

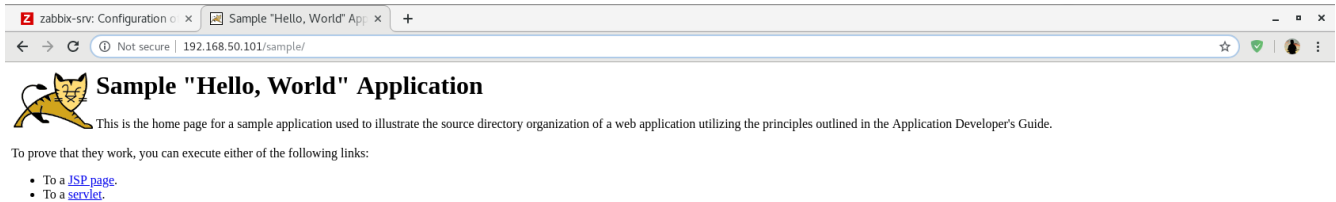
--- Day 02 ---

1: Zabbix WEB

Tasks:

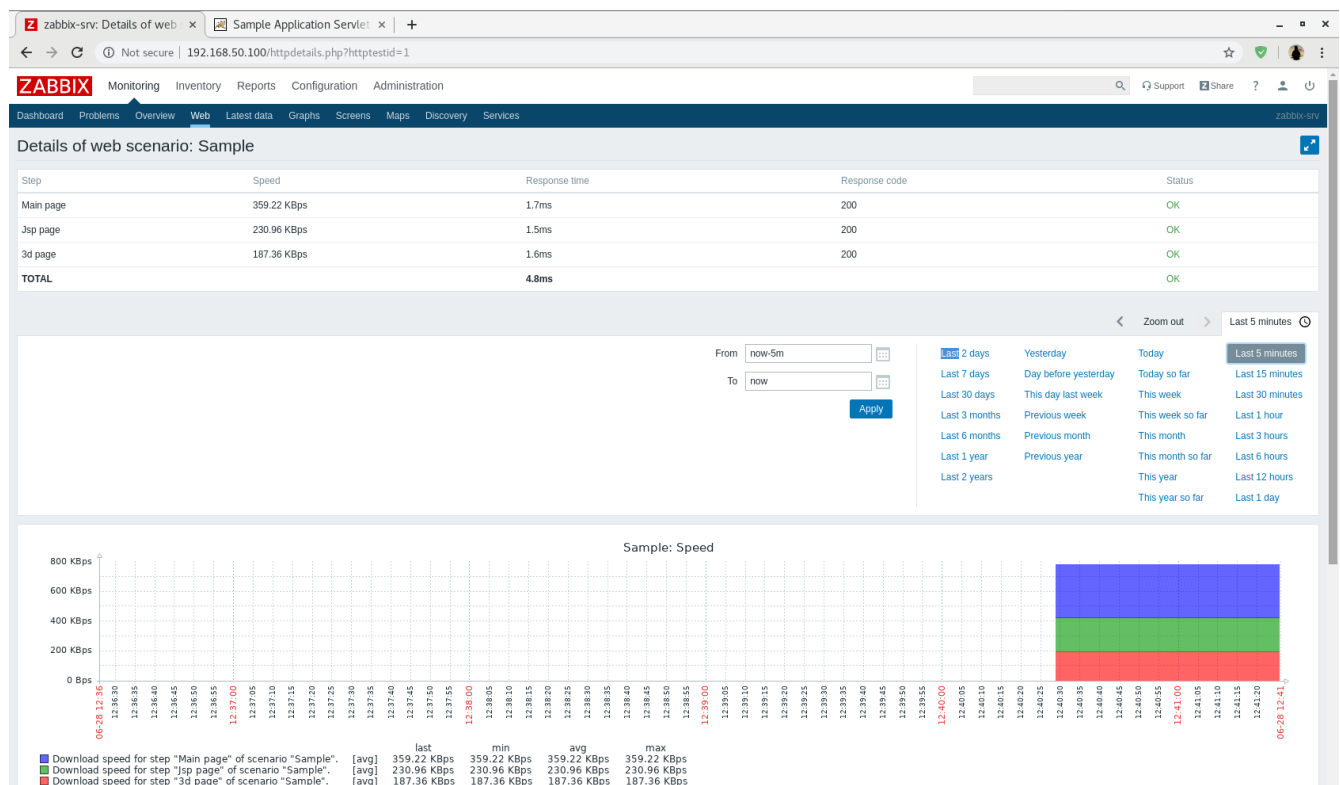
Configure WEB check:

1. Scenario to test Tomcat availability as well as Application health

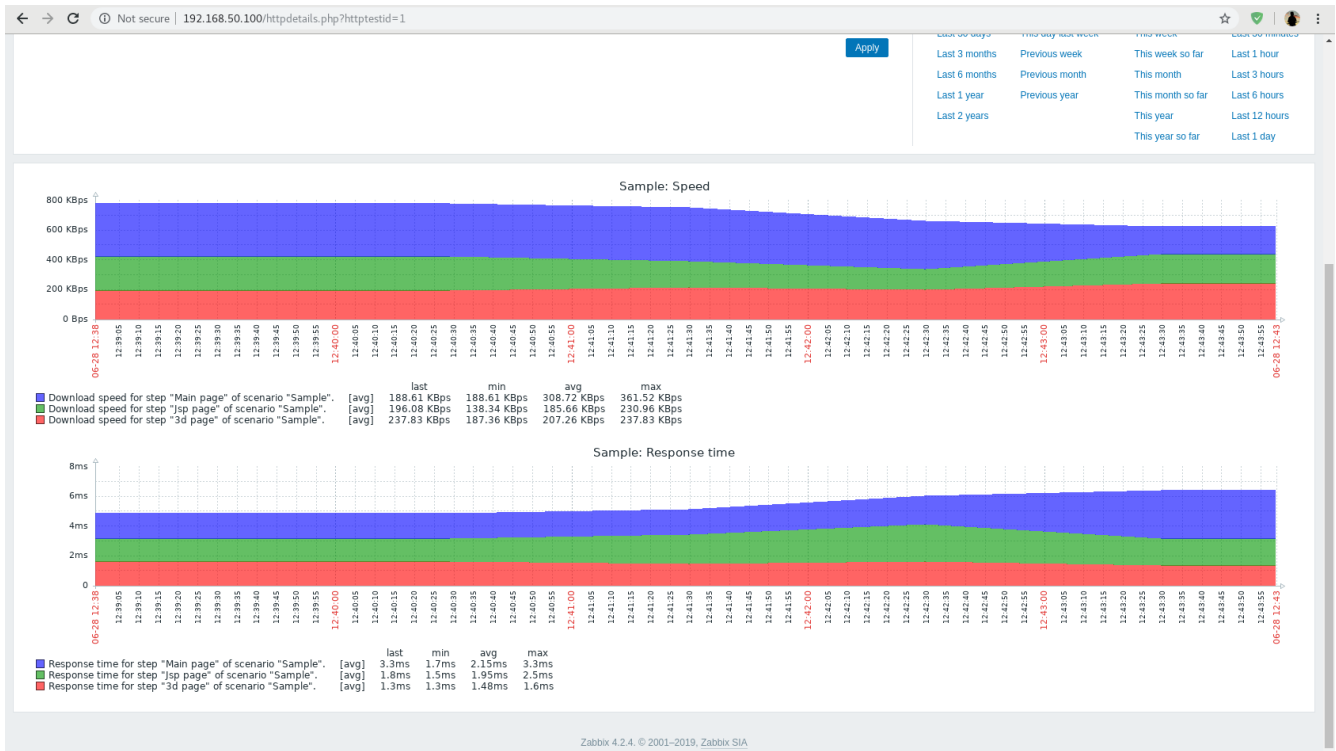


Picture 1

2. Configure Triggers to alert once WEB resources become unavailable



Picture 2.1

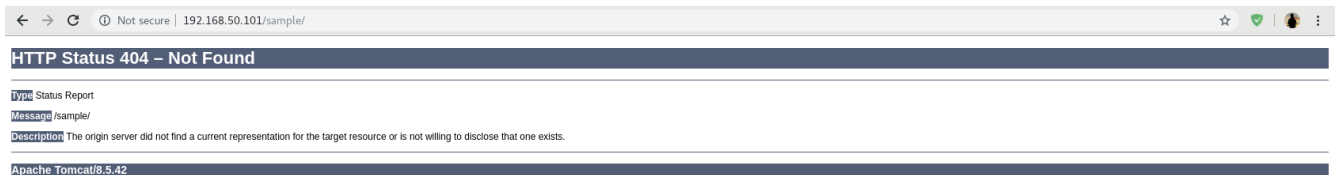


Picture 2.2

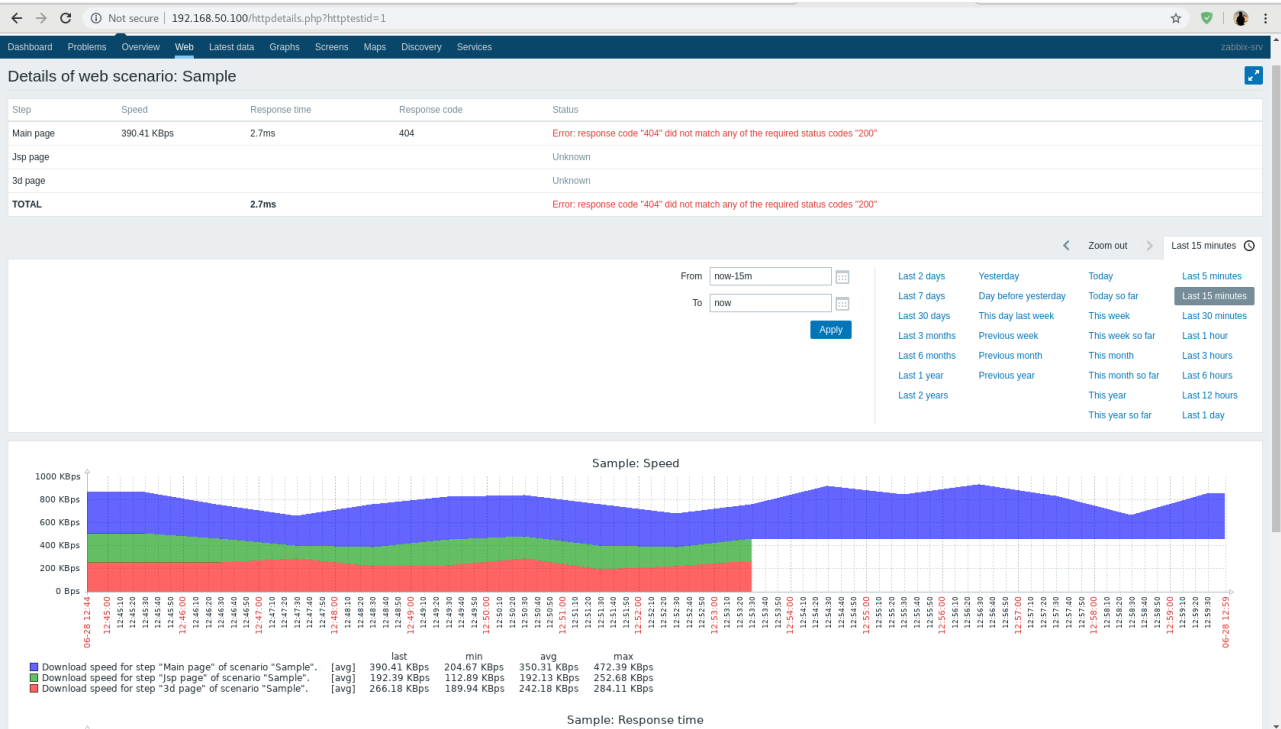
3. Stop simple.war

name	name	name	name	name	name
/sample	None specified	Hello, World Application	false	0	Expire sessions with idle ≥ 30 minutes
Start Stop Reload Undeploy					
Deploy					

Picture 3.1



Picture 3.2

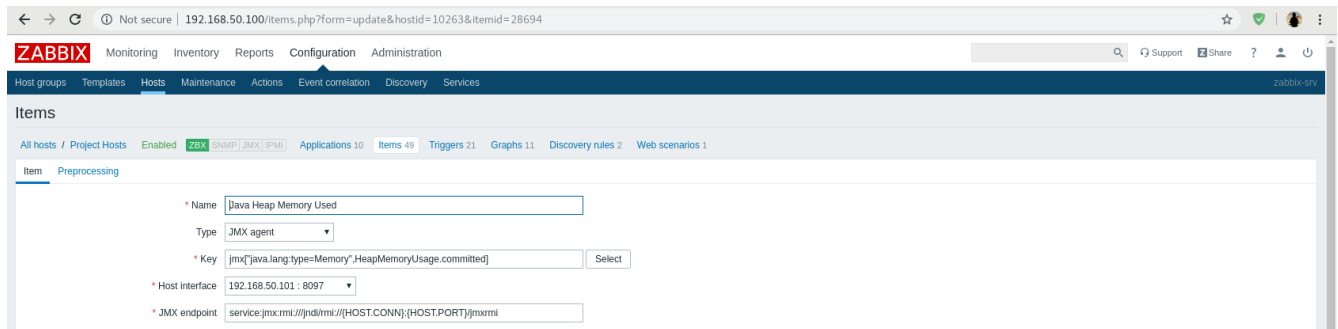


Picture 3.3

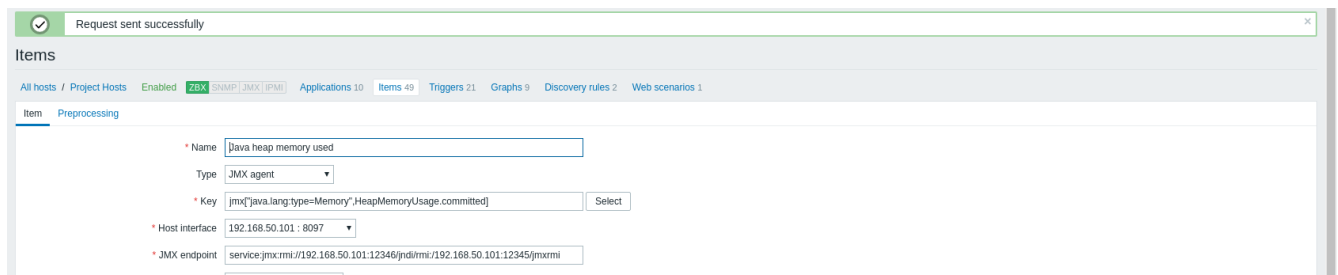
2: Zabbix JAVA

Tasks:

1. Configure Zabbix to examine Java parameters via Java Gateway (<http://jmxmonitor.sourceforge.net/jmx.html>)

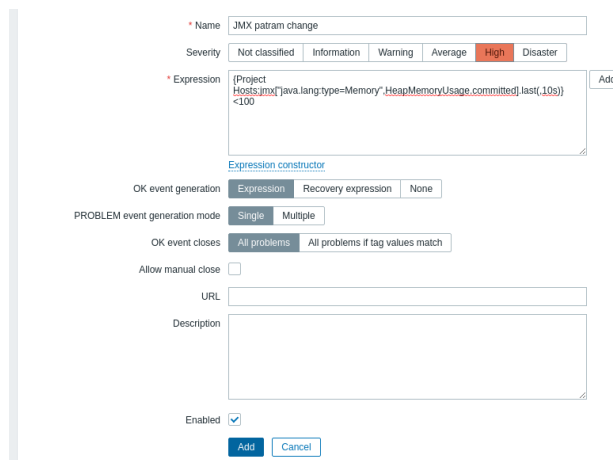


Picture 4.1



Picture 4.2

2. Configure triggers to alert once these parameters changed.



Picture 5.1

ZABBIX

MonitoringInventoryReportsConfigurationAdministration

Host groupsTemplatesHostsMaintenanceActionsEvent correlationDiscoveryServices

Actions

ActionOperationsRecovery operationsUpdate operations

Name

Report false problem with application

Type of calculation

And/Or

A and B and C

Conditions

Label	Name	Action
A	Trigger equals Project Hosts: JMX patram change	Remove
B	Host equals Project Hosts	Remove
C	Trigger severity equals High	Remove

New condition

Trigger severity

equals

Not classified

Add

Enabled

☒

At least one operation, recovery operation or update operation must exist.

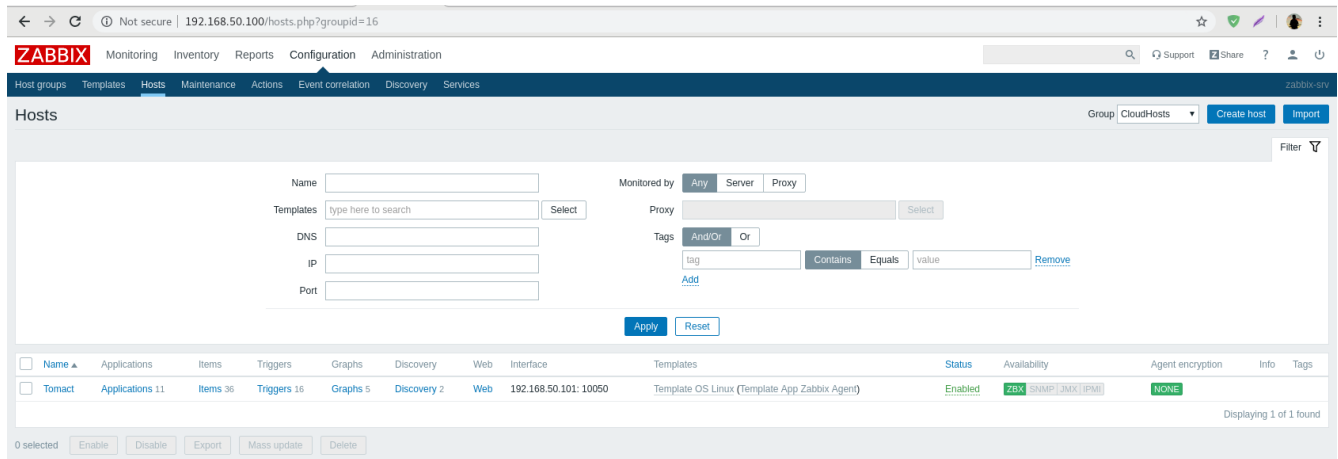
AddCancel

Picture 5.2

3: Zabbix API

Registering Script requirements:
Written on Python 2.x

1. Starts at VM startup or on provision phase
2. Host registered in Zabbix server should have Name = Hostname (not IP)
3. Host registered in Zabbix server should belong to "CloudHosts" group
4. Host registered in Zabbix server should be linked with Custom template
5. This script should create group "CloudHosts" if it doesn't exist



Picture 6.1

Listing main.py:

```
import requests, json

from requests.auth import HTTPBasicAuth

zabbix_server = "192.168.50.100"
zabbix_api_admin_name = "Admin"
zabbix_api_admin_password = "zabbix"

def post(request):
    headers = {'content-type': 'application/json'}
    return requests.post(
        "http://" + zabbix_server + "/api_jsonrpc.php",
        data=json.dumps(request),
        headers=headers,
        auth=HTTPBasicAuth(zabbix_api_admin_name, zabbix_api_admin_password)
    )

auth_token = post({
    "jsonrpc": "2.0",
    "method": "user.login",
    "params": {
        "user": zabbix_api_admin_name,
```

```

        "password": zabbix_api_admin_password
    },
    "auth": None,
    "id": 0}
).json()["result"]

def register_group(groupname="CloudHosts"):
    post({
        "jsonrpc": "2.0",
        "method": "hostgroup.create",
        "params": {
            "name": groupname
        },
        "auth": auth_token,
        "id": 1
    })

def register_host(hostname="Tomcat", ip="192.168.50.101"):
    post({
        "jsonrpc": "2.0",
        "method": "host.create",
        "params": {
            "host": hostname,
            "templates": [{
                "templateid": "10001" # Template OS Linux
            }],
            "interfaces": [{
                "type": 1,
                "main": 1,
                "useip": 1,
                "ip": ip,
                "dns": "",
                "port": "10050"
            }],
            "groups": [
                {
                    "groupid": "50"
                }
            ]
        },
        "auth": auth_token,
        "id": 2
    })

```

Another version:

```

from pyzabbix import ZabbixAPI

zapi = ZabbixAPI("http://192.168.50.100")
zapi.login("Admin", "zabbix")

zapi.hostgroup.create({
    "name": "CloudHosts-2"
})

```

```

})

zapi.host.create({
  "host": "Tomcat-2",
  "interfaces":
  [{
    "type": 1,
    "main": 1,
    "useip": 1,
    "ip": "192.168.50.101",
    "dns": "",
    "port": 10001
  }],
  "groups": [{
    "groupid": "12"
  }],
  "templates": [{
    "templateid": '10001'
  }],
})

```

← → Not secure | 192.168.50.100/hosts.php

ZABBIX Monitoring Inventory Reports Configuration Administration

Host groups Templates **Hosts** Maintenance Actions Event correlation Discovery Services

Host updated

Hosts Group: all Create host Import

Filter

Name: Monitored by: ☐ Any ☐ Server ☐ Proxy

Templates: type here to search Proxy:

DNS: Tags: ☐ And/Or ☐ Or

IP: tag Contains Equals value

Port:

<input type="checkbox"/>	Name	Applications	Items	Triggers	Graphs	Discovery	Web	Interface	Templates	Status	Availability	Agent encryption	Info	Tags
<input type="checkbox"/>	Project Hosts	Applications 11	Items 50	Triggers 22	Graphs 9	Discovery 2	Web 1	192.168.50.101: 10050	Template OS Linux (Template App Zabbix Agent)	Enabled	ZBX SNMP JMX IPMI	NONE		
<input type="checkbox"/>	test	Applications	Items	Triggers	Graphs	Discovery	Web	192.168.50.101: 10001	Template OS Linux (Template App Zabbix Agent)	Enabled	ZBX SNMP JMX IPMI	NONE		
<input type="checkbox"/>	Tomact	Applications 12	Items 50	Triggers 20	Graphs 9	Discovery 2	Web	192.168.50.101: 10050	Template OS Linux (Template App Zabbix Agent)	Enabled	ZBX SNMP JMX IPMI	NONE		
<input checked="" type="checkbox"/>	Tomcat-2	Applications 10	Items 34	Triggers 16	Graphs 5	Discovery 2	Web	192.168.50.101: 10001	Template OS Linux (Template App Zabbix Agent)	Enabled	ZBX SNMP JMX IPMI	NONE		
<input type="checkbox"/>	Zabbix server	Applications 11	Items 79	Triggers 49	Graphs 11	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 5 of 5 found

1 selected

Zabbix 4.2.4, © 2001–2019, Zabbix SIA

Picture 6.2

← → ⓘ Not secure | 192.168.50.100/hosts.php?form=update&hostid=10267&groupid=0

ZABBIX

MonitoringInventoryReportsConfigurationAdministration

🔍🔗 Support🔗 Share?👤⏻

Host groupsTemplatesHostsMaintenanceActionsEvent correlationDiscoveryServiceszabbix-srv

Hosts

All hosts / Tomcat-2EnabledZBXSNMPJMXIPMIApplications 10Items 34Triggers 16Graphs 5Discovery rules 2Web scenarios

HostTemplatesIPMITagsMacrosInventoryEncryption

* Host nameTomcat-2

Visible name

* GroupsCloud-Hosts-2 XSelect
type here to search

* At least one interface must exist.

Agent interfaces

IP address	DNS name	Connect to	Port	Default
192.168.50.101		IPDNS	10001	<input checked="" type="radio"/> Remove

Add

SNMP interfaces

Add

JMX interfaces

Add

IPMI interfaces

Add

Description

Monitored by proxy

(no proxy)

Enabled

☒

Update

Clone

Full clone

Delete

Cancel

Picture 6.3