

EPAM Systems, RD Dep., RD Dep.

MTN.NIX.05.Zabbix.API

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 API

Task:

You should develop a script (on Python 2.x) which registers given host in Zabbix.

Testing Infrastructure:

Vagrantfile to spin up 2 VMs (virtualbox):

- zabbix server, provisioned by Vagrant provisioner
- Linux VM with zabbix agent, script for registration on zabbix server, all provisioned by Vagrant provisioner

Registering Script requirements:

- Written on Python 2.x
 - Starts at VM startup or on provision phase
 - Host registered in Zabbix server should have Name = Hostname (not IP)
 - Host registered in Zabbix server should belong to "CloudHosts" group
 - Host registered in Zabbix server should be linked with Custom template
 - This script should create group "CloudHosts" if it doesn't exist
- For both VMs use vagrant box "sbeliakou/centos-7.3-x86_64-minimal"

```
add_agent.sh - tasks - Visual Studio Code
File Edit Selection View Go Debug Terminal Help
Vagrantfile script.sh add_agent.sh x
add_agent.sh
8  srv_api="http://192.168.56.106/api_jsonrpc.php"
9  srv_port="10050"
10 agent_ip=$(hostname -I | cut -d ' ' -f 2)
11
12 #Authenticate and get key from response
13 zbx_auth_request() {
14     curl -i -X POST -H 'Content-Type: application/json-rpc' -d '{"jsonrpc": "2.0", "method'
15 }
16 zbx_auth_response=$(zbx_auth_request)
17 zbx_auth_key=$(echo $zbx_auth_response | cut -d '"' -f 8)
18
19 #Accordingly to the task we should check existence of group "CloudHosts"
20 zbx_hostgroup_check() {
21     curl -i -X POST -H 'Content-Type: application/json-rpc' -d '{"jsonrpc": "2.0", "method'
22 }
23 zbx_hostgroup_check_response=$(zbx_hostgroup_check)
24 #If group is not exist, value below is 0
25 test_nonexist_grp=$(echo $zbx_hostgroup_check_response | cut -d '"' -f 7)
26
27 #Create hostgroup and get id of group from response
28 zbx_hostgroup_create() {
29     curl -i -X POST -H 'Content-Type: application/json-rpc' -d '{"jsonrpc": "2.0", "method'
30 }
31 # Condition. Create or use exist group with certain name
32 [[ $test_nonexist_grp == "0" ]] && zbx_hostgroup_create_response=$(zbx_hostgroup_creat
33 # Get ID from response of created or exist group
34 zbx_grp_id=$(echo $zbx_hostgroup_create_response | cut -d '"' -f 10)
35
36 #Create custom template
37 zbx_template_create() {
38     curl -i -X POST -H 'Content-Type: application/json-rpc' -d '{"jsonrpc": "2.0", "method'
39 }
40 zbx_template_create_response=$(zbx_template_create)
41 zbx_template_id=$(echo $zbx_template_create_response | cut -d '"' -f 10)
42
43 #Finally, create host
44 zbx_create_host() {
45     curl -i -X POST -H 'Content-Type: application/json-rpc' -d '{"jsonrpc": "2.0", "method'
46 }
47 zbx_create_host_response=$(zbx_create_host)
48 zbx_host_id=$(echo $zbx_create_host_response | cut -d '"' -f 10)
49 echo "New host $zbx_agent_name was successfully added to the Zabbix-server with id=$zbx_h
```

192.168.56.106/hostgroups.php?ddreset=1

ZABBIX Monitoring Inventory Reports Configuration Administration

Host groups Templates Hosts Maintenance Actions Event correlation Discovery Services

Host groups

Create host group

Name

Apply Reset

Name	Hosts	Templates	Members	Info
CloudHosts	Hosts 1	Templates 1	Custom_template	
			Zabbix_agent_API	

EPAM Cloud and DevOps Zabbix server: Configuration

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

Name

Templates Select

DNS

IP

Port

Monitored by **Any** Server Proxy

Proxy Select

Tags **And/Or** Or

tag Contains Equals value Remove

Add

Apply Reset

Name	Applications	Items	Triggers	Graphs	Discovery	Web	Interface	Proxy	Templates
Zabbix server	Applications 13	Items 96	Triggers 49	Graphs 17	Discovery 3	Web	127.0.0.1:10050		Template App Zabbix Server, Template OS Linux by Zabbix agent (Template Module Linux block devices by Zabbix agent, Template Module Linux CPU by Zabbix agent, Template Module Linux filesystems by Zabbix agent, Template Module Linux generic by Zabbix agent, Template Module Linux memory by Zabbix agent, Template Module Linux network interfaces by Zabbix agent, Template Module Zabbix agent)
Zabbix_agent_API	Applications	Items	Triggers	Graphs	Discovery	Web	192.168.56.107:10050		Custom_template