

ZABBIX

6.0

DEMO



ZABBIX

ZABBIX is an open source enterprise-level monitoring solution designed to monitor millions of metrics in real time, collected from tens of thousands of servers, virtual machines, network devices and applications



T-Mobile Systems



Over 300 000+
installation
worldwide.

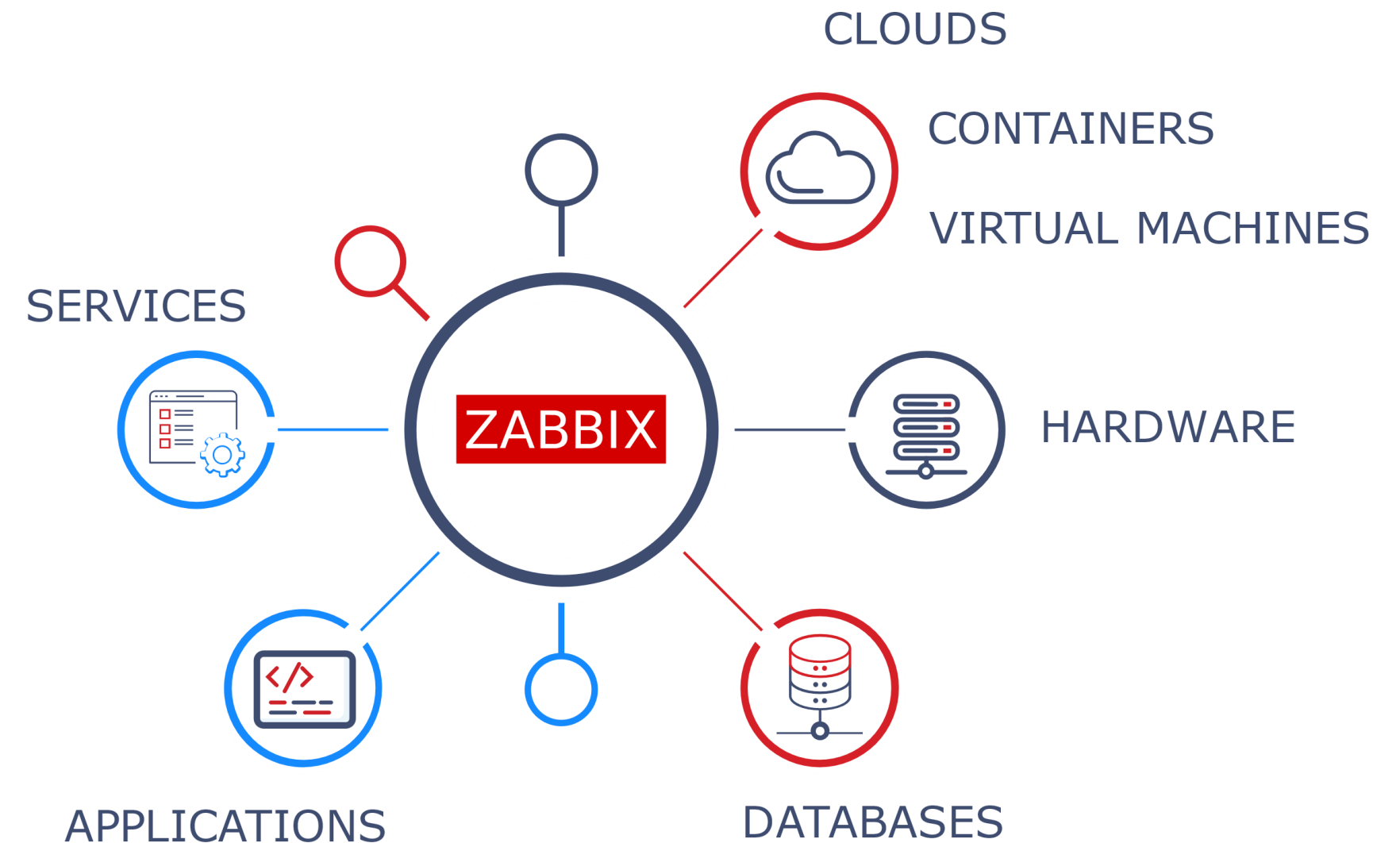
ZABBIX is trusted
by customers all
over the globe.



WHAT TO MONITOR?

SOLUTIONS FOR DIFFERENT INDUSTRIES, APPLICATION AREAS AND USE CASES

- ✔ **Access control:** Monitor changes in room temperature, use of access cards and other sensors and logs.
- ✔ **KPI monitoring:** Use collected metrics to create dashboards for your business KPI monitoring: number of web visitors, number of purchases, amount of devices manufactured per hour, etc.
- ✔ **Capacity monitoring:** Monitor your infrastructure resource utilization and let Zabbix help you plan your IT budget accordingly.
- ✔ **Configuration monitoring:** Use Zabbix to enable monitoring of software versions, keep track of installed applications and updates
- ✔ **Inventory monitoring:** Utilize Zabbix to manage the inventory of your devices – hardware , software serial numbers and much more!
- ✔ **Security monitoring:** Monitor security risks by monitoring network ports, malicious software, password files and other security entities.



BASIC ARCHITECTURE

ZABBIX SERVER BACKEND

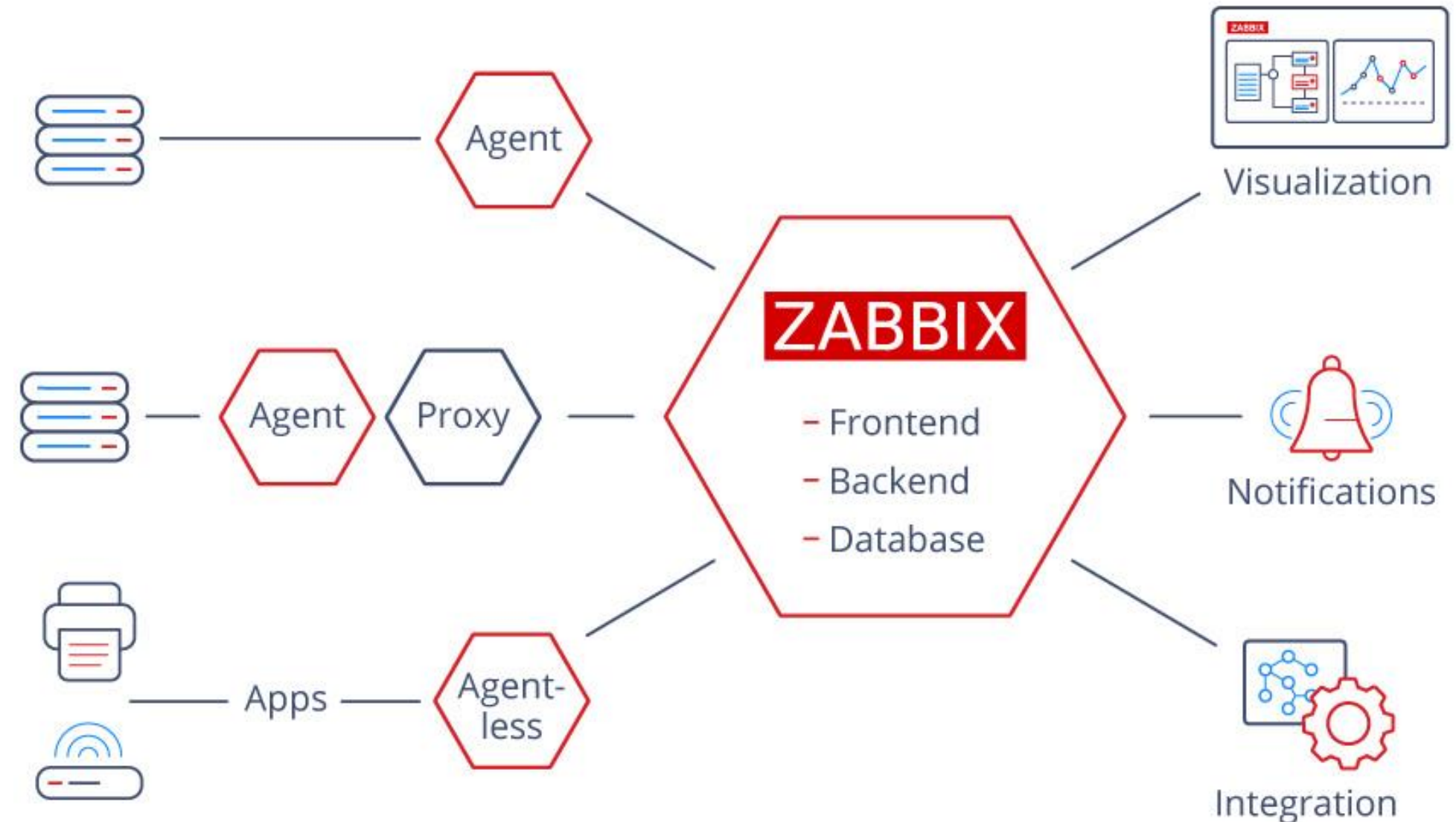
- Core process responsible for data collection and analysis
- Can be deployed on Linux, BSD, Raspbian and other Unix-like operating systems
- Native Zabbix server high availability cluster

DATABASE

- Data and configuration storage
- MySQL and Community forks
- PostgreSQL + TimescaleDB
- Oracle

FRONTEND

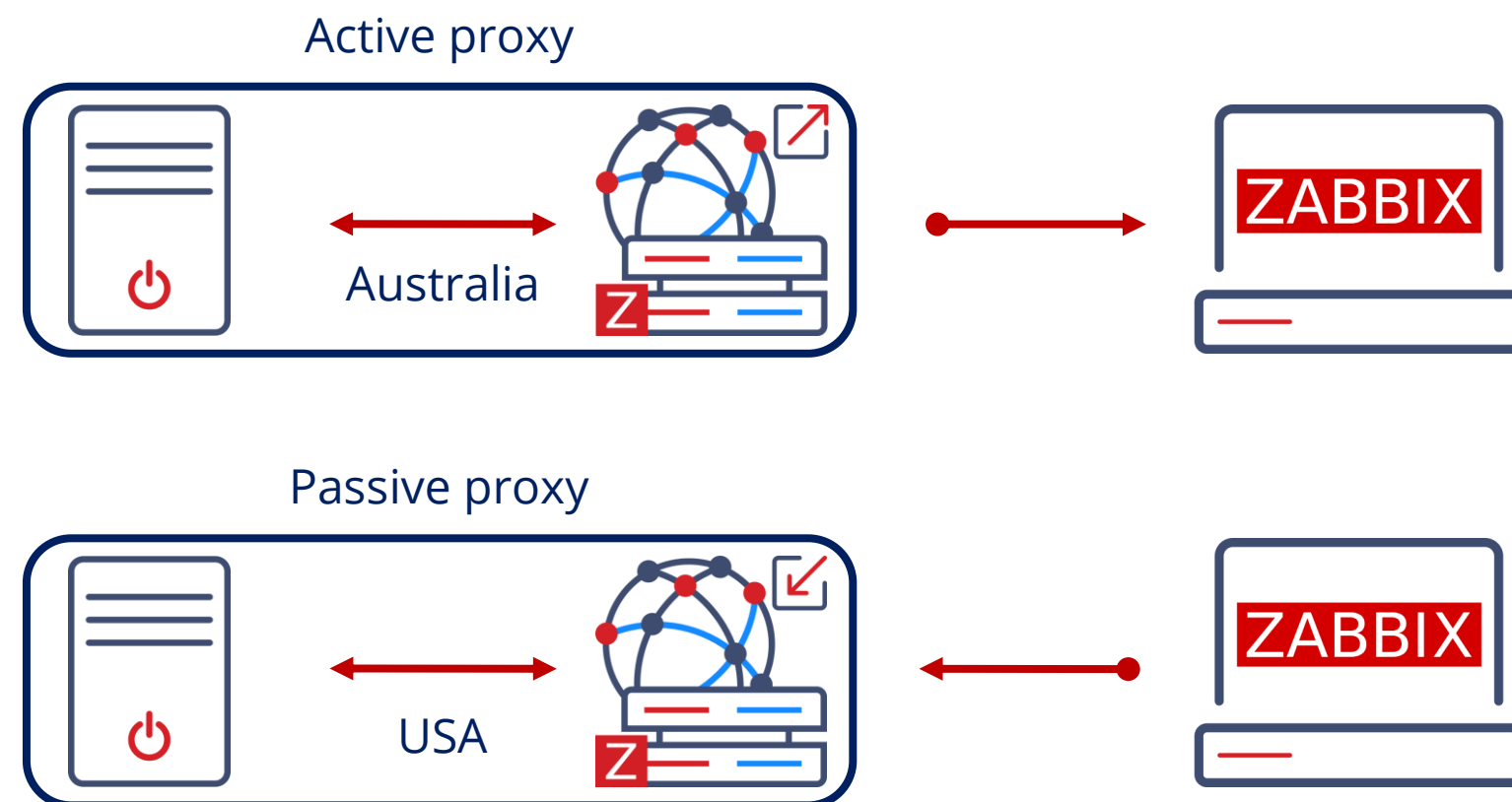
- PHP frontend for configuration management and data visualization.



DISTRIBUTED MONITORING

Deploy Zabbix proxies in remote sites for added redundancy and ease of configuration

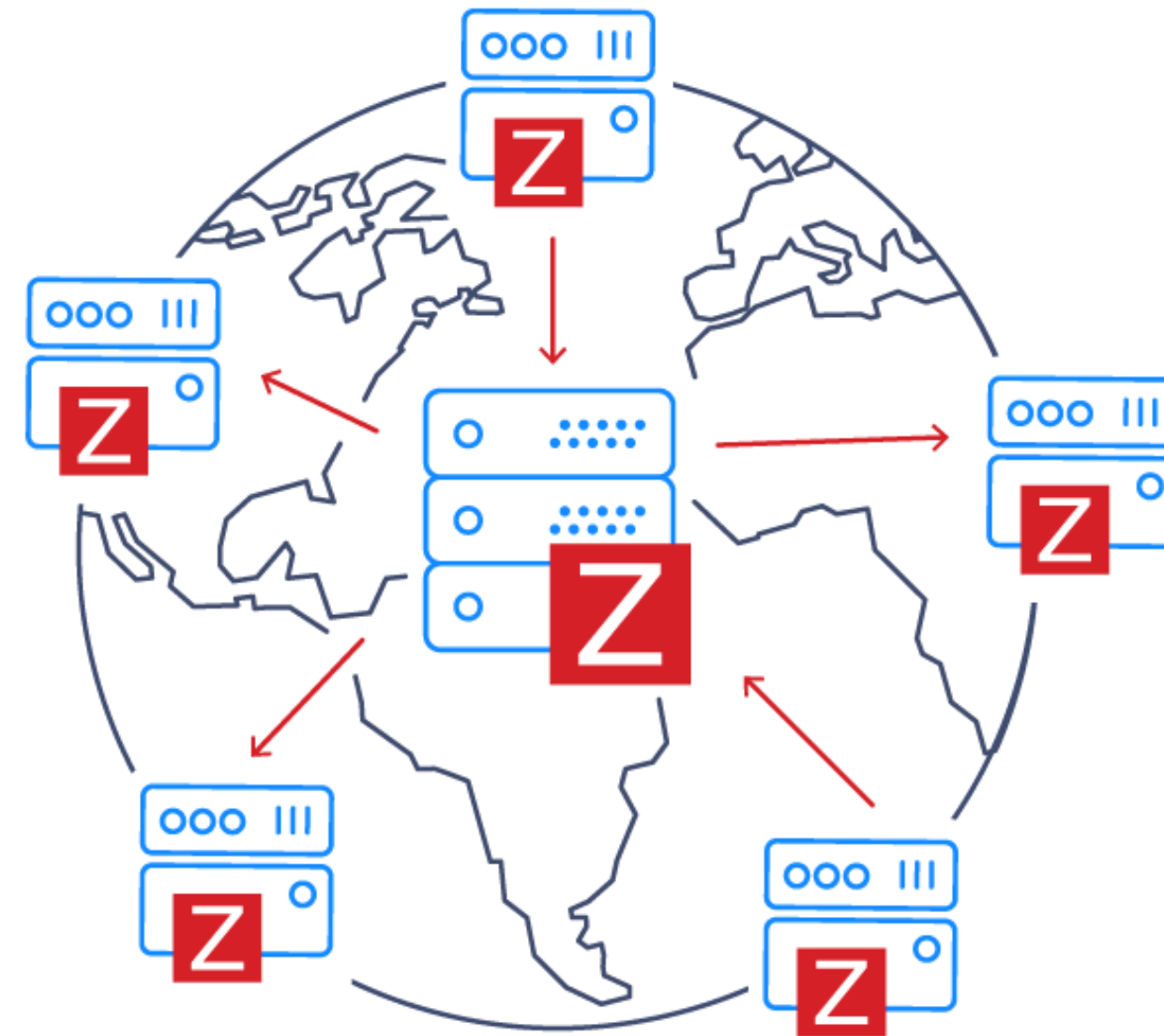
- ✔ Select the direction of communication between Zabbix server and Zabbix proxies
- ✔ Zabbix supports unlimited number of proxies
- ✔ Scale up your monitoring by adding extra Zabbix proxies to your environment



DISTRIBUTED MONITORING

Collect data from thousands of monitored devices:

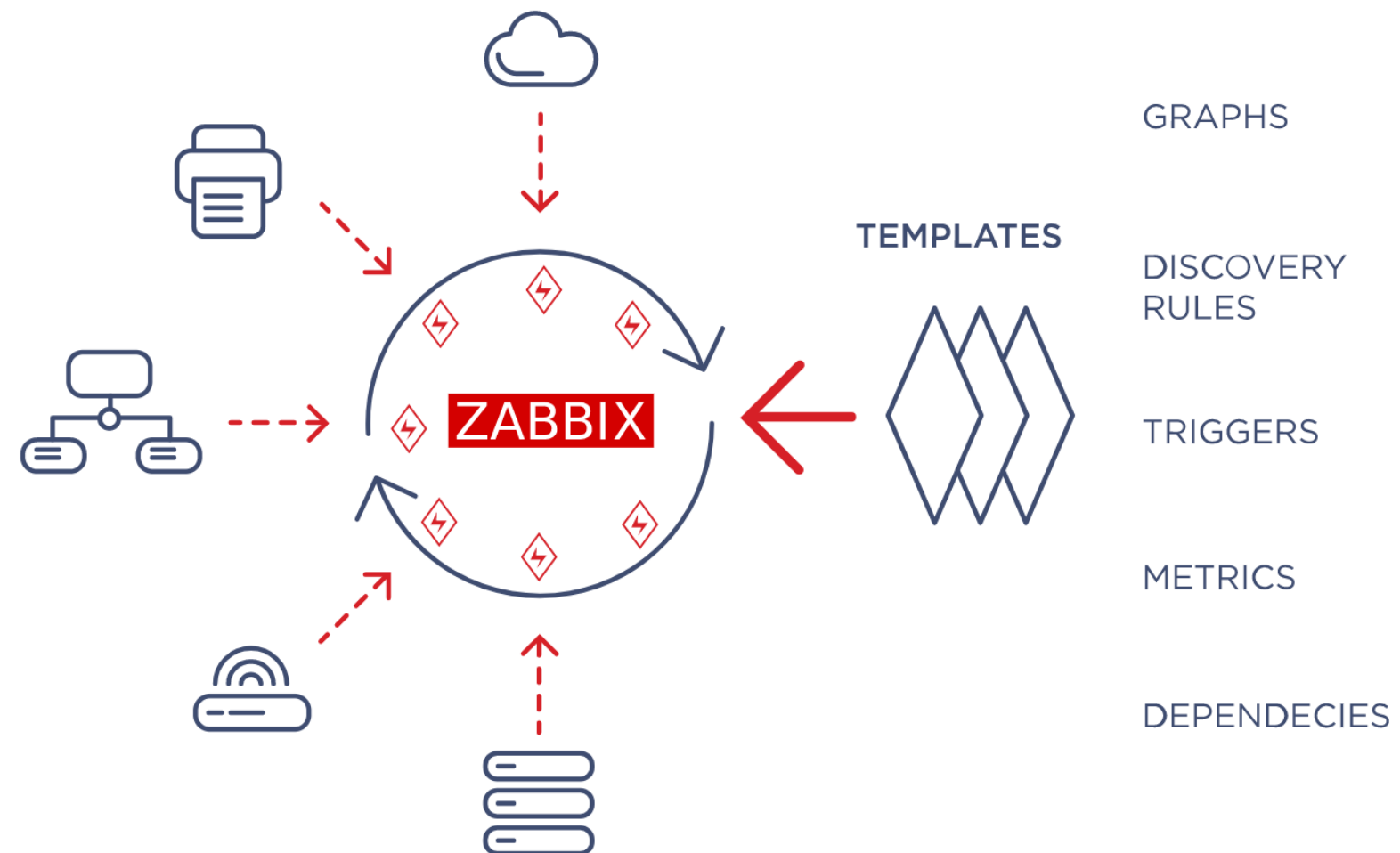
- ✔ Data compression
- ✔ Monitor behind the firewall, DMZ
- ✔ Collect data even in case of network issues
- ✔ Remotely run custom scripts on monitored hosts
- ✔ Control all Zabbix proxies from a single pane of glass



EFFORTLESS DEPLOYMENT

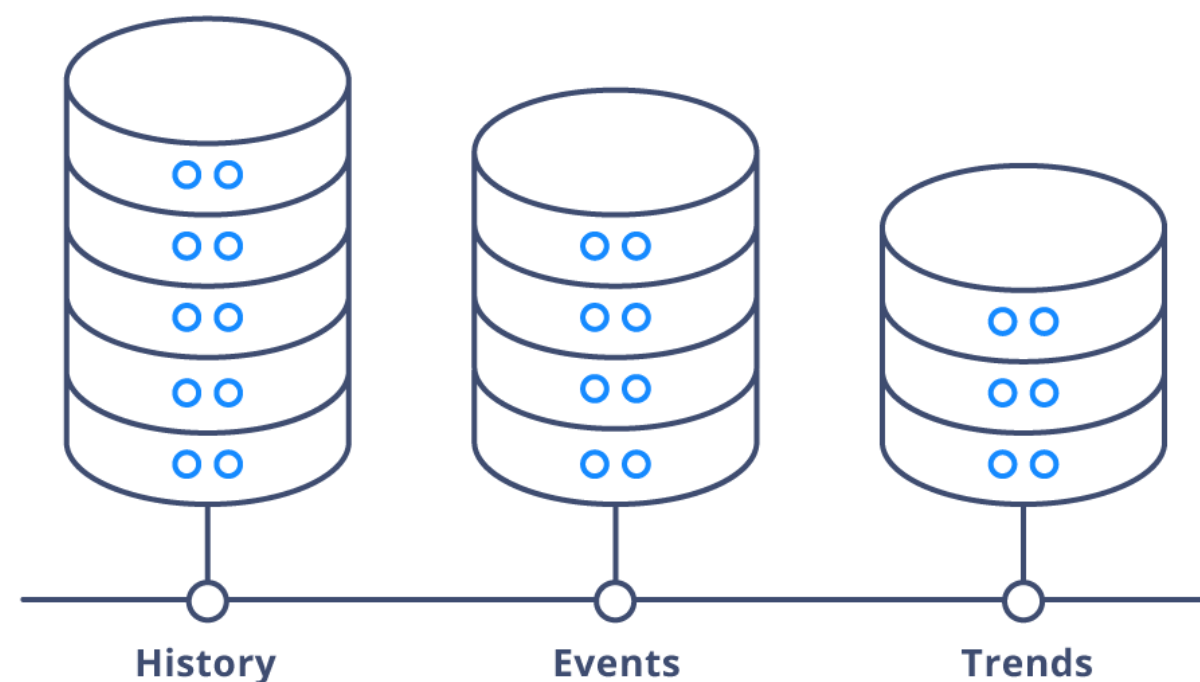
SAVE YOUR TIME:

- ✔ Install Zabbix in minutes
- ✔ Use out-of-the-box templates for most of the popular platforms
- ✔ Automatically discover and create your hosts in Zabbix
- ✔ Deploy any Zabbix component by using packages, docker containers, cloud images or compile it from the source code.
- ✔ Receive Zabbix alerts by using out-of-the box media type integrations



STAY IN CONTROL OF YOUR DATA

- ✓ All of the collected metrics, problem history, trends remain in your control
- ✓ In addition to collecting history, Zabbix provides the ability to store hourly trend data – **min, max, avg and count** of collected values per hour.
- ✓ Define flexible data storage periods for **History, Trends, Events** and other data
- ✓ None of the data or telemetry gets transferred to Zabbix or any other 3rd party

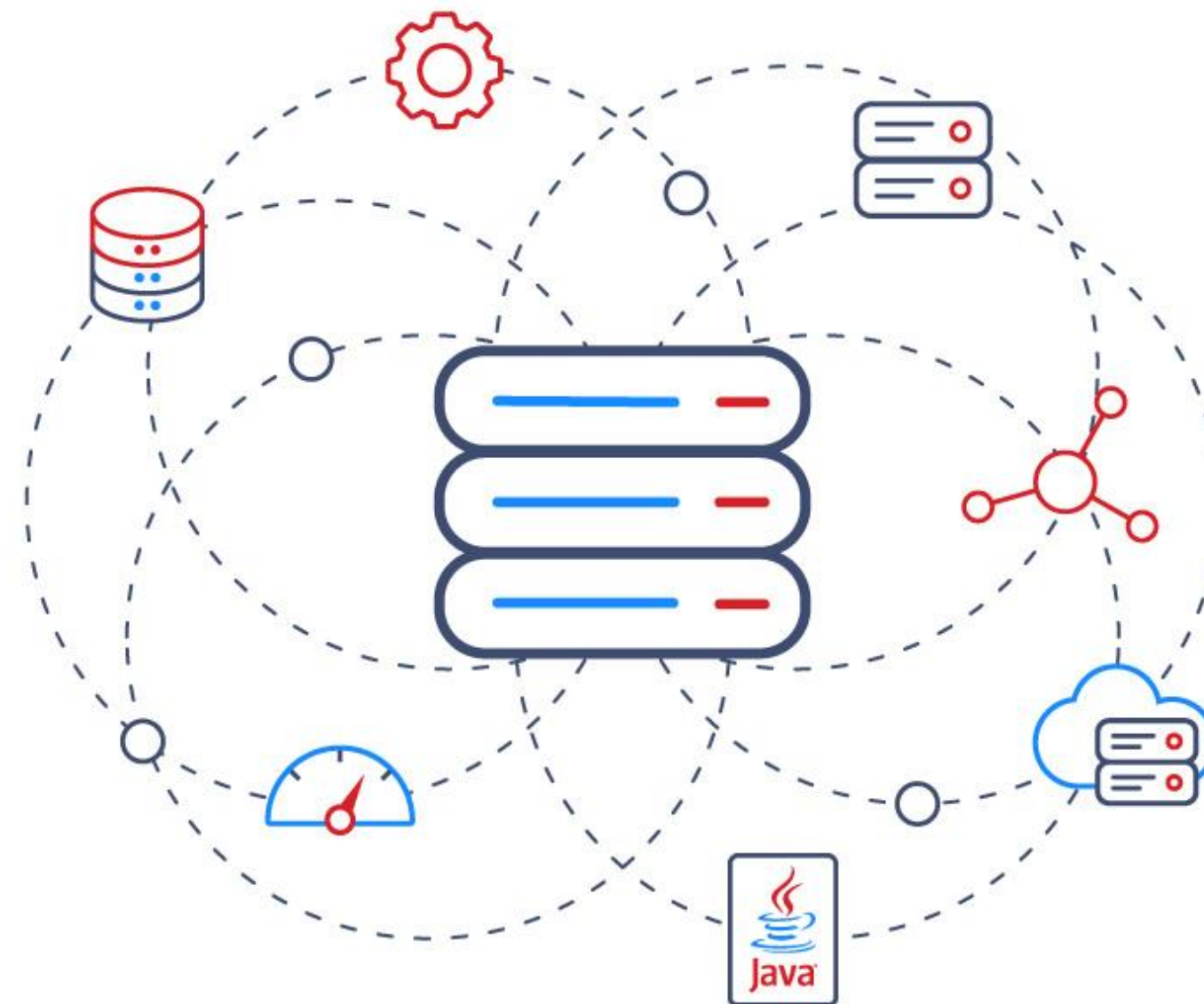


Example: Store 1 year of history, 6 months for events, 2 years for trends.



DATA COLLECTION: **AGENTLESS**

- ✔ Simple ping and port checks
- ✔ SNMP(v1, v2c, v3), HTTP, IPMI and SSH checks
- ✔ Database monitoring via ODBC
- ✔ Java applications monitoring
- ✔ Custom metrics/scripts
- ✔ Aggregation and calculated checks
- ✔ VMware monitoring
- ✔ Web monitoring
- ✔ Synthetic monitoring

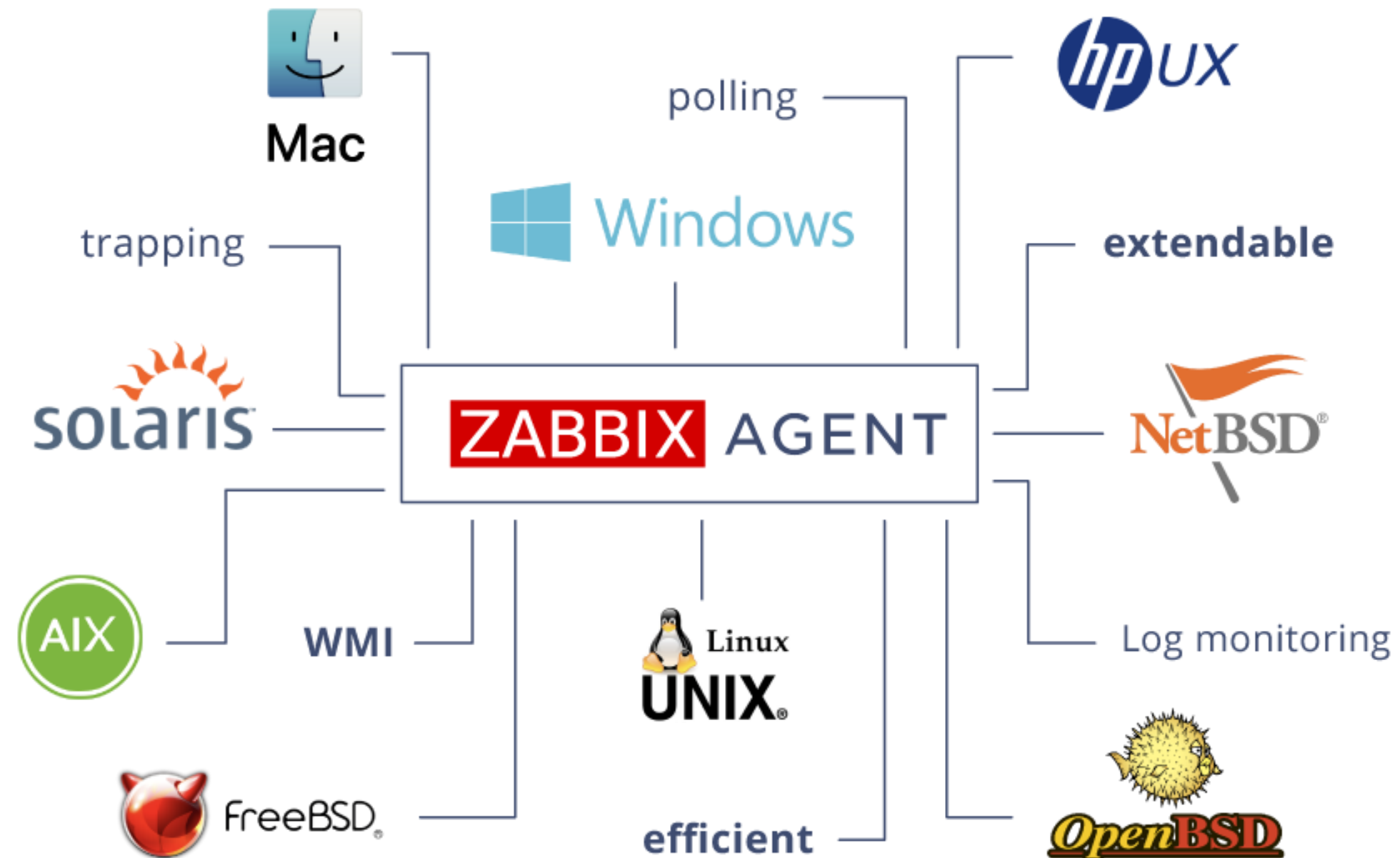


DATA COLLECTION: ZABBIX AGENT

Zabbix Agent can be deployed on any Unix-like or Windows platforms and collect metrics from any device or application.

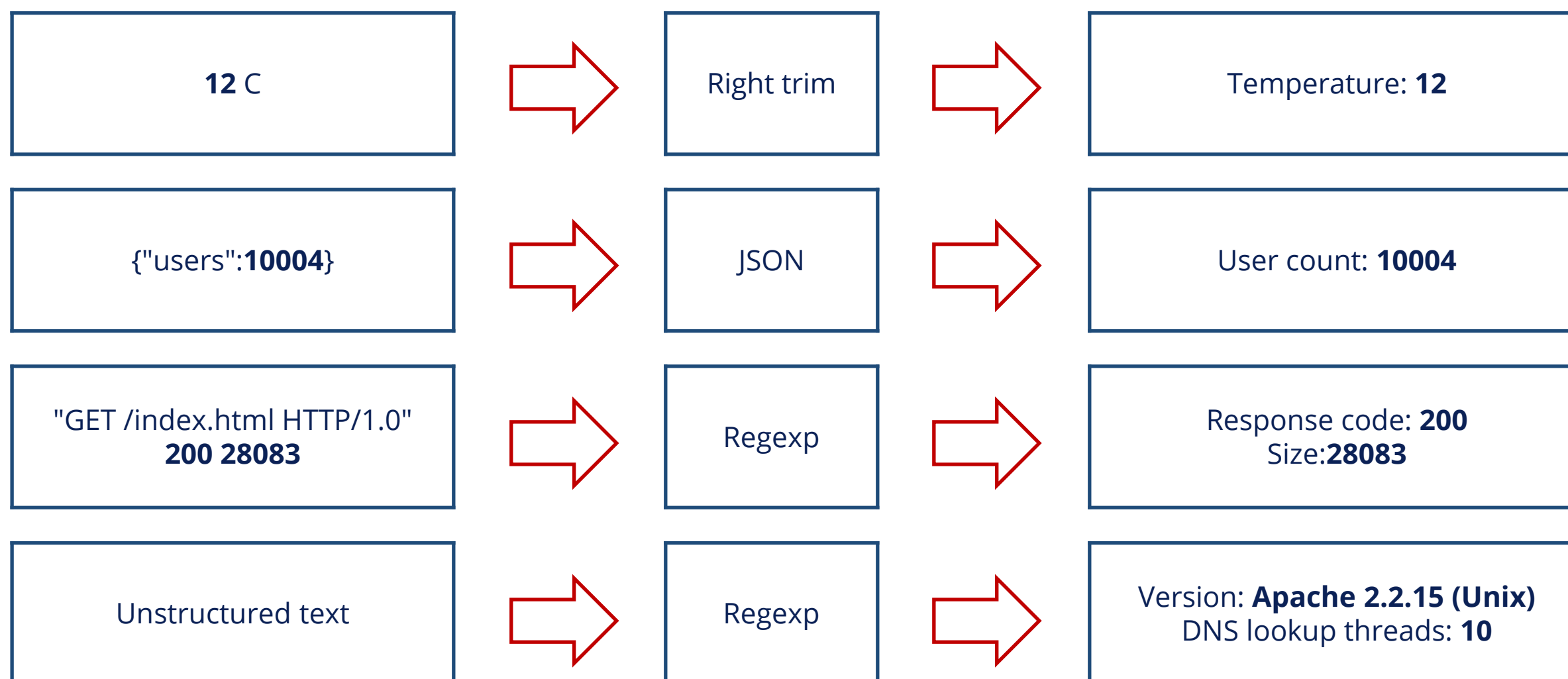
Collect data from thousands of monitored devices:

- ✔ Collect OS level performance and availability metrics
- ✔ Supports polling and sending traps
- ✔ Provides native log monitoring
- ✔ Create your own custom metrics



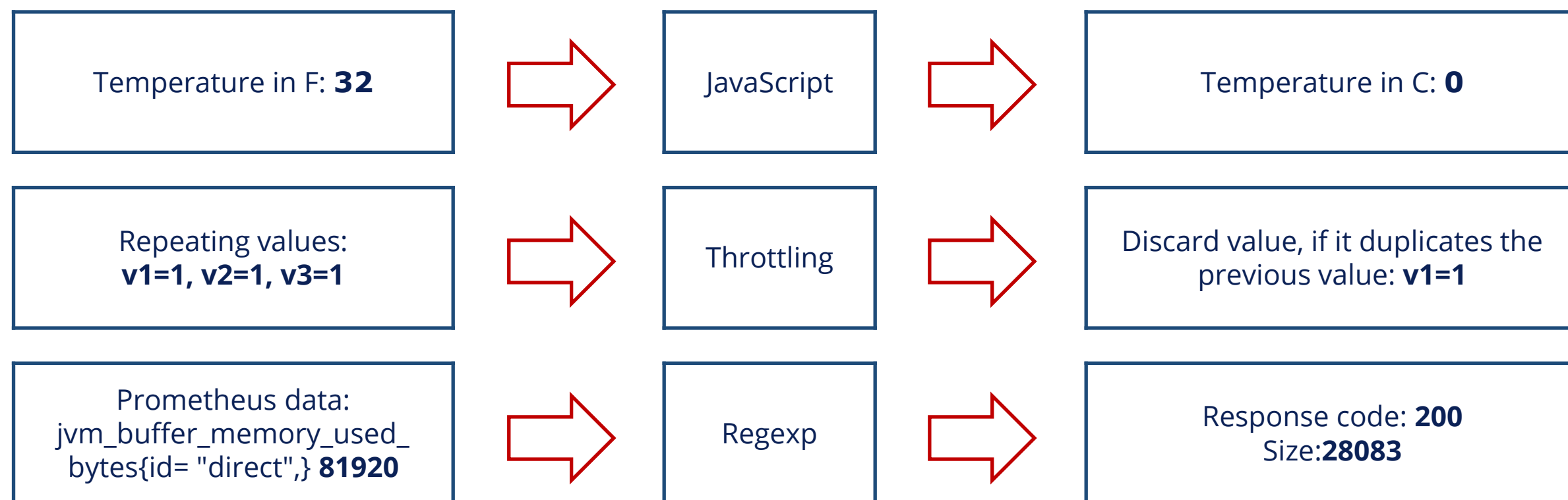
DATA COLLECTION: PREPROCESSING

Zabbix offers a variety of approaches to transform the data before storing it in the database



DATA COLLECTION: PREPROCESSING

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PROBLEM DETECTION

DETECT PROBLEMS FROM THE INCOMING DATA
FLOW AUTOMATICALLY

- ✓ Flexible problem definitions
- ✓ Multiple problem severity levels
- ✓ Correlation/root cause analysis
- ✓ Anomaly detection
- ✓ Baseline monitoring
- ✓ Data trend analysis

Problems by severity

3 Disaster
4 High
26 Average
23 Warning
2 Information
0 Not classified

Problems

Time	Recovery time	Status	Info	Host	Problem • Severity	Duration	Ack	Actions
03:38:00		PROBLEM		Oracle DB 19c	Oracle: Shared pool free is too low (less 5% for 5m)	16h 40m 5s	No	
2021-04-27 17:36:39		PROBLEM		Oracle ODBC 01	Oracle: Port 1521 is unavailable	9d 2h 41m	No	
2021-04-27 17:36:32		PROBLEM		Oracle DB 19c	Oracle: Port 1521 is unavailable	9d 2h 41m	No	
2021-04-27 17:36:31		PROBLEM		Oracle ODBC 03	Oracle: Port 1521 is unavailable	9d 2h 41m	No	
2020-12-07 20:44:01		PROBLEM		Oracle DB 19c	Oracle: Number of REDO logs available for switching is too low (less 3 for 5 min)	4m 29d 22h	No	
2020-11-19 11:39:00		PROBLEM		Oracle ODBC 03	Oracle: Number of REDO logs available for switching is too low (less 3 for 5 min)	5m 18d 7h	No	

PROBLEM DETECTION

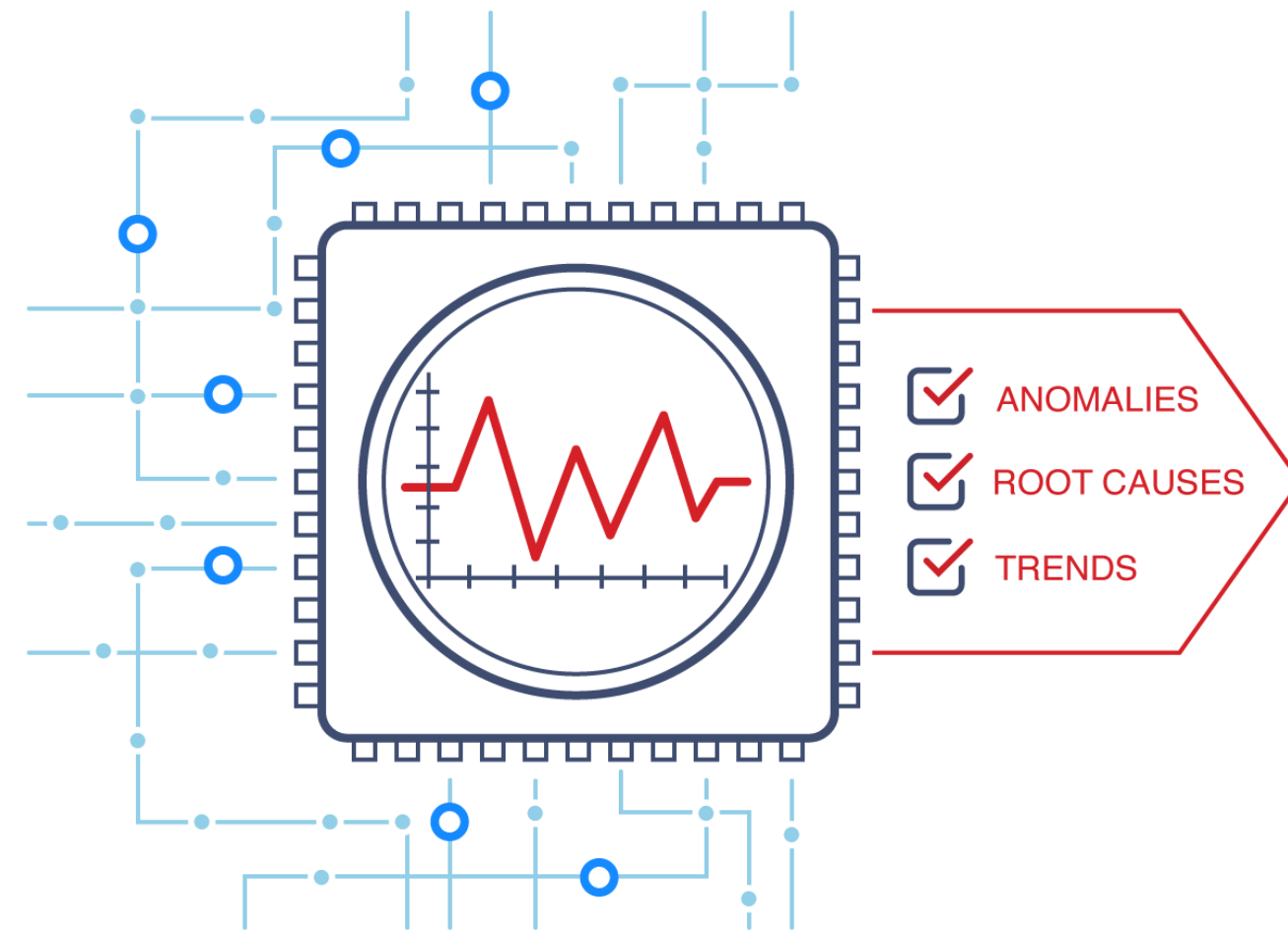
USE TREND PREDICTION TO REACT PROACTIVELY AND PREVENT THE IMPACT OF THE PROBLEM.

- ☑ What is the value of the data item after a certain time?

Example: how much free space will there be on the server in a week's time?

- ☑ When will the value of the data item approach the threshold?

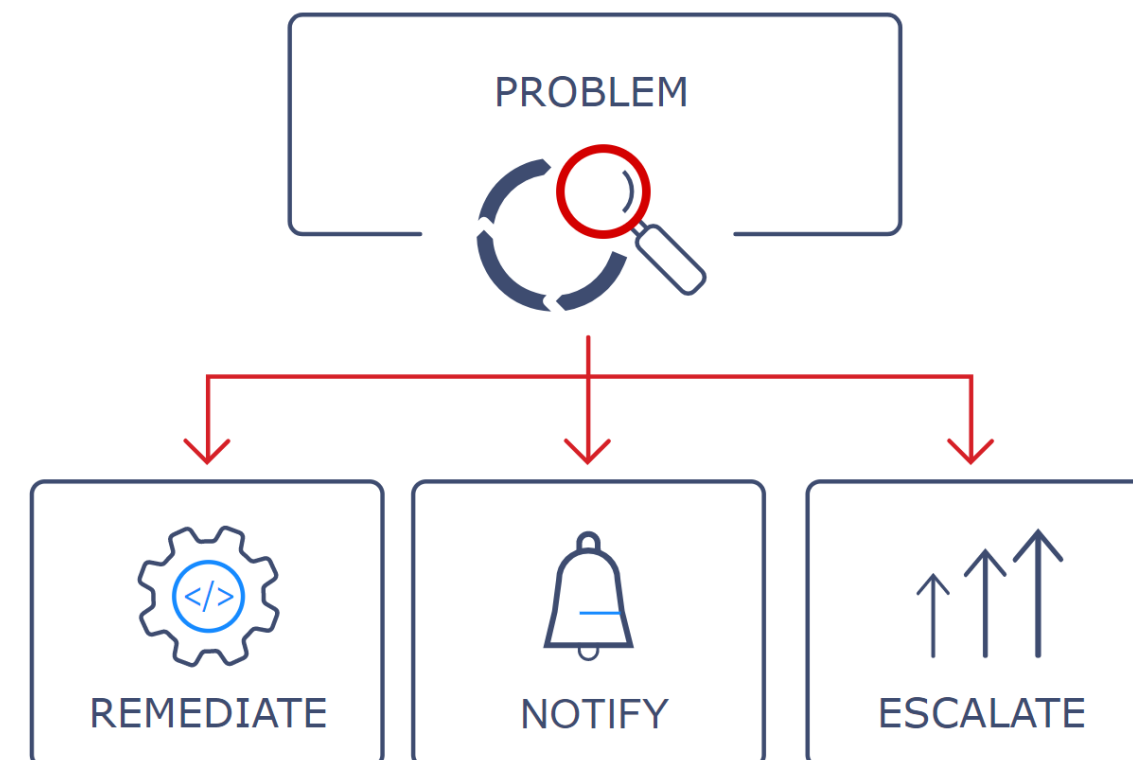
Example: when will the server reach less than 1GB of free space?



ALERTING & NOTIFICATIONS

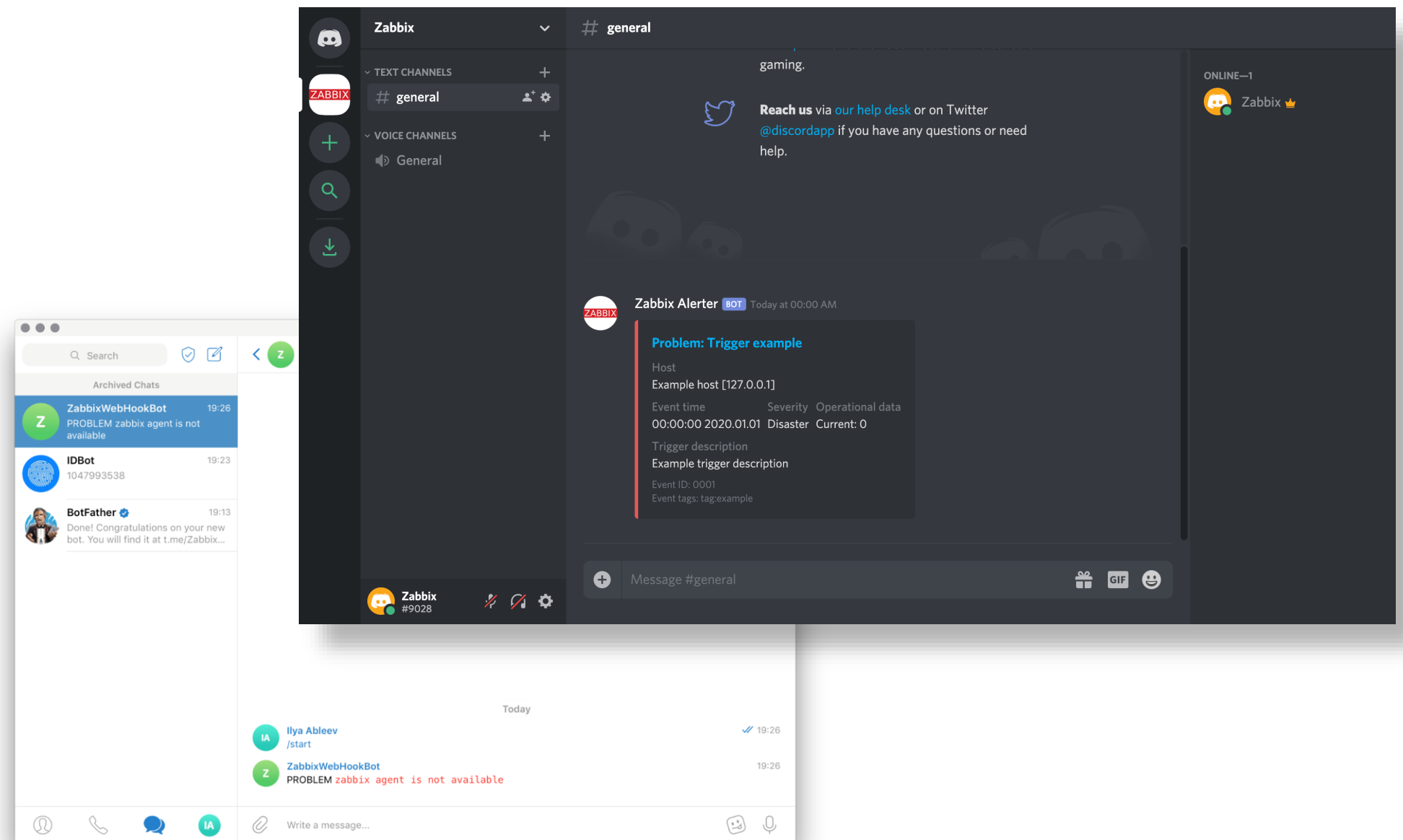
GET NOTIFIED IN CASE OF ANY ISSUES USING DIFFERENT CHANNELS:

- ✓ Send messages via E-mail, SMS, Webhooks
- ✓ Remediate issues automatically by executing commands/scripts on agent or core server
- ✓ Escalate problems according to flexible user-defined Service Levels
- ✓ Customize messages based on recipient's role
- ✓ Customize messages with runtime and inventory information



ITSM AND MESSAGING SYSTEM INTEGRATIONS

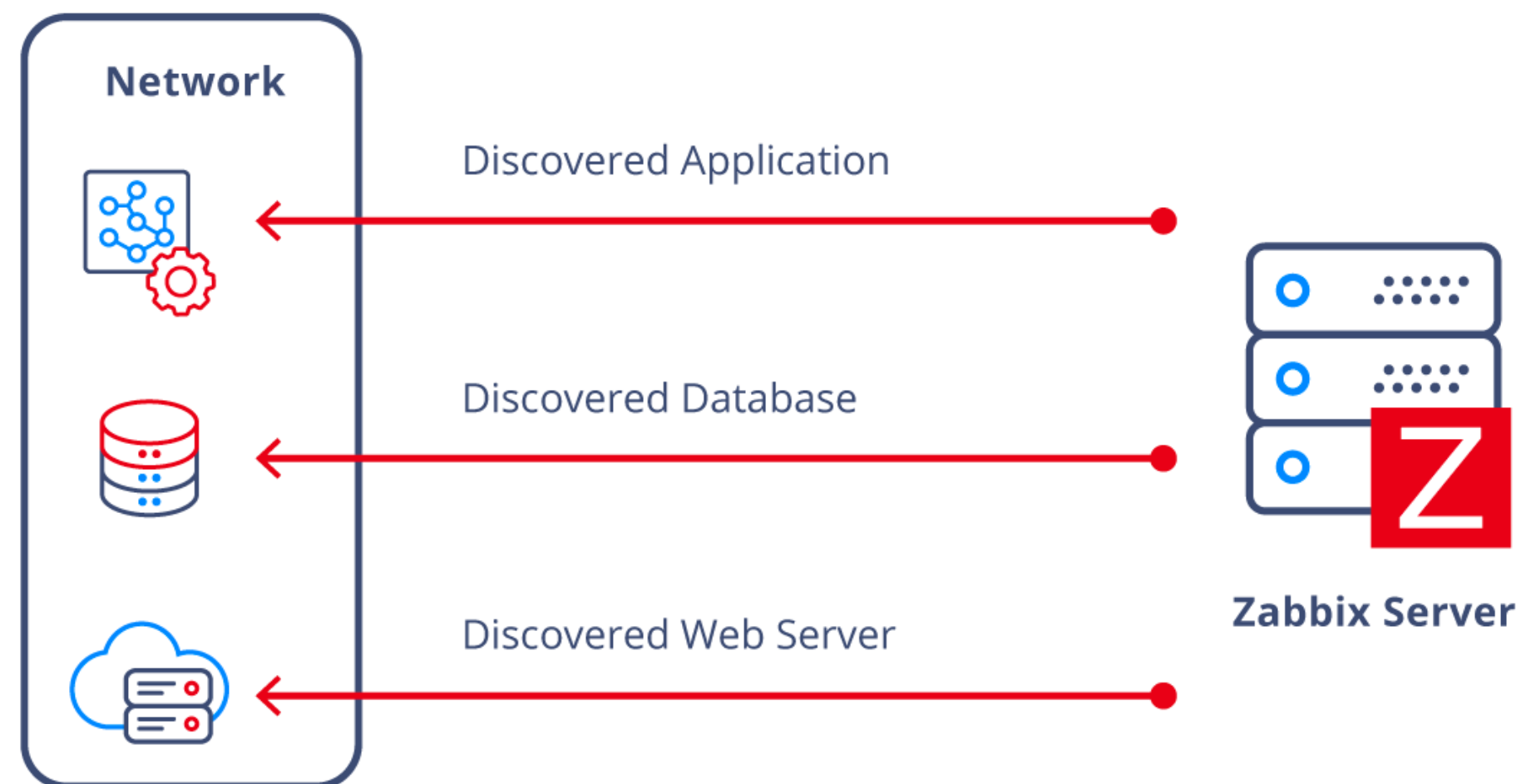
- ✔ JavaScript webhooks are open for customization and sharing
- ✔ Vast selection of official integrations with the option to import custom community integrations
- ✔ Out of the box integrations for solutions such as Jira ServiceDesk, Slack, Opsgenie and many more.



HOST DISCOVERY

NETWORK DISCOVERY:

periodically scans the network to detect changes and performs user specified actions.



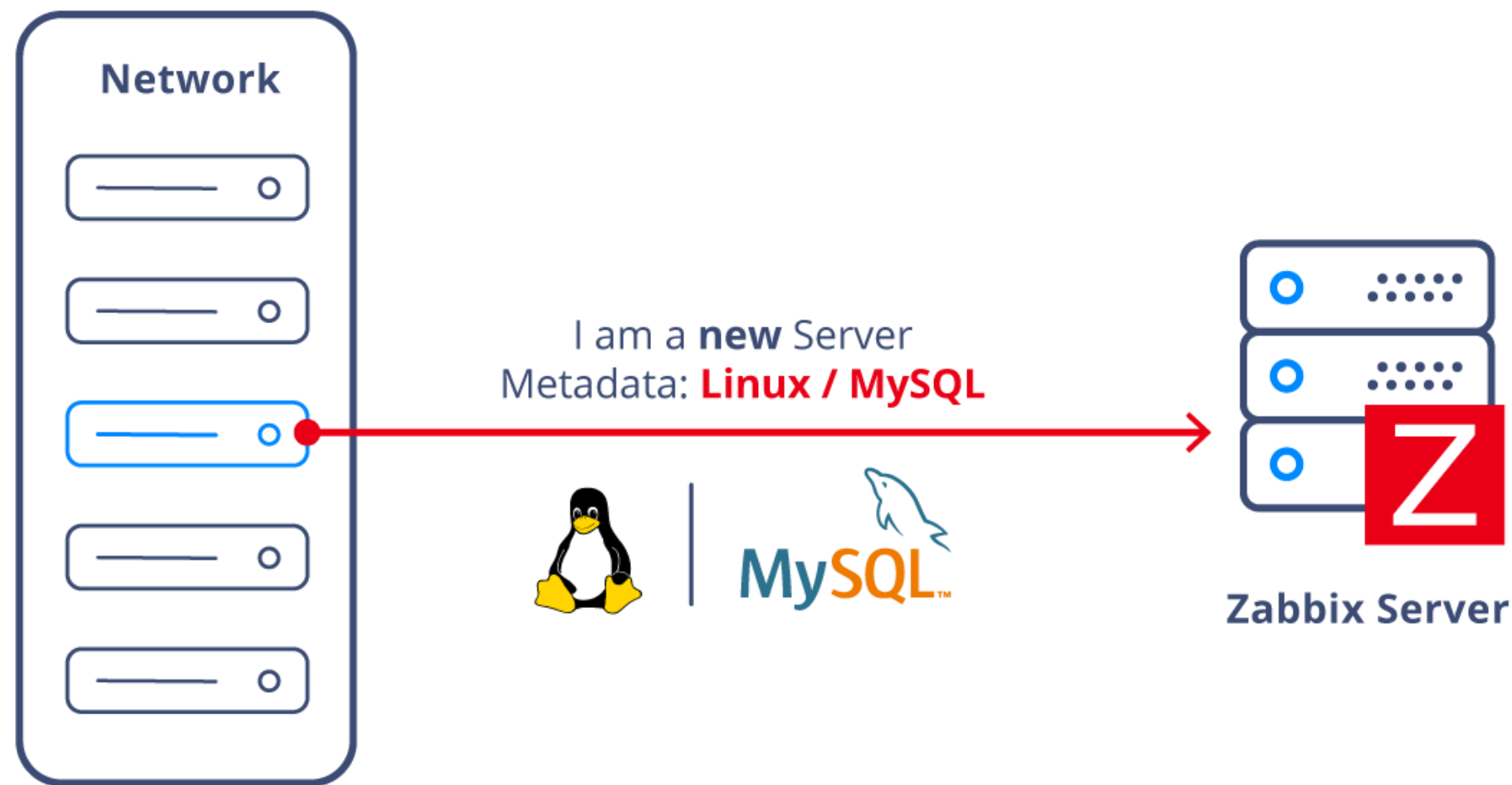
Scan network for new hosts

- ✔ Create a new host in Zabbix
- ✔ Assign host to a host group
- ✔ Assign the corresponding templates
- ✔ Notify a user
- ✔ Execute a script

HOST DISCOVERY

AGENT AUTO-REGISTRATION:

configure automated monitoring of new equipment with Zabbix agents installed. Newly deployed agents will send their metadata to the Zabbix server and an autoregistration request will be received.

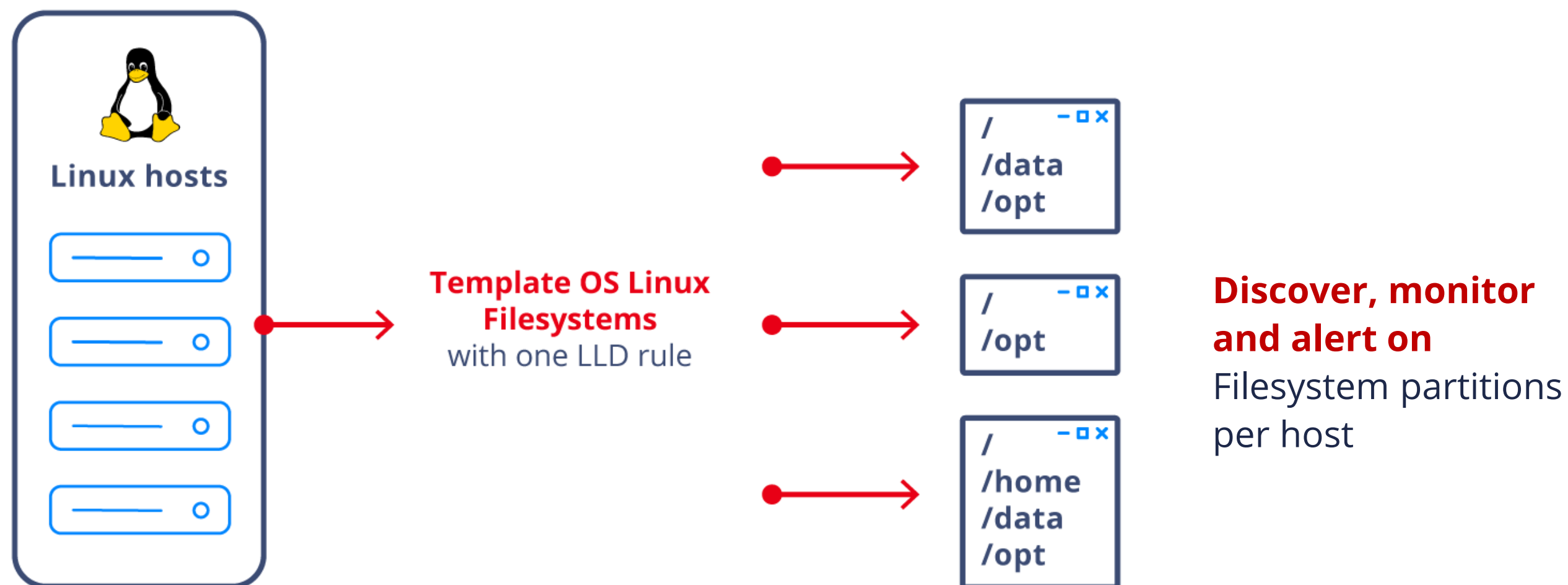


Automate host creation - example

- ✓ New MySQL hosts created and linked to Linux/MySQL templates
- ✓ Assign a host to the DB server host group
- ✓ Notify the DB admin
- ✓ Execute an onboarding script on the host

LOW LEVEL DISCOVERY

Let Zabbix automatically create items, triggers and graphs on your hosts, depending on the host entities

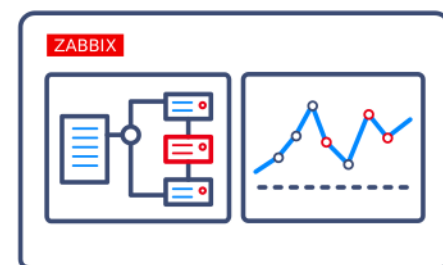


DATA VISUALIZATION

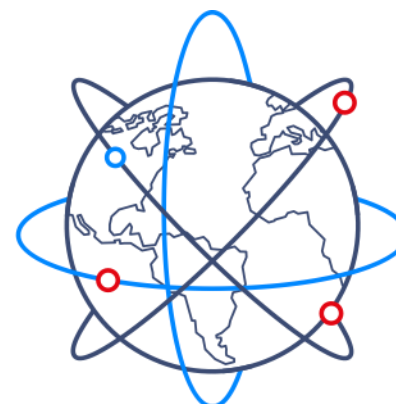
PRESENT YOUR IT ENVIRONMENT ON WEB INTERFACE USING:



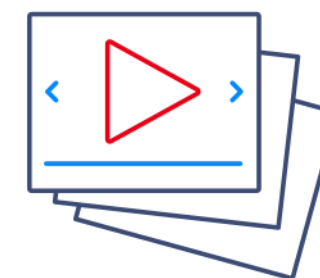
Widget-based
dashboards



Graphs



Network maps



Slideshows



Scheduled
reports



VISUALIZATION: DASHBOARDS

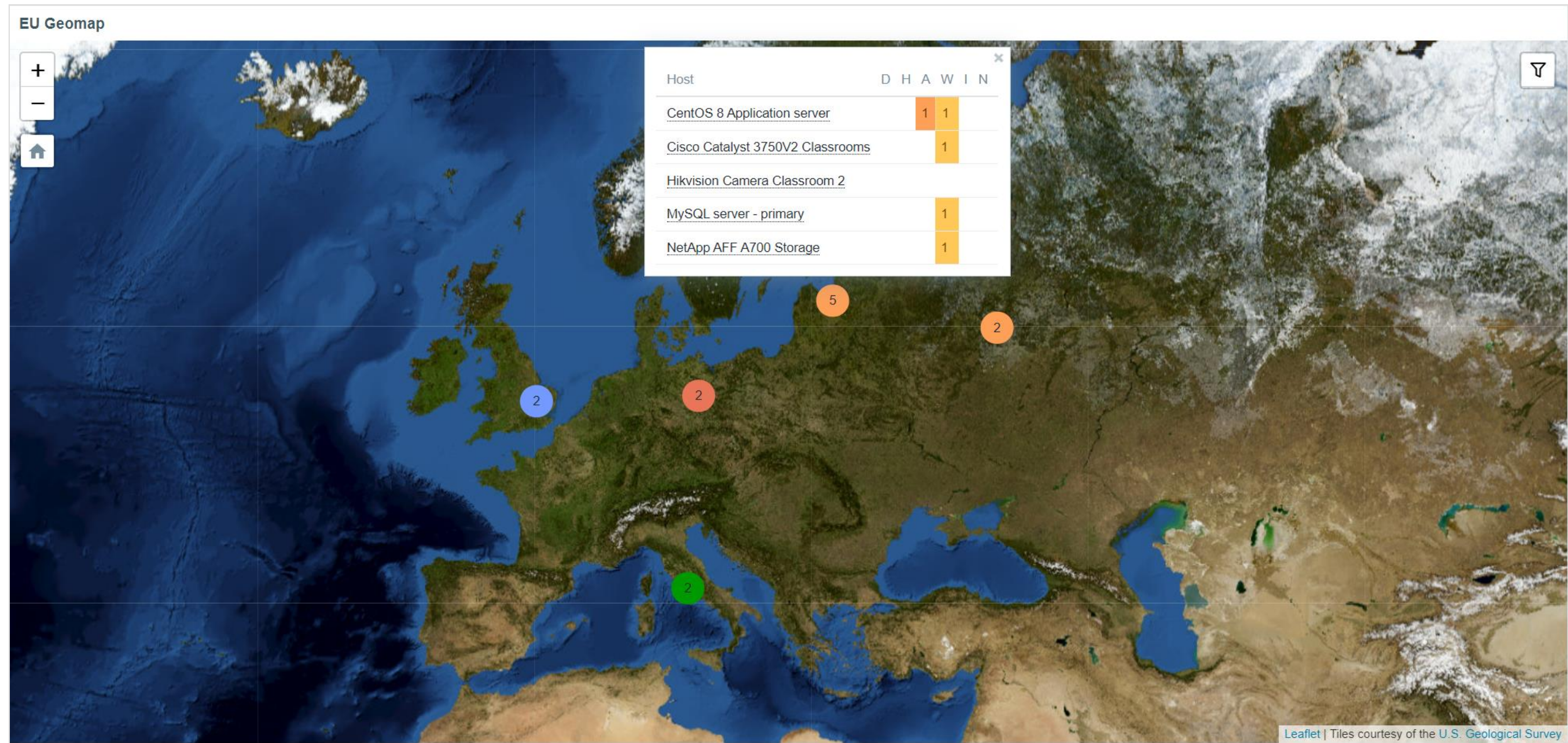
Zabbix Dashboard is a central place in the web frontend that provides personalized details about the monitored environment:

- ✓ Top or bottom hosts sorted by metric
- ✓ Item values
- ✓ Network and geographical maps
- ✓ Graphs
- ✓ Problem lists
- ✓ Host status
- ✓ Status of Zabbix server
- ✓ SLA reports



VISUALIZATION: GEOMAPS

Zabbix geomaps enable Zabbix administrators to view the state of their infrastructure displayed on a geographical map.

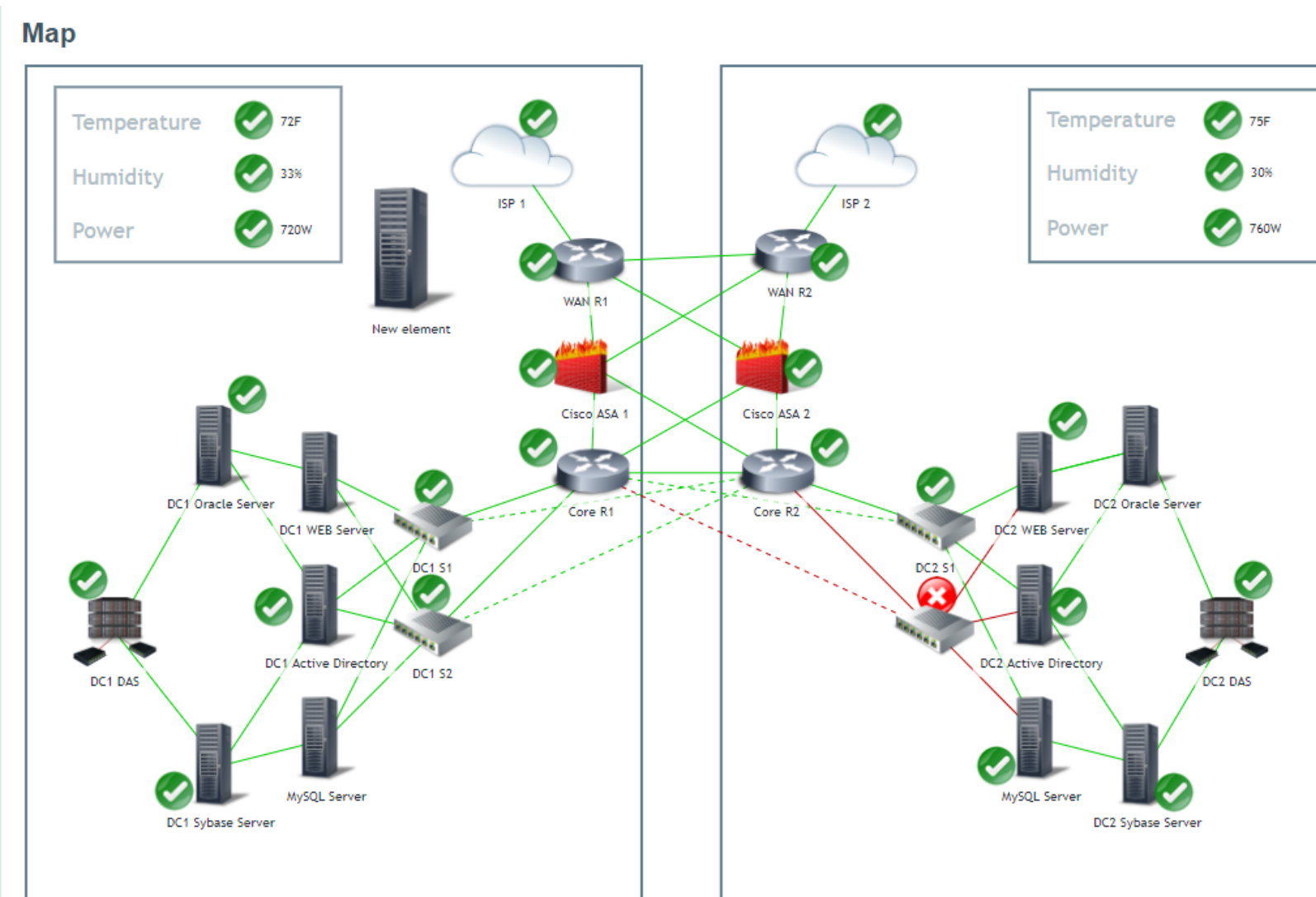


VISUALIZATION: NETWORK MAPS

Create an **interactive** overview of your environment on multiple levels by using **nested maps**. Zabbix maps are capable of **displaying real-time status and values** received by your monitored entities.

Map navigation tree

- ▼ Europe 2 1
- ▼ Overall Network Diagram (++) 2 1
- Network (+)
- Riga 2 1
- Data Centers Overview (+) 1 1
- Vn Industrial CCTV (++)
- Region Map 2 1 1



VISUALIZATION: REPORTS

SCHEDULE AN E-MAIL REPORT BASED ON ANY OF YOUR EXISTING DASHBOARDS

- ☑ Daily/Weekly/Monthly/Yearly reports
- ☑ Select the period for which the data should be provided in the report – previous Day/Week/Month/Year
- ☑ Send reports to individual users or members of a user group
- ☑ Send reports with either the report recipient or report creator permissions
- ☑ Customize report message and subject

<input type="checkbox"/> Name ▲	Owner	Repeats	Period	Last sent
<input type="checkbox"/> Customer ABC management report	Lars	Monthly	Previous month	2021-07-01 09:00
<input type="checkbox"/> Customer ABC report	Lars	Weekly	Previous week	2021-07-30 17:00
<input type="checkbox"/> Customer XYZ management report	Melanie	Daily	Previous month	2021-07-01 09:00
<input type="checkbox"/> Customer XYZ report	Melanie	Weekly	Previous week	2021-07-30 14:00
<input type="checkbox"/> Daily network report	Admin (Zabbix Administrator)	Daily	Previous day	2021-07-30 09:00
<input type="checkbox"/> NOC team report	Admin (Zabbix Administrator)	Daily	Previous day	2021-07-30 09:00

BUSINESS SERVICE MONITORING

With Zabbix you can monitor your business services and receive alerts about business service status change, receive root cause analysis and monitor business service SLAs.

The screenshot displays the Zabbix Business Service Monitoring interface. The main heading is 'Services', with a search icon and a 'Create service' button. The current view is for the 'Online store' service, which is categorized under 'All services / Online store'. The service details include:

- Parent services:
- Status: High
- SLA: Customer website: 99.4007 ?
- Tags: Application: Store, Customer: Local Merc...

Below the details is a table listing the components of the service:

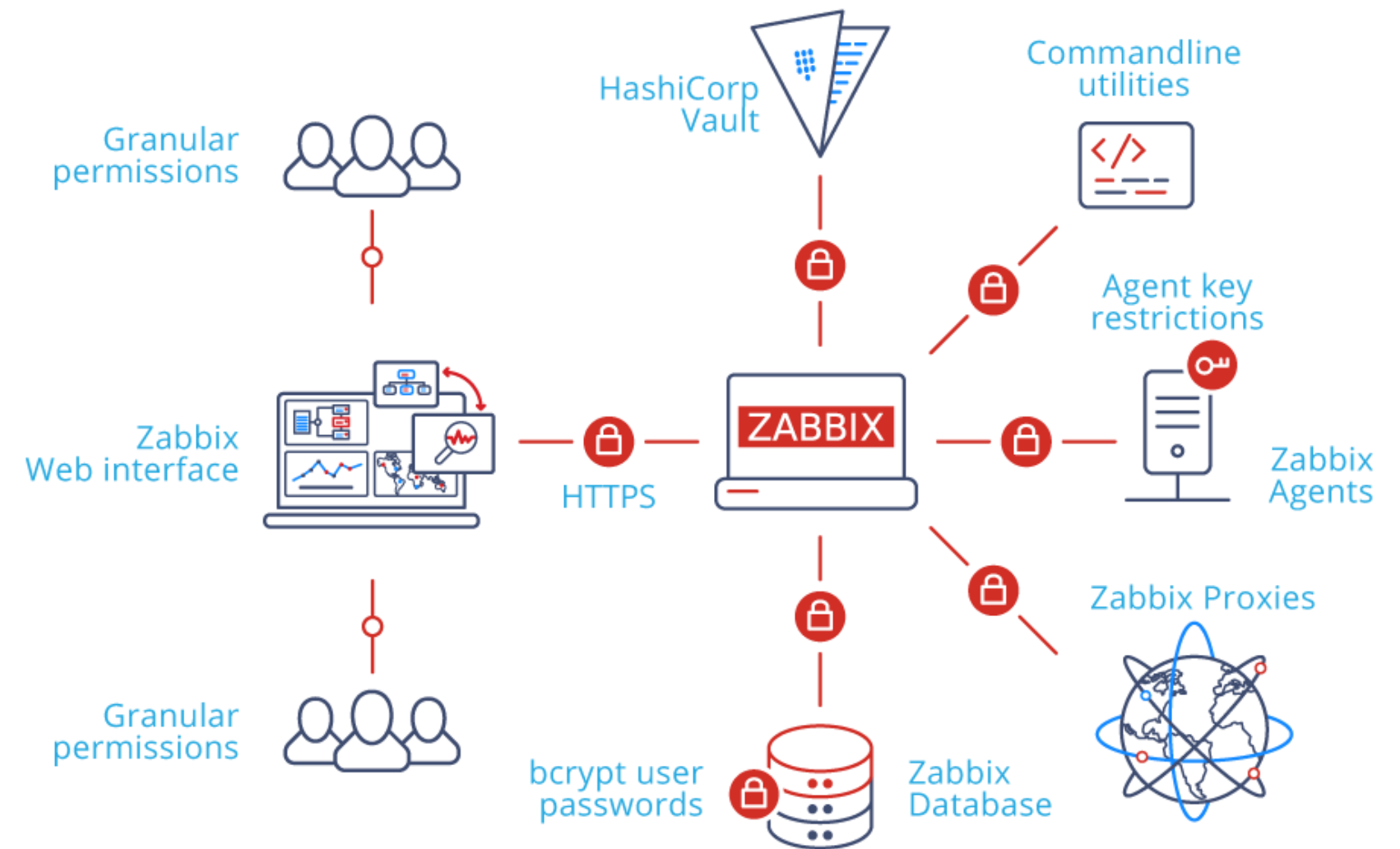
<input type="checkbox"/>	Name	Status	Root cause	Created at	Tags	
<input type="checkbox"/>	Payment service provider	OK		2022-01-27	Application: Payment	+ ↗ ✕
<input type="checkbox"/>	Primary database	OK		2022-01-01	Application: Database	+ ↗ ✕
<input type="checkbox"/>	Secondary database	OK		2022-01-27	Application: Database	+ ↗ ✕
<input type="checkbox"/>	Website	High	Web server is unavailable	2022-01-01	Application: Website	+ ↗ ✕

At the bottom of the table, it says 'Displaying 4 of 4 found'. Below the table are buttons for '0 selected', 'Mass update', and 'Delete'.

SECURITY

Protect your data

- ✔ Strong encryption between all Zabbix components
- ✔ PSK and certificate encryption support
- ✔ TLS v. 1.2 and 1.3 support
- ✔ Option to store all of your sensitive credentials in an external vault
- ✔ Multiple authentication methods: Open LDAP, Active Directory
- ✔ Flexible user permission and role schema
- ✔ Full isolation between user groups and host groups for multi-tenant deployments
- ✔ Zabbix code is open for security audits

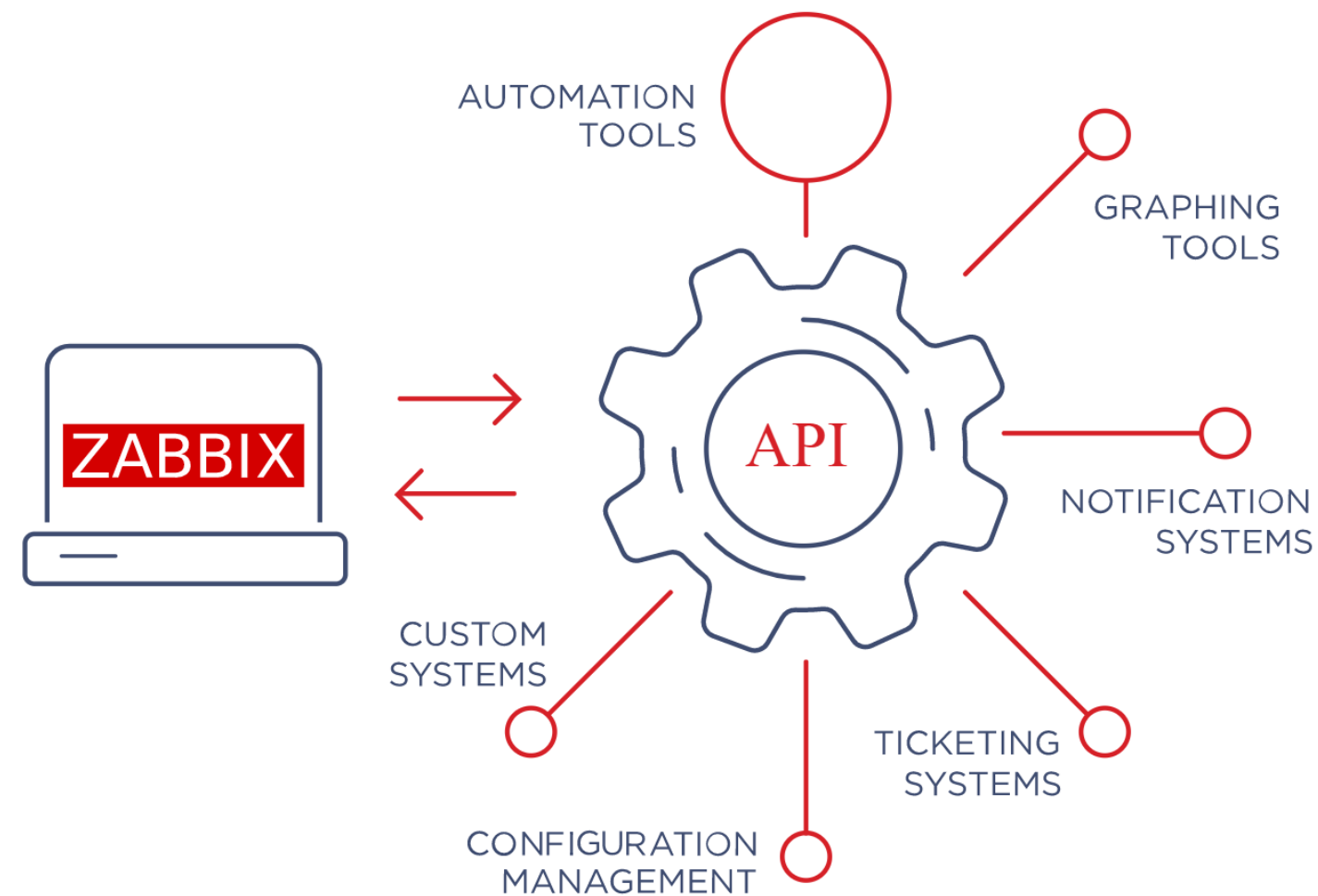


ZABBIX API

Integrate Zabbix with any part of your IT environment

Get access to all Zabbix functionality from external applications through Zabbix API:

- ✓ Uses JSON-RPC 2.0 protocol
- ✓ Requests and responses are encoded using JSON format
- ✓ Automate Zabbix management via API
- ✓ Integrate Zabbix with third party software: Configuration management, ticketing systems
- ✓ Retrieve and manage configuration and historical data



BACKED BY PROFESSIONAL SERVICES

Delivered by Zabbix or Zabbix official partners – regardless of time zone or your preferred language.



Anything from
deployment or migration



to hands-on
Professional Training



24/7 global
technical support

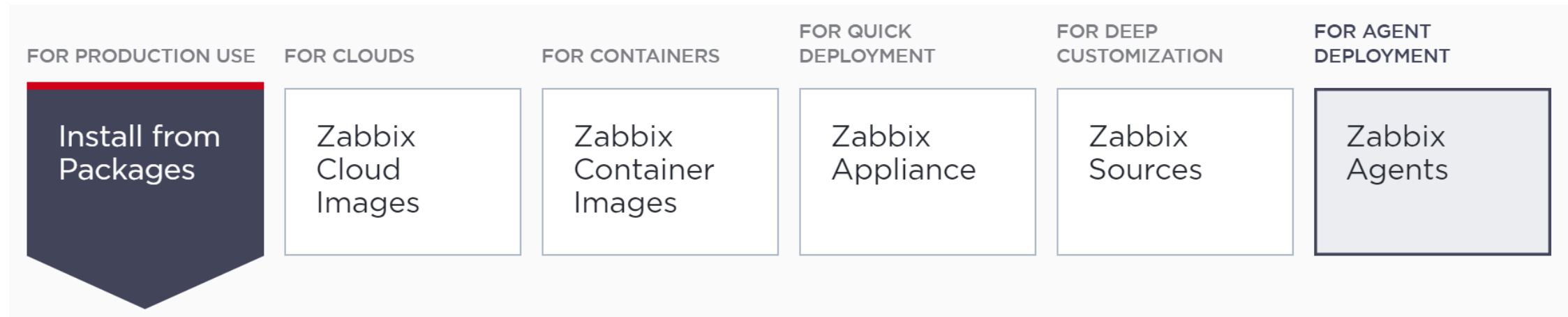


and everything
else Zabbix related



DOWNLOAD & GET STARTED IN 10 MINUTES

- ✓ Choose your platform for Zabbix server



- ✓ Install and configure Zabbix server
- ✓ Configure Zabbix frontend
- ✓ Start using Zabbix

A table showing the supported combinations of Zabbix version, OS distribution, OS version, database, and web server. The table has five columns and four rows. The first row is highlighted in blue. A small '3' icon is in the top right corner of the table area.

ZABBIX VERSION	OS DISTRIBUTION	OS VERSION	DATABASE [?]	WEB SERVER
5.2	Red Hat Enterprise Linux	8	MySQL	Apache
5.0 LTS	CentOS	7	PostgreSQL	NGINX
4.0 LTS	Oracle Linux	6		
3.0 LTS	Ubuntu			
	Debian			
	SUSE Linux Enterprise Server			
	Raspbian			



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THANK YOU!

