

EPAM Systems, RD Dep., RD Dep.

MTN.NIX.05.Zabbix.Java

| 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. Java Monitoring with Java

Task:

You should install and configure Zabbix server and agents.

Testing Infrastructure:

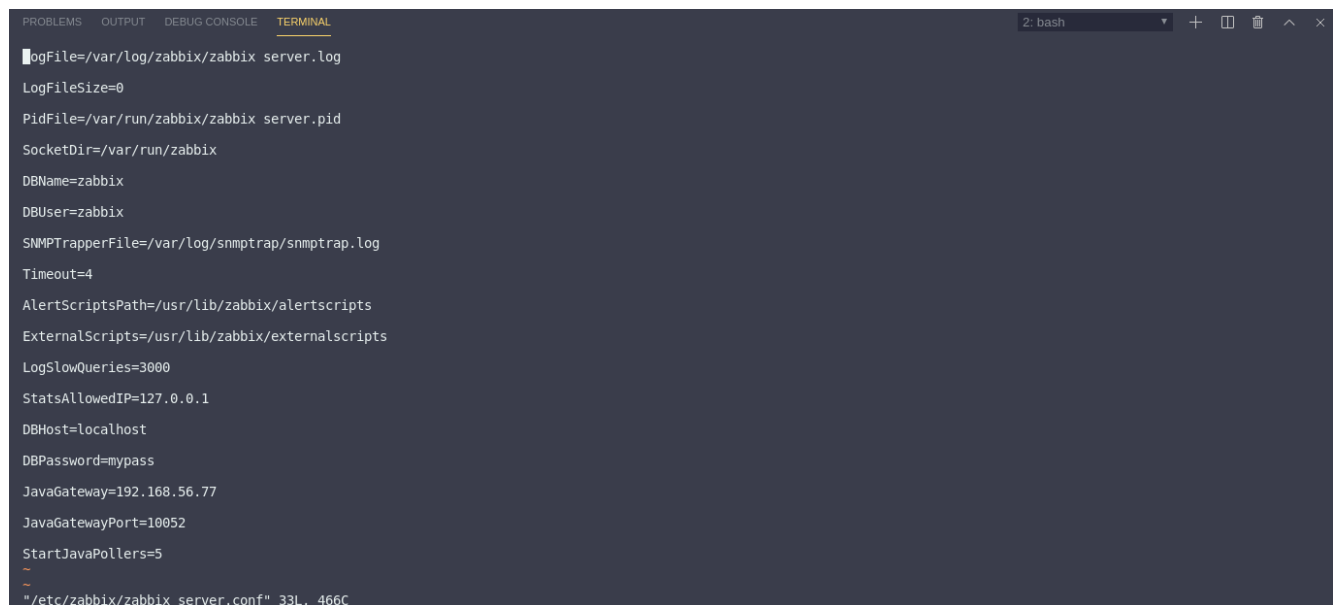
Vagrantfile to spin up 2 VMs (virtualbox):

- zabbix server, provisioned by Vagrant provisioner
- Zabbix agents on both VMs, provisioned by Vagrant provisioner
- Install Tomcat 7 on 2nd VM

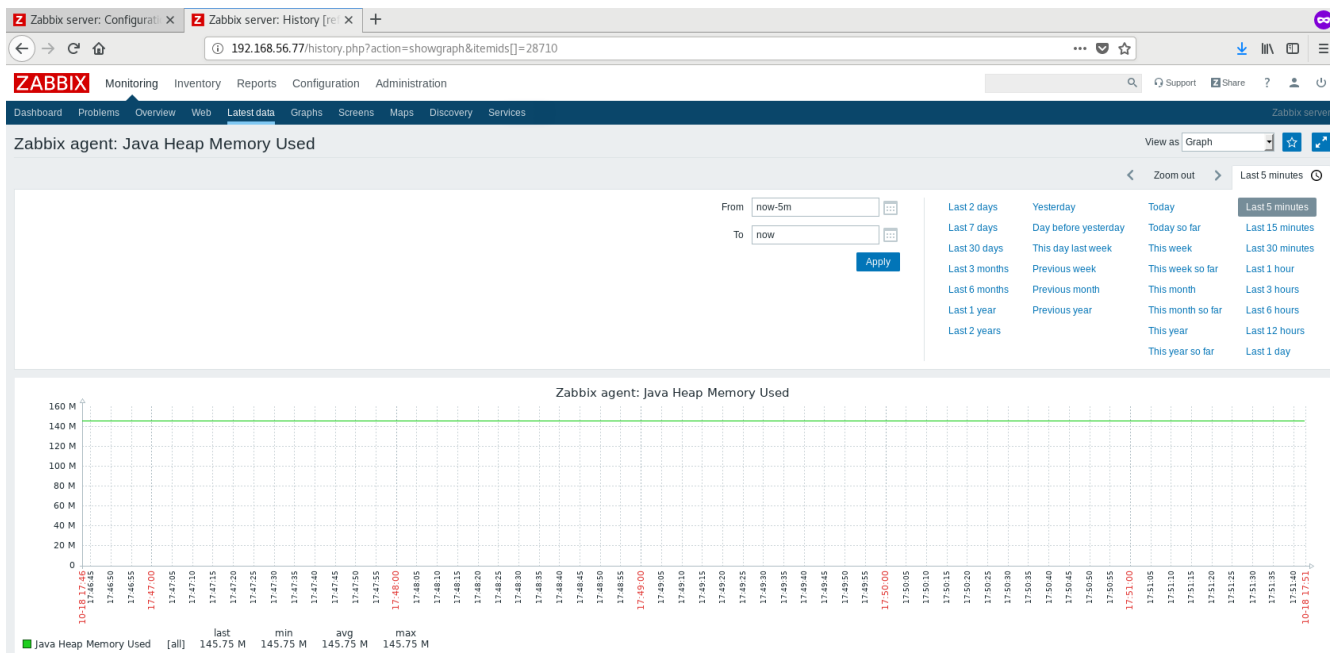
Tasks:

1. Configure Zabbix to examine Java parameters via Java Gateway
(<http://jmxmonitor.sourceforge.net/jmx.html>)

```
JAVA_OPTS="-Dcom.sun.management.jmxremote -Dcom.sun.management.jmxremote.local.only=false -Dcom.sun.management.jmxremote.port=12345 -Dcom.sun.management.jmxremote.rmi.port=12346 -Dcom.sun.management.jmxremote.authenticate=false -Dcom.sun.management.jmxremote.ssl=false -Djava.rmi.server.hostname=192.168.56.177"
```



```
logFile=/var/log/zabbix/zabbix_server.log
LogFileSize=0
PidFile=/var/run/zabbix/zabbix_server.pid
SocketDir=/var/run/zabbix
DBName=zabbix
DBUser=zabbix
SNMPTrapperFile=/var/log/snmptrap/snmptrap.log
Timeout=4
AlertScriptsPath=/usr/lib/zabbix/alertscripts
ExternalScripts=/usr/lib/zabbix/externalscripts
LogSlowQueries=3000
StatsAllowedIP=127.0.0.1
DBHost=localhost
DBPassword=mypass
JavaGateway=192.168.56.77
JavaGatewayPort=10052
StartJavaPollers=5
"/etc/zabbix/zabbix_server.conf" 33L, 466C
```



2. Configure triggers to alert once these parameters changed.

The screenshot shows the Zabbix Configuration page for Triggers. The trigger is named "Heap is normal" and has a severity of "Not classified". The expression is "[Zabbix agent:mx][java.lang.type=Memory,HeapMemoryUsage.committed]last(1,0):1 00". The trigger is enabled and has a URL field. The configuration includes fields for Name, Severity, Expression, OK event generation, PROBLEM event generation mode, OK event closes, Allow manual close, URL, and Description. The trigger is currently enabled.

Name: Heap is normal

Severity: Not classified

Expression: [Zabbix agent:mx][java.lang.type=Memory,HeapMemoryUsage.committed]last(1,0):1 00

OK event generation: Expression

PROBLEM event generation mode: Single

OK event closes: All problems

Allow manual close: ☐

URL:

Description:

Enabled: ☒

Buttons: Update, Clone, Delete, Cancel

ZABBIX

MonitoringInventoryReportsConfigurationAdministration

DashboardProblemsOverviewWebLatest dataGraphsScreensMapsDiscoveryServices

Global view

All dashboards / Global view

System information

ParameterValueDetails

Zabbix server is runningYeslocalhost10051

Number of hosts (enabled/disabled/templates)863 / 0 / 83

Number of items (enabled/disabled/not supported)153148 / 0 / 5

Number of triggers (enabled/disabled [problem/ok])7373 / 0 [0 / 73]

Number of users (online)21

Required server performance, new values per second2.11

Problems by severity

Host groupDisasterHighAverageWarningInformationNot classified

Linux servers1

Problems

TimeInfoHostProblem • SeverityDurationAckActionsTags

18:46:04Zabbix agentHeap is normal12sNo

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