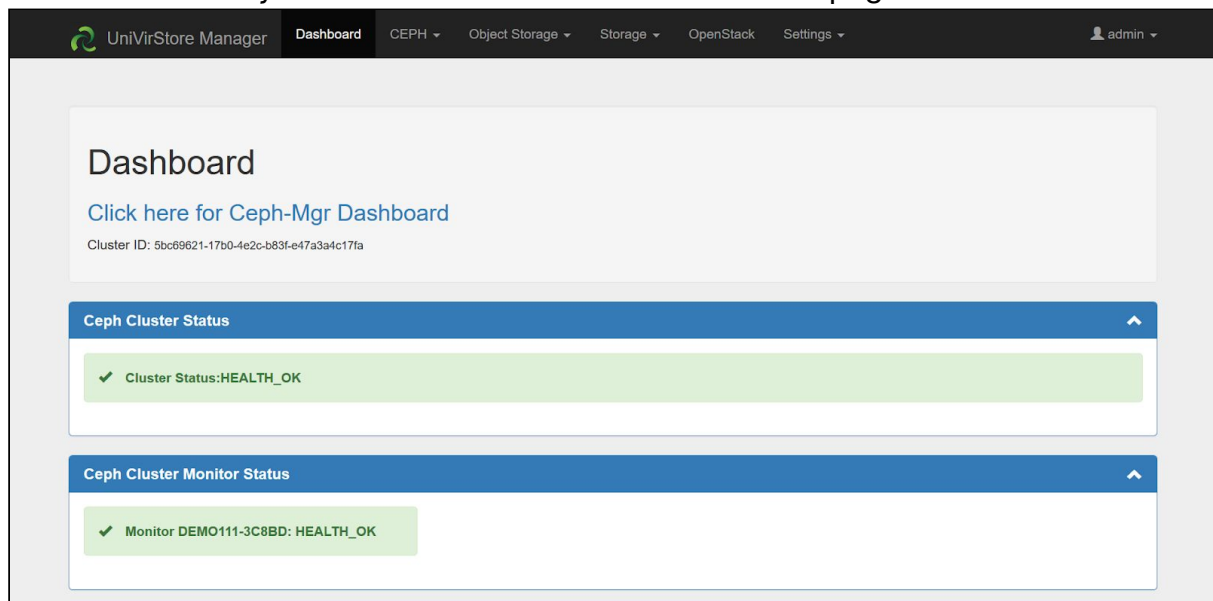


Enable Ceph Zabbix Plugin on Ambedded Mars400

(Applicable for UVS Manager 2.12.15)

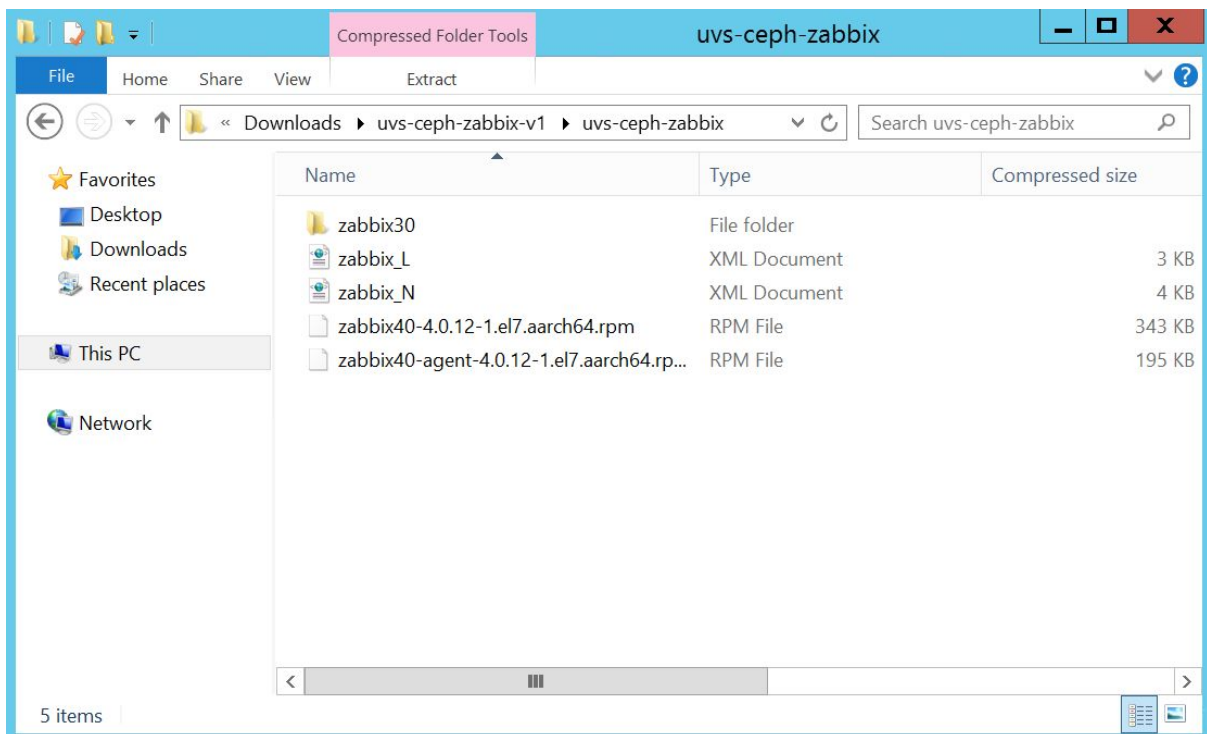
Install Zabbix Sender on Mars400

1. Make sure your PC could connect to the UVS web page.



2. Untar “**uvs-ceph-zabbix-v1.tar.gz**” or unzip “**uvs-ceph-zabbix-v1.zip**” and you’ll see **rpms** to zabbix & **template** to zabbix server.

```
Ubuntu 18.04 LTS
LAPTOP-52G5R491:~
$ tar zxvf uvs-ceph-zabbix-v1.tar.gz
uv-cep-abbix/
uv-cep-abbix/zabbix30/
uv-cep-abbix/zabbix30/zabbix30-3.0.22-2.el7.aarch64.rpm
uv-cep-abbix/zabbix30/zabbix30-agent-3.0.22-2.el7.aarch64.rpm
uv-cep-abbix/zabbix40-4.0.12-1.el7.aarch64.rpm
uv-cep-abbix/zabbix40-agent-4.0.12-1.el7.aarch64.rpm
uv-cep-abbix/zabbix_L.xml
uv-cep-abbix/zabbix_N.xml
LAPTOP-52G5R491:~
$ cd uv-cep-abbix/
LAPTOP-52G5R491:uv-cep-abbix
$ ls -l
total 1056
drwxr-xr-x 1 cooper cooper 512 Oct 29 14:32 zabbix30
-rwxr-xr-x 1 cooper cooper 353900 Oct 29 14:25 zabbix40-4.0.12-1.el7.aarch64.rpm
-rwxr-xr-x 1 cooper cooper 202172 Oct 29 14:25 zabbix40-agent-4.0.12-1.el7.aarch
64.rpm
-rw-r--r-- 1 cooper cooper 68982 Mar 3 10:16 zabbix_L.xml
-rw-r--r-- 1 cooper cooper 105924 Oct 29 17:10 zabbix_N.xml
LAPTOP-52G5R491:uv-cep-abbix
$
```



3. Go to UVS web > Settings menu > Firmware Update page. Push zabbix40 rpms. (**zabbix40-4.0.12-1.el7.aarch64.rpm** & **zabbix40-agent-4.0.12-1.el7.aarch64.rpm**)

UniVirStore Manager

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About

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Firmware Update

Search

Node Name	IP Address	Version
demo111-3c8bd	192.168.1.111	UVS: 2.12-15.20190722 CEPH: 12.2.11 KERNEL: 4.19.52-MARS400+
demo112-89da7	192.168.1.112	UVS: 2.12-15.20190722 CEPH: 12.2.11 KERNEL: 4.19.52-MARS400+
demo113-8e123	192.168.1.113	UVS: 2.12-15.20190722 CEPH: 12.2.11 KERNEL: 4.19.52-MARS400+
demo114-2ceee	192.168.1.114	UVS: 2.12-15.20190722 CEPH: 12.2.11 KERNEL: 4.19.52-MARS400+
demo115-89da7	192.168.1.115	UVS: 2.12-15.20190722 CEPH: 12.2.11 KERNEL: 4.19.52-MARS400+

UniVirStore Manager

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Upload Firmware

Push Update

Push RPM to all Nodes

Search

Push RPM to all Nodes

Select RPM File*:

Browse...

zabbix40-4.0.12-1.el7.aarch64.rpm

Upload & Push

Node Name	IP Address	Version
demo111-3c8bd	192.168.1.111	UVS: 2.12-15.20190722 CEPH: 12.2.11 KERNEL: 4.19.52-MARS400+
demo112-89da7	192.168.1.112	UVS: 2.12-15.20190722 CEPH: 12.2.11 KERNEL: 4.19.52-MARS400+
demo113-8e123	192.168.1.113	UVS: 2.12-15.20190722 CEPH: 12.2.11 KERNEL: 4.19.52-MARS400+
demo114-2ceee	192.168.1.114	UVS: 2.12-15.20190722 CEPH: 12.2.11 KERNEL: 4.19.52-MARS400+
demo115-89da7	192.168.1.115	UVS: 2.12-15.20190722 CEPH: 12.2.11 KERNEL: 4.19.52-MARS400+

UniVirStore Manager

Dashboard

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Object Storage

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Upload Firmware

Push Update

Push RPM to all Nodes

Search

rpm file uploaded successfully
==> [Copying zabbix40-4.0.12-1.el7.aarch64.rpm to other Nodes] *****
==> [Installing zabbix40-4.0.12-1.el7.aarch64.rpm on all Nodes] *****
==> [Final Cleanup] *****
Exit status : 0

Node Name

IP Address

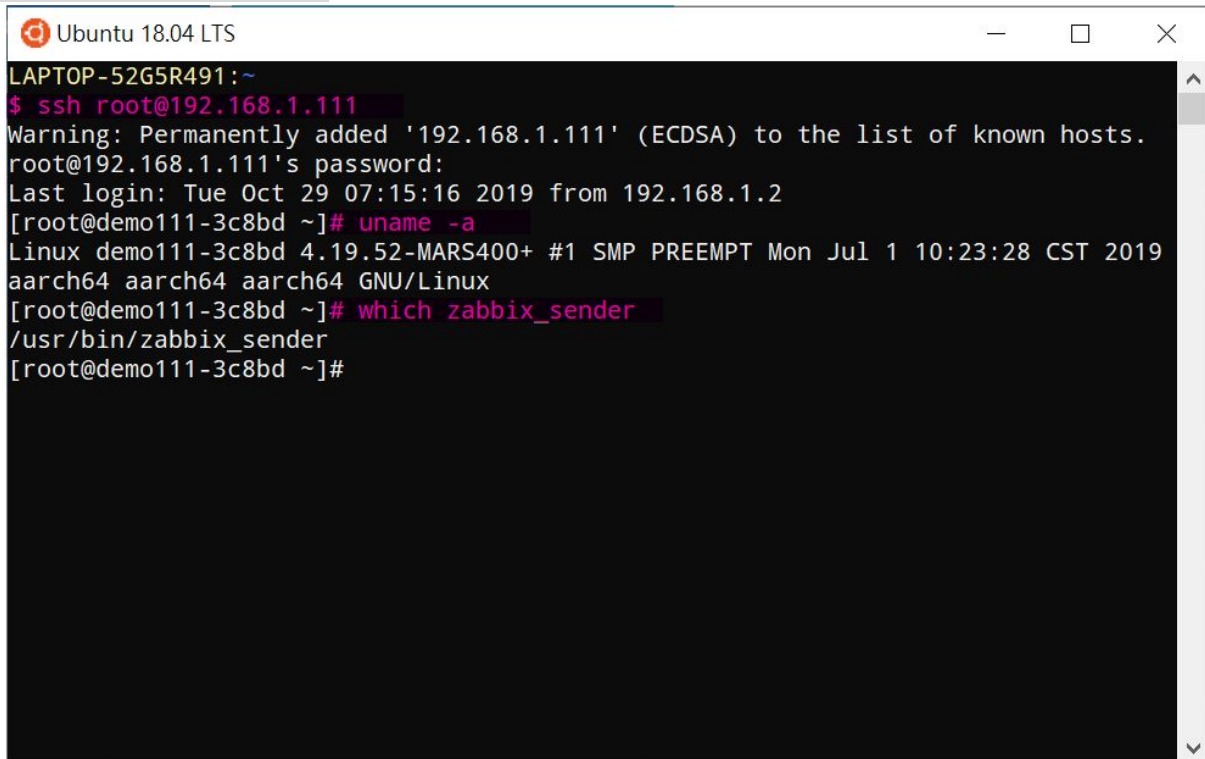
Version

4. After pushed two zabbix40 rpms, ssh login to Mars400 Ceph monitor node and check “**zabbix_sender**” command.

```
$ ssh root@${Mars400_Ceph_Monitor_Node_IP}
```

```
# uname -a
```

```
# which zabbix_sender
```

A terminal window titled 'Ubuntu 18.04 LTS' with standard window controls. The terminal shows a user logging in via SSH from a laptop. The prompt is 'LAPTOP-52G5R491:~'. The user enters '\$ ssh root@192.168.1.111'. A warning message appears: 'Warning: Permanently added '192.168.1.111' (ECDSA) to the list of known hosts.' The user is prompted for a password and logs in. The prompt changes to '[root@demo111-3c8bd ~]#'. The user enters '# uname -a' and the output is 'Linux demo111-3c8bd 4.19.52-MARS400+ #1 SMP PREEMPT Mon Jul 1 10:23:28 CST 2019 aarch64 aarch64 aarch64 GNU/Linux'. The user then enters '# which zabbix_sender' and the output is '/usr/bin/zabbix_sender'. The prompt returns to '[root@demo111-3c8bd ~]#'.

```
Ubuntu 18.04 LTS
LAPTOP-52G5R491:~
$ ssh root@192.168.1.111
Warning: Permanently added '192.168.1.111' (ECDSA) to the list of known hosts.
root@192.168.1.111's password:
Last login: Tue Oct 29 07:15:16 2019 from 192.168.1.2
[root@demo111-3c8bd ~]# uname -a
Linux demo111-3c8bd 4.19.52-MARS400+ #1 SMP PREEMPT Mon Jul 1 10:23:28 CST 2019
aarch64 aarch64 aarch64 GNU/Linux
[root@demo111-3c8bd ~]# which zabbix_sender
/usr/bin/zabbix_sender
[root@demo111-3c8bd ~]#
```

Enable & Configure Ceph Zabbix Plugin

1. Let's ssh login to Mars400 Ceph monitor node and **enable** Ceph Zabbix.

```
$ ssh root@${Mars400_Ceph_Monitor_Node_IP}
```

```
# ceph mgr module enable zabbix
```

```
# ceph mgr module ls
```

```
# ceph zabbix self-test
```

```
Ubuntu 18.04 LTS
LAPTOP-52G5R491:~
$ ssh root@192.168.1.111
Warning: Permanently added '192.168.1.111' (ECDSA) to the list of known hosts.
root@192.168.1.111's password:
Last login: Tue Oct 29 07:16:16 2019 from 192.168.1.2
[root@demo111-3c8bd ~]# ceph mgr module enable zabbix
[root@demo111-3c8bd ~]# ceph mgr module ls
{
  "enabled_modules": [
    "balancer",
    "dashboard",
    "restful",
    "status",
    "zabbix"
  ],
  "disabled_modules": [
    "influx",
    "localpool",
    "prometheus",
    "selftest"
  ]
}
[root@demo111-3c8bd ~]# ceph zabbix self-test
Self-test succeeded
```

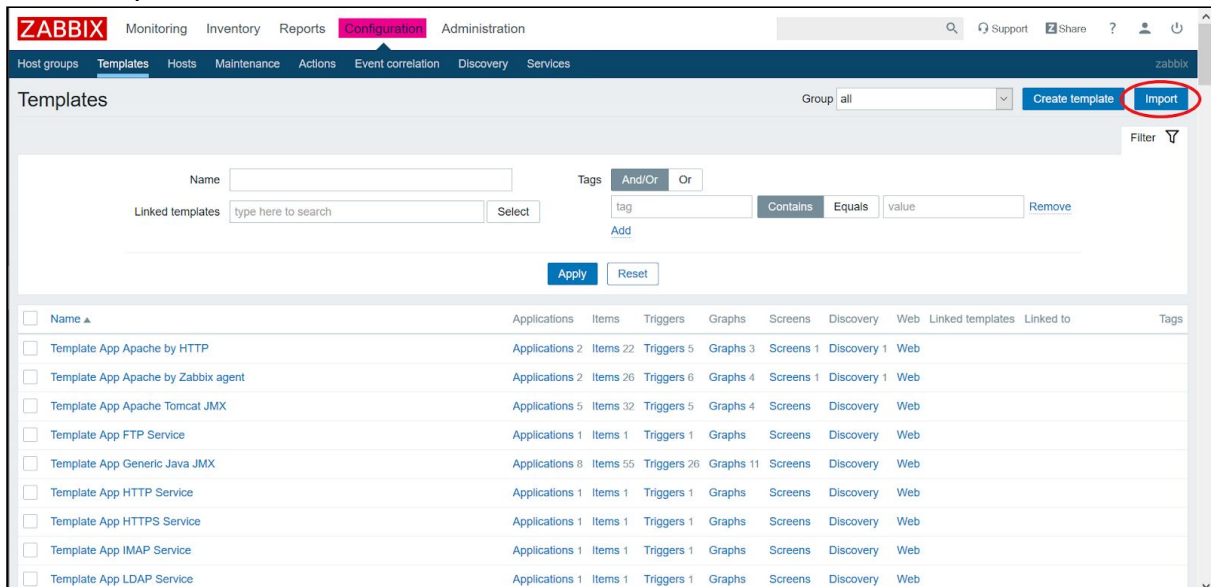
2. Configure Zabbix Server Name & Zabbix Client Identifier.

```
# ceph zabbix config-set zabbix_port 10051
# ceph zabbix config-set zabbix_host 192.168.1.241
# ceph zabbix config-set identifier demo111-3c8bd
# ceph zabbix config-set zabbix_sender /usr/bin/zabbix_sender
# ceph zabbix config-set interval 60
# ceph zabbix config-show
```

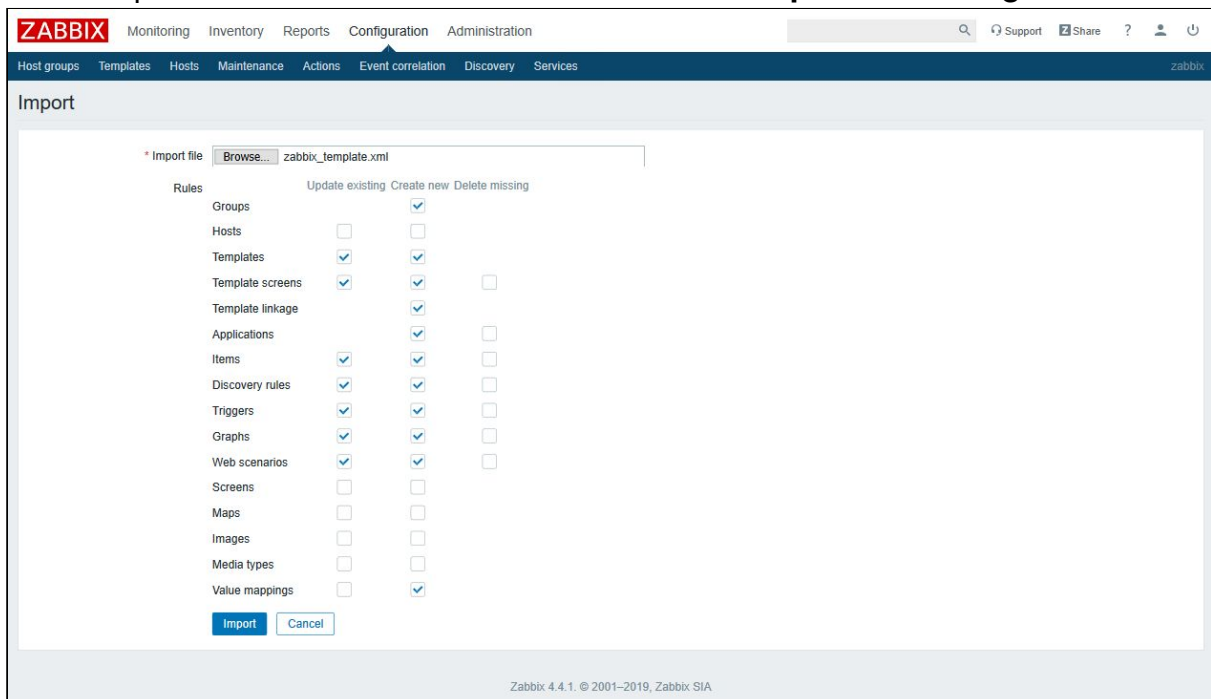
```
Ubuntu 18.04 LTS
[root@demo111-3c8bd ~]# ceph zabbix config-set zabbix_port 10051
Configuration option zabbix_port updated
[root@demo111-3c8bd ~]# ceph zabbix config-set zabbix_host 192.168.1.241
Configuration option zabbix_host updated
[root@demo111-3c8bd ~]# ceph zabbix config-set identifier demo111-3c8bd
Configuration option identifier updated
[root@demo111-3c8bd ~]# ceph zabbix config-set zabbix_sender /usr/bin/zabbix_sender
Configuration option zabbix_sender updated
[root@demo111-3c8bd ~]# ceph zabbix config-set interval 60
Configuration option interval updated
[root@demo111-3c8bd ~]# ceph zabbix config-show
{"zabbix_port": 10051, "zabbix_host": "192.168.1.241", "identifier": "demo111-3c8bd", "zabbix_sender": "/usr/bin/zabbix_sender", "interval": 60}
```


Import Ceph Templates and Add Ceph Host to Zabbix Server

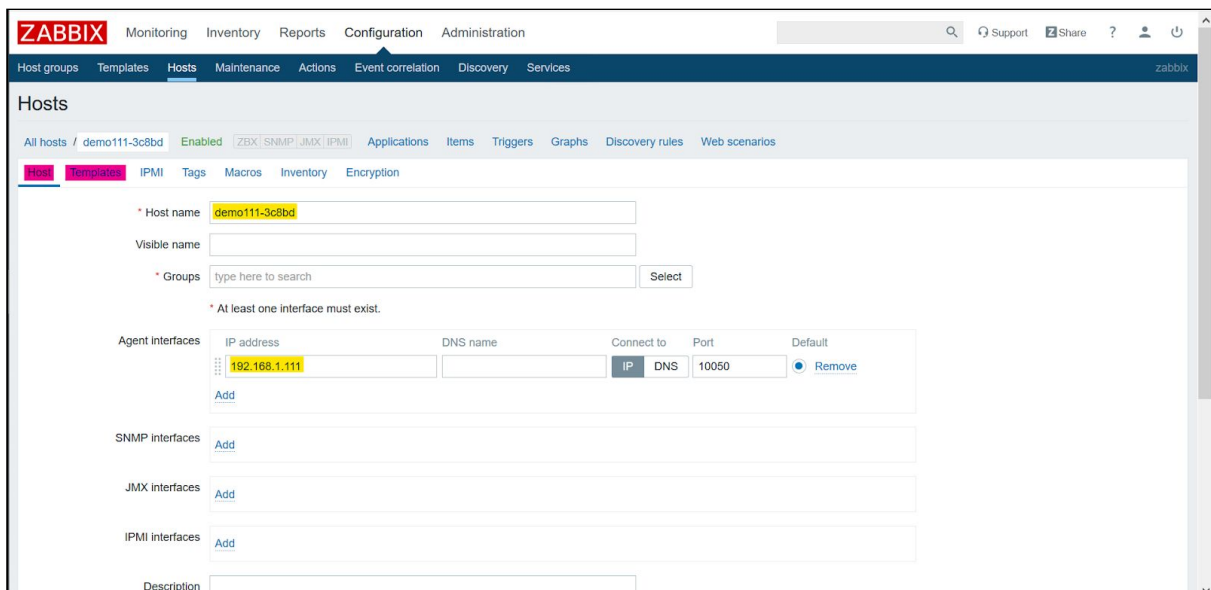
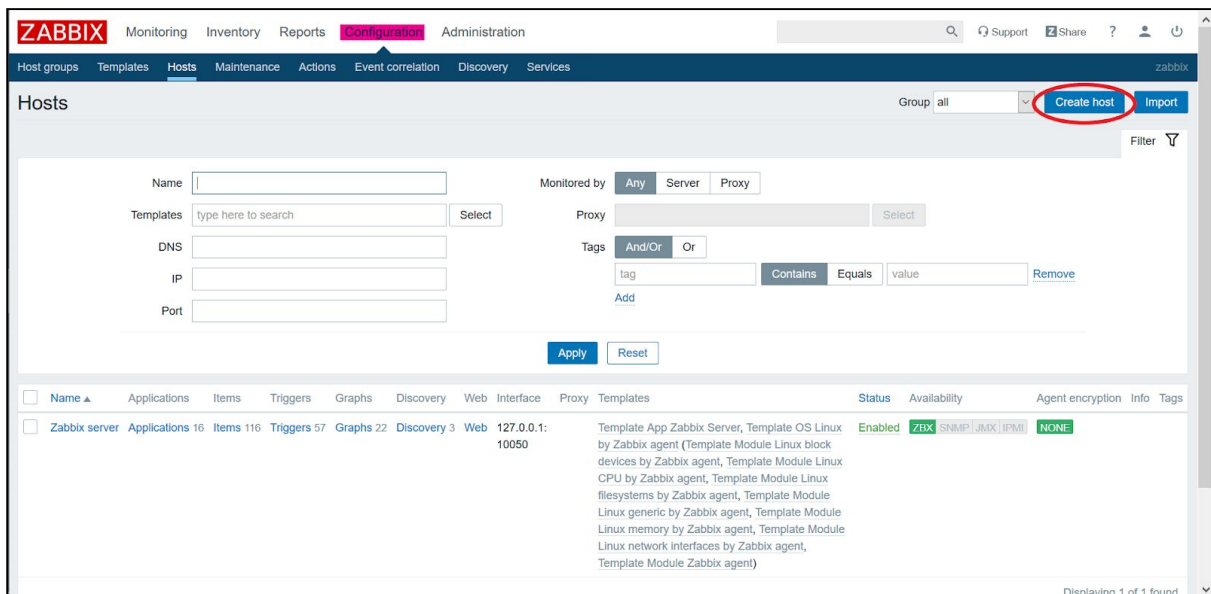
1. Go to your Zabbix Server web > Configuration menu > Templates page > Import button



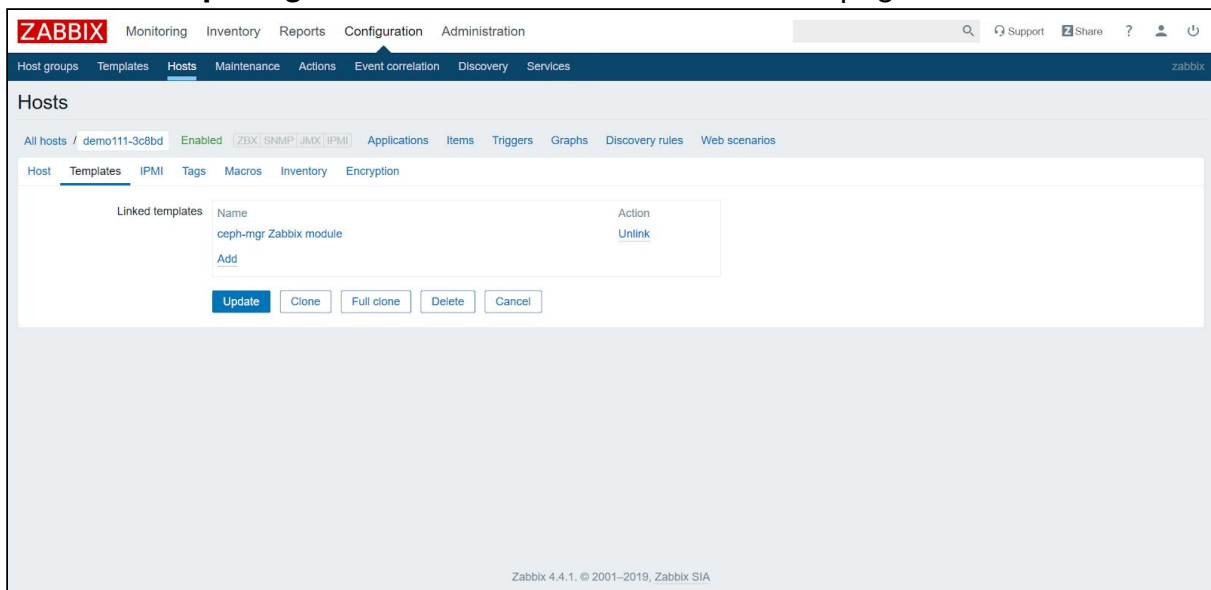
2. Import “zabbix_L.xml” which can find in the “ceph-zabbix.tar.gz”.



3. Go to your Zabbix Server web > Configuration menu > Hosts page > Create host button. Create a **new hosts** that related to your **Mars400 Ceph monitor name** and **IP**.



4. Add ceph-mgr Zabbix module for the same Hosts page.



5. The new Zabbix host for Mars400 Ceph is ready.

Hosts

Group: all Create host Import

Filter

Name:

Monitored by: Any Server Proxy

Templates: Select

DNS:

IP:

Port:

Proxy: Select

Tags: And/Or Or

tag: Contains Equals value Remove

Add

Apply Reset

Name	Applications	Items	Triggers	Graphs	Discovery	Web	Interface	Proxy	Templates	Status	Availability	Agent encryption	Info	Tags	
<input type="checkbox"/> demo111-3c8bd	Applications 1	Items 29	Triggers 4	Graphs 7	Discovery	Web	192.168.1.111:		ceph-mgr Zabbix module	Enabled	ZBX	SNMP	JMX	IPMI	NONE
<input type="checkbox"/> Zabbix server	Applications 16	Items 116	Triggers 57	Graphs 22	Discovery 3	Web	127.0.0.1:		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)	Enabled	ZBX	SNMP	JMX	IPMI	NONE

Send Ceph Status to Zabbix Server

Go back to Mars400 Ceph monitor node and try to send Zabbix Data manually.

```
$ ssh root@${Mars400_Ceph_Monitor_Node_IP}
```

```
# ceph zabbix send
```

```
Ubuntu 18.04 LTS
LAPTOP-52G5R491:~
$ ssh root@192.168.1.111
Warning: Permanently added '192.168.1.111' (ECDSA) to the list of known hosts.
root@192.168.1.111's password:
Last login: Tue Oct 29 07:19:21 2019 from 192.168.1.2
[root@demo111-3c8bd ~]# ceph zabbix send
Sending data to Zabbix
[root@demo111-3c8bd ~]#
```


Check Ceph Zabbix Data

Go to your Zabbix Server web > Monitoring menu > Graphs page. The Ceph Zabbix Data is available now.

