

SERVER

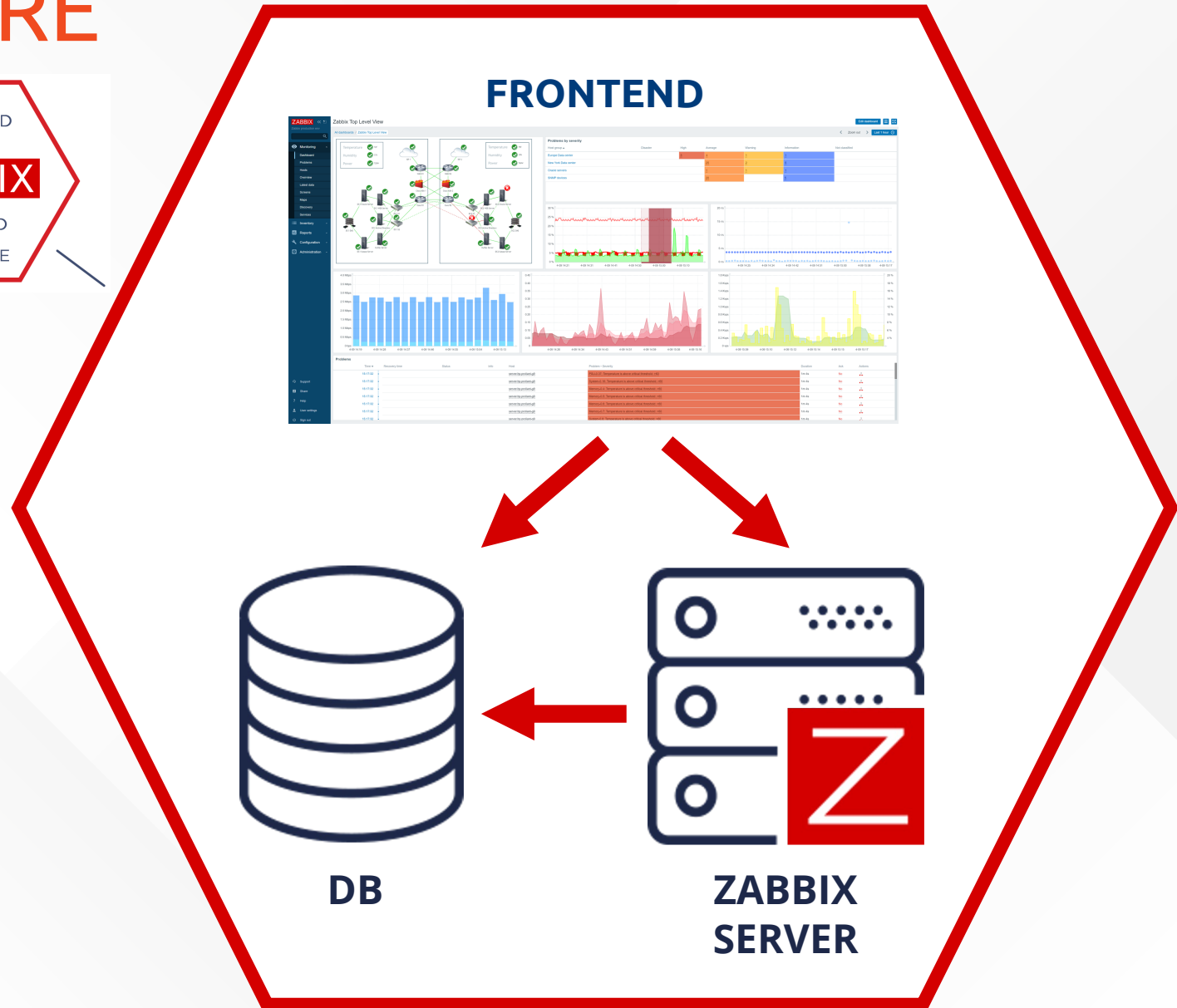
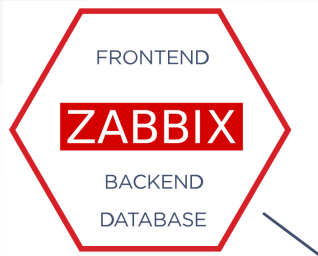
- Data collection
- Calculating Triggers
- Creating Events
- Notification

FRONTEND

- Visualization
- Configuration management

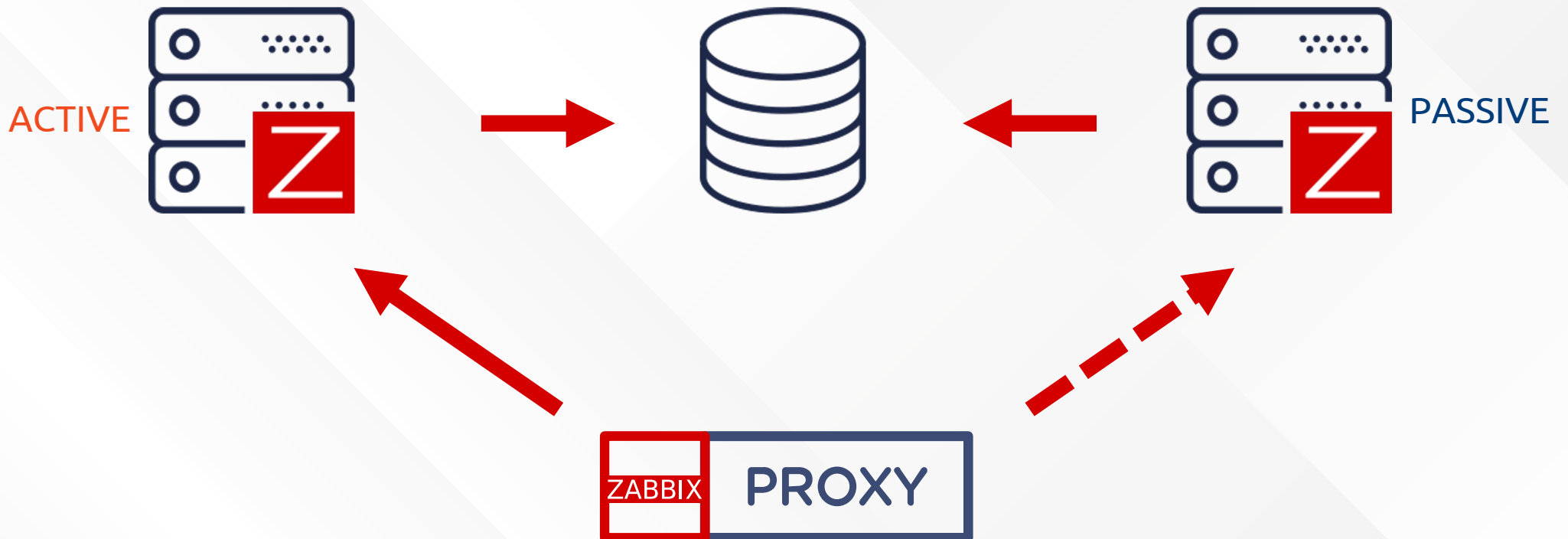
DATABASE

- Data storage



ADVANCED ARCHITECTURE

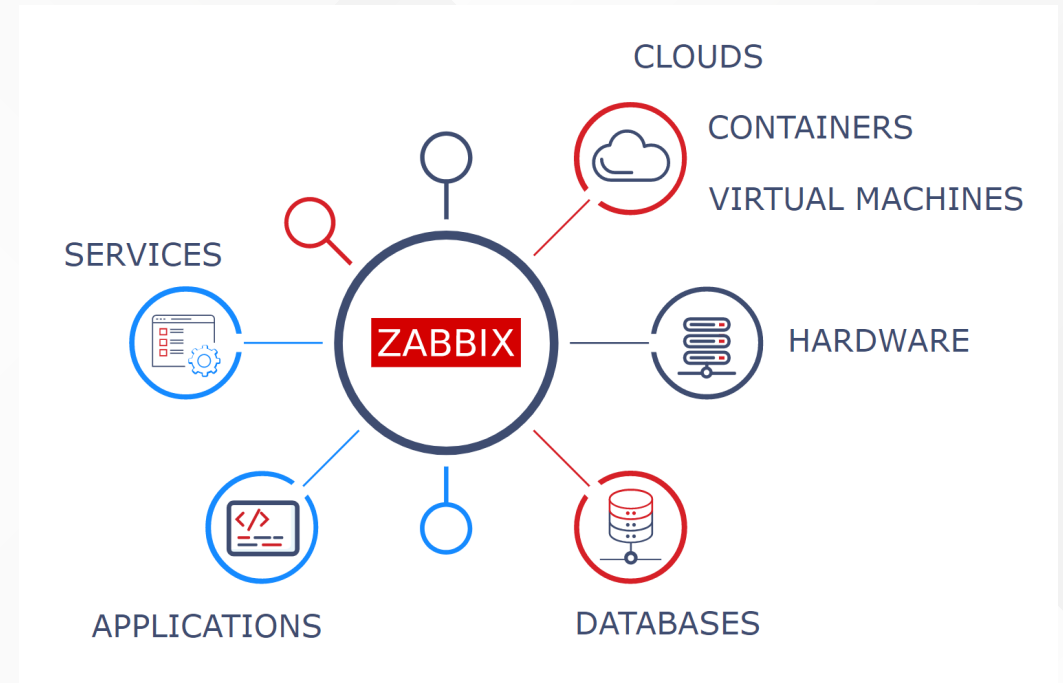
- Keep **Zabbix** running even when there is an issue
- Database is the **single source of truth**
- HA support on the **PROXY/AGENT**
- **BUILT-IN** functionality for **Zabbix server**
- Use industry standard tools for **frontend/database**
- Easy to built and **extend**



DATA COLLECTION

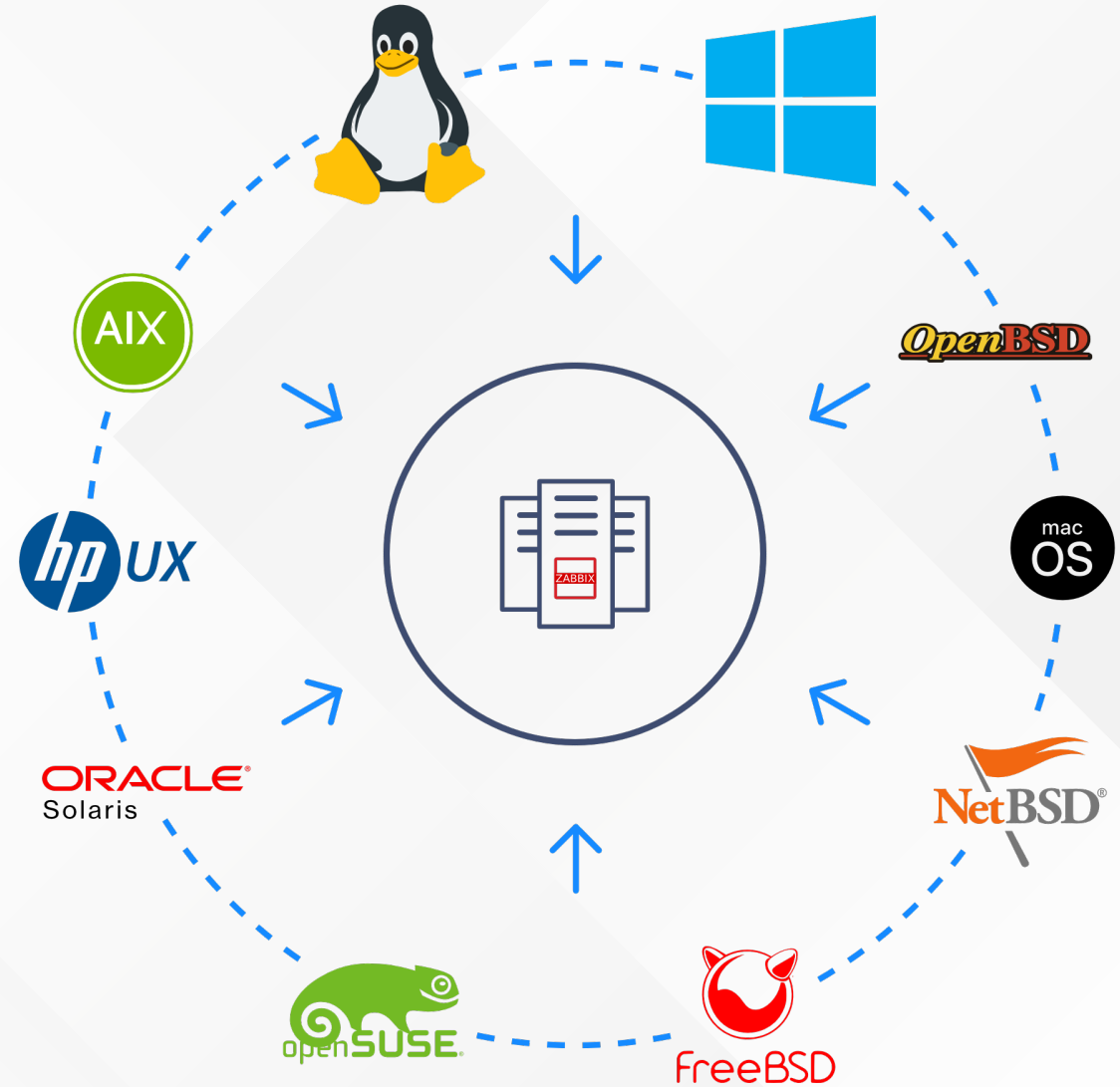
WHAT KIND OF DATA CAN BE COLLECTED

- **Services:** availability and the responsiveness of e-mail or web servers;
- **Network devices:** network utilization, CPU, memory and port status;
- **Virtual machines:** VMware vCenter and vSphere installations for various VMware hypervisor and virtual machine properties and statistics
- **Databases:** monitor in great detail any database, including MySQL, PostgreSQL, Oracle and Microsoft SQL Server;
- **Java Application Server:** monitor JBoss, Tomcat, Oracle Application Server or any other application with the efficient Zabbix Java gateway;
- **Web services:** easily monitor availability, response time and download speed of your external website, e-commerce portal or internal wiki and service desk system;
- **Hardware:** gather statistics such as temperature, fan speed voltage, and disk state.
- **Customized monitoring:** integrate ZABBIX in any environment and gather data from financial systems, environment control systems or even sophisticated research devices.



ZABBIX AGENT

- Negligible performance overhead
- Push or pull data delivery
- Easy to extend with plugins or external scripts
- Backwards compatibility for effortless upgrades
- Access to Windows WMI and performance counters
- Strong TLS or shared key encryption for communications
- Deploy Zabbix agent as a package, use MSI or command line installer on Windows or deploy pre-compiled agent binaries



AGENT-LESS MONITORING

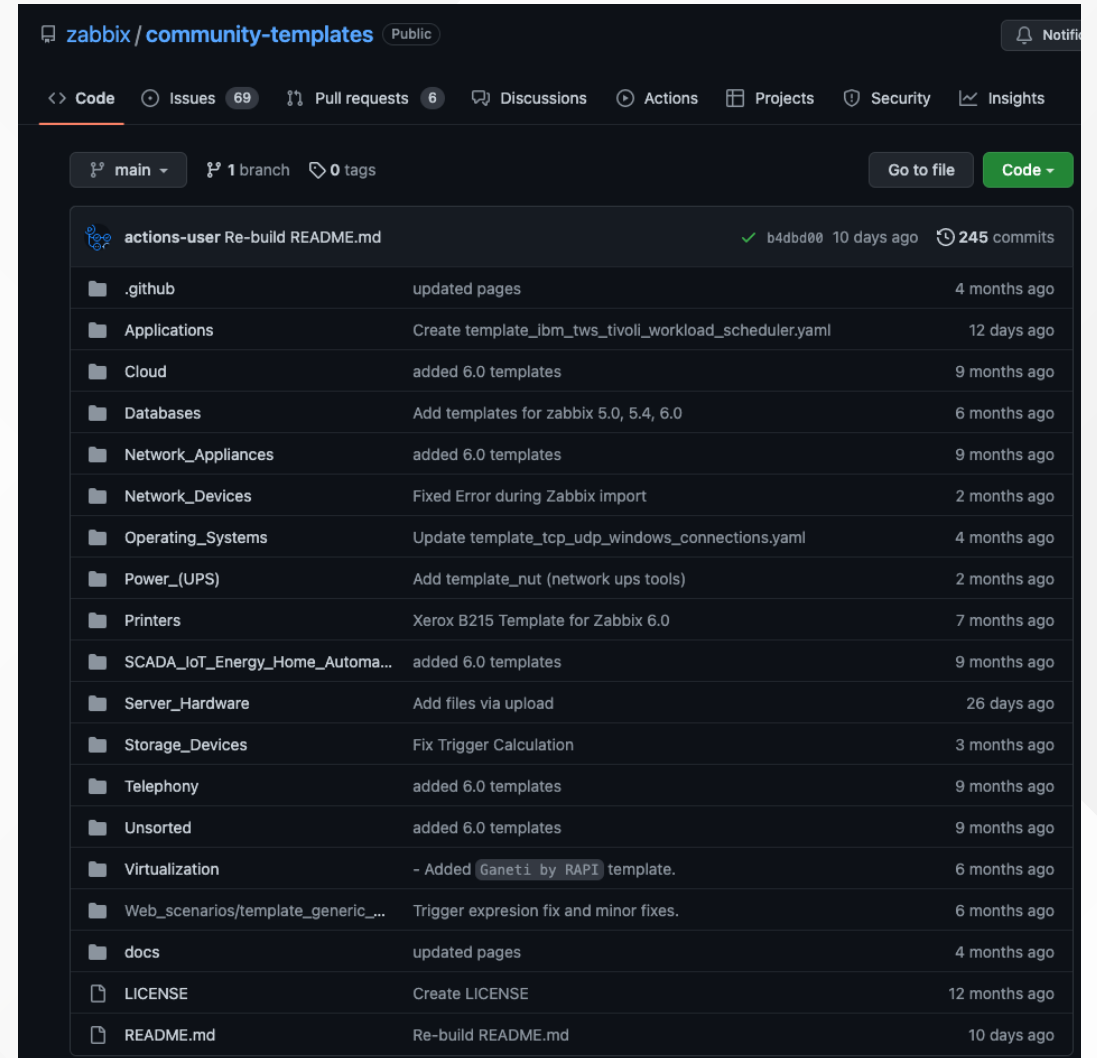
- SNMP (v1/2c/3) **polling** and **trapping**
- IPMI
- ICMP and TCP checks
- ODBC database monitoring
- Website performance / functionality
- HTTP data collection
- SSH/Telnet checks
- Easy to extend using scripts and/or plugins
- Prometheus monitoring



BUILT IT YOURSELF OR JUST START



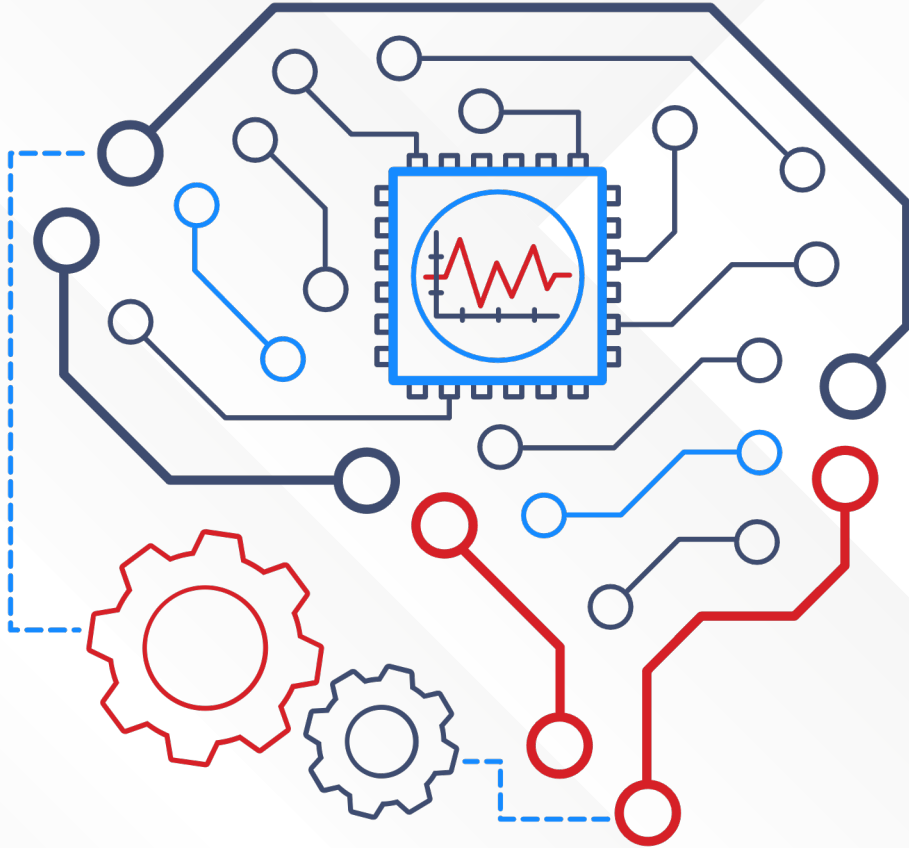
[ZABBIX.COM/INTEGRATIONS](https://zabbix.com/integrations)



[GITHUB.COM/ZABBIX/COMMUNITY-TEMPLATES](https://github.com/zabbix/community-templates)



DETECT PROBLEMS HOW YOU WANT



- Real **time** detection
- Define your own **thresholds** with expressions
- Easy to understand and **setup**
- Override mass thresholds on various hosts with **macros**
- Detect **anomalies**
- Predict **trends**
- Flexible thresholds using **baseline monitoring**
- And many **customization** options...

TIME TO SHOW THE DATA

ZABBIX lar-permanent-zabbix

Global view

All dashboards / Global view

Top hosts by CPU utilization

Host	Utilization	1m avg	5m avg	15m avg	Processes
Zabbix server	0.6508 %	0	0	0	259

System information

Parameter	Value	Details
Zabbix server is running	Yes	localhost:10051
Number of hosts (enabled/disabled)	10	10 / 0
Number of templates	321	
Number of items (enabled/disabled/not supported)	420	401 / 0 / 19
Number of triggers (enabled/disabled [problem/ok])	323	323 / 0 [150 / 173]
Number of users (online)	2	1
Required server performance, new values per second	5.93	

Host availability

Category	Count
Available	5
Not available	1
Unknown	1
Total	7

Problems by severity

Severity	Count
Disaster	0
High	0
Average	148
Warning	2
Information	0
Not classified	0

Current problems

Time	Host	Problem · Severity	Duration	Ack	Actions	Tags
14:19:54	lar-permanent-w10	"WaaSMedicSvc" (Windows Update Medic Service) is not running (startup type manual)	52m 8s	No	component: system name: Windows Updat... scope: notice ***	
14:00						
13:42:22	lar-permanent-w10	"swprv" (Microsoft Software Shadow Copy Provider) is not running (startup type manual)	1h 29m 40s	No	component: system name: Microsoft Softw... scope: notice ***	
13:39:16	lar-permanent-w10	"wlidsvc" (Microsoft Account Sign-in Assistant) is not running (startup type manual)	1h 32m 46s	No	component: system name: Microsoft Acco... scope: notice ***	
13:38:52	lar-permanent-w10	"VSS" (Volume Shadow Copy) is not running (startup type manual)	1h 33m 10s	No	component: system name: Volume Shado... scope: notice ***	
13:37:14	lar-permanent-w10	"wisvc" (Windows Insider Service) is not running (startup type manual)	1h 34m 48s	No	component: system name: Windows Inside... scope: notice ***	

Geomap

Map showing location in the Netherlands.

- Fully customizable dashboards
- Filter using host groups, tags and more

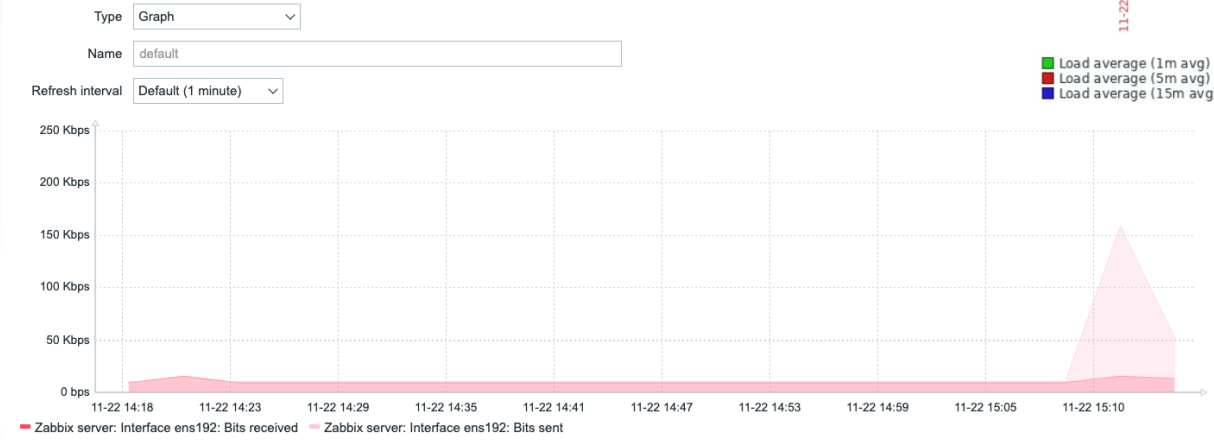
- Zabbix 6.4: New Zabbix widget framework
- More than 20 widgets



TIME TO SHOW THE DATA

DASHBOARD GRAPHS

Edit widget



Data set 1 [Displaying options](#) [Time period](#) [Axes](#) [Legend](#) [Problems](#) [Overrides](#)

Data set: Zabbix server x host pattern

Draw: Line Points Staircase Bar

Stacked:

Width:

Point size:

Transparency:

Fill:

+ Add new data set

Interface*: Bits* x item pattern

Missing data: None Connected Treat as 0 Last known

Y-axis: Left Right

Time shift: none

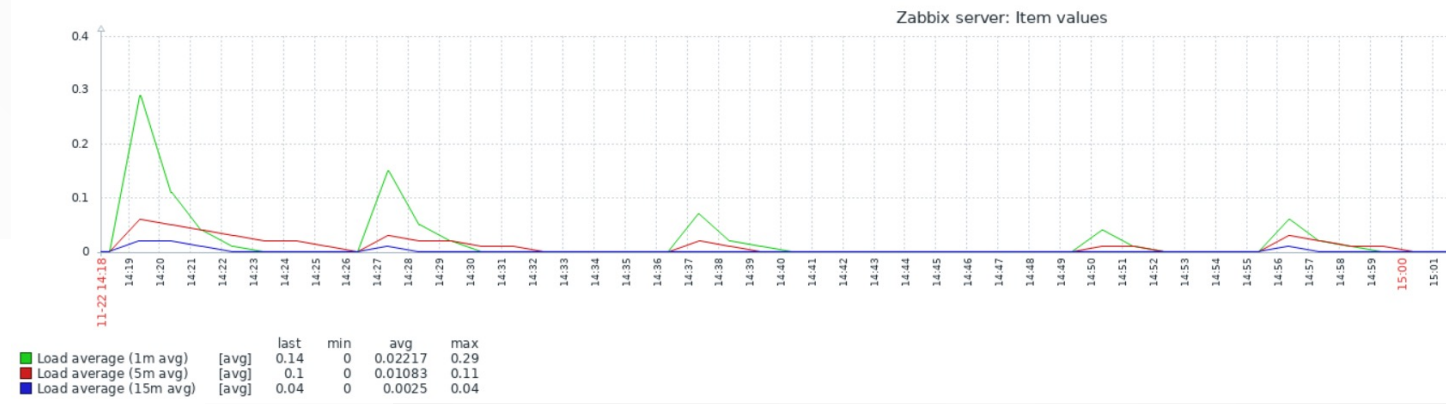
Aggregation function: none

Aggregation interval: 1h

Aggregate: Each item Data set

Approximation: avg

Apply Cancel



AD-HOC GRAPHS

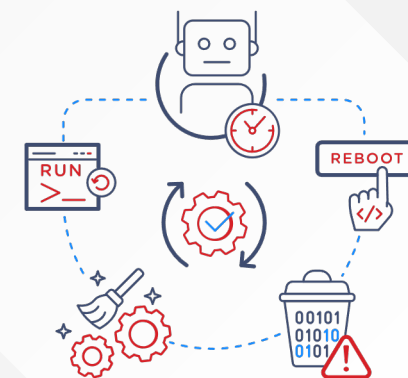
Zabbix server 127.0.0.1:10050 ZBX Enabled Latest data 125 Problems Graphs 25

TEMPLATED GRAPHS

GET USEFUL ALERTS



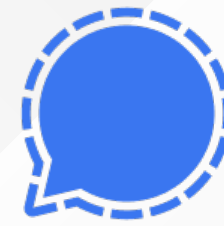
- Define your own action conditions
 - Filter on **tags**, **host groups**, **severities** and more
- Define your own actions operations
 - **Escalate**, **delay**, **repeat**
- Customize **severities**
- Show only what **you** need in the frontend
- Or.. Let Zabbix **solve** the problem for you with remote commands



GET USEFUL **ALERTS**



Telegram



Signal

ATLASSIAN

 Jira  Opsgenie
 Statuspage

PagerDuty

 **TOPdesk**

servicenow



REDMINE



Microsoft Teams



slack



ROCKET.CHAT



MORE TO COME - ROADMAP

Zabbix 7.0 LTS

Planned release date: Q2 2023

High availability, performance and scalability

- Scalable history storage

It will include standard API for storage of history and trend data as well as support of new time-series storage engines.

[ZBXNEXT-714](#) ★ Top voted!

- Proxies to provide automatic load balancing and HA

[ZBXNEXT-5911](#) ★ Top voted!

Out of the box monitoring and alerting

- Security and compliance monitoring

Distributed monitoring

- One dashboard for multiple data sources

Ability to display data from multiple Zabbix servers on a single dashboard to enable multi-DC monitoring scenario

Zabbix 7.2

Planned release date: Q4 2023

Cloud native

- New architecture for horizontal scalability, performance and HA

★ Top voted!

APM monitoring

- New set of widgets aimed to APM visualization
- Bindings for various programming languages (Java, Python, PHP, etc)
- Extend Zabbix to enable APM functionality and tracing

[ZBXNEXT-5812](#), [ZBXNEXT-7617](#)

<https://www.zabbix.com/roadmap>



Questions?

