

EPAM Systems, RD Dep., RD Dep.

# MTN.NIX.05.Zabbix.Basics

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. Zabbix. Basics

### Testing Infrastructure:

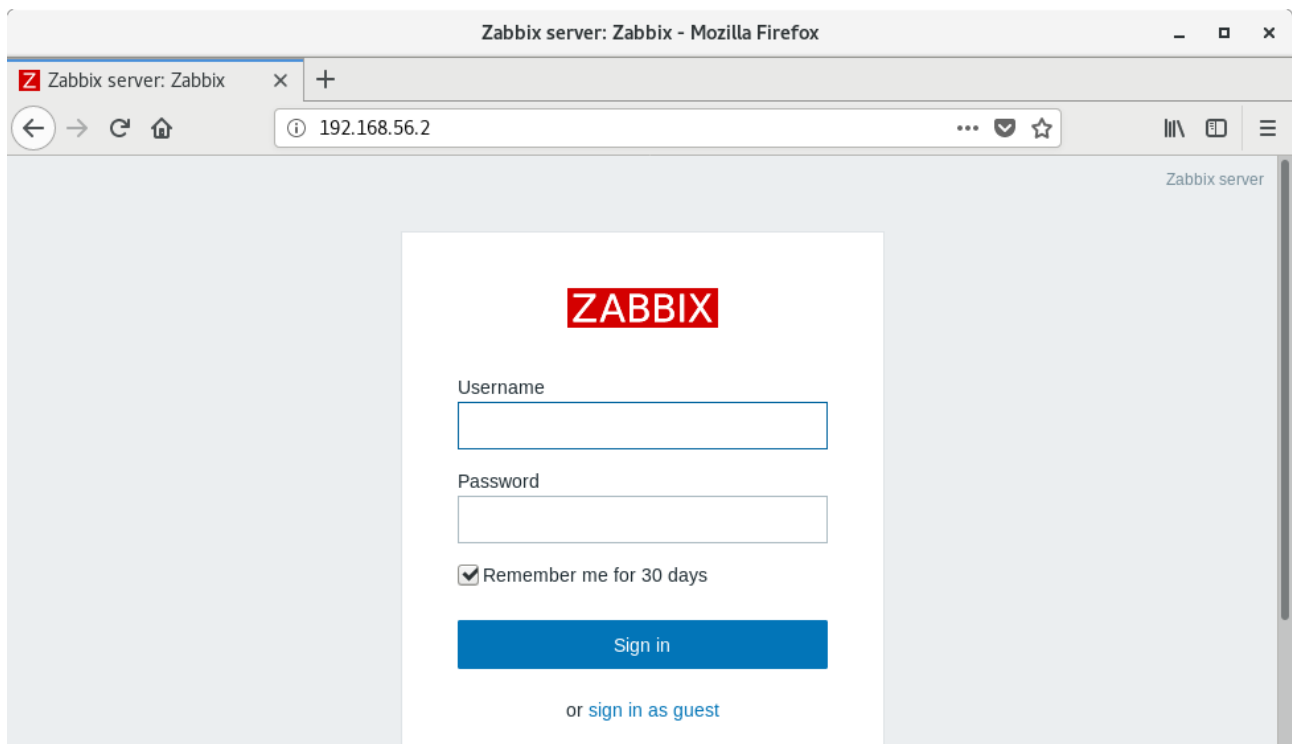
Vagrantfile to spin up 2 VMs (virtualbox):

- zabbix server, provisioned by Vagrant provisioner
- Zabbix agents on both VMs, provisioned by Vagrant provisioner

Configure zabbix to work on the server directly without /zabbix

<http://zabbix-server/zabbix> -> <http://zabbix-server>

```
#Alias /zabbix /usr/share/zabbix
DocumentRoot "/usr/share/zabbix/"
```



### Task:

You should install and configure Zabbix server and agents.

#### 1. Using Zabbix UI:

- Create User group “Project Owners”

<input type="checkbox"/> Project Owners	Users 1	<a href="#">atsyuliou (aliaksei tsyuliou)</a>	<a href="#">System default</a>	<a href="#">Disabled</a>	<a href="#">Enabled</a>
<input type="checkbox"/> Zabbix administrators	Users 1	<a href="#">Admin (Zabbix Administrator)</a>	<a href="#">System default</a>	<a href="#">Disabled</a>	<a href="#">Enabled</a>

- Create User (example “Siarhei Beliakou”), assign user to “Project Owners”, set email

Users

User Media Permissions

Media

Type	Send to	When active	Use if severity	Status	Action
Email	tsyuliou@gmail.com	1-7,00:00-24:00	NIWAHD	Enabled	<a href="#">Edit</a> <a href="#">Remove</a>

[Add](#)

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

- Add 2<sup>nd</sup> VM to zabbix: create Host group (“Project Hosts”), create Host in this group, enable ZABBIX Agent monitoring
- Assign to this host template of Linux

Applications Places Firefox

zabbix: Configuration of hosts - Mozilla Firefox

192.168.56.2/zabbix/hosts.php?hosts[]=10105&action=host.massenable&groupid=0

ZABBIX Monitoring Inventory Reports Configuration Administration

Host groups Templates Hosts Maintenance Actions Event correlation Discovery IT services

Host enabled

Hosts

Group: all [Create host](#) [Import](#)

Filter

Name  DNS  IP  Port

[Apply](#) [Reset](#)

Name	Applications	Items	Triggers	Graphs	Discovery	Web	Interface	Templates	Status	Availability	Agent encryption	Info
agent-remote	Applications 10	Items 32	Triggers 15	Graphs 5	Discovery 2	Web	192.168.56.3:10050	Template OS Linux (Template App Zabbix Agent)	Enabled	ZBX SHMP JMX IPMI	NONE	
Zabbix server	Applications 11	Items 64	Triggers 43	Graphs 10	Discovery 2	Web	127.0.0.1:10050	Template App Zabbix Server, Template OS Linux (Template App Zabbix Agent)	Enabled	ZBX SHMP JMX IPMI	NONE	

Displaying 2 of 2 found

- Create custom checks (CPU Load, Memory load, Free space on file systems, Network load)

Name

Type

Key

Name

Type

Key

Name

Type

Key

Name

Type

Key

- Create trigger with Severity HIGH, check if it works (Problem/Recovery)

Information	Template OS Linux: Configured max number of opened files is too low on {HOST.NAME}	{remote-agent:kernel.maxfiles.last(0)}<1024	Enabled
Information	Template OS Linux: Configured max number of processes is too low on {HOST.NAME}	{remote-agent:kernel.maxproc.last(0)}<256	Enabled
Average	CPU load alert	{remote-agent:system.cpu.load[avg1, delta[180, 30]]}>0.5	Enabled
Warning	Template OS Linux: Disk I/O is overloaded on {HOST.NAME}	{remote-agent:system.cpu.util[lowlat, avg(5m)]}>20	Enabled

- Create Action to inform “Project Owners” if HIGH triggers happen  
-media set

## Media types

Name

Type

SMTP server

SMTP server port

SMTP helo

SMTP email

Connection security

SSL verify peer ☐

SSL verify host ☐

Authentication

Username

Password

Enabled ☒

 pzdc action	Trigger severity = Average Trigger name like pzdc	Send message to users: atsyuliou (aliaksei tsyuliou) via all media Send message to user groups: Project Owners via all media	Enabled
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For both VMs use vagrant box “sbeliakou/centos-7.3-x86\_64-minimal”

## 2. Using Zabbix UI:

- Configure “Network discovery” so that, 2<sup>nd</sup> VM will be joined to Zabbix (group “Project Hosts”, Template “Template OS Linux”)

### Discovery rules

Name

Local network

Discovery by proxy

No proxy

IP range

192.168.56.1-254

Delay (in sec)

60

Checks

Zabbix agent "system.uname"

[Edit](#) [Remove](#)

[New](#)

Device uniqueness criteria

☒ IP address

☐ Zabbix agent "system.uname"

Enabled

☒

Update

Clone

Delete

Cancel

## Action Operations

Name

Type of calculation  A and B and C and D

Conditions	Label	Name	Action
	A	Host IP = 192.168.56.1-254	<a href="#">Remove</a>
	B	Discovery status = Up	<a href="#">Remove</a>
	C	Service type = Zabbix agent	<a href="#">Remove</a>
	D	Uptime/Downtime >= 600	<a href="#">Remove</a>

New condition

[Add](#)

Enabled ☒

[Add](#)

[Cancel](#)

## Actions

### Action Operations

Default subject

Default message   
Device IP: {DISCOVERY.DEVICE.IPADDRESS}  
Device DNS: {DISCOVERY.DEVICE.DNS}  
Device status: {DISCOVERY.DEVICE.STATUS}  
Device uptime: {DISCOVERY.DEVICE.UPTIME}  
Device service name: {DISCOVERY.SERVICE.NAME}

Operations	Details	Action
	<b>Add to host groups:</b> Project Hosts	<a href="#">Edit</a> <a href="#">Remove</a>
	<b>Link to templates:</b> Template JMX Generic, Template OS Linux	<a href="#">Edit</a> <a href="#">Remove</a>
	<a href="#">New</a>	

[Add](#)

[Cancel](#)

Status of discovery			Discovery rule
			all
Discovered device ▲	Monitored host	Uptime/Downtime	Zabbix agent: system.uptime
<b>Local network</b> (1 device)			
192.168.56.3	remote-agent	00:26:37	

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