

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 2<sup>nd</sup> VM

Tasks:

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

Apply

Reset

<input type="checkbox"/>	Name ▲	Applications	Items	Triggers	Graphs	Discovery	Web	Interface	Templates	Status	Availability	Agent encryption	Info
<input type="checkbox"/>	remote-agent	Applications 17	Items 101	Triggers 45	Graphs 20	Discovery 2	Web 192.168.56.3:10050		Template JMX Generic, Template OS Linux (Template App Zabbix Agent)	Enabled	ZBX SNMP JMX IPMI	NONE	
<input type="checkbox"/>	Zabbix server	Applications 11	Items 78	Triggers 47	Graphs 14	Discovery 2	Web 127.0.0.1:10050		Template App Zabbix Server, Template OS Linux (Template App Zabbix Agent)	Enabled	ZBX SNMP JMX IPMI	NONE	

Displaying 2 of 2 found

```
[root@localhost vagrant]# ll /opt/tomcat/lib | grep catalina
-rw-r----- 1 tomcat tomcat  54239 Feb  4 16:31 catalina-ant.jar
-rw-r----- 1 tomcat tomcat 122496 Feb  4 16:31 catalina-ha.jar
-rw-r----- 1 tomcat tomcat 1689198 Feb  4 16:31 catalina.jar
-rw-r--r-- 1 tomcat tomcat  13521 Oct  7 2015 catalina-jmx-remote.jar
-rw-r----- 1 tomcat tomcat  78152 Feb  4 16:31 catalina-storeconfig.jar
-rw-r----- 1 tomcat tomcat 345522 Feb  4 16:31 catalina-tribes.jar
```

```
JavaGateway=192.168.56.2
```

```
JavaGatewayPort=10052
```

```
StartJavaPollers=5
```

```
<Listener className="org.apache.catalina.mbeans.JmxRemoteLifecycleListener" rmiRegistryPortPlatform="8097" rmiServerPortPlatform="8098" />
```

Host name

Visible name

Groups In groups Other groups

Project Hosts

◀

▶

Discovered hosts  
Hypervisors  
Linux servers  
Templates  
Virtual machines  
Zabbix servers

New group

Agent interfaces

IP address	DNS name	Connect to	Port	Default
<input type="text" value="192.168.56.3"/>	<input type="text"/>	<input checked="" type="radio"/> IP <input type="radio"/> DNS	<input type="text" value="10050"/>	<input checked="" type="radio"/> Remove
<a href="#">Add</a>				

SNMP interfaces [Add](#)

JMX interfaces

IP address	DNS name	Connect to	Port	
<input type="text" value="192.168.56.3"/>	<input type="text"/>	<input checked="" type="radio"/> IP <input type="radio"/> DNS	<input type="text" value="12345"/>	<input checked="" type="radio"/> Remove
<input type="text" value="192.168.56.3"/>	<input type="text"/>	<input checked="" type="radio"/> IP <input type="radio"/> DNS	<input type="text" value="8097"/>	<input type="radio"/> Remove

## 2. Configure triggers to alert once these parameters changed.

<input type="checkbox"/>	Warning	Template OS Linux: Processor load is too high on {HOST.NAME}	{remote-agent:system.cpu.load[percpu,avg1].avg(5m)}>5	Enabled
<input type="checkbox"/>	Average	pzdc	{remote-agent:jmx[*java.lang:type=Runtime,Uptime].nodata(1m)}=1	Enabled
<input type="checkbox"/>	Warning	Template OS Linux: Too many processes on {HOST.NAME}	{remote-agent:proc.num[].avg(5m)}>300	Enabled

  

Time	Severity	Recovery time	Status	Info	Host	Problem	Duration	Ack	Actions	Tags
15:25:30	Average				remote-agent	pzdc	7m 44s	No		
15:24:30	Average				remote-agent	remote-agent is not reachable	8m 44s	No		
15:00										

For both VMs use vagrant box “sbeliakou/centos-7.3-x86\_64-minimal”