

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

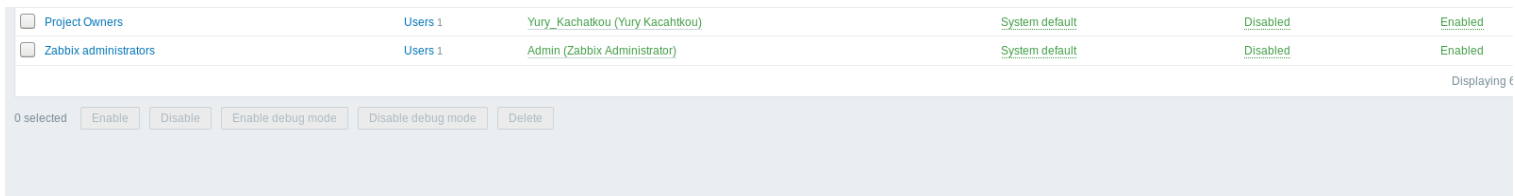
<http://zabbix-server/zabbix> -> <http://zabbix-server>

Task:

You should install and configure Zabbix server and agents.

1. Using Zabbix UI:

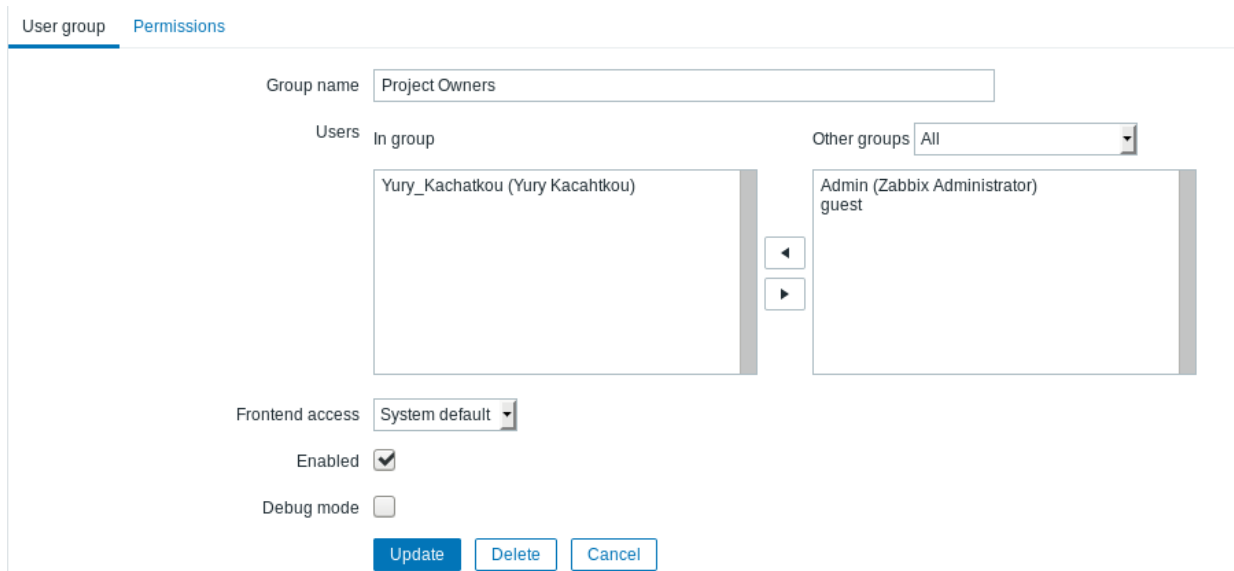
- Create User group “Project Owners”



A screenshot of the Zabbix User Groups list. It shows two groups: 'Project Owners' and 'Zabbix administrators'. Both are associated with 'Users 1'. The 'Project Owners' group has a user 'Yury_Kachatkou (Yury Kacahtkou)' with 'System default' frontend access, 'Disabled' status, and 'Enabled' debug mode. The 'Zabbix administrators' group has a user 'Admin (Zabbix Administrator)' with 'System default' frontend access, 'Disabled' status, and 'Enabled' debug mode. At the bottom, there are buttons for 'Enable', 'Disable', 'Enable debug mode', 'Disable debug mode', and 'Delete'.

Group name	Users	User	Frontend access	Status	Debug mode
<input type="checkbox"/> Project Owners	Users 1	Yury_Kachatkou (Yury Kacahtkou)	System default	Disabled	Enabled
<input type="checkbox"/> Zabbix administrators	Users 1	Admin (Zabbix Administrator)	System default	Disabled	Enabled

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



A screenshot of the Zabbix User group configuration form. The 'Group name' field is set to 'Project Owners'. The 'Users' section shows 'Yury_Kachatkou (Yury Kacahtkou)' in the 'In group' list. The 'Other groups' dropdown is set to 'All'. The 'Frontend access' dropdown is set to 'System default'. The 'Enabled' checkbox is checked, and the 'Debug mode' checkbox is unchecked. At the bottom, there are buttons for 'Update', 'Delete', and 'Cancel'.

User group **Permissions**

Group name:

Users: In group:

Yury_Kachatkou (Yury Kacahtkou)

 Other groups:

All

Frontend access:

System default

Enabled: ☒

Debug mode: ☐

- Add 2nd VM to zabbix: create Host group (“Project Hosts”), create Host in this

group, enable ZABBIX Agent monitoring

Hosts

All hosts / **zabbix_agent** Enabled **ZBX** SNMP JMX IPMI Applications 10 Items 50 Triggers 19 Graphs 9 Discovery rules 2 Web scenarios

Host Templates IPMI Macros Host inventory Encryption

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
1	192.168.56.156		IP DNS	10050	<input checked="" type="radio"/> Remove

- Assign to this host template of Linux

zabbix_agent	Applications 10	Items 50	Triggers 19	Graphs 9	Discovery 2	Web	192.168.56.156: 10050	Template OS Linux (Template App Zabbix Agent)	Enabled	ZBX	SNMP	JMX	IPMI	NONE
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- Create custom checks (CPU Load, Memory load, Free space on file systems, Network load)

▼ <u>zabbix_agent</u>		- other - (4 items)									
<input type="checkbox"/>		CPU Load		2019-10-17 16:35:27		0.32		+0.32		Graph	
<input type="checkbox"/>		Free space on file systems,		2019-10-17 16:35:28		16794353664				Graph	
<input type="checkbox"/>		Memory load		2019-10-17 16:35:27		526594048		+253952		Graph	
<input type="checkbox"/>		Network load		2019-10-17 16:35:29		1003330		+3078		Graph	
Related: Zabbix agentd events Zabbix agentd											
<input type="checkbox"/>	Wizard	Name	Triggers	Key	Interval	History	Trends	Type	Applications	Status ▲	Info
<input type="checkbox"/>		Network load		net.if.total[eth1]	5s	90d	365d	Zabbix agent		Enabled	
<input type="checkbox"/>		CPU Load		system.cpu.load	5s	90d	365d	Zabbix agent		Enabled	
<input type="checkbox"/>		Free space on file systems,		vfs.fs.size[/, free]	5s	90d	365d	Zabbix agent		Enabled	
<input type="checkbox"/>		Memory load		vm.memory.size[used]	5s	90d	365d	Zabbix agent		Enabled	

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

Trigger [Dependencies](#)

Name	<input type="text" value="CPU load is too high"/>					
Severity	<input type="button" value="Not classified"/>	<input type="button" value="Information"/>	<input type="button" value="Warning"/>	<input type="button" value="Average"/>	<input type="button" value="High"/>	<input type="button" value="Disaster"/>
Expression	<input type="text" value="{zabbixagent:system.cpu.load.last()}>2"/>					<input type="button" value="Add"/>
Expression constructor						
OK event generation	<input type="button" value="Expression"/> <input type="button" value="Recovery expression"/> <input type="button" value="None"/>					
PROBLEM event generation mode	<input type="button" value="Single"/> <input type="button" value="Multiple"/>					
OK event closes	<input type="button" value="All problems"/> <input type="button" value="All problems if tag values match"/>					
Tags	<div><input type="text" value="tag"/> <input type="text" value="value"/> Remove</div> <div>Add</div>					
Allow manual close	<input type="checkbox"/>					
URL	<input type="text"/>					
Description	<input type="text"/>					
Enabled	<input checked="" type="checkbox"/>					

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

PROBLEM: CPU load is too high Входящие x



yury.kachatkou@gmail.com

КОМУ: я ▼

Trigger: CPU load is too high

Trigger status: PROBLEM

Trigger severity: High

Trigger URL:

Item values:

1. CPU Load (zabbix_agent:system.cpu.load): 2.04
2. *UNKNOWN* (*UNKNOWN*:*UNKNOWN*): *UNKNOWN*
3. *UNKNOWN* (*UNKNOWN*:*UNKNOWN*): *UNKNOWN*

Original event ID: 63

Несортированные	Соцсети	Промоакции
<input type="checkbox"/> ☆ я	OK: CPU load is too high - Trigger: CPU load is too high Trigger status: OK Trigger severity: High Trigger URL: Item values: 1. CPU Load	
<input type="checkbox"/> ☆ я	PROBLEM: CPU load is too high - Trigger: CPU load is too high Trigger status: PROBLEM Trigger severity: High Trigger URL: Item values:	

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”)

<input type="checkbox"/> Name ▲	Conditions	Operations	Status
<input type="checkbox"/> Auto discovery: Linux servers.	Uptime/Downtime >= 60 Discovery status = Up Service type = Zabbix agent	Add host Add to host groups: Project Hosts Link to templates: Template OS Linux	Enabled
<input type="checkbox"/> Remove Lost Servers	Uptime/Downtime >= 300 Discovery status = Down	Remove host	Enabled

Displaying 2 of 2 found

<input type="checkbox"/> Name ▲	Conditions	Operations	Status
<input type="checkbox"/> Active Agent Registration		Add to host groups: Project Hosts Link to templates: Template OS Linux	Enabled

Displaying 1 of 1 found

selected

<input type="checkbox"/> Name ▲	Applications	Items	Triggers	Graphs	Discovery	Web	Interface	Templates	Status	Availability	Agent encryption	Inf
<input type="checkbox"/> zabbixclient	Applications 10	Items 32	Triggers 15	Graphs 5	Discovery 2	Web	192.168.56.156:10050	Template OS Linux (Template App Zabbix Agent)	Enabled	ZBX SNMP JMX IPMI	NONE	
<input type="checkbox"/> Zabbix server	Applications 12	Items 79	Triggers 48	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

0 selected

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