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"
    - Create User (example "Siarhei Beliakou"), assign user to "Project Owners", set email
    - Add 2nd VM to zabbix: create Host group ("Project Hosts"), create Host in this group, enable ZABBIX Agent monitoring
    - Assign to this host template of Linux
    - Create custom checks (CPU Load, Memory load, Free space on file systems, Network load)
    - Create trigger with Severity HIGH, check if it works (Problem/Recovery)
    - Create Action to inform "Project Owners" if HIGH triggers happen

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")

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

Media

Type	Email
Send to	10zizou@inbox.ru
When active	1-7,00:00-24:00
Use if severity	☑ Not classified
	☑ Information
	☑ Warning
	☑ Average
	☑ High
	☑ Disaster
Enabled	☑

[Add] [Cancel]

ZABBIX Monitoring Inventory Reports Configuration Administration

General Proxies Authentication User groups **Users** Media types Scripts Queue

Users

User Media **Permissions**

User type	Zabbix User
Permissions	

Host group	Permissions
All groups	None

Info	Permissions can be assigned for user groups only.

[Add] [Cancel]

Alias ▲	Name	Surname	User type	Groups	Is online?	Login	Frontend access	Debug mode	Status
Admin	Zabbix	Administrator	Zabbix Super Admin	Zabbix administrators	Yes (2017-07-24 14:20:06)	Ok	System default	Disabled	Enabled
akarzhou	Aliaksei	Karzhou	Zabbix User	Project Owners	No	Ok	System default	Disabled	Enabled
guest			Zabbix User	Guests	No	Ok	System default	Disabled	Enabled
									Displaying 3 of 3 found

/etc/zabbix/zabbix_agentd.conf (Change IP address = zabbix server)

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
☐	host1	Applications 10	Items 32	Triggers 15	Graphs 5	Discovery 2	Web	192.168.56.11: 10050	Template OS Linux (Template App Zabbix Agent)	Enabled	ZBX SNMP JMX IPMI	NONE	
☐	Zabbix server	Applications 11	Items 68	Triggers 43	Graphs 12	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

host1: CPU_load

Graph ☆ ⤢

Filter ▲

Zoom: **5m** 15m 30m 1h 2h 3h 6h 12h 1d 3d 7d 14d 1m 3m 6m 1y All   2017-07-24 17:30 - 2017-07-24 17:35 (now!)

◄   ◄ ▶ ►

«« 1y 6m 1m 7d 1d 12h 1h 5m | 5m 1h 12h 1d 7d 1m 6m 1y »»   5m fixed

host1: CPU_load (5m)

	last	min	avg	max
▪ CPU_load [all]	0.66	0	0.118	0.66
⊙ Trigger: host1: CPU load [> 0.3]				

ZABBIX   Monitoring   Inventory   Reports   Configuration   Administration

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

Dashboard

Favourite graphs
No graphs added.
Graphs

Favourite screens
No screens added.
Screens   Slide shows

Favourite maps
No maps added.
Maps

Status of Zabbix

Parameter	Value	Details
Zabbix server is running	Yes	localhost:10051
Number of hosts (enabled/disabled/templates)	40	2 / 0 / 38
Number of items (enabled/disabled/not supported)	126	120 / 0 / 6
Number of triggers (enabled/disabled [problem/ok])	67	67 / 0 [1 / 66]
Number of users (online)	3	2
Required server performance, new values per second	1.68	

Updated: 18:31:04

System status

Host group	Disaster	High	Average	Warning	Information	Not classified
Project Hosts	0	1	0	0	0	0
Zabbix servers	0	0	0	0	0	0

Updated: 18:31:04

Host status

Host group	Without problems	With problems	Total
Project Hosts	0	1	1
Zabbix servers	1	0	1

ZABBIX

Monitoring   Inventory   Reports   Configuration   Administration

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

Triggers

Filter ▲

Trigger status	Any	**Recent problems**	Problems	Application		Select
Acknowledge status	Any	▼		Host inventory	Type ▼		Rem
Events	Hide all	▼		Add		
Minimum trigger severity	Not classified ▼			Show hosts in maintenance	✔	
Age less than	☐	14 days		Show details	☐	
Name						

Apply   Reset

☐ Severity	Status	Info	Time ▼	Age	Ack	Host	Name
☐ High	PROBLEM		2017-07-24 18:24:16	7m 11s	No 5	host1	host1: CPU load

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ZABBIX

Monitoring   Inventory   Reports   **Configuration**   Administration

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

Actions

Action   Operations   Recovery operations

Name	CPU_trigger
Type of calculation	And/Or ▼ A and B

Conditions

Label	Name	Action
A	Maintenance status not in *maintenance*	Remove
B	Trigger severity >= *High*	Remove

New condition

Trigger name ▼   like ▼   [ ]

Add

Enabled ✔

Update   Clone   Delete   Cancel

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

Actions

Action   **Operations**   Recovery operations

Default operation step duration	60 (minimum 60 seconds)
Default subject	{TRIGGER.STATUS}: {TRIGGER.NAME}
Default message	Trigger: {TRIGGER.NAME} Trigger status: {TRIGGER.STATUS} Trigger severity: {TRIGGER.SEVERITY} Trigger URL: {TRIGGER.URL} Item values: 1. {ITEM.NAME1} ({HOST.NAME1}:{ITEM.KEY1}): {ITEM.VALUE1}

Pause operations while in maintenance ✔

Operations

Steps	Details	Start in	Duration (sec)	Action
1	**Send message to users:** akarzhou (Aliaksei Karzhou) via all media	Immediately	Default	Edit Remove
	Send message to user groups: Project Owners via all media			

New

Update   Clone   Delete   Cancel

General Proxies Authentication User groups Users **Media types** Scripts Queue

Media types

Name	Email
Type	Email ▾
SMTP server	smtp.gmail.com
SMTP server port	465
SMTP helo	gmail.com
SMTP email	korzhovalexei@gmail.com
Connection security	None STARTTLS **SSL/TLS**
SSL verify peer	☐
SSL verify host	☐
Authentication	None **Normal password**
Username	korzhovalexei
Password	Change password
Enabled	☑

Update Clone Delete Cancel

Google [   ] 🔍

Gmail ▾   ☐▾ ⟳ Ещё ▾   1–15 из 15 < > ⚙▾

НАПИСАТЬ   📭 Несортированные   👥 Соцсети   🏷 Промоакции   +

Входящие (2)
Помеченные   ☐ ☆ ☐ Google   **Ненадежным приложениям разрешен доступ к аккаунту** - Ненадежным приложениям разрешен доступ к аккаунту Здравствуйте, Alexei! Вы изменили настройки безопас   18:26
Важные   ☐ ☆ 📙 я   **PROBLEM: host1: CPU load** - Trigger: host1: CPU load Trigger status: PROBLEM Trigger severity: High Trigger URL: Item values: 1. CPU_load {host1:system.cpu.load[,]}: 0.6 2. *Uh   18:25

zabbix-server/discoveryconf.php?form=update&druleid=2 | C | Search

ZABBIX Monitoring Inventory Reports Configuration Administration

Host groups Templates Hosts Maintenance Actions Event correlation Discovery IT services

Discovery rules

Name	Local network
Discovery by proxy	No proxy
IP range	192.168.56.1-254
Delay (in sec)	3600
Checks	Zabbix agent "system.uname" Edit Remove
	New
Device uniqueness criteria	⦿ IP address
	○ Zabbix agent "system.uname"
Enabled	☐

Update Clone Delete Cancel

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zabbix-server/actionconf.php | C | Search

ZABBIX Monitoring Inventory Reports Configuration Administration   Share

Host groups Templates Hosts Maintenance Actions Event correlation Discovery IT services

Actions

Action Operations

Default subject	
Default message	
Operations	Details
	Add to host groups: Linux servers
	Link to templates: Template OS Linux
Operation details	Operation type Add to host group
	Host groups type here to search
	Update Cancel

Update Clone Delete Cancel

Zabbix Server: Host groups – Mozilla Firefox

zabbix-server/popup.php?srctbl=host_groups&dstfrm=action.edit&dstfld1=new_operation_groupids_&srcfld1=groupid&writeonly=1&multiselect=1

Host groups

☐ Name
☐ Discovered hosts
☐ Hypervisors
☐ Linux servers
☑ Project Hosts
☐ Templates
☐ Virtual machines
☐ Zabbix servers

Select

ZABBIX Monitoring Inventory Reports Configuration Administration   Share ?   Zabbix Server

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

Status of discovery

Discovery rule all

Discovered device ▲	Monitored host	Uptime/Downtime	Zabbix agent system.uname
Local network (2 devices)			
192.168.56.11	host1	00:00:09	
192.168.56.12		00:00:09	