

EPAM Systems, RD Dep., RD Dep.

MTN.NIX.05.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,  
Configure:

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

The screenshot shows the Zabbix web interface at the URL `192.168.56.101/items.php?form=update&hostid=10263&itemid=28657`. The 'Configuration' tab is active, and the 'Items' section is selected. The configuration form for 'Logging Tomcat' is displayed with the following details:

- Name:** Logging Tomcat
- Type:** Zabbix agent (active)
- Key:** log[/opt/tomcat/logs/catalina.out]
- Type of information:** Log
- Update interval:** 1s
- History storage period:** Do not keep history (selected), Storage period: 90d
- Log time format:** (empty)
- New application:** (empty)
- Applications:** A dropdown menu is open, showing a list of applications including 'Tomcat Logging' which is highlighted.
- Description:** (empty)

The screenshot shows the 'Latest data' view for the item 'zagent: Logging Tomcat' at the URL `192.168.56.101/history.php?action=showvalues&itemids[]=28671`. The view displays a table of log entries with the following columns: Timestamp, Local time, and Value. The table contains 15 rows of log data, including messages about OS Name, Server version, Server built, Server version name, and ProtocolHandler actions.

Timestamp	Local time	Value
2019-10-21 15:49:02	21-Oct-2019 12:48:03.924	INFO [main] org.apache.catalina.startup.VersionLoggerListener.log OS Name: Linux
2019-10-21 15:49:02	21-Oct-2019 12:48:03.924	INFO [main] org.apache.catalina.startup.VersionLoggerListener.log Server version number: 9.0.27.0
2019-10-21 15:49:02	21-Oct-2019 12:48:03.924	INFO [main] org.apache.catalina.startup.VersionLoggerListener.log Server built: Oct 7 2019 09:57:22 UTC
2019-10-21 15:49:02	21-Oct-2019 12:48:03.922	INFO [main] org.apache.catalina.startup.VersionLoggerListener.log Server version name: Apache Tomcat/9.0.27
2019-10-21 15:49:02	21-Oct-2019 12:48:03.548	INFO [Thread-5] org.apache.coyote.AbstractProtocol.destroy Destroying ProtocolHandler ["ajp-nio-8009"]
2019-10-21 15:49:02	21-Oct-2019 12:48:03.546	INFO [Thread-5] org.apache.coyote.AbstractProtocol.destroy Destroying ProtocolHandler ["http-nio-8080"]
2019-10-21 15:49:02	21-Oct-2019 12:48:03.546	INFO [Thread-5] org.apache.coyote.AbstractProtocol.stop Stopping ProtocolHandler ["ajp-nio-8009"]
2019-10-21 15:49:02	21-Oct-2019 12:48:03.544	INFO [Thread-5] org.apache.coyote.AbstractProtocol.stop Stopping ProtocolHandler ["http-nio-8080"]
2019-10-21 15:49:02	21-Oct-2019 12:48:03.526	INFO [Thread-5] org.apache.catalina.core.StandardService.stopInternal Stopping service [Catalina]
2019-10-21 15:49:02	21-Oct-2019 12:48:03.521	INFO [Thread-5] org.apache.coyote.AbstractProtocol.pause Pausing ProtocolHandler ["ajp-nio-8009"]
2019-10-21 15:49:01	21-Oct-2019 12:48:03.513	INFO [Thread-5] org.apache.coyote.AbstractProtocol.pause Pausing ProtocolHandler ["http-nio-8080"]
2019-10-21 15:49:01	21-Oct-2019 12:32:15.426	INFO [main] org.apache.catalina.startup.Catalina.start Server startup in [512] milliseconds
2019-10-21 15:49:01	21-Oct-2019 12:32:15.422	INFO [main] org.apache.coyote.AbstractProtocol.start Starting ProtocolHandler ["ajp-nio-8009"]
2019-10-21 15:49:01	21-Oct-2019 12:32:15.416	INFO [main] org.apache.coyote.AbstractProtocol.start Starting ProtocolHandler ["http-nio-8080"]

192.168.56.101/history.php?action=showvalues&items[]=28671

Dashboard Problems Overview Web Latest data Graphs Screens Maps Discovery Services

### zagent: Logging Tomcat

View as Values As plain text

From now-1h To now Apply

Last 2 days Yesterday Today Last 5 minutes  
 Last 7 days Day before yesterday Today so far Last 15 minutes  
 Last 30 days This day last week This week Last 30 minutes  
 Last 3 months Previous week This week so far Last 1 hour  
 Last 6 months Previous month This month Last 3 hours  
 Last 1 year Previous year This month so far Last 6 hours  
 Last 2 years This year Last 12 hours  
 This year so far Last 1 day

Timestamp	Local time	Value
2019-10-21 15:51:00	21-Oct-2019 12:50:57.740	INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [/opt/tomcat/webapps/manager]
2019-10-21 15:51:00	21-Oct-2019 12:50:57.717	INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [/opt/tomcat/webapps/host-manager]
2019-10-21 15:51:00	21-Oct-2019 12:50:57.529	INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [/opt/tomcat/webapps/examples]
2019-10-21 15:51:00	21-Oct-2019 12:50:57.514	INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [/opt/tomcat/webapps/docs]
2019-10-21 15:51:00	21-Oct-2019 12:50:57.261	INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [/opt/tomcat/webapps/ROOT]

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

192.168.56.101/zabbix.php?action=dashboard.view&ddreset=1

ZABBIX Monitoring Inventory Reports Configuration Administration

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### 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	2 / 0 / 83
Number of items (enabled/disabled/not supported)	125	119 / 0 / 6
Number of triggers (enabled/disabled [problem/ok])	66	66 / 0 [0 / 66]
Number of users (online)	2	1
Required server performance, new values per second	2.66	

#### Problems by severity

Host group	Disaster	High	Average	Warning	Information	Not classified
Virtual machines		1				

#### Local



#### Problems

Time	Info	Host	Problem • Severity	Duration	Ack	Actions	Tags
15:55:29		zagent	Deploying	6s	No		

Time	Recovery time	Status	Duration	Ack	Tags
15:55:29		PROBLEM	6s	No	

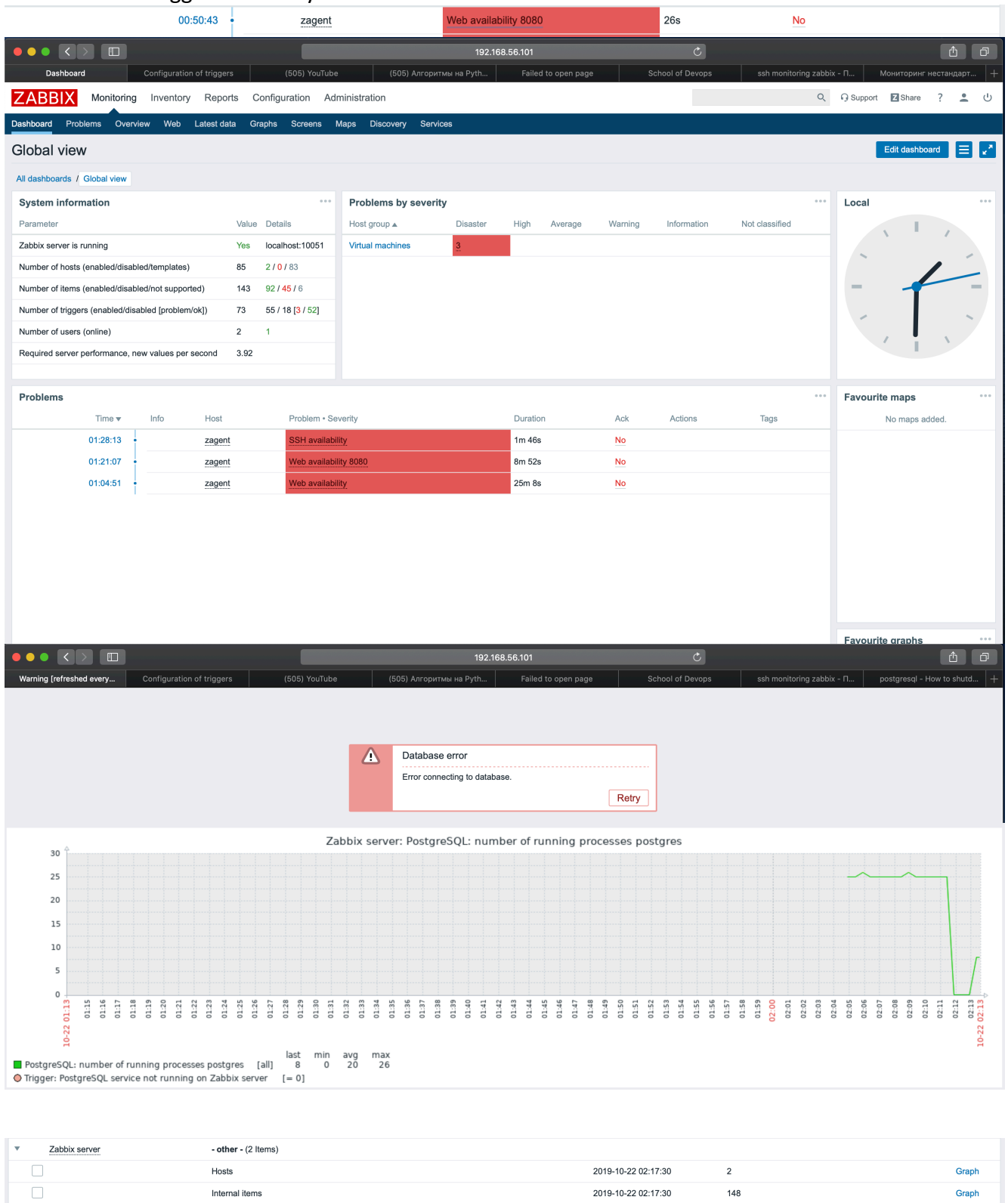
#### Favourite maps

No maps added.

- Simple checks:
  - Zabbix Server WEB availability (80)
  - Zabbix DB is available (3306)
  - Tomcat availability (80, 8080)
  - Tomcat Server is available by ssh (22)
- Calculated Checks:

- CPU Load per Core (1, 5, 15min)
3. Internal Checks:
- How many items are enabled
  - How many Servers are being monitored

Create triggers for every check



<input type="checkbox"/>	Processor load (1 min average per core)	2019-10-22 02:17:16	0.03	+0.02	<a href="#">Graph</a>
<input type="checkbox"/>	Processor load (5 min average per core)	2019-10-22 02:17:17	0.03	+0.005	<a href="#">Graph</a>
<input type="checkbox"/>	Processor load (15 min average per core)	2019-10-22 02:17:15	0.04		<a href="#">Graph</a>