

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		

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>

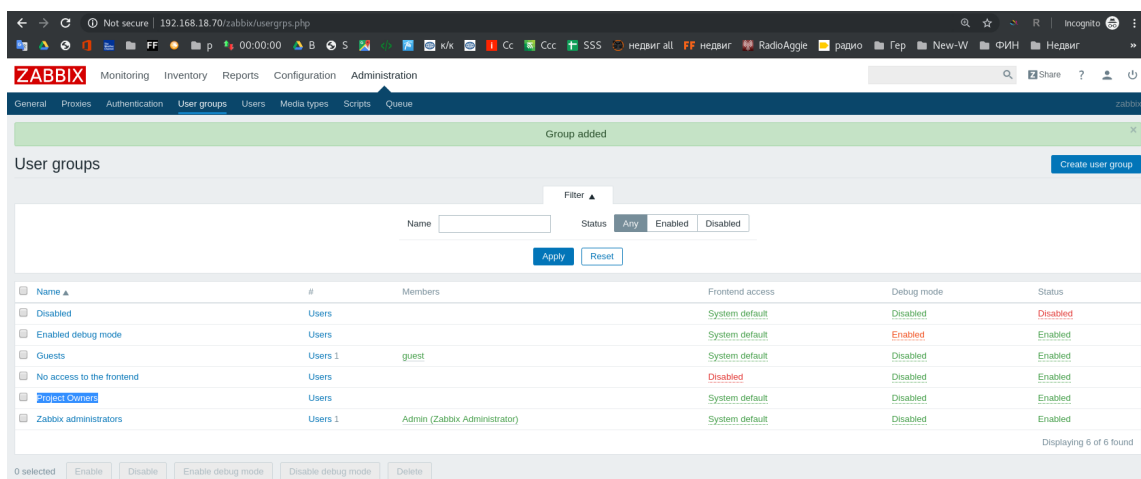
Task:

You should install and configure Zabbix server and agents.



1. Using Zabbix UI:

- Create User group “Project Owners”



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

Users

User Media Permissions

Alias

Name

Surname

Groups
type here to search

Password

Password (once again)

Language

Theme

Auto-login ☐

Auto-logout (min 90 seconds) ☐

Users

User Media Permissions

Type	Send to	When active	Use if severity	Status	Action
Email	evg.mlechko@gmail.com	1-7,00:00-24:00	NIWAHD	Enabled	Edit Remove

[Add](#)

- Add 2nd VM to zabbix: create Host group ("Project Hosts"), create Host in this group, enable ZABBIX Agent monitoring

Hosts

Host Templates IPMI Macros Host inventory Encryption

Host name

Visible name

Groups

In groups

Other groups

Discovered hosts
Hypervisors
Linux servers
Templates
Virtual machines
Zabbix servers

New group

Agent interfaces

IP address	DNS name	Connect to	Port	Default
192.168.18.80		IP DNS	10050	<input checked="" type="radio"/> Remove

[Add](#)

SNMP interfaces [Add](#)

JMX interfaces [Add](#)

- Assign to this host template of Linux

Hosts

[Host](#)[Templates](#)[IPMI](#)[Macros](#)[Host inventory](#)[Encryption](#)

Linked templates

Name	Action
------	--------

Link new templates

Template OS Linux X

type here to search

Select

[Add](#)

Add

Cancel

Name	Applications	Items	Triggers	Graphs	Discovery	Web	Interface	Templates	Status	Availability	Agent encryption	Info
2nd VM	Applications 10	Items 42	Triggers 19	Graphs 7	Discovery 2	Web	192.168.18.80: 10050	Template OS Linux (Template App Zabbix Agent)	Enabled	ZBX SNMP JMX IPMI	NONE	

0 selected

Enable Disable Export Mass update Delete

Displaying 1 of 1 found

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

Host

2nd VM ✕

Select

Update interval (in sec)

History (in days)

Status

all

Application

Select

Trends (in days)

Triggers

all

Name

Template

all

Key

Apply

Reset

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

Triggers

[All hosts](#) / [2nd VM](#) [Enabled](#) [ZBX](#) [SNMP](#) [JMX](#) [IPMI](#) [Applications](#) 10 [Items](#) 46 [Triggers](#) 20 [Graphs](#) 7 [Discovery rules](#) 2 [Web sce](#)[Trigger](#) [Dependencies](#)Name Severity Expression [Expression constructor](#)OK event generation PROBLEM event generation mode OK event closes

Tags

[Remove](#)[Add](#)

ZABBIX Monitoring Inventory Reports Configuration Administration

Dashboard Problems Overview Web Latest data Triggers Graphs Screens Maps Discovery IT services

Triggers

Group Project Hosts Host all

Filter ▲

Trigger status: Any Recent problems Problems

Acknowledge status: Any

Events: Hide all

Minimum trigger severity: Not classified

Age less than: 14 days

Name:

Application: Select

Host inventory: Type Add Remove

Show hosts in maintenance: ☐

Show details: ☐

Apply Reset

Severity	Status	Info	Time	Age	Ack	Host	Name	Description
High			2019-06-27 19:24:39	13s	No 1	2nd VM	1 very big amount processes on VM2	Add

0 selected Bulk acknowledge

Displaying 1 of 1 found

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

Media types

Name: Email gmail

Type: Email

SMTP server: smtp.gmail.com

SMTP server port: 465

SMTP helo: gmail.com

SMTP email: evg.mlechko@gmail.com

Connection security: None STARTTLS SSL/TLS

SSL verify peer: ☐

SSL verify host: ☐

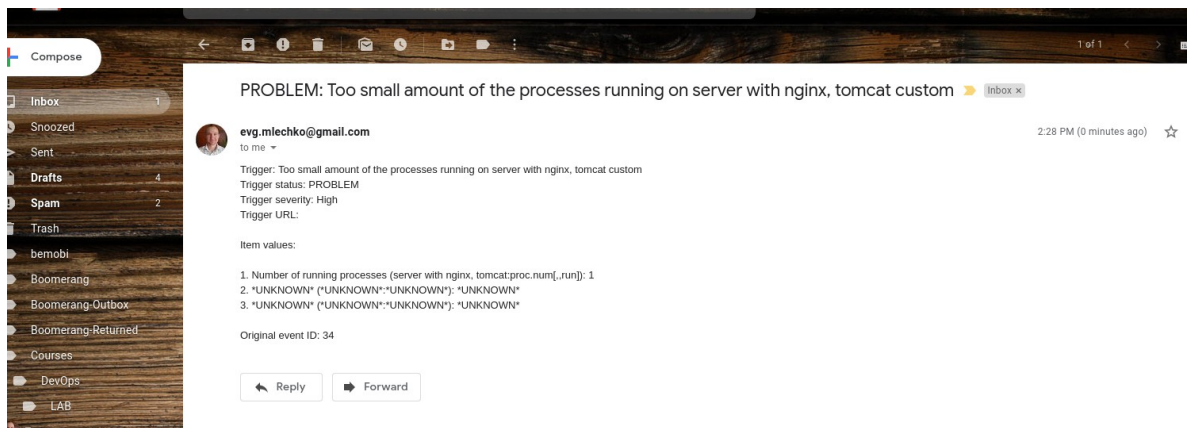
Authentication: None Username and password

Username: evg.mlechko

Password: Change password

Enabled: ☒

Update Clone Delete Cancel



Zoom: 5m 15m 30m All Apply Reset 2019-06-28 13:56 - 2019-06-28 14:28 (now)					
32m fixed					
Time	Action	Type	Recipient	Message	Status Info
2019-06-28 14:28:02	Report problems to Zabbix administrators	gmail sending	Zhenia (Yauheni Mlechka) evg.mlechko@gmail.com	<p>Subject: PROBLEM: Too small amount of the processes running on server with nginx, tomcat custom</p> <p>Message: Trigger: Too small amount of the processes running on server with nginx, tomcat custom Trigger status: PROBLEM Trigger severity: High Trigger URL:</p> <p>Item values:</p> <ol style="list-style-type: none"> 1. Number of running processes (server with nginx, tomcat:proc.num[.run]): 1 2. "UNKNOWN" ("UNKNOWN":"UNKNOWN"): "UNKNOWN" 3. "UNKNOWN" ("UNKNOWN":"UNKNOWN"): "UNKNOWN" <p>Original event ID: 34</p>	Sent

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

2. Using Zabbix UI:

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

ZABBIX Monitoring Inventory Reports Configuration Administration

Host groups Templates Hosts Maintenance **Actions** Event correlation Discovery IT services

Actions

Action Operations

Name: Active Agent Registration

Label	Name	Action
A	Host metadata like <i>Linux</i>	Remove

New condition

Host name ▾ like ▾

[Add](#)

Enabled ☒

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

Host groups Templates Hosts Maintenance Actions Event correlation **Discovery** IT services

Discovery rules

Filter ▲

Name Status **Any** Enabled Disabled

Apply Reset

Name ▲	IP range	Delay	Checks	Status
Local network	192.168.18.1-254	30s	Zabbix agent	Enabled

0 selected Enable Disable Delete

ZABBIX Monitoring Inventory Reports Configuration Administration

Host groups Templates Hosts Maintenance Actions Event correlation Discovery IT services

Actions

Event source Auto registration Create action

Filter ▲

Name Status **Any** Enabled Disabled

Apply Reset

Name ▲	Conditions	Operations	Status
Active Agent Registration	Host metadata like Linux	Add to host groups: Project Hosts Link to templates: Template OS Linux	Enabled

Displaying 1 of 1 found

0 selected Enable Disable Delete

← → Not secure | 192.168.18.70/zabbix/hosts.php?ddreset=1

ZABBIX Monitoring Inventory Reports Configuration Administration

Host groups Templates Hosts Maintenance Actions Event correlation Discovery IT services

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
192.168.18.80	Applications 10	Items 32	Triggers 15	Graphs 5	Discovery 2	Web	192.168.18.80: 10050	Template OS Linux (Template App Zabbix Agent)	Enabled	ZBX SNMP JMX IPMI	NONE	
Zabbix server	Applications 11	Items 64	Triggers 43	Graphs 10	Discovery 2	Web	127.0.0.1: 10051	Template App Zabbix Server, Template OS Linux (Template App Zabbix Agent)	Enabled	ZBX SNMP JMX IPMI	NONE	

Displaying 2 of 2 found

0 selected Enable Disable Export Mass update Delete

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