

**EPAM Systems, RD Dep.****MTN.NIX.Zabbix\_Items**

REVISION HISTORY					
Ver.	Description of Change	Author	Date	Approved	
				Name	Effective Date
1.0	Initial Version	Siarhei Beliakou	23/May/2017		

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## Task. Items

### Task:

Assuming we have 2 servers (VMs) – ZabbixServer and Tomcat,

1. Create item and develop custom trigger for log monitoring (you can use httpd or tomcat logs)

Let's monitor Web App installation.

Give read permissions to other (to zabbix-agentd) to /opt/tomcat/logs/\*

```
root@komarov-zabag:~  
File Edit View Search Terminal Help  
[root@komarov-zabag ~]# chmod 666 /opt/tomcat/logs/*  
[root@komarov-zabag ~]# chmod 777 /opt/tomcat/logs/  
[root@komarov-zabag ~]# ls -lHa /opt/tomcat/logs/  
total 200  
drwxrwxrwx 2 tomcat tomcat 197 Oct 21 13:53 .  
drwxr-xr-x 9 tomcat tomcat 220 Oct 21 13:53 ..  
-rw-rw-rw- 1 tomcat tomcat 91881 Oct 21 15:09 catalina.2019-10-21.log  
-rw-rw-rw- 1 tomcat tomcat 93393 Oct 21 15:09 catalina.out  
-rw-rw-rw- 1 tomcat tomcat 0 Oct 21 13:53 host-manager.2019-10-21.log  
-rw-rw-rw- 1 tomcat tomcat 8543 Oct 21 15:09 localhost.2019-10-21.log  
-rw-rw-rw- 1 tomcat tomcat 1493 Oct 21 13:56 localhost_access_log.2019-10-21.txt  
-rw-rw-rw- 1 tomcat tomcat 0 Oct 21 13:53 manager.2019-10-21.log  
[root@komarov-zabag ~]#
```

and create item:

The screenshot shows the Zabbix web interface for creating a new item. The form is titled "Deployment LOG" and is configured with the following settings:

- Name: Deployment LOG
- Type: Zabbix agent (active)
- Key: log[/opt/tomcat/logs/catalina.out, Deployment]
- Type of information: Log
- Update interval: 30s
- History storage period: Do not keep history
- Storage period: 90d
- Log time format: (empty)
- New application: (empty)
- Applications: (empty)
- Description: (empty)

The "Enabled" checkbox is checked. At the bottom, there are buttons for "Update", "Clone", "Check now", "Clear history and trends", "Delete", and "Cancel".

Let's redeploy TestApp:

```
root@komarov-zabag:~# systemctl stop tomcat
[root@komarov-zabag ~]# ls /opt/tomcat/webapps/
docs examples host-manager manager ROOT TestApp TestApp.war
[root@komarov-zabag ~]# rm -R /opt/tomcat/webapps/work/
[root@komarov-zabag ~]# rm -R /opt/tomcat/webapps/TestApp
rm: descend into directory '/opt/tomcat/webapps/TestApp'? y
rm: descend into directory '/opt/tomcat/webapps/TestApp/META-INF'? ^C
[root@komarov-zabag ~]# rm -R -r /opt/tomcat/webapps/TestApp
rm: descend into directory '/opt/tomcat/webapps/TestApp'? n
[root@komarov-zabag ~]# rm -f -r /opt/tomcat/webapps/TestApp
[root@komarov-zabag ~]# rm /opt/tomcat/webapps/TestApp.war
rm: remove regular file '/opt/tomcat/webapps/TestApp.war'? y
[root@komarov-zabag ~]# ls /opt/tomcat/webapps/
docs examples host-manager manager ROOT
[root@komarov-zabag ~]# cp /vagrant/TestApp.war /opt/tomcat/webapps/
[root@komarov-zabag ~]# ls /opt/tomcat/webapps/
docs examples host-manager manager ROOT TestApp TestApp.war
[root@komarov-zabag ~]# systemctl restart tomcat
[root@komarov-zabag ~]# ls /opt/tomcat/webapps/
docs examples host-manager manager ROOT TestApp TestApp.war
[root@komarov-zabag ~]# tail /opt/tomcat/logs/catalina.out
21-Oct-2019 15:09:34.316 INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [/opt/tomcat/webapps/docs] has finished in [9] ms
21-Oct-2019 15:09:34.316 INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [/opt/tomcat/webapps/examples]
21-Oct-2019 15:09:34.466 INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [/opt/tomcat/webapps/examples] has finished in [149] ms
21-Oct-2019 15:09:34.466 INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [/opt/tomcat/webapps/host-manager]
21-Oct-2019 15:09:34.497 INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [/opt/tomcat/webapps/host-manager] has finished in [31] ms
21-Oct-2019 15:09:34.497 INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [/opt/tomcat/webapps/manager]
21-Oct-2019 15:09:34.515 INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [/opt/tomcat/webapps/manager] has finished in [18] ms
21-Oct-2019 15:09:34.519 INFO [main] org.apache.coyote.AbstractProtocol.start Starting ProtocolHandler ["http-nio-8080"]
21-Oct-2019 15:09:34.526 INFO [main] org.apache.coyote.AbstractProtocol.start Starting ProtocolHandler ["ajp-nio-8009"]
21-Oct-2019 15:09:34.528 INFO [main] org.apache.catalina.startup.Catalina.start Server startup in 619 ms
[root@komarov-zabag ~]# date
Mon Oct 21 15:09:59 UTC 2019
[root@komarov-zabag ~]#
```

and see the result:

The screenshot shows the Zabbix web interface. The top navigation bar includes 'Monitoring', 'Inventory', 'Reports', 'Configuration', and 'Administration'. The 'Latest data' section is active, showing a list of monitored items for the 'Komarov-Zabbix Test agent' host. The items are grouped by category: CPU (15 items), Filesystems (10 items), General (5 items), Memory (5 items), Network interfaces (4 items), OS (8 items), Performance (15 items), Processes (2 items), Security (2 items), and Zabbix agent (3 items). The Zabbix agent section shows the host name, version, and status. The status is 'Up (1)'.

Host	Name	Last check	Last value	Change
Komarov-Zabbix Test agent	CPU (15 items)			
Komarov-Zabbix Test agent	Filesystems (10 items)			
Komarov-Zabbix Test agent	General (5 items)			
Komarov-Zabbix Test agent	Memory (5 items)			
Komarov-Zabbix Test agent	Network interfaces (4 items)			
Komarov-Zabbix Test agent	OS (8 items)			
Komarov-Zabbix Test agent	Performance (15 items)			
Komarov-Zabbix Test agent	Processes (2 items)			
Komarov-Zabbix Test agent	Security (2 items)			
Komarov-Zabbix Test agent	Zabbix agent (3 items)			
	Host name of Zabbix agent running	2019-10-21 17:57:06	192.168.56.227	History
	Version of Zabbix agent running	2019-10-21 17:57:08	4.2.7	History
	Zabbix agent ping	2019-10-21 18:10:07	Up (1)	Graph
Komarov-Zabbix Test agent	- other - (1 item)			
	Deployment LOG	2019-10-21 18:09:56	21-Oct-2019 15:09:34.515 INFO [localhost...	History

Saved: 21-Oct-2019 12:10

The screenshot displays the Zabbix Monitoring interface. The top navigation bar includes links for Monitoring, Inventory, Reports, Configuration, and Administration. The main content area shows the 'Deployment LOG' for the 'Komarov-Zabbix Test agent'. The log table lists various deployment events with columns for Timestamp, Local time, and Value. The log entries show the deployment of web application directories and archives, with completion times in milliseconds.

Timestamp	Local time	Value
2019-10-21 18:09:56	21-Oct-2019 15:09:34.515	INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [/opt/tomcat/webapps/manager] has finished in [18] ms
2019-10-21 18:09:56	21-Oct-2019 15:09:34.497	INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [/opt/tomcat/webapps/host-manager] has finished in [31] ms
2019-10-21 18:09:56	21-Oct-2019 15:09:34.466	INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [/opt/tomcat/webapps/examples] has finished in [149] ms
2019-10-21 18:09:56	21-Oct-2019 15:09:34.316	INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [/opt/tomcat/webapps/docs] has finished in [9] ms
2019-10-21 18:09:56	21-Oct-2019 15:09:34.362	INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [/opt/tomcat/webapps/ROOT] has finished in [20] ms
2019-10-21 18:09:56	21-Oct-2019 15:09:34.281	INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployWAR Deployment of web application archive [/opt/tomcat/webapps/TestApp.war] has finished in [323] ms
2019-10-21 18:08:56	21-Oct-2019 15:09:45.716	INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [/opt/tomcat/webapps/manager] has finished in [15] ms
2019-10-21 18:08:56	21-Oct-2019 15:09:45.701	INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [/opt/tomcat/webapps/host-manager] has finished in [13] ms
2019-10-21 18:08:56	21-Oct-2019 15:09:45.688	INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [/opt/tomcat/webapps/examples] has finished in [156] ms
2019-10-21 18:08:56	21-Oct-2019 15:09:45.532	INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [/opt/tomcat/webapps/docs] has finished in [15] ms
2019-10-21 18:08:56	21-Oct-2019 15:09:45.517	INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [/opt/tomcat/webapps/ROOT] has finished in [16] ms
2019-10-21 18:08:56	21-Oct-2019 15:09:45.500	INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployWAR Deployment of web application archive [/opt/tomcat/webapps/TestApp.war] has finished in [386] ms
2019-10-21 18:08:56	21-Oct-2019 15:09:45.235	INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [/opt/tomcat/webapps/manager] has finished in [17] ms
2019-10-21 18:08:56	21-Oct-2019 15:09:45.218	INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [/opt/tomcat/webapps/host-manager] has finished in [40] ms
2019-10-21 18:08:56	21-Oct-2019 15:09:45.178	INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [/opt/tomcat/webapps/examples] has finished in [114] ms
2019-10-21 18:08:56	21-Oct-2019 15:09:45.061	INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [/opt/tomcat/webapps/docs] has finished in [13] ms

## 1. Create a trigger for errors in log file monitored by that item

### Creating trigger:

The screenshot displays the Zabbix Configuration interface for creating a trigger. The 'Host groups' section shows 'Komarov-Zabbix Test agent' selected. The 'Type' is set to 'all', 'Type of information' is 'all', and 'State' is 'all'. The 'Update interval' is set to '30s'. The 'History' and 'Trends' sections are empty. The 'Template' section shows 'Log' selected. The 'Discovery' section shows 'Regular' selected. The 'WITH TRIGGERS' section shows 'Without triggers' selected. The 'DISCOVERY' section shows 'Regular' selected. The 'HISTORY' section shows '7d 0 3m 1'. The 'INTERVAL' section shows '30s 1m 0 10m 0 1h 0'. The 'Name' field is 'log[/opt/tomcat/logs/catalina.out, Deployment]'. The 'Interval' is '30s', 'History' is '90d', 'Trends' is '30d', 'Type' is 'Zabbix agent (active)', and 'Status' is 'Enabled'. A dropdown menu is open, showing options: 'Create trigger', 'Edit trigger', 'Create dependent item', and 'Create dependent discovery rule'.

Saved: 21-Oct-2019 12:10

The screenshot shows the Zabbix web interface with the 'Triggers' section selected. The trigger configuration is as follows:

- Name:** Deployment\_LOG trigger
- Severity:** High
- Expression:** (192.168.56.227:log[!opt/tomcat/logs/catalina.out, Deployment] diff[1m])=1
- Expression constructor:** Expression
- OK event generation:** Expression
- PROBLEM event generation mode:** Single
- OK event closes:** All problems
- Allow manual close:** ☐
- URL:**
- Description:** (Deployment\_LOG:log[!opt/tomcat/logs/catalina.out, Deployment] diff[1m])=1 & (Deployment\_LOG:log[!opt/tomcat/logs/catalina.out, Deployment] nodata[30])=0
- Enabled:** ☒

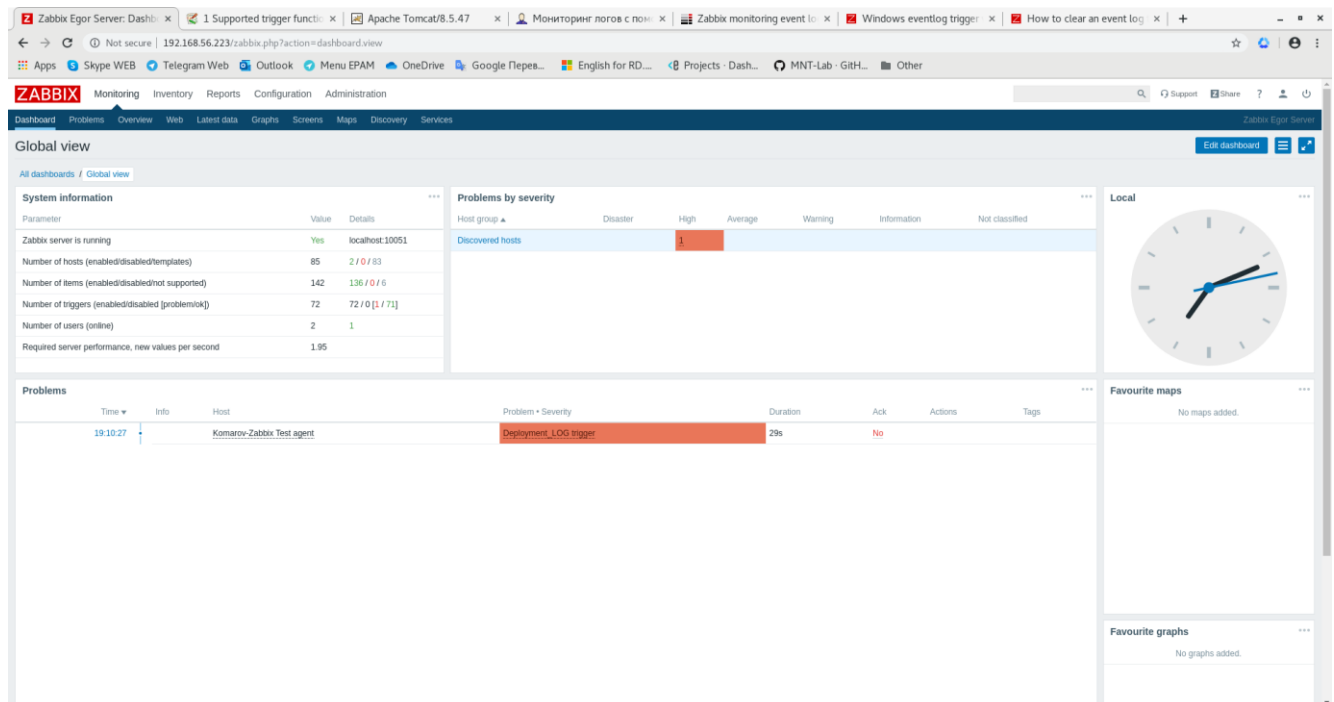
Buttons at the bottom: Update, Close, Delete, Cancel.

## Redeploy app:

```
root@komarov-zabag:~  
File Edit View Search Terminal Help  
  
[root@komarov-zabag ~]# systemctl stop tomcat  
[root@komarov-zabag ~]# rm /opt/tomcat/webapps/TestApp.war  
rm: remove regular file '/opt/tomcat/webapps/TestApp.war'? y  
[root@komarov-zabag ~]# rm -f -r /opt/tomcat/webapps/TestApp  
[root@komarov-zabag ~]# ls -lHa /opt/tomcat/webapps/  
total 4  
drwxr-xr-x 7 tomcat tomcat 81 Oct 21 16:09 .  
drwxr-xr-x 9 tomcat tomcat 220 Oct 21 13:53 ..  
drwxr-xr-x 15 tomcat tomcat 4096 Oct 21 13:53 docs  
drwxr-xr-x 6 tomcat tomcat 83 Oct 21 13:53 examples  
drwxr-xr-x 5 tomcat tomcat 87 Oct 21 13:53 host-manager  
drwxr-xr-x 5 tomcat tomcat 103 Oct 21 13:53 manager  
drwxr-xr-x 3 tomcat tomcat 283 Oct 21 13:53 ROOT  
[root@komarov-zabag ~]# cp /vagrant/TestApp.war /opt/tomcat/webapps/  
[root@komarov-zabag ~]# ls -lHa /opt/tomcat/webapps/  
total 1228  
drwxr-xr-x 7 tomcat tomcat 100 Oct 21 16:09 .  
drwxr-xr-x 9 tomcat tomcat 220 Oct 21 13:53 ..  
drwxr-xr-x 15 tomcat tomcat 4096 Oct 21 13:53 docs  
drwxr-xr-x 6 tomcat tomcat 83 Oct 21 13:53 examples  
drwxr-xr-x 5 tomcat tomcat 87 Oct 21 13:53 host-manager  
drwxr-xr-x 5 tomcat tomcat 103 Oct 21 13:53 manager  
drwxr-xr-x 3 tomcat tomcat 283 Oct 21 13:53 ROOT  
-rw-r--r-- 1 root root 1252172 Oct 21 16:09 TestApp.war  
[root@komarov-zabag ~]# systemctl restart tomcat  
[root@komarov-zabag ~]# ls -lHa /opt/tomcat/webapps/  
total 1228  
drwxr-xr-x 8 tomcat tomcat 115 Oct 21 16:10 .  
drwxr-xr-x 9 tomcat tomcat 220 Oct 21 13:53 ..  
drwxr-xr-x 15 tomcat tomcat 4096 Oct 21 13:53 docs  
drwxr-xr-x 6 tomcat tomcat 83 Oct 21 13:53 examples  
drwxr-xr-x 5 tomcat tomcat 87 Oct 21 13:53 host-manager  
drwxr-xr-x 5 tomcat tomcat 103 Oct 21 13:53 manager  
drwxr-xr-x 3 tomcat tomcat 283 Oct 21 13:53 ROOT  
drwxr-xr-x 7 tomcat tomcat 204 Oct 21 16:10 TestApp  
-rw-r--r-- 1 root root 1252172 Oct 21 16:09 TestApp.war  
[root@komarov-zabag ~]#
```

and see the trigger

Saved: 21-Oct-2019 12:10



Configure:

1. Simple checks:

- Zabbix DB is available (3306)

Configure item:

The screenshot shows the Zabbix item configuration form. The form is for a new item named "Zabbix DB is available (3306)". The configuration details are as follows:

- Name:** Zabbix DB is available (3306)
- Type:** Simple check
- Key:** net.tcp.service[http,3306]
- Host interface:** 192.168.56.223:10050
- User name:**
- Password:**
- Type of information:** Text
- Update interval:** 30s
- Custom intervals:** Flexible, Scheduling, 50s, 1-7:00-00-24:00
- History storage period:** Do not keep history, Storage period, 90d
- New application:** Applications
- Applications:** None, CPU, Filesystems, General, Memory, Network interfaces, OS, Performance, Processes, Security
- Populates host inventory field:** None
- Description:**
- Enabled:** ☒

Buttons at the bottom: Update, Clone, Check now, Clear history and trends, Delete, Cancel.

See the results:

Saved: 21-Oct-2019 12:10

Zabbix 4.2.7 © 2003–2019, Zabbix SIA

Try to down Zabbix DB:

Database error

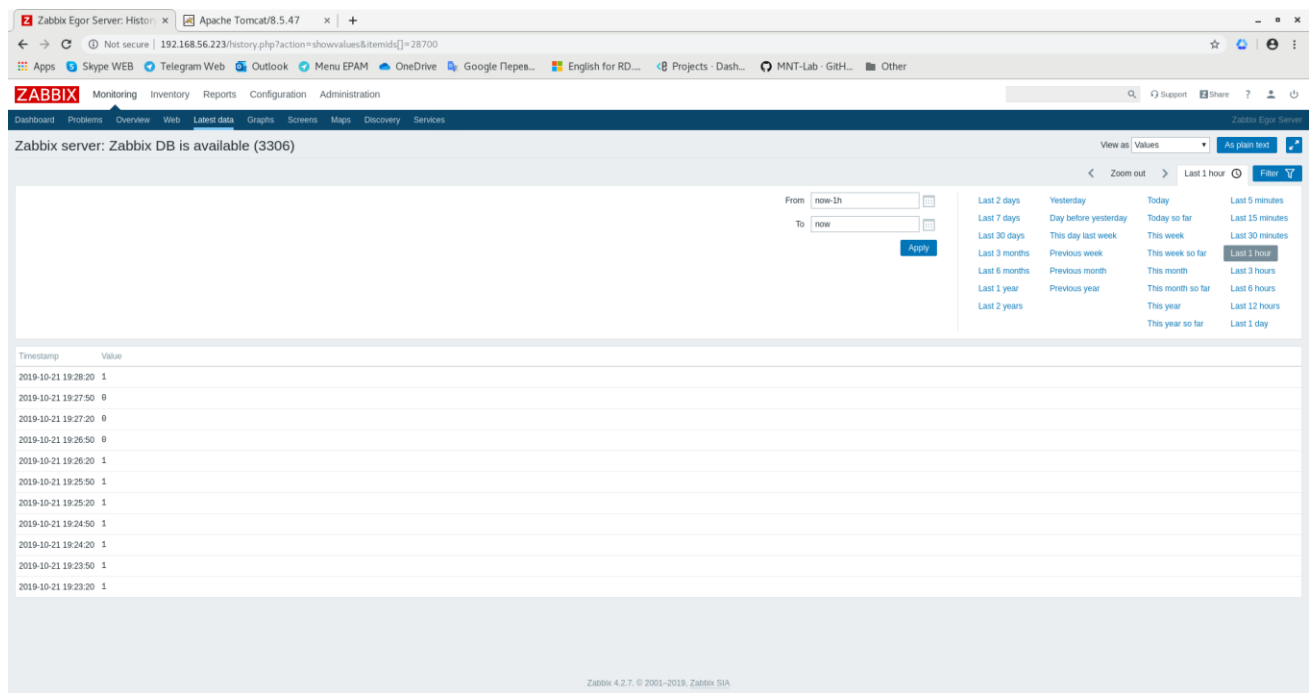
Error connecting to database: Can't connect to local MySQL server through socket '/var/lib/mysql/mysql.sock' (2)

Zabbix server: Zabbix DB is available (3306)

Zabbix 4.2.7 © 2003–2019, Zabbix SIA

and up it again. See the 0 items in Latest data – item works:

Saved: 21-Oct-2019 12:10



## 2. Calculated Checks:

- CPU Load per Core (1, 5, 15min)

### Define Items:

The screenshot displays the 'Define Items' configuration page in the Zabbix web interface. The page includes various configuration options for a new item. The 'Name' field is set to 'CPU load (1 min average per core)'. The 'Type' is set to 'Calculated'. The 'Key' is set to 'system.cpu.load[percpu,avg1]'. The 'Formula' is set to 'last("system.cpu.load[percpu,avg1]")/last("system.cpu.num[1]')'. The 'Type of information' is set to 'Numeric (float)'. The 'Units' field is empty. The 'Update interval' is set to '30s'. The 'Custom intervals' section shows a 'Fileable' interval of '50s' and a 'Scheduling' interval of '1-7,00:00-24:00'. The 'History storage period' is set to 'Do not keep history' with a 'Storage period' of '90d'. The 'Trend storage period' is set to 'Do not keep trends' with a 'Storage period' of '365d'. The 'Show value' is set to 'As is'. The 'New application' field is empty. The 'Applications' dropdown menu is open, showing a list of categories including 'None', 'Filesystems', 'General', 'Memory', 'Network interfaces', 'OS', 'Performance', 'Processes', and 'Security'. The 'Populates host inventory field' is set to 'None'. The 'Description' is set to 'last("system.cpu.load[avg1]")/last("system.cpu.num[1]')'. The 'Preprocessing' tab is selected.



Saved: 21-Oct-2019 12:10

The screenshot shows the Zabbix web interface for configuring a new item. The browser tabs include 'Zabbix Egor Server: Config', 'system.cpu.load and Wind...', '1 Items supported by plat...', 'Test App Main Page', 'zabbix how to calculate cp...', 'Monitoring Per Core - ZAB...', and 'How to Check CPU Usage...'. The address bar shows '192.168.56.223/items.php?form=update&hostid=10263&itemid=28709'. The breadcrumb navigation is 'All hosts / Komarov-Zabbix Test agent / Enabled / Zabbix agent / Applications 10 / Items 53 / Triggers 20 / Graphs 9 / Discovery rules 2 / Web scenarios'. The 'Item' tab is selected, and the 'Preprocessing' sub-tab is active.

The configuration form for the item 'CPU load (5 min average per core)' is as follows:

- Name:** CPU load (5 min average per core)
- Type:** Calculated
- Key:** system.cpu.load[percore.avg5]
- Formula:** last("system.cpu.load[percore.avg5"])/last("system.cpu.num[]")
- Type of information:** Numeric (float)
- Units:**
- Update interval:** 30s
- Custom intervals:** A table with columns 'Type', 'Interval', 'Period', and 'Action'. It contains one row: 'Flexible', 'Scheduling', '50s', '1-7,00:00-24:00', and a 'Remove' button. An 'Add' button is below the table.
- History storage period:** Do not keep history, Storage period: 90d
- Trend storage period:** Do not keep trends, Storage period: 365d
- Show value:** As is, with a 'show value mappings' link.
- New application:** A dropdown menu with 'Applications' selected. The list of applications includes: -None-, CPU, Filesystems, General, Memory, Network interfaces, OS, Autodiscovery, Processes, Security.
- Populates host inventory field:** -None-
- Description:**

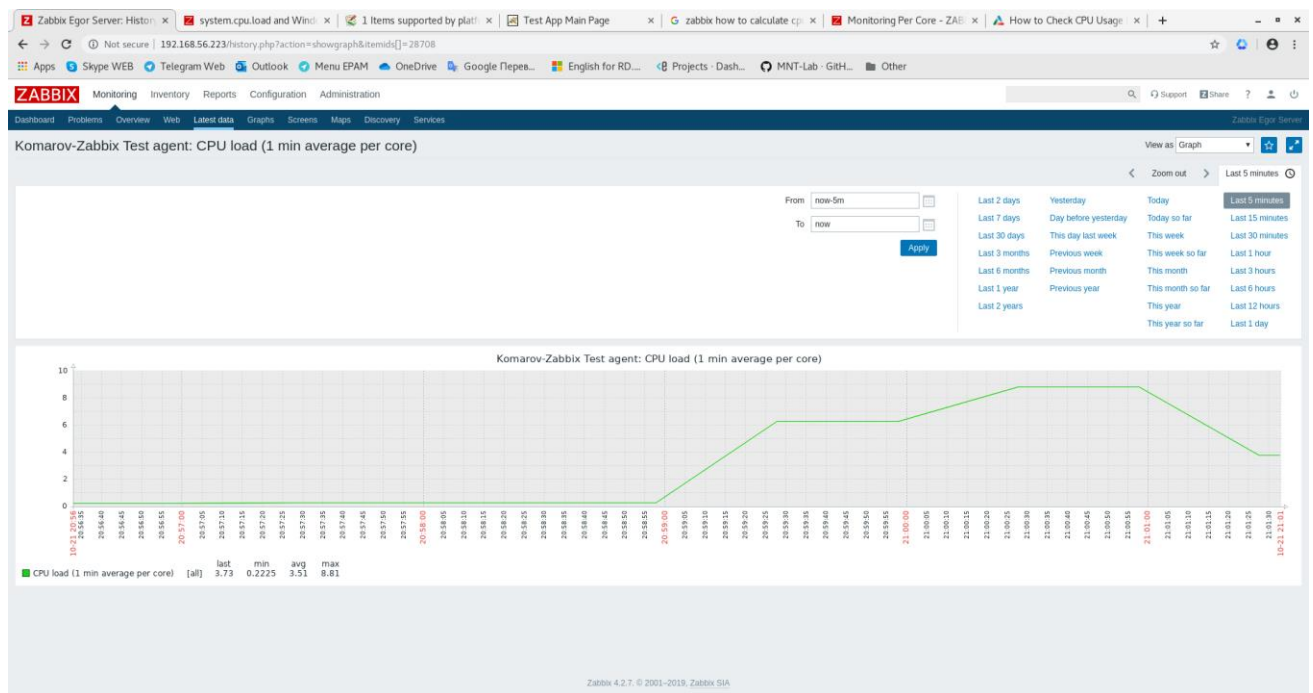
The screenshot shows the Zabbix web interface for configuring a new item. The browser tabs include 'Zabbix Egor Server: Config', 'system.cpu.load and Wind...', '1 Items supported by plat...', 'Test App Main Page', 'zabbix how to calculate cp...', 'Monitoring Per Core - ZAB...', and 'How to Check CPU Usage...'. The address bar shows '192.168.56.223/items.php?form=update&hostid=10263&itemid=28710'. The breadcrumb navigation is 'All hosts / Komarov-Zabbix Test agent / Enabled / Zabbix agent / Applications 10 / Items 53 / Triggers 20 / Graphs 9 / Discovery rules 2 / Web scenarios'. The 'Item' tab is selected, and the 'Preprocessing' sub-tab is active.

The configuration form for the item 'CPU load (15 min average per core)' is as follows:

- Name:** CPU load (15 min average per core)
- Type:** Calculated
- Key:** system.cpu.load[percore.avg15]
- Formula:** last("system.cpu.load[percore.avg15"])/last("system.cpu.num[]")
- Type of information:** Numeric (float)
- Units:**
- Update interval:** 30s
- Custom intervals:** A table with columns 'Type', 'Interval', 'Period', and 'Action'. It contains one row: 'Flexible', 'Scheduling', '50s', '1-7,00:00-24:00', and a 'Remove' button. An 'Add' button is below the table.
- History storage period:** Do not keep history, Storage period: 90d
- Trend storage period:** Do not keep trends, Storage period: 365d
- Show value:** As is, with a 'show value mappings' link.
- New application:** A dropdown menu with 'Applications' selected. The list of applications includes: -None-, CPU, Filesystems, General, Memory, Network interfaces, OS, Autodiscovery, Processes, Security, Zabbix agent.
- Populates host inventory field:** -None-
- Description:** last("system.cpu.load[avg15"])/last("system.cpu.num[]")

See the results in latest data:

Saved: 21-Oct-2019 12:10



- Internal Checks:
  - How many items are enabled

The screenshot shows the Zabbix configuration interface for a new item. The 'Name' field is 'Zabbix Server: Number of Items Enabled'. The 'Type' is 'Zabbix internal'. The 'Key' is 'zabbix[host.items]'. The 'Type of information' is 'Numeric (unsigned)'. The 'Update interval' is '30s'. The 'Custom intervals' section shows a table with columns for Type, Interval, Period, and Action. The 'History storage period' is '90d' and the 'Trend storage period' is '365d'. The 'Show value' is 'As is'. The 'New application' dropdown is open, showing options like -None-, CPU, Filesystems, General, Memory, Network interfaces, OS, Performance, Processes, and Security. The 'Populates host inventory field' is '-None-'. The 'Description' field is empty. The 'Enabled' checkbox is checked. At the bottom, there are buttons for 'Update', 'Clone', 'Check now', 'Clear history and trends', 'Delete', and 'Cancel'.

Duplicate it and see total amount - 96:

Saved: 21-Oct-2019 12:10

0 selected [Display stacked graph](#) [Display graph](#)

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Let's configure trigger to "&lt;96":

PROBLEM event generation mode: [Single](#) [Multiple](#)

OK event closes: [All problems](#) [All problems if tag values match](#)

Allow manual close: ☐

URL:

Description:

Enabled: ☒

[Update](#) [Clone](#) [Delete](#) [Cancel](#)

Zabbix 4.2.7. © 2001–2019, Zabbix SIA

And delete one duplicated item:

The image shows two screenshots of the Zabbix web interface. The top screenshot displays the 'Latest data' section for a host named 'Zabbix server'. It lists various system metrics such as CPU, Filesystems, General, Memory, Network interfaces, OS, Performance, Processes, Security, Zabbix agent, and Zabbix server. The bottom screenshot shows the 'Global view' dashboard, which includes a 'System information' table, a 'Problems by severity' bar chart, a 'Local' clock, and a 'Problems' table listing active issues.

**System information**

Parameter	Value	Details
Zabbix server is running	Yes	localhost:10051
Number of hosts (enabled/disabled/templates)	85	2 / 0 / 83
Number of items (enabled/disabled/not supported)	148	141 / 1 / 6
Number of triggers (enabled/disabled / problem/ok)	73	72 / 1 / 0 / 72
Number of users (online)	2	1
Required server performance, new values per second	2.11	

**Problems by severity**

Host group	Disaster	High	Average	Warning	Information	Not classified
Zabbix servers	0	1	0	0	0	0

**Problems**

Time	Info	Host	Problem - Severity	Duration	Ack	Actions	Tags
21:56:32		Zabbix server	Zabbix server: Enabled items are less than 96	46s	No		

- How many Servers are being monitored

Saved: 21-Oct-2019 12:10

The screenshot displays the Zabbix 4.2.7 web interface. The top navigation bar includes links for Monitoring, Inventory, Reports, Configuration, and Administration. The 'Configuration' section is active, showing the 'Items' page. The left sidebar lists various host groups and templates.

The main content area shows the configuration for a new item named 'Zabbix Server: Number of monitored Hosts'. The configuration includes:

- Name: Zabbix Server: Number of monitored Hosts
- Type: Zabbix internal
- Key: zabbix[hosts]
- Type of information: Numeric (unsigned)
- Units: (empty)
- Update interval: 30s
- Custom intervals: (empty)
- History storage period: Do not keep history
- Trend storage period: Do not keep trends
- Show value: As is
- New application: (empty)
- Applications: (dropdown menu showing options like CPU, Filesystems, Memory, etc.)
- Populates host inventory field: -None-
- Description: (empty)

Below the configuration form, there is a section for 'Hosts' and 'Application' with search filters. The 'Hosts' dropdown is set to 'Zabbix server'. The 'Application' dropdown is set to 'Zabbix server'.

The bottom section shows a list of items for the 'Zabbix server' host. The list includes:

- Host
- Zabbix server (15 items)
- Filesystems (10 items)
- General (7 items)
- Host boot time
- Host local time
- Host name
- System information
- System uptime
- Zabbix Server: Number of Items Enabled
- Zabbix Server: Number of monitored Hosts
- Memory (5 items)
- Network interfaces (4 items)
- OS (8 items)
- Performance (15 items)
- Processes (2 items)
- Security (2 items)
- Zabbix agent (3 items)
- Zabbix server (45 items)
- other - (1 item)
- Zabbix DB is available (3306)

The table shows the last check, last value, and change for each item. For example, the 'Host boot time' item was last checked on 2019-10-21 21:58:13 and has a last value of 2019-10-21 16:48:31.

Let's configure trigger to "&lt;2":

Saved: 21-Oct-2019 12:10

**Triggers**

All hosts / Zabbix server / Enabled / **20x** (192.168.56.223) / Applications 11 / Items 96 / Triggers 54 / Graphs 15 / Discovery rules 2 / Web scenarios

**Trigger** | Tags | Dependencies

\* Name: Zabbix Server: Number of monitored Hosts are less than 2

Severity: Not classified | Information | Warning | Average | **High** | Disaster

\* Problem expression: (192.168.56.223;zabbix[hosts].last())<2

Expression constructor

OK event generation: Expression | Recovery expression | None

\* Recovery expression: (192.168.56.223;zabbix[hosts].last())>=2

Expression constructor

PROBLEM event generation mode: Single | Multiple

OK event closes: All problems | All problems if tag values match

Allow manual close: ☐

URL:

Description:

Enabled: ☒

Update | Clone | Delete | Cancel

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Disable host komarov-zabag and see:

**ZABBIX** Monitoring | Inventory | Reports | Configuration | Administration

Dashboard | Problems | Overview | Web | Latest data | Graphs | Screens | Maps | Discovery | Services

**Global view**

All dashboards / Global view

**System information**

Parameter	Value	Details
Zabbix server is running	Yes	localhost:10051
Number of hosts (enabled/disabled/templates)	85	1 / 3 / 83
Number of items (enabled/disabled/not supported)	349	90 / 53 / 6
Number of triggers (enabled/disabled [problem/ok])	74	53 / 21 [1 / 52]
Number of users (online)	2	1
Required server performance, new values per second	1.42	

**Problems by severity**

Host group	Disaster	High	Average	Warning	Information	Not classified
Zabbix servers		1				

**Problems**

Time	Info	Host	Problem	Severity	Duration	Ack	Actions	Tags
22:07:34		Zabbix server	Zabbix Server: Number of monitored Hosts are less than 2	High	2m 17s	No		

**Local**

**Favourite maps**

No maps added.

**Favourite graphs**

No graphs added.