

EPAM Systems, RD Dep.**MTN.NIX.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

The screenshot shows the Zabbix 3.0.28 Administration interface. The 'Users' section is active, and the 'User' tab is selected. The configuration form for a new user is displayed with the following details:

- Alias:** ymatveichyk
- Name:** Yauheni
- Surname:** Matveichyk
- Groups:** Project Owners (selected from a dropdown menu)
- Password:** Change password (button)
- Language:** English (en_GB) (dropdown)
- Theme:** Blue (dropdown)
- Auto-login:** ☐
- Auto-logout (min 90 seconds):** 900 (input field)
- Refresh (in seconds):** 30 (input field)
- Rows per page:** 50 (input field)
- URL (after login):** (empty input field)

At the bottom of the form are three buttons: **Update**, **Delete**, and **Cancel**.

- 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)

Latest data

Filter

Host groups: type here to search Select

Hosts: type here to search Select

Application: Simple Check Select

Show items without data: ☒

Show details: ☐

Filter Reset

Host	Name	Last check	Last value	Change
Zabbix server	Simple Check (4 items)			
<input type="checkbox"/>	cpu_load	2019-10-17 23:08:16	0.07 %	-0.01 %
<input type="checkbox"/>	FS	2019-10-17 23:07:56	88.97 MMB	-126.98 KMB
<input type="checkbox"/>	mem_check	2019-10-17 23:08:15	91.01 %	+74.35 KMB
<input type="checkbox"/>	Network load	2019-10-17 23:07:57	33.93 MMB	+74.35 KMB

0 selected Display stacked graph Display graph

Zabbix 3.0.28. © 2001–2019, Zabbix SIA

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

High CPU_LOAD_HIGH {Zabbix server:system.cpu.load.avg(180)}>1 Enabled

The screenshot shows the Zabbix Dashboard with the following sections:

- Navigation Bar:** ZABBIX, Monitoring, Inventory, Reports, Configuration, Administration.
- Sub-Menu:** Dashboard, Overview, Web, Latest data, Triggers, Events, Graphs, Screens, Maps, Discovery, IT services.
- Dashboard Content:**
 - 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)	127	120 / 2 / 5
Number of triggers (enabled/disabled [problem/ok])	64	64 / 0 [1 / 63]
Number of users (online)	3	1
Required server performance, new values per second	1.93	

Updated: 23:49:26
 - System status:**

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

Updated: 23:49:26
 - Host status:**

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

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

The screenshot shows an email notification from Zabbix:

andrei.kapitanau2@gmail.com Inbox - iCloud 12:02 AM [Profile Icon]

OK: CPU_LOAD_HIGH
To: Евгений Матвейчик

Trigger: CPU_LOAD_HIGH
Trigger status: OK
Trigger severity: High
Trigger URL:

Item values:

1. cpu_load (Zabbix server:system.cpu.load): 0.31 %

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

2. Using Zabbix UI:

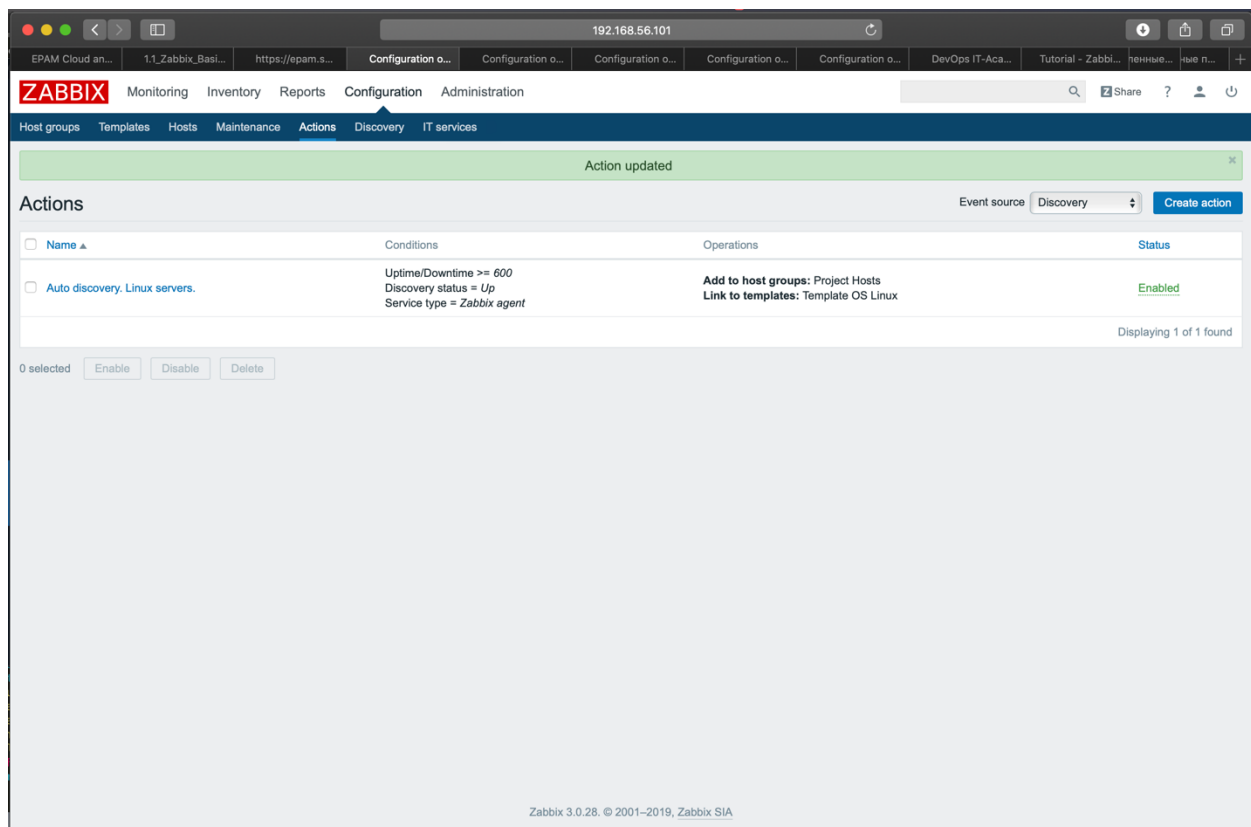
- Configure “Network discovery” so that, 2nd VM will be joined to Zabbix

(group "Project Hosts", Template "Template OS Linux")

The screenshot displays the Zabbix 3.0.28 web interface. The top navigation bar includes tabs for Monitoring, Inventory, Reports, Configuration, and Administration. The sub-navigation bar shows Host groups, Templates, Hosts, Maintenance, Actions, Discovery, and IT services. The main content area is titled 'Hosts' and features a search filter section with fields for Name, DNS, IP, and Port. Below the filter is a table listing two hosts:

Name	Applications	Items	Triggers	Graphs	Discovery	Web	Interface	Templates	Status	Availability	Agent encryption	Info
192.168.56.102	10	32	15	5	2	Web	192.168.56.102:10050	Template OS Linux (Template App Zabbix Agent)	Enabled	ZBX, SNMP, JMX, IPMI	NONE	
Zabbix server	12	81	46	14	2	Web	127.0.0.1:10050	Template App Zabbix Server, Template OS Linux (Template App Zabbix Agent)	Enabled	ZBX, SNMP, JMX, IPMI	NONE	

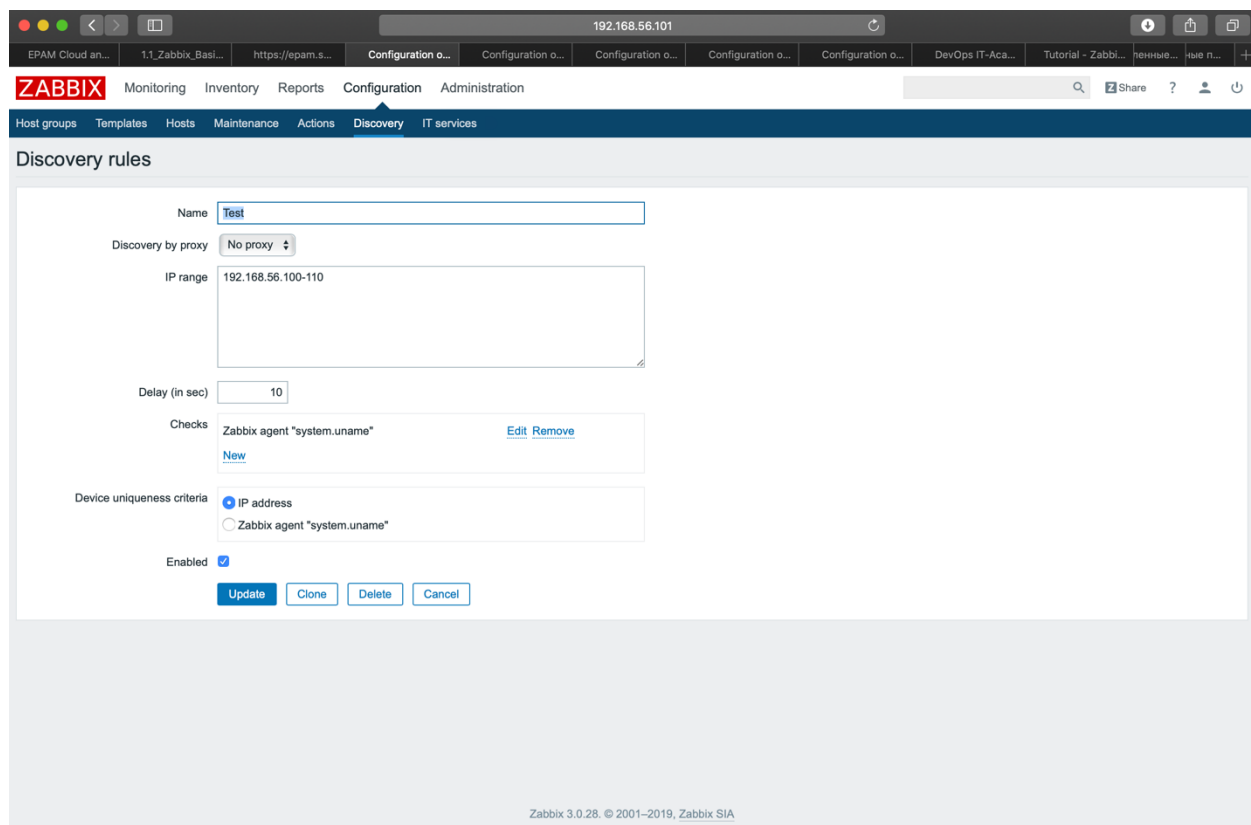
At the bottom, there are buttons for 'Enable', 'Disable', 'Export', 'Mass update', and 'Delete'. The footer indicates 'Zabbix 3.0.28. © 2001–2019, Zabbix SIA'.



The screenshot shows the Zabbix 3.0.28 web interface, specifically the 'Configuration' section under 'Actions'. A green notification bar at the top indicates 'Action updated'. The main content area displays a table with one action:

Name	Conditions	Operations	Status
<input type="checkbox"/> Auto discovery. Linux servers.	Uptime/Downtime >= 600 Discovery status = Up Service type = Zabbix agent	Add to host groups: Project Hosts Link to templates: Template OS Linux	Enabled

Below the table, it shows '0 selected' and buttons for 'Enable', 'Disable', and 'Delete'. A 'Create action' button is also present. The footer indicates 'Zabbix 3.0.28. © 2001–2019, Zabbix SIA'.



The screenshot shows the Zabbix 3.0.28 web interface, specifically the 'Configuration' section under 'Discovery rules'. The form for creating a new discovery rule is displayed with the following details:

- Name: Test
- Discovery by proxy: No proxy
- IP range: 192.168.56.100-110
- Delay (in sec): 10
- Checks: Zabbix agent "system.username" (with 'Edit' and 'Remove' links)
- Device uniqueness criteria: IP address (selected), Zabbix agent "system.username" (unselected)
- Enabled: ☒

At the bottom, there are buttons for 'Update', 'Clone', 'Delete', and 'Cancel'. The footer indicates 'Zabbix 3.0.28. © 2001–2019, Zabbix SIA'.