

EPAM Systems, RD Dep., RD Dep.

MTN.NIX.05.Zabbix.WEB

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. Web Monitoring with Zabbix

Testing Infrastructure:

Vagrantfile to spin up 2 VMs (virtualbox):

- zabbix server, provisioned by Vagrant provisioner
- Zabbix agents on both VMs, provisioned by Vagrant provisioner
- Install Tomcat 7 on 2nd VM, deploy any “hello world” application

Tasks:

1. Configure WEB check:
 - Scenario to test Tomcat availability as well as Application health
2. Configure Triggers to alert once WEB resources become unavailable

For both VMs use vagrant box “sbeliakou/centos-7.3-x86_64-minimal”

The screenshot shows the Zabbix web interface at the URL `192.168.56.106/latest.php?hosts[]=10084&application=select=tomcat&show_without_data=1&filter_set=1`. The 'Latest data' section is active, displaying a table of monitoring data for the 'tomcat' application on the 'Zabbix server' host. The table includes columns for Host, Name, Last check, Last value, and Change. The data shows various metrics such as download speed, failed steps, response code, and response time, all with corresponding graphs and history links.

Host	Name	Last check	Last value	Change
Zabbix server	- other - (6 items)			
	Download speed for scenario "Check_tomcat_homepage".	2019-10-20 15:33:34	726.27 KBps	+17.97 KBps
	Download speed for step "Check_tomcat_homepage" of scenario "Check_tomcat_homepage".	2019-10-20 15:33:34	726.27 KBps	+17.97 KBps
	Failed step of scenario "Check_tomcat_homepage".	2019-10-20 15:33:34	0	
	Last error message of scenario "Check_tomcat_homepage".			
	Response code for step "Check_tomcat_homepage" of scenario "Check_tomcat_homepage".	2019-10-20 15:33:34	200	
	Response time for step "Check_tomcat_homepage" of scenario "Check_tomcat_homepage".	2019-10-20 15:33:34	15.1ms	-0.3ms

The screenshot shows the Zabbix web interface at the URL `192.168.56.106/httpconf.php?&hostid=10084`. The 'Web monitoring' section is active, displaying a table of web scenarios. The table includes columns for Name, Number of steps, Interval, Attempts, Authentication, HTTP proxy, Application, Status, and Info. The data shows a single scenario named 'Check_tomcat_homepage' with 1 step, an interval of 15s, 1 attempt, and a status of 'Enabled'.

Name	Number of steps	Interval	Attempts	Authentication	HTTP proxy	Application	Status	Info
Check_tomcat_homepage	1	15s	1	None	Yes		Enabled	

Zabbix server: Latest data [refreshed every 30 sec] - Mozilla Firefox

192.168.56.106/latest.php?ddreset=1

ZABBIX Monitoring Inventory Reports Configuration Administration

Dashboard Problems Overview Web Latest data Graphs Screens Maps Discovery Services

Latest data

Host groups: type here to search Select Name: tomcat

Hosts: Zabbix server X type here to search Select Show items without data: ☒ Show details: ☐

Application: type here to search Select

Apply Reset

Host	Name	Last check	Last value	Change
Zabbix server	- other - (6 items)			
	Download speed for scenario "Check_tomcat_TestApp".	2019-10-20 15:39:50	107.84 KBps	-1.18 MBps Graph
	Download speed for step "Check_tomcat_app" of scenario "Check_tomcat_TestApp".	2019-10-20 15:39:50	107.84 KBps	-1.18 MBps Graph
	Failed step of scenario "Check_tomcat_TestApp".	2019-10-20 15:39:50	0	Graph
	Last error message of scenario "Check_tomcat_TestApp".			History
	Response code for step "Check_tomcat_app" of scenario "Check_tomcat_TestApp".	2019-10-20 15:39:50	200	Graph
	Response time for step "Check_tomcat_app" of scenario "Check_tomcat_TestApp".	2019-10-20 15:39:50	7.6ms	-0.7ms Graph

Zabbix server: Configuration of web monitoring - Mozilla Firefox

192.168.56.106/httpconf.php?form=update&hostid=10084&httpstid=1

ZABBIX Monitoring Inventory Reports Configuration Administration

Host groups Templates Hosts Maintenance Actions Event correlation Discovery Services

Web monitoring

All hosts / Zabbix server Enabled ZBX SNMP JMX IPMI Applications 13 Items 96 Triggers 49 Graphs 17 Discovery rules 3 Web scenarios 1

Scenario Steps Authentication

Steps

Name	Timeout	URL	Required	Status codes	Action
1. Check_tomcat_app	15s	http://192.168.56.107:8080/TestApp/			Remove

Add

Update Clone Clear history and trends Delete Cancel

Zabbix server: Configuration

EPAM Cloud and DevOps X Zabbix server: Configur X Test App Main Page X 9. Веб-мониторинг [Zab X 5 Простые проверки [Z X

192.168.56.106/items.php?form=update&hostid=10084&itemid=30156

ZABBIX Monitoring Inventory Reports Configuration Administration

Host groups Templates Hosts Maintenance Actions Event correlation Discovery Services

Items

All hosts / Zabbix server Enabled ZBX SNMP JMX IPMI Applications 13 Items 97 Triggers 49 Graphs 17 Discovery rules 3 Web scenarios 1

Item Preprocessing

Name: Tomcat_server_connection

Type: Simple check

Key: net.tcp.service[http.192.168.56.107:8080] Select

Host interface: 127.0.0.1 : 10050

User name:

Password:

Type of information: Numeric (unsigned)

Units:

Update interval: 15s

Custom intervals

Type	Interval	Period	Action
Flexible Scheduling	50s	1-7,00:00-24:00	Remove

Add

History storage period: Do not keep history Storage period: 90d

Trend storage period: Do not keep trends Storage period: 365d

Show value: As is show value mappings

Zabbix server: Latest data [refreshed every 30 sec] - Mozilla Firefox

192.168.56.106/latest.php?ddreset=1

ZABBIX Monitoring Inventory Reports Configuration Administration

Dashboard Problems Overview Web Latest data Graphs Screens Maps Discovery Services

Latest data

Host groups: type here to search Select Name: tomcat

Hosts: Zabbix server Select Show items without data: ☒

Application: type here to search Select Show details: ☐

Apply Reset

Host	Name	Last check	Last value	Change
Zabbix server	- other - (7 items)			
	Download speed for scenario "Check_tomcat_TestApp".	2019-10-20 15:53:22	86.07 KBps	-211.15 KBps Graph
	Download speed for step "Check_tomcat_app" of scenario "Check_tomcat_TestApp".	2019-10-20 15:53:22	86.07 KBps	-211.15 KBps Graph
	Failed step of scenario "Check_tomcat_TestApp".	2019-10-20 15:53:22	0	Graph
	Last error message of scenario "Check_tomcat_TestApp".			History
	Response code for step "Check_tomcat_app" of scenario "Check_tomcat_TestApp".	2019-10-20 15:53:22	200	Graph
	Response time for step "Check_tomcat_app" of scenario "Check_tomcat_TestApp".	2019-10-20 15:53:22	9.5ms	+6.7ms Graph
	Tomcat_server_connection	2019-10-20 15:53:17	1	Graph

Zabbix server: Configuration of triggers - Mozilla Firefox

192.168.56.106/triggers.php?form=update&triggerid=16593

ZABBIX Monitoring Inventory Reports Configuration Administration

Host groups Templates Hosts Maintenance Actions Event correlation Discovery Services

Triggers

All hosts / Zabbix server Enabled 250 SMP JMX IPMI Applications 17 Items 121 Triggers 64 Graphs 21 Discovery rules 3 Web scenarios 1

Trigger Tags Dependencies

Name: TomcatNo_connection

Operational data:

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

Expression: `{Zabbix server:net.tcp.service[http,192.168.56.107,8080].prev()}=0 or {Zabbix server:web.test.rspcode[Check_tomcat_TestApp,Check_tomcat_app].last(#3)}>300` Add

Expression constructor

OK event generation: Expression Recovery expression None

PROBLEM event generation mode: Single Multiple

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

Zabbix server: Problems - Mozilla Firefox

192.168.56.106/zabbix.php?action=problem.view&ddreset=1

ZABBIX Monitoring Inventory Reports Configuration Administration

Dashboard Problems Overview Web Latest data Graphs Screens Maps Discovery Services

Problems

Export to CSV

Show: Recent problems Problems History

Host groups: type here to search Select

Hosts: type here to search Select

Application: type here to search Select

Triggers: type here to search Select

Problem: type here to search Select

Minimum severity: Not classified

Age less than: 14 days

Host inventory: Type Add Remove

Tags: AndOr Or tag Contains Equals value Add Remove

Show tags: None 1 2 3 Tag name Full Shortened None

Tag display priority: comma-separated list

Show operational data: None Separately With problem name

Show suppressed problems: ☐ Show unacknowledged only: ☐

Compact view: ☐ Show timeline: ☒

Show details: ☐ Highlight whole row: ☐

Apply Reset

Time	Severity	Recovery time	Status	Info	Host	Problem	Duration	Ack	Actions	Tags
19:02:41	High		PROBLEM		Zabbix server	TomcatNo_connection	43s	No		

Displaying 1 of 1 found