

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

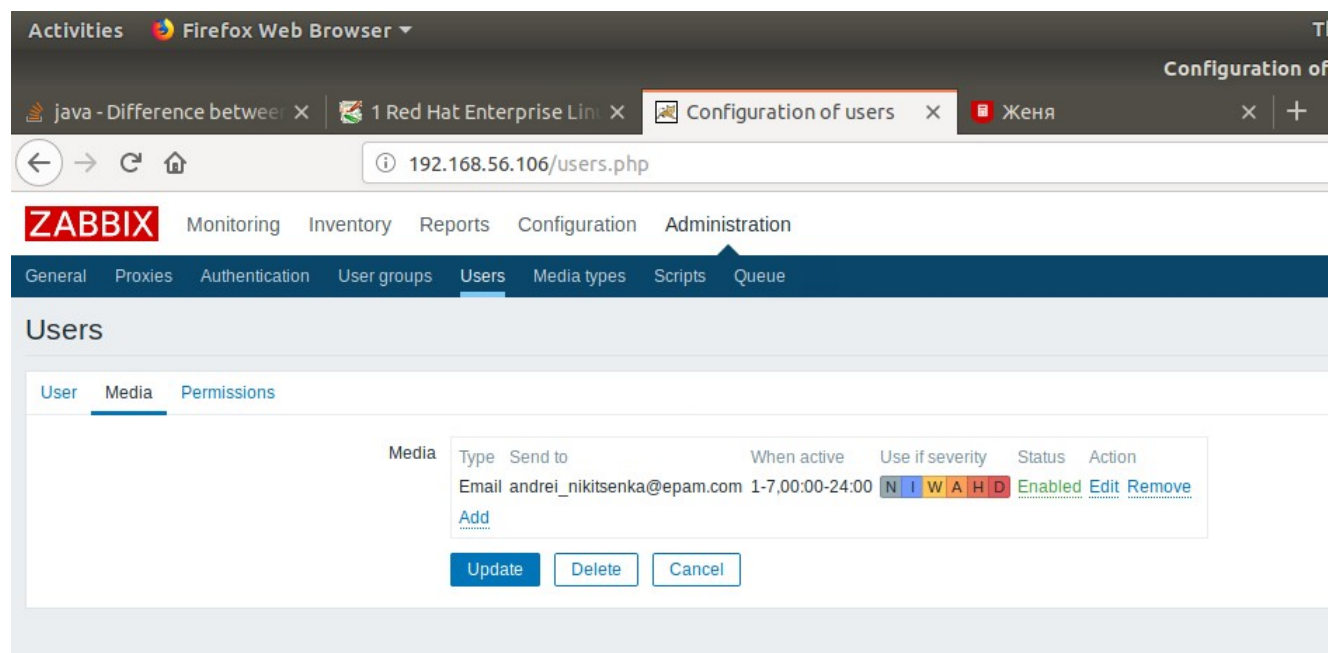
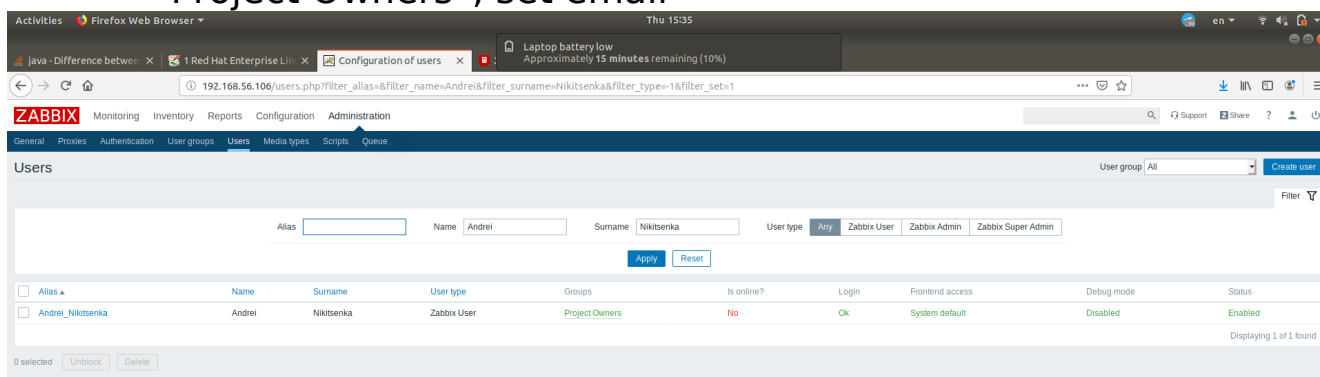
<http://zabbix-server/zabbix> -> <http://zabbix-server>

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

Activities Firefox Web Browser

Configuration of host gr X Жея

192.168.56.106/hostgroups.php?form=update&groupid=15

ZABBIX Monitoring Inventory Reports Configuration Administration

Host groups Templates Hosts Maintenance Actions Event correlation Discovery Services

Host groups

* Group name

☐ Apply permissions and tag filters to all subgroups

Activities Firefox Web Browser Thu 15:40

Configuration of hosts - Mozilla Firefox

192.168.56.106/hosts.php?form=create

ZABBIX Monitoring Inventory Reports Configuration Administration

Host groups Templates Hosts Maintenance Actions Event correlation Discovery Services

Hosts

Host Templates IPMI Macros Host inventory Encryption

* Host name

Visible name

* Groups Select

* At least one interface must exist.

Agent interfaces

IP address	DNS name	Connect to	Port	Default
<input type="text" value="192.168.56.107"/>	<input type="text"/>	<input type="button" value="DNS"/>	<input type="text" value="10050"/>	<input checked="" type="radio"/> Remove

SNMP interfaces

JMX interfaces

IPMI interfaces

Description

Monitored by proxy

Enabled ☒

Zabbix 4.0 Src3. © 2001–2018, Zabbix SIA

- Assign to this host template of Linux

192.168.56.106/hosts.php

ZABBIX Monitoring Inventory Reports Configuration Administration

Host groups Templates Hosts Maintenance Actions Event correlation Discovery Services

Host updated

Group: all

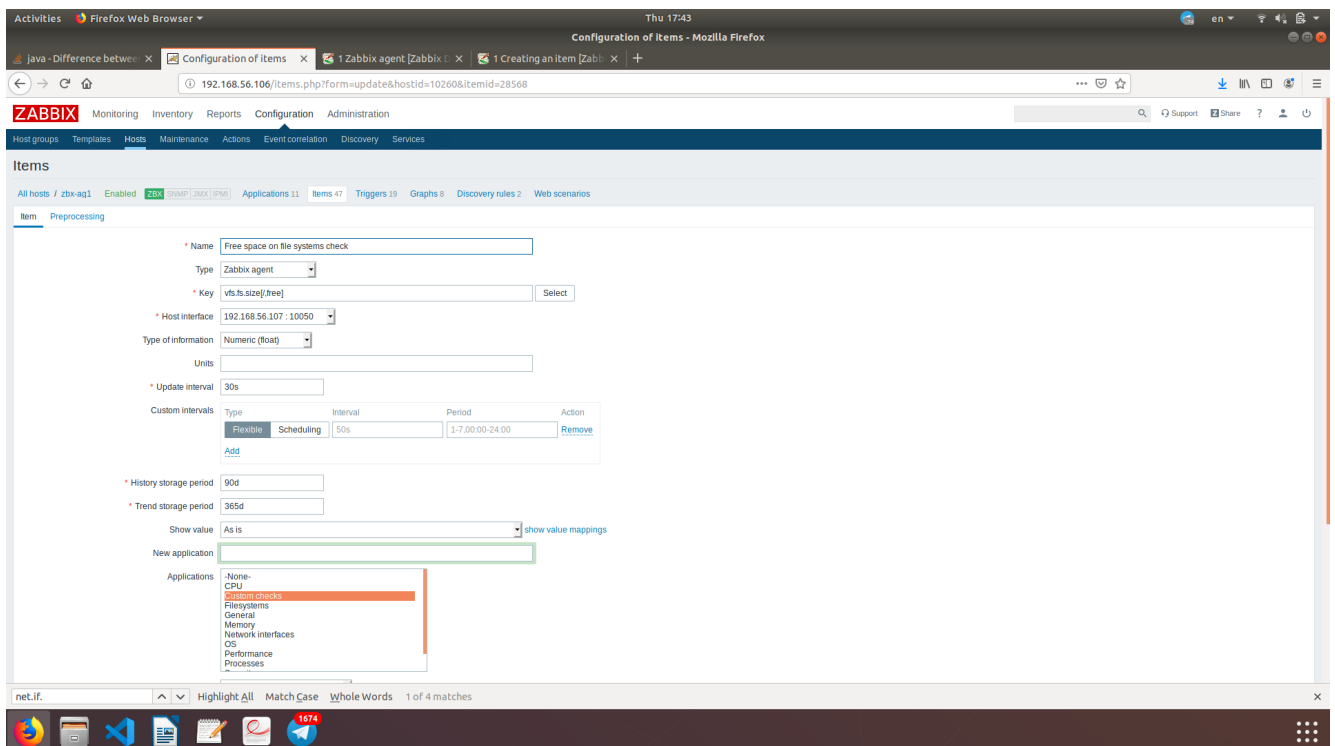
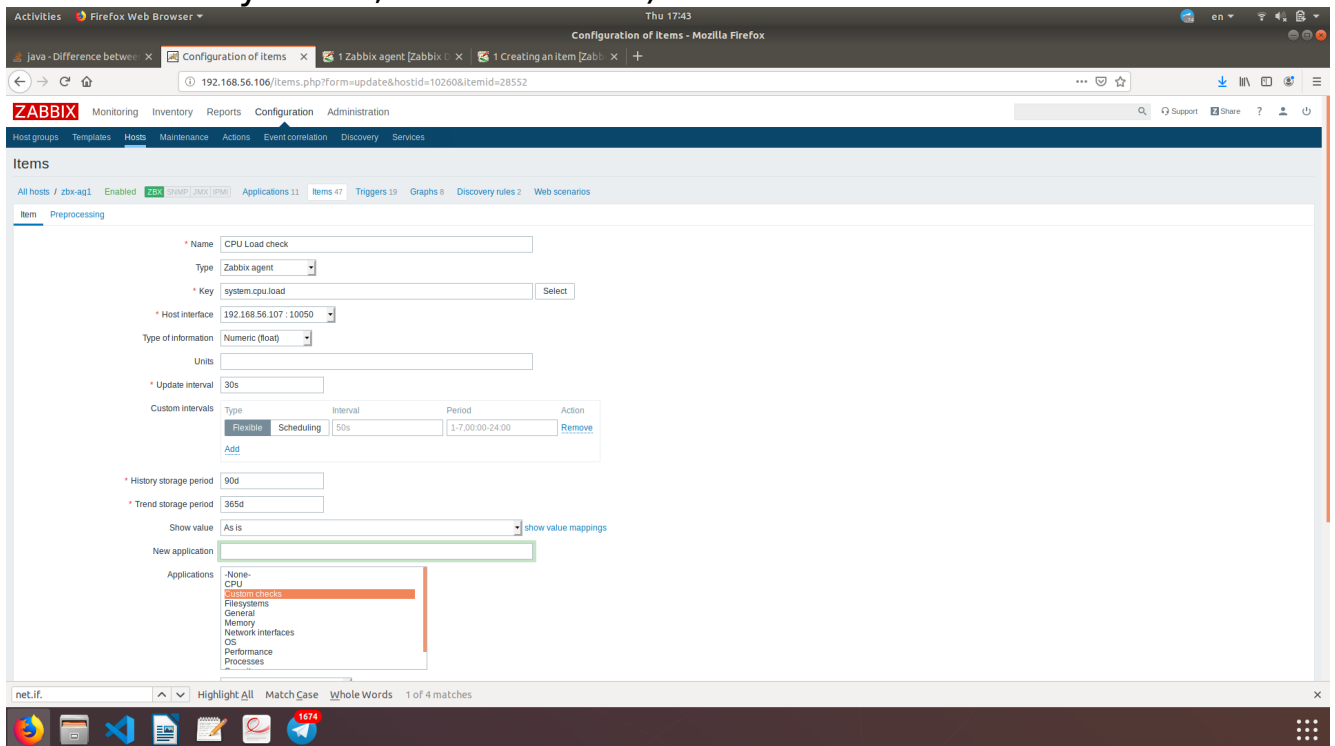
Filter

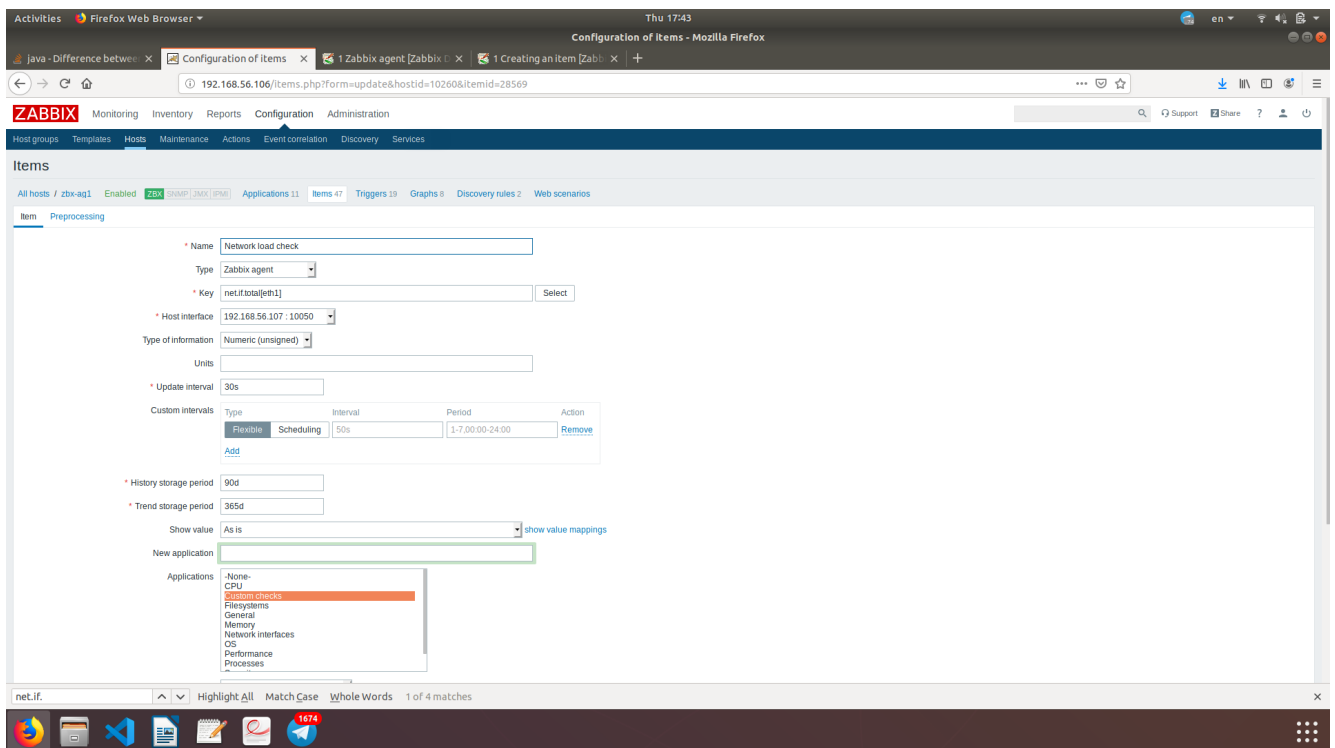
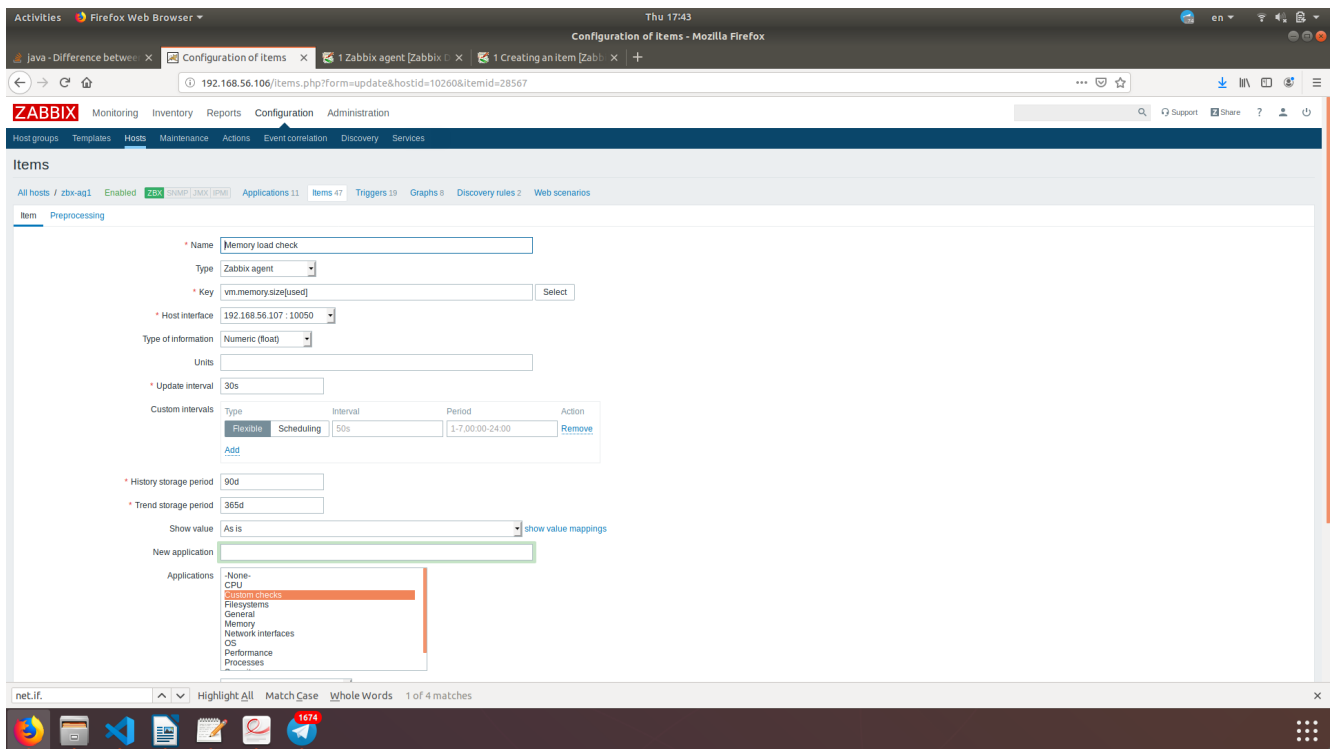
Name	Applications	Items	Triggers	Graphs	Discovery	Web	Interface	Templates	Status	Availability	Agent encryption	Info
Zabbix server	Applications 11	Items 08	Triggers 50	Graphs 15	Discovery 2	Web	127.0.0.1:10050	Template App Zabbix Server, Template OS Linux (Template App Zabbix Agent)	Enabled	200%	SNMP/JMX/IPMI	None
zbx-ag1	Applications 10	Items 32	Triggers 15	Graphs 5	Discovery 2	Web	192.168.56.107:10050	Template OS Linux (Template App Zabbix Agent)	Enabled	200%	SNMP/JMX/IPMI	None

0 selected

Displaying 2 of 2 found

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





192.168.56.106/latest.php?ddreset=1

ZABBIX Monitoring Inventory Reports Configuration Administration

Dashboard Problems Overview Web Latest data Graphs Screens Maps Discovery Services

Latest data

Host groups: Project Hosts x Select Name:

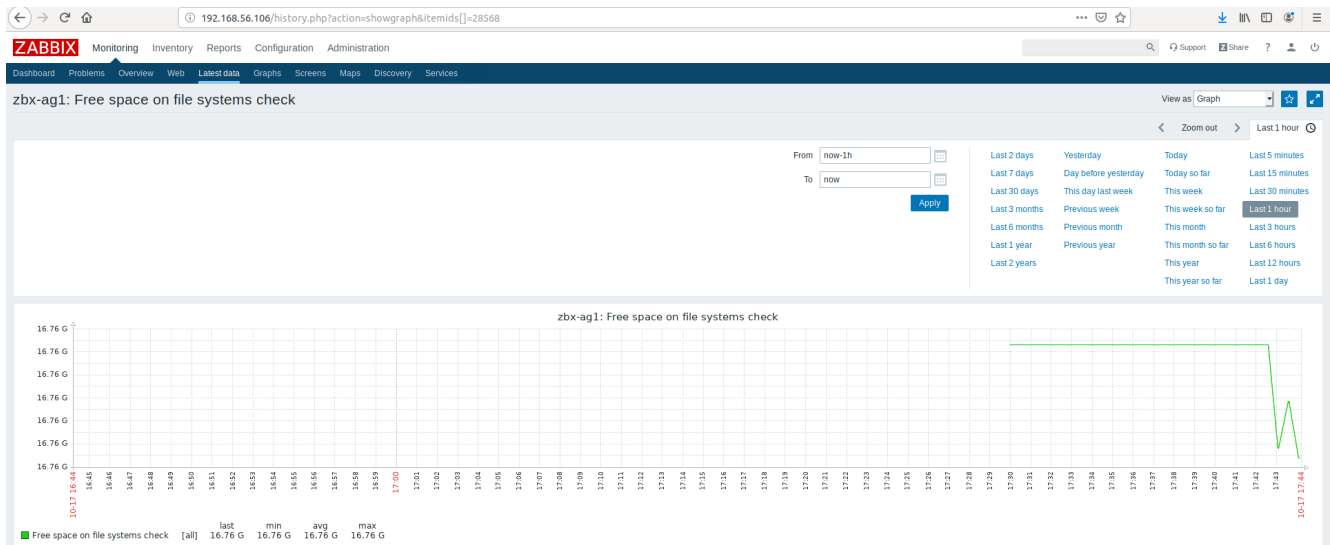
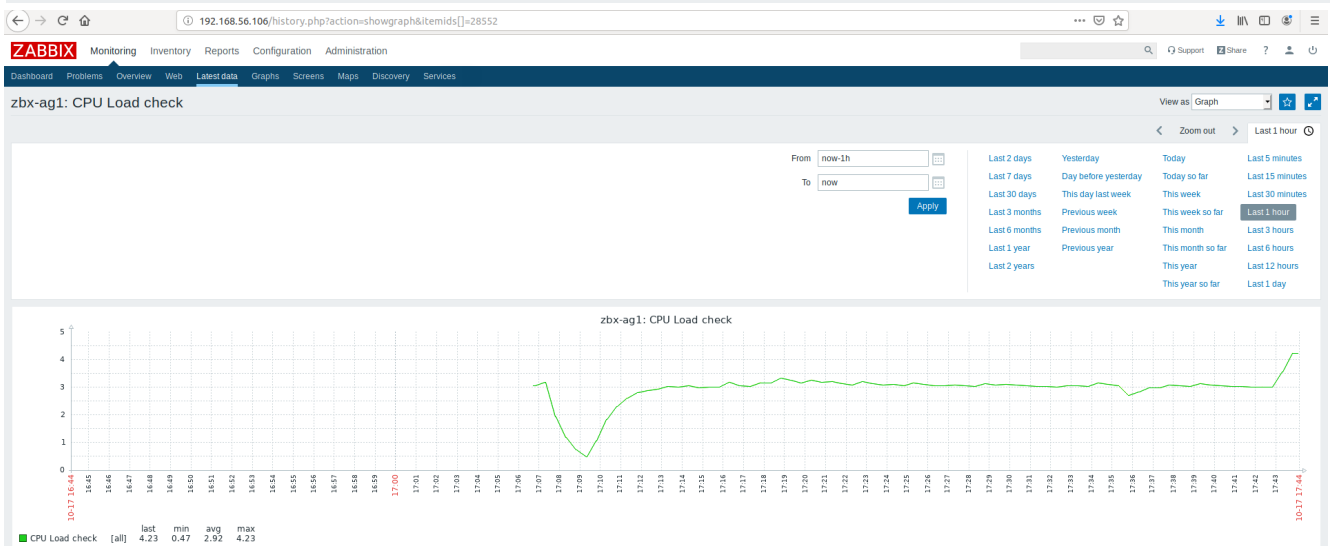
Hosts: zbx-ag1 x Select Show items without data: ☒

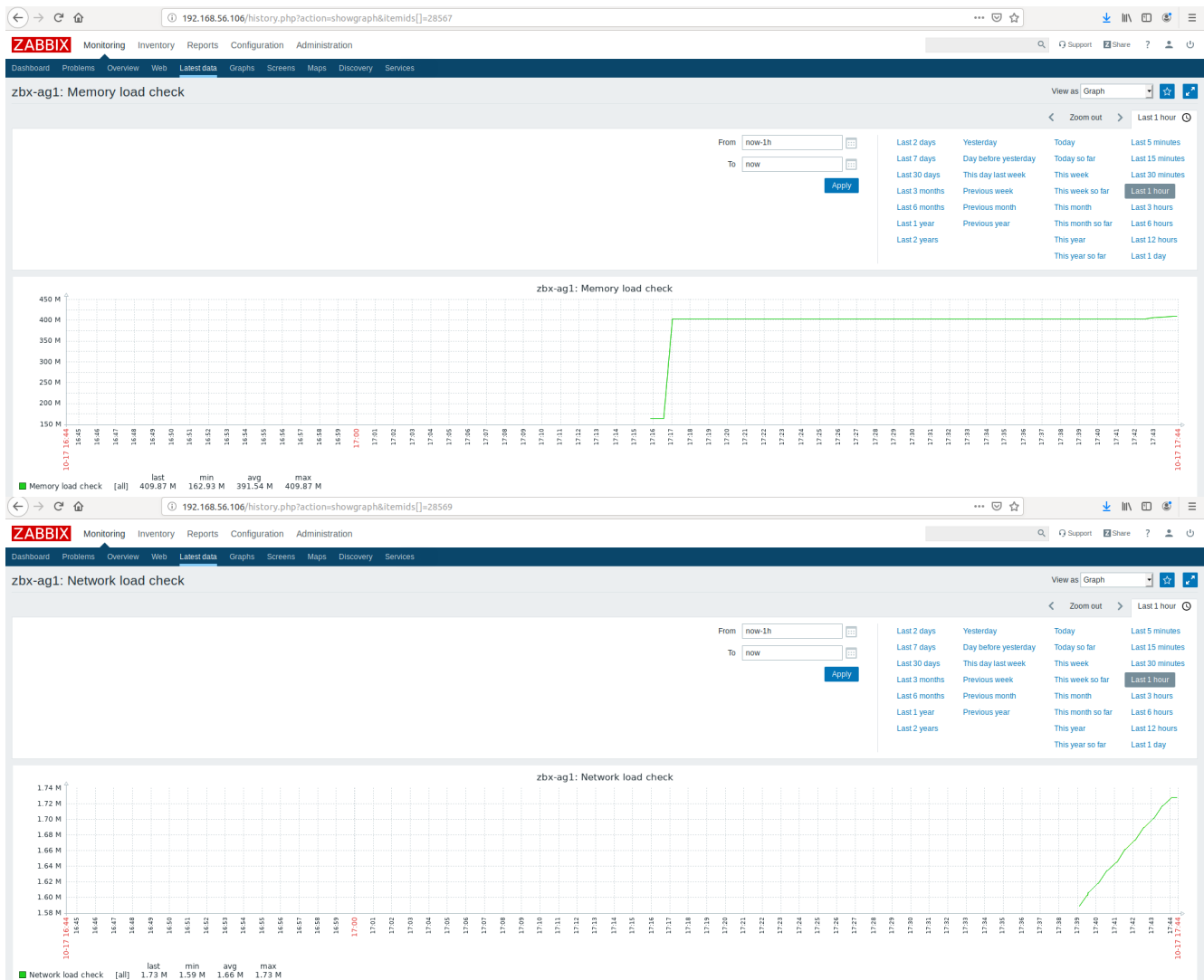
Application: Custom checks Select Show details: ☐

Apply Reset

Host	Name	Last check	Last value	Change
zbx-ag1	Custom checks (4 items)			
<input type="checkbox"/>	CPU Load check	2019-10-17 17:43:52	4.23	+0.68 Graph
<input type="checkbox"/>	Free space on file systems check	2019-10-17 17:43:38	16759177216	+40960 Graph
<input type="checkbox"/>	Memory load check	2019-10-17 17:43:37	408289280	+1216512 Graph
<input type="checkbox"/>	Network load check	2019-10-17 17:43:39	1717427	+16862 Graph

0 selected Display stacked graph Display graph





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

192.168.56.106/actionconf.php?ddreset=1

ZABBIX Monitoring Inventory Reports Configuration Administration

Host groups Templates Hosts Maintenance Actions Event correlation Discovery Services

Actions

Event source: Triggers [Create action](#)

Name: Status: Any Enabled Disabled [Apply](#) [Reset](#)

Name	Conditions	Operations	Status
<input type="checkbox"/> Report problems to Zabbix administrators		Send message to user groups: Zabbix administrators via all media	Disabled
<input type="checkbox"/> Send_paramoid_mail		Send message to users: Andrei_Nikitsenka (Andrei Nikitsenka) via Email_email	Disabled

Disabling 2 of 2 found

192.168.56.106/zabbix.php?action=problem.view&ddreset=1

ZABBIX Monitoring Inventory Reports Configuration Administration

Dashboard Problems Overview Web Latest data Graphs Screens Maps Discovery Services

Problems

[Export to CSV](#)

Show: Recent problems Problems History

Host groups: [Select](#)

Hosts: [Select](#)

Application: [Select](#)

Triggers: [Select](#)

Problem:

Minimum severity: Not classified

Age less than: ☐ 14 days

Host inventory: Type [Remove](#)

Tags: And/Or Or [Add](#)

Tag: [Contains](#) [Equals](#) [Remove](#)

Show tags: None 1 2 3 Tag name: Full Shortened None

Tag display priority:

Show suppressed problems: ☐ Show unacknowledged only: ☐

Compact view: ☐ Show timeline: ☒

Show details: ☐ Highlight whole row: ☐

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

Time	Severity	Recovery time	Status	Info	Host	Problem	Duration	Ack	Actions	Tags
No data found.										

192.168.56.106/zabbix.php?action=problem.view&ddreset=1

ZABBIX Monitoring Inventory Reports Configuration Administration

Dashboard Problems Overview Web Latest data Graphs Screens Maps Discovery Services

Problems

[Export to CSV](#)

Show: Recent problems Problems History

Host groups: [Select](#)

Hosts: [Select](#)

Application: [Select](#)

Triggers: [Select](#)

Problem:

Minimum severity: Not classified

Age less than: ☐ 14 days

Host inventory: Type [Remove](#)

Tags: And/Or Or [Add](#)

Tag: [Contains](#) [Equals](#) [Remove](#)

Show tags: None 1 2 3 Tag name: Full Shortened None

Tag display priority:

Show suppressed problems: ☐ Show unacknowledged only: ☐

Compact view: ☐ Show timeline: ☒

Show details: ☐ Highlight whole row: ☐

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

Time	Severity	Recovery time	Status	Info	Host	Problem	Duration	Ack	Actions	Tags
18:57:08	High		PROBLEM		zbx-ag1	Trigger custom	47s	No	...	

0 selected [Mass update](#)

Time User/Recipient Action Message/Command Status Info

2019-10-17 18:57:10 Admin (Zabbix Administrator) Email_email Sent

2019-10-17 18:57:08

Activities Firefox Web Browser Thu 18:57

Problem: Trigger custom - 3995220@gmail.com - C

java - Difference between: Problems Problem: Trigger custom

<https://mail.google.com/mail/u/0/#inbox/FMfcgxwDrIbPgStjVwqmzGHxgnhwbjs>

Gmail Search mail

[Compose](#)

Inbox 15

- ★ Starred
- 🕒 Snoozed
- 📌 Important
- Sent
- 📧 Drafts 14
- Categories

Problem: Trigger custom

anikitsenka.test@gmail.com to me

Problem started at 15:57:08 on 2019.10.17

Problem name: Trigger custom

Host: zbx-ag1

Severity: High

Original problem ID: 57

2. Using Zabbix UI:

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

The first screenshot shows the 'Configuration of actions' page in the Zabbix web interface. The 'Name' field is set to 'Auto discovery. Linux servers'. The 'Type of calculation' is set to 'AndOr'. The 'Conditions' section shows three conditions: 'Host IP equals 192.168.56.1-254', 'Discovery status equals Up', and 'Service type equals Zabbix agent'. The 'New condition' section shows 'Host IP equals 192.168.0.1-127.192.168.2.1'. The 'Enabled' checkbox is checked. The second screenshot shows the 'Actions' page with a confirmation message 'Action updated'. The third screenshot shows the 'Operations' tab for the 'Auto discovery. Linux servers' action. The 'Default subject' is 'Discovery: [DISCOVERYDEVICE.STATUS] [DISCOVERYDEVICE.IPADDRESS]'. The 'Default message' is 'Discovery rule: [DISCOVERYRULE.NAME]'. The 'Operations' section shows 'Add host', 'Add to host groups: Project Hosts', and 'Link to templates: Template OS Linux'.

Activities Firefox Web Browser Thu 19:20 Configuration of actions - Mozilla Firefox

192.168.56.106/actionconf.php

ZABBIX Monitoring Inventory Reports Configuration Administration

Host groups Templates Hosts Maintenance Actions Event correlation Discovery Services

Actions

Action Operations

* Name: Auto discovery. Linux servers

Type of calculation: AndOr A and B and C

Conditions

Label	Name	Action
A	Host IP equals 192.168.56.1-254	Remove
B	Discovery status equals Up	Remove
C	Service type equals Zabbix agent	Remove

New condition

Host IP equals 192.168.0.1-127.192.168.2.1

[Add](#)

Enabled ☒

* At least one operation must exist.

[Add](#) [Cancel](#)

192.168.56.106/actionconf.php

ZABBIX Monitoring Inventory Reports Configuration Administration

Host groups Templates Hosts Maintenance Actions Event correlation Discovery Services

✓ Action updated

Event source: Discovery [Create action](#)

Actions

Name: Status: Any Enabled Disabled

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

Name	Conditions	Operations	Status
<input checked="" type="checkbox"/> Auto discovery. Linux servers	Discovery status equals Up Service type equals Zabbix agent Host IP equals 192.168.56.1-254	Add host Add to host groups: Project Hosts Link to templates: Template OS Linux	Enabled

Displaying 1 of 1 found

192.168.56.106/actionconf.php?form=update&actionid=10

ZABBIX Monitoring Inventory Reports Configuration Administration

Host groups Templates Hosts Maintenance Actions Event correlation Discovery Services

Actions

Action Operations

Default subject: Discovery: [DISCOVERYDEVICE.STATUS] [DISCOVERYDEVICE.IPADDRESS]

Default message: Discovery rule: [DISCOVERYRULE.NAME]
Device IP: [DISCOVERYDEVICE.IPADDRESS]
Device DNS: [DISCOVERYDEVICE.DNS]
Device status: [DISCOVERYDEVICE.STATUS]
Device uptime: [DISCOVERYDEVICE.uptime]
Device service name: [DISCOVERYSERVICE.NAME]

Operations

Details	Action
Add host	Edit Remove
Add to host groups: Project Hosts	Edit Remove
Link to templates: Template OS Linux	Edit Remove

* At least one operation must exist.

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

Activities Firefox Web Browser Thu 19:39 Configuration of hosts - Mozilla Firefox

192.168.56.106/hosts.php?ddreset=1

ZABBIX Monitoring Inventory Reports Configuration Administration

Host groups Templates Hosts Maintenance Actions Event correlation Discovery Services

Hosts

Group: all Create host Import Filter

Name: DNS:
Monitored by: Any Server Proxy IP:
Port:
Apply Reset

<input type="checkbox"/>	Name	Applications	Items	Triggers	Graphs	Discovery	Web	Interface	Templates	Status	Availability	Agent encryption	Info
<input type="checkbox"/>	192.168.56.107	Applications 10	Items 32	Triggers 15	Graphs 5	Discovery 2	Web	192.168.56.107:10050	Template OS Linux (Template App Zabbix Agent)	Enabled	2BX SNMP JMX PMM	NONE	
<input type="checkbox"/>	Zabbix server	Applications 11	Items 88	Triggers 50	Graphs 15	Discovery 2	Web	127.0.0.1:10050	Template App Zabbix Server, Template OS Linux (Template App Zabbix Agent)	Enabled	2BX SNMP JMX PMM	NONE	

Displaying 2 of 2 found

0 selected Enable Disable Export Mass update Delete

Activities Firefox Web Browser Thu 19:39 Configuration of hosts - Mozilla Firefox

192.168.56.106/hosts.php

ZABBIX Monitoring Inventory Reports Configuration Administration

Host groups Templates Hosts Maintenance Actions Event correlation Discovery Services

Details Host deleted

Hosts

Group: all Create host Import Filter

Name: DNS:
Monitored by: Any Server Proxy IP:
Port:
Apply Reset

<input type="checkbox"/>	Name	Applications	Items	Triggers	Graphs	Discovery	Web	Interface	Templates	Status	Availability	Agent encryption	Info
<input type="checkbox"/>	Zabbix server	Applications 11	Items 88	Triggers 50	Graphs 15	Discovery 2	Web	127.0.0.1:10050	Template App Zabbix Server, Template OS Linux (Template App Zabbix Agent)	Enabled	2BX SNMP JMX PMM	NONE	

Displaying 1 of 1 found

0 selected Enable Disable Export Mass update Delete

Activities Firefox Web Browser Thu 19:40 Configuration of hosts - Mozilla Firefox

192.168.56.106/hosts.php?ddreset=1

ZABBIX Monitoring Inventory Reports Configuration Administration

Host groups Templates Hosts Maintenance Actions Event correlation Discovery Services

Hosts

Group: all Create host Import Filter

Name: DNS:
Monitored by: Any Server Proxy IP:
Port:
Apply Reset

<input type="checkbox"/>	Name	Applications	Items	Triggers	Graphs	Discovery	Web	Interface	Templates	Status	Availability	Agent encryption	Info
<input type="checkbox"/>	Zabbix server	Applications 11	Items 88	Triggers 50	Graphs 15	Discovery 2	Web	127.0.0.1:10050	Template App Zabbix Server, Template OS Linux (Template App Zabbix Agent)	Enabled	2BX SNMP JMX PMM	NONE	

Displaying 1 of 1 found

0 selected Enable Disable Export Mass update Delete

Activities Firefox Web Browser Thu 19:45 Configuration of hosts - Mozilla Firefox

192.168.56.106/hosts.php?ddreset=1

ZABBIX Monitoring Inventory Reports Configuration Administration

Host groups Templates Hosts Maintenance Actions Event correlation Discovery Services

Hosts

Group: all Create host Import Filter

Name: DNS:
Monitored by: Any Server Proxy IP:
Port:
Apply Reset

<input type="checkbox"/>	Name	Applications	Items	Triggers	Graphs	Discovery	Web	Interface	Templates	Status	Availability	Agent encryption	Info
<input type="checkbox"/>	192.168.56.107	Applications 10	Items 32	Triggers 15	Graphs 5	Discovery 2	Web	192.168.56.107:10050	Template OS Linux (Template App Zabbix Agent)	Enabled	2BX SNMP JMX PMM	NONE	
<input type="checkbox"/>	Zabbix server	Applications 11	Items 88	Triggers 50	Graphs 15	Discovery 2	Web	127.0.0.1:10050	Template App Zabbix Server, Template OS Linux (Template App Zabbix Agent)	Enabled	2BX SNMP JMX PMM	NONE	

Displaying 2 of 2 found

0 selected Enable Disable Export Mass update Delete

Activities Firefox Web Browser Thu 19:51
Status of discovery - Mozilla Firefox

java - Difference between x Status of discovery x Problem: Trigger custom x +

192.168.56.106/zabbix.php?action=discovery.view&druleid=3

ZABBIX Monitoring Inventory Reports Configuration Administration

Dashboard Problems Overview Web Latest data Graphs Screens Maps Discovery Services

Status of discovery Discovery rule Discovery_rule

Discovered device	Monitored host	Uptime/Downtime	Zabbix agent system uptime
192.168.56.107	192.168.56.107	00:39:35	39m 35s