Why Zabbix?
Digital transformation journey
DIGITAL TRANSFORMATION CHALLENGES

- Management of legacy and existing systems, mix of older and newer technologies and protocols
- Transition to Hybrid Clouds, K8S and OpenShift
- Scalability and HA
- **Security** plays an increasingly important role
- Budget concerns
Infrastructure monitoring challenges
INFRASTRUCTURE MONITORING CHALLENGES

- Scalability and high availability
- Growing number of devices, networks, increasing complexity
- The Multiple Tools Problem
  - Missing Single Pane of glass
- Getting more value out of collected data
- Centralized visualisation and reporting
- New processes: AIOps
Zabbix is an **Universal** Open Source enterprise-level monitoring solution
All enterprise grade features at no cost!
COST EFFECTIVENESS

- Exceptionally low TCO (Total Cost of Ownership)
- Free and Open Source high quality product
- Backed by reliable vendor and commercial services
- No limits, great scalability
- Free access to all information: documentation, HOWTOs, community resources
- Zabbix engineers are relatively easy to hire
- Cost is fully under control: fixed price support agreements, trainings
Deploy anywhere
Monitor anything

Legacy and modern systems, ready for the future
SOLUTIONS FOR MONITORING

https://zabbix.com/integrations
Security on all levels
Highest security standards
SECURE BY DESIGN

- Vault
- Zabbix UI
- 2FA, SSO
- Pwd complexity
- Auditlog
- HTTPS
- Zabbix Database
- Zabbix Proxies
- Zabbix Agents
- Agent key restrictions, no root access
- Agent key restrictions
# Zabbix Security Advisories and CVE database

## How to report a security issue?

<table>
<thead>
<tr>
<th>Zabbix ID</th>
<th>CVE number</th>
<th>CVSS score</th>
<th>Zabbix severity</th>
<th>Synopsis</th>
<th>Component/s</th>
<th>Affected version/s</th>
<th>Published</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZBV-2022-01-2</td>
<td>CVE-2022-24917</td>
<td>3.7</td>
<td>Low</td>
<td>Reflected XSS in service configuration window of Zabbix Frontend</td>
<td>Frontend</td>
<td>4.0.0 - 4.0.38</td>
<td>2022 Feb 02</td>
</tr>
<tr>
<td>ZBV-2022-01-3</td>
<td>CVE-2022-24918</td>
<td>3.7</td>
<td>Low</td>
<td>Reflected XSS in item configuration window of Zabbix Frontend</td>
<td>Frontend</td>
<td>5.0.0 - 5.0.20</td>
<td>2022 Feb 02</td>
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<td>ZBV-2022-01-4</td>
<td>CVE-2022-24349</td>
<td>4.4</td>
<td>Medium</td>
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<td>Frontend</td>
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<td>2022 Feb 01</td>
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<td>ZBV-2022-01-4</td>
<td>CVE-2022-24919</td>
<td>3.7</td>
<td>Low</td>
<td>Reflected XSS in graph configuration window of Zabbix Frontend</td>
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<td>2022 Feb 01</td>
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<td>ZBV-2021-12-2</td>
<td>CVE-2022-23154</td>
<td>3.7</td>
<td>Low</td>
<td>Provide view of the setup pages by unauthenticated users if config file already exists</td>
<td>Frontend</td>
<td>5.4.0 - 5.4.8</td>
<td>2021 Dec 20</td>
</tr>
</tbody>
</table>

[https://zabbix.com/security_advisories](https://zabbix.com/security_advisories)
GRANULAR CONTROL OF USER PERMISSIONS

- Different parts of UI can be made accessible for different user roles
- Control what user operations are accessible: maintenance, editing of dashboards, etc
- Fine grained control access to API and its methods for extra security
POWERFUL SOLUTION FOR MSP

- Zabbix monitoring as added-value service
- Customer portal, a combination of
  - user roles for read-only access to dashboards and customized UI
  - re-branding options
  - SLA reporting
  - scheduled reports
MACHINE LEARNING AND STATISTICAL ANALYSIS

“Number of new user registrations is down 12% last week”

“Sudden anomaly detected in daily bandwidth usage”

“Unusual weekly CPU usage”
Zabbix 6.0 LTS
Released in 2022
What’s next?
Main vectors

More value for the enterprise

General usability: UX and UI, ease of use
Visualization and reporting
Event and problem handling and processing

Extending scope of monitoring: compliance monitoring, APM, advanced log monitoring, public and hybrid cloud monitoring

Extendability on all levels: trigger functions, storage engines, agent plugins+UI modules+3rd party widgets, webhooks

HA, scalability and load balancing
ZABBIX 6.2, 6.4 AND 7.0 LTS

☑️ External management of users and permissions (AD, SAML)
☑️ End-user synthetic monitoring
☑️ Security and compliance monitoring
☑️ Zabbix for multi-DC scenario
MULTI DC MONITORING

- Centralized event processing from multiple Zabbix Servers
- Centralised dashboard

Local widgets
ZABBIX 6.2, 6.4 AND 7.0 LTS

- Ability to receive events from other systems
- Advanced visualization
- Event correlation engine
- Enterprise alarm console
ADVANCED EVENT CORRELATION ENGINE

- Tag based event pre-processing and correlation
- Event filtering, de-duplication, enrichment
- Noise reduction
- Root cause analysis

Traps  Events  
Logs  Events  
IoT  Events

Root cause analysis
ENTERPRISE ALARM (PROBLEM) CONSOLE

- Noise reduction (hide, suspend, group), hide dependant problems
- Optimised for faster problem resolution and collaborative work

<table>
<thead>
<tr>
<th>Time</th>
<th>Severity</th>
<th>Recovery time</th>
<th>Status</th>
<th>Info</th>
<th>Host</th>
<th>Problem</th>
<th>Duration</th>
<th>Ack</th>
<th>Actions</th>
<th>Tags</th>
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<tbody>
<tr>
<td>2019-05-23 16:37:00</td>
<td>Average</td>
<td></td>
<td></td>
<td></td>
<td>Linux007</td>
<td>Zabbix agent on Linux007 is unreachable for 6 minutes</td>
<td>1yr 4m 18d</td>
<td>No</td>
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<td>Service: Zabbix agent</td>
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<tr>
<td>September</td>
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<td>2019-09-30 12:45:45</td>
<td>Information</td>
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<td>AZ M08</td>
<td>Low CPU utilization on host machines</td>
<td>1yr 9d</td>
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<td>Service: Kubernetes Datacenter: FR2</td>
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<td>AZ M18</td>
<td>Slow query execution time</td>
<td>1yr 9d</td>
<td>No</td>
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<td>Service: AWS Dynamic Datacenter: NY1 Envr: Production</td>
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<tr>
<td>2019-09-30 13:45:45</td>
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<td></td>
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<td>AWS N30</td>
<td>Too many queries per second</td>
<td>1yr 9d</td>
<td>Yes</td>
<td></td>
<td>Service: HTTP balancer Datacenter: NY1 Envr: Production</td>
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<tr>
<td>2019-09-30 13:45:45</td>
<td>Average</td>
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<td>AZ M19</td>
<td>Too many queries per second</td>
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<td>2019-10-01 12:26:11</td>
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<td>AWS N60</td>
<td>Service Redis stopped</td>
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<td>AWS N64</td>
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<td>10:40:11</td>
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<td>Zabbix Server</td>
<td>Too many processes running on Zabbix server</td>
<td>3m 36s</td>
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<td></td>
<td>Service: Zabbix OS: Linux Performance</td>
</tr>
</tbody>
</table>
NEW VISUALIZATION CAPABILITIES

- New extended set of widgets for visualization and reporting
- TopN reporting: capacity planning and more
- Advanced templated (host-level) dashboards
ZABBIX 6.2, 6.4 AND 7.0 LTS

- APM + tracing
- Cloud native: HA, performance and scalability
- Log management

Also:
- Visualization and usability improvements
- Out of the box monitoring and integrations
BE CLOUD-NATIVE

✔️ Zabbix 5.2: HA and load balancing for UI and API

✔️ Scalable history storage

✔️ History API for different time-series backends

✔️ HA and load balancing for Proxies and Servers
ZABBIX RELEASE SCHEDULE

- Zabbix 6.2: Q2, 2022
- Zabbix 6.4: Q4, 2022
- Zabbix 7.0 LTS: Q2, 2023
Thank you!