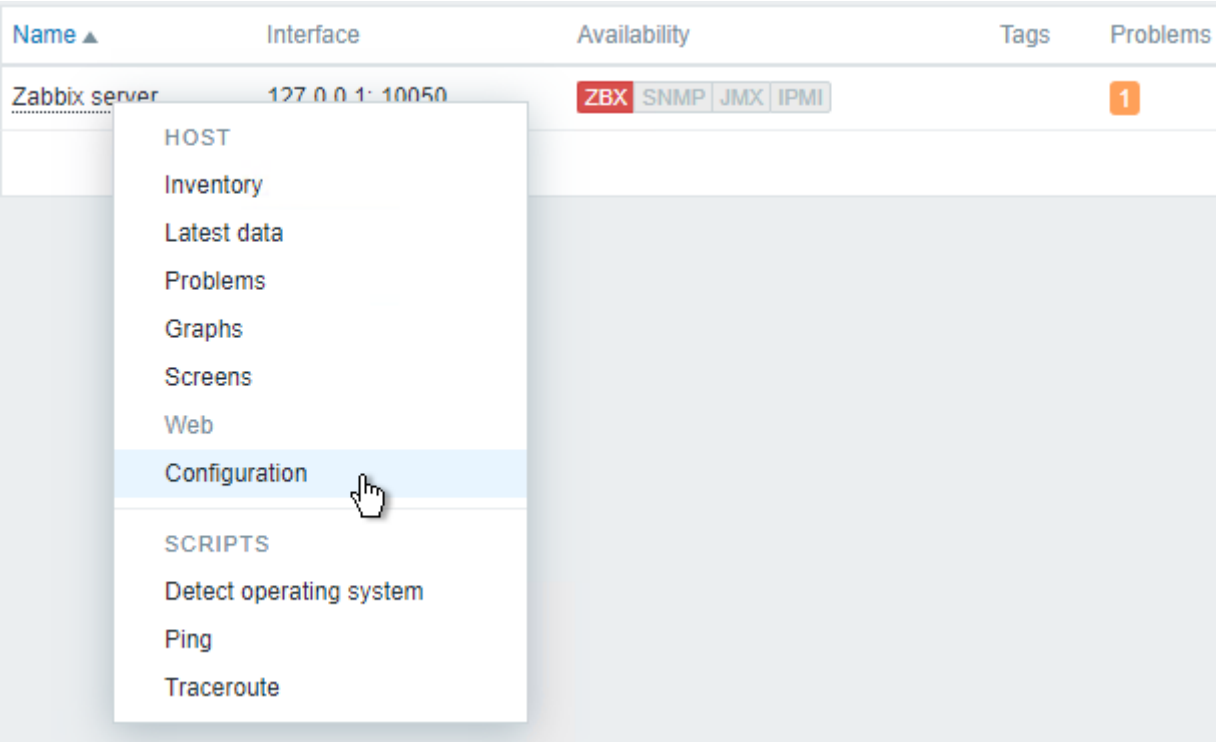
Configure Zabbix Docker

Configure Zabbix Server to point to zabbix-agent container

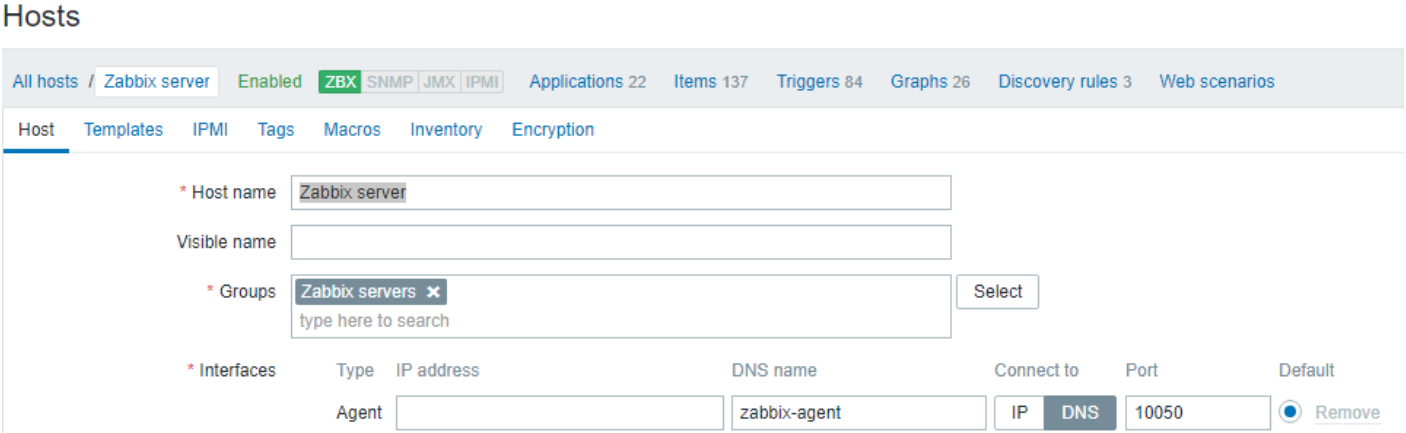
- Navigate to **Monitoring --> Hosts -->Zabbix Server --> Configuration** (**Figure 1**)

Figure 1



- Clear **127.0.0.1** from IP address field
- Enter **zabbix-agent** in the **DNS name** field
- Set **Connect to** field to **DNS**
- Click the **Update** button (**Figure 2**)

Figure 2



Configure Zabbix Server Timezone

Edit /opt/zabbix-docker/.env_web uncomment the following line:

```
#PHP_TZ=Europe/Riga
```

Navigate to http://php.net/manual/en/timezones.php locate your local timezone and set PHP_TZ to it, for example for American Eastern you would set it to the following:

```
PHP_TZ=America/New_York
```

Configure Zabbix Server Server Name

Edit /opt/zabbix-docker/.env_web and set the following line:

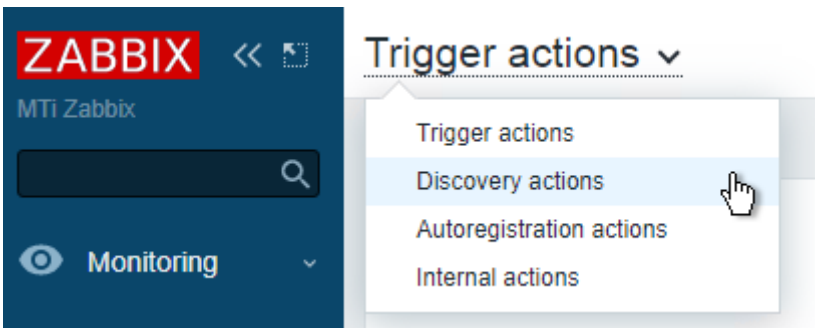
```
ZBX_SERVER_NAME=Composed installation
```

to a server name that you like (Example: ZBX_*SERVER_*NAME=Widgets, Inc)

Configure Zabbix Auto Discover

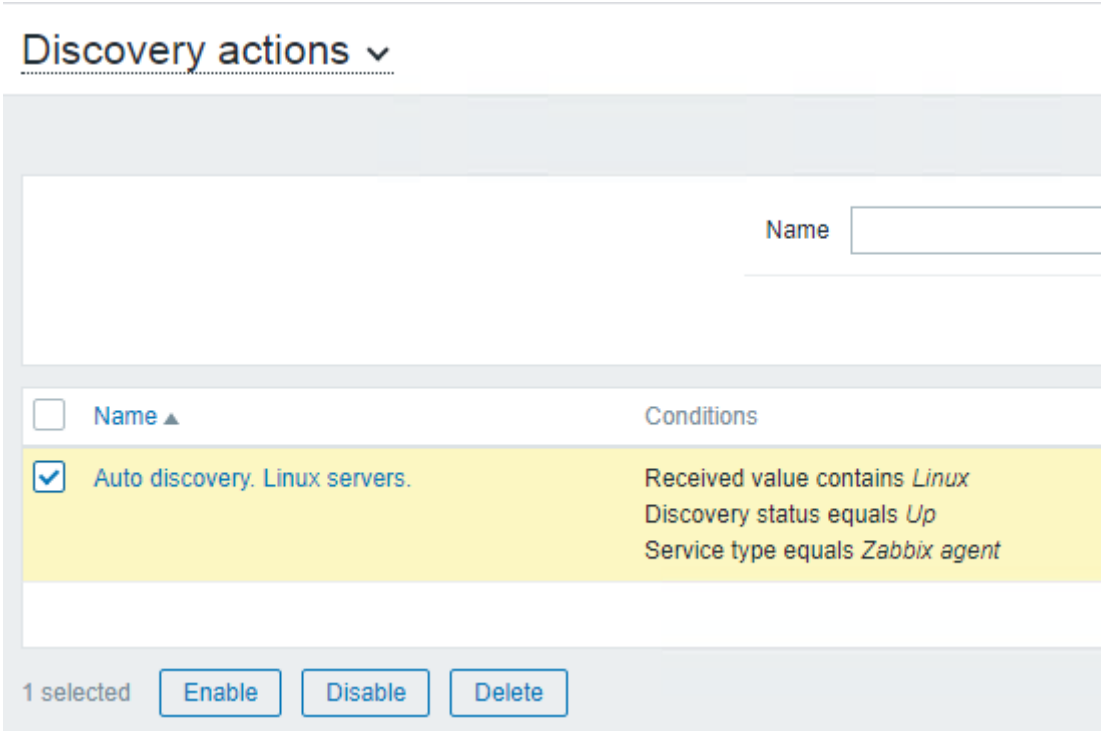
- Navigate to **Configuration --> Actions -->Actions Drop-down --> Discovery actions** (**Figure 3**)

Figure 3



- Select **Auto discovery. Linux servers** and click **Enable** (**Figure 4**) to enable Linux hosts auto discovery

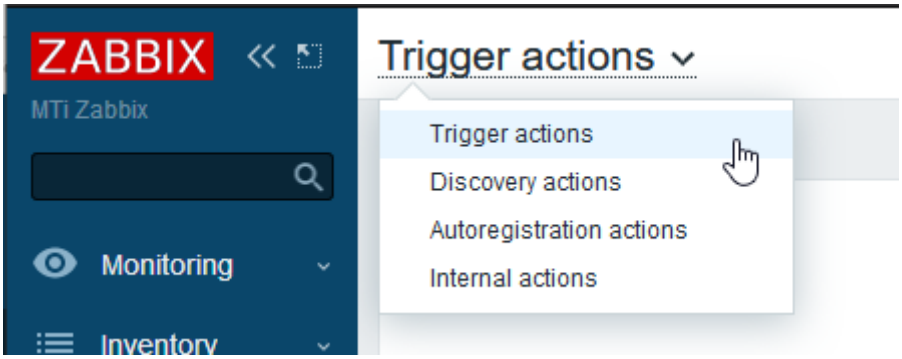
Figure 4



Enable Zabbix Notifications

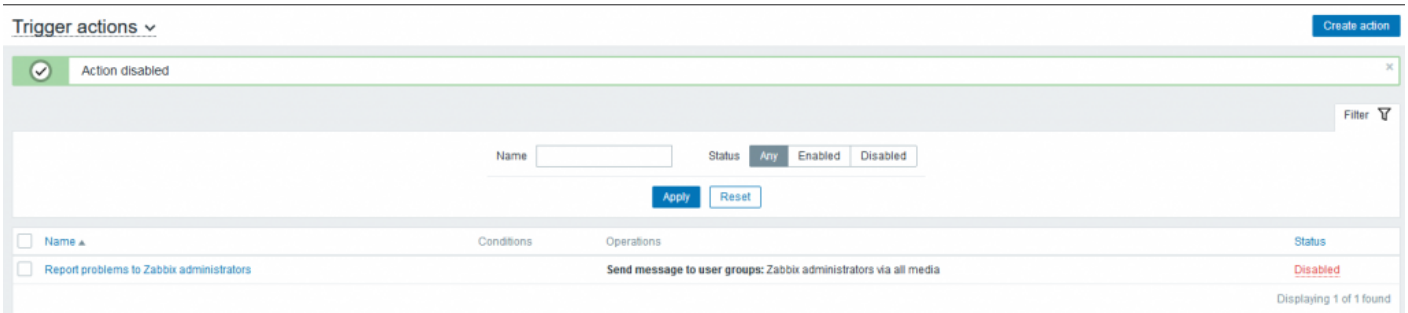
- Navigate to **Configuration --> Actions -->Actions Drop-down --> Trigger actions** (**Figure 5**)

Figure 5



- Ensure you have already configured notifications under **Administration --> Media types**.
- Click the **Disabled** link under the **Status** column in the R**eport problems to Zabbix administrators** item in order to change the status to **Enabled** (**Figure 6**).

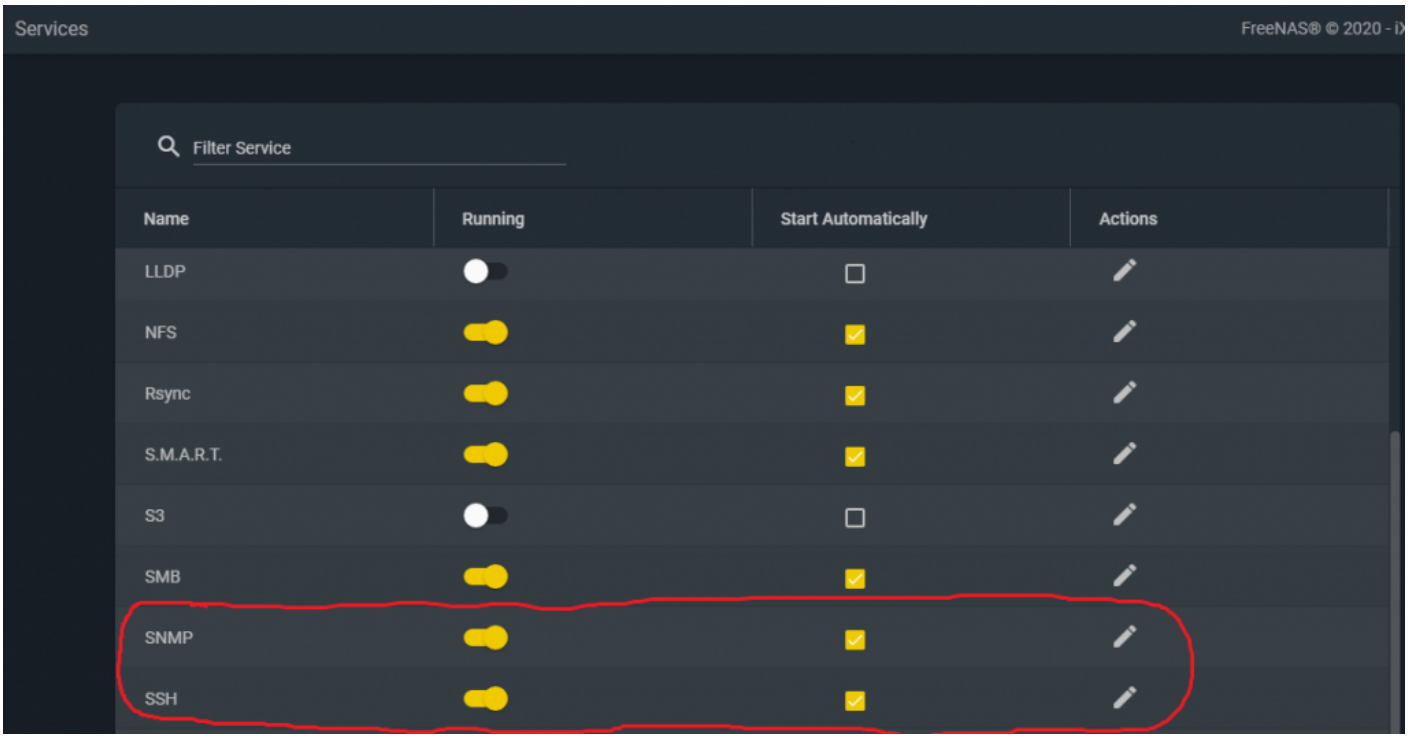
Figure 6



Enable Zabbix FreeNAS Monitoring

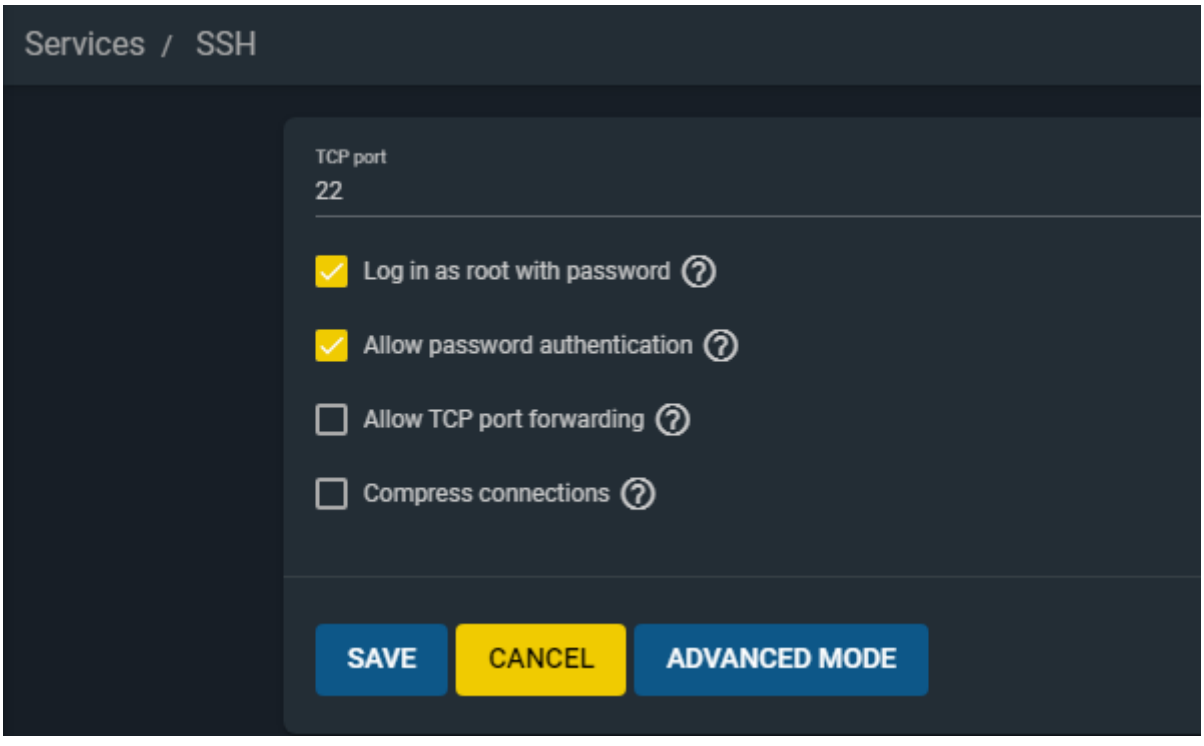
- On FreeNAS server enable **SNMP** by going to **Services --> SNMP** and set it to **Running** and **Start Automatically** and enable **SSH** by going to **Services --> SSH** and set it to **Running** and **Start Automatically** (**Figure 7**).

Figure 7



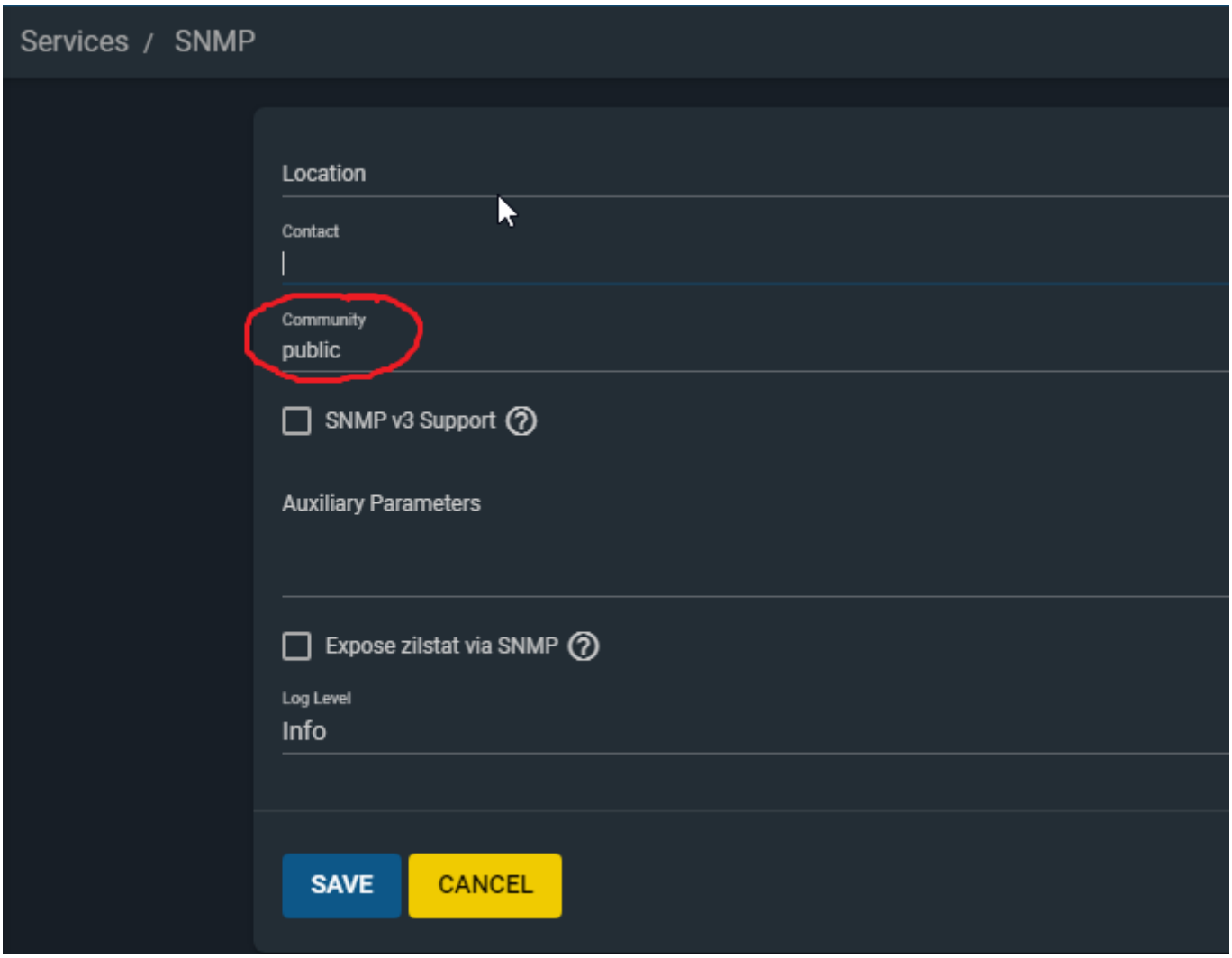
- On FreeNAS server, under **Services**, click on **SSH --> Actions** and ensure **Log in as root with password** and **Allow password authentication** checkboxes are checked and click the **Save** button (**Figure 8**).

Figure 8



- On FreeNAS server, under **Services**, click on **SNMP --> Actions** and note the **Community** string (default is **public**) or change as required and optionally set the **Log Level** to **Info** if you wish to get more information out of FreeNAS and click the **Save** button (**Figure 9**).

Figure 9



- Using WinSCP or scp download the following file from the FreeNAS server:

```
/usr/local/share/snmp/mibs/FREENAS-MIB.txt
```

- Upload the **FREENAS-MIB.txt** file to the Zabbix Docker server in the following directory:

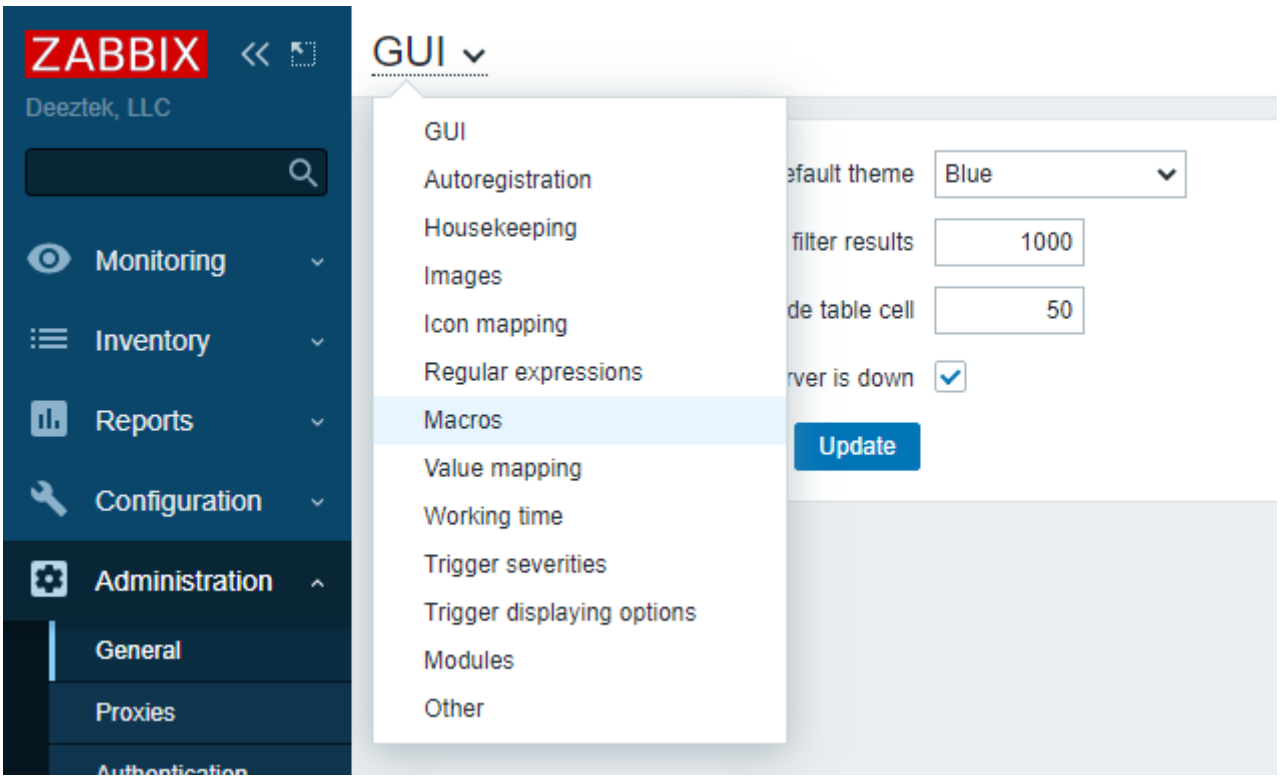
```
/opt/zabbix-docker/zbx_env/var/lib/zabbix/mibs
```

- Restart the Zabbix docker stack:

```
cd /opt/zabbix-docker && docker-compose down
cd /opt/zabbix-docker && docker-compose up -d
```

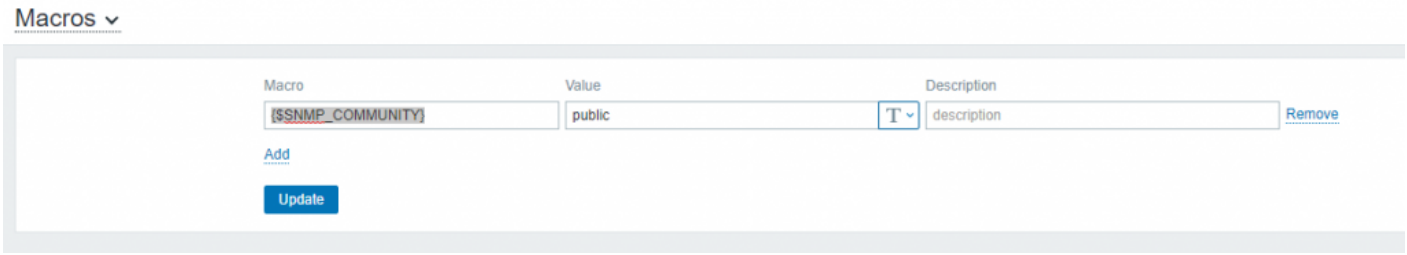
- On the Zabbix server navigate to **Administration --> General --> GUI drop-down --> Macros** (**Figure 10**)

Figure 10



- Ensure the **Value** field of the **{$SNMP_COMMUNITY}** Macro is set to **public** or whatever value you set the FreeNAS Community string from above and click the **Update** button (**Figure 11**).

Figure 11



- Using a web browser download the following templates from Zabbix Share:

SNMP Intefaces discovery

https://share.zabbix.com/official-templates/snmp-devices/snmp-interfaces-discovery

SNMP Interfaces discovery

https://share.zabbix.com/official-templates/snmp-devices/snmp-processors-discovery

SNMP Generic

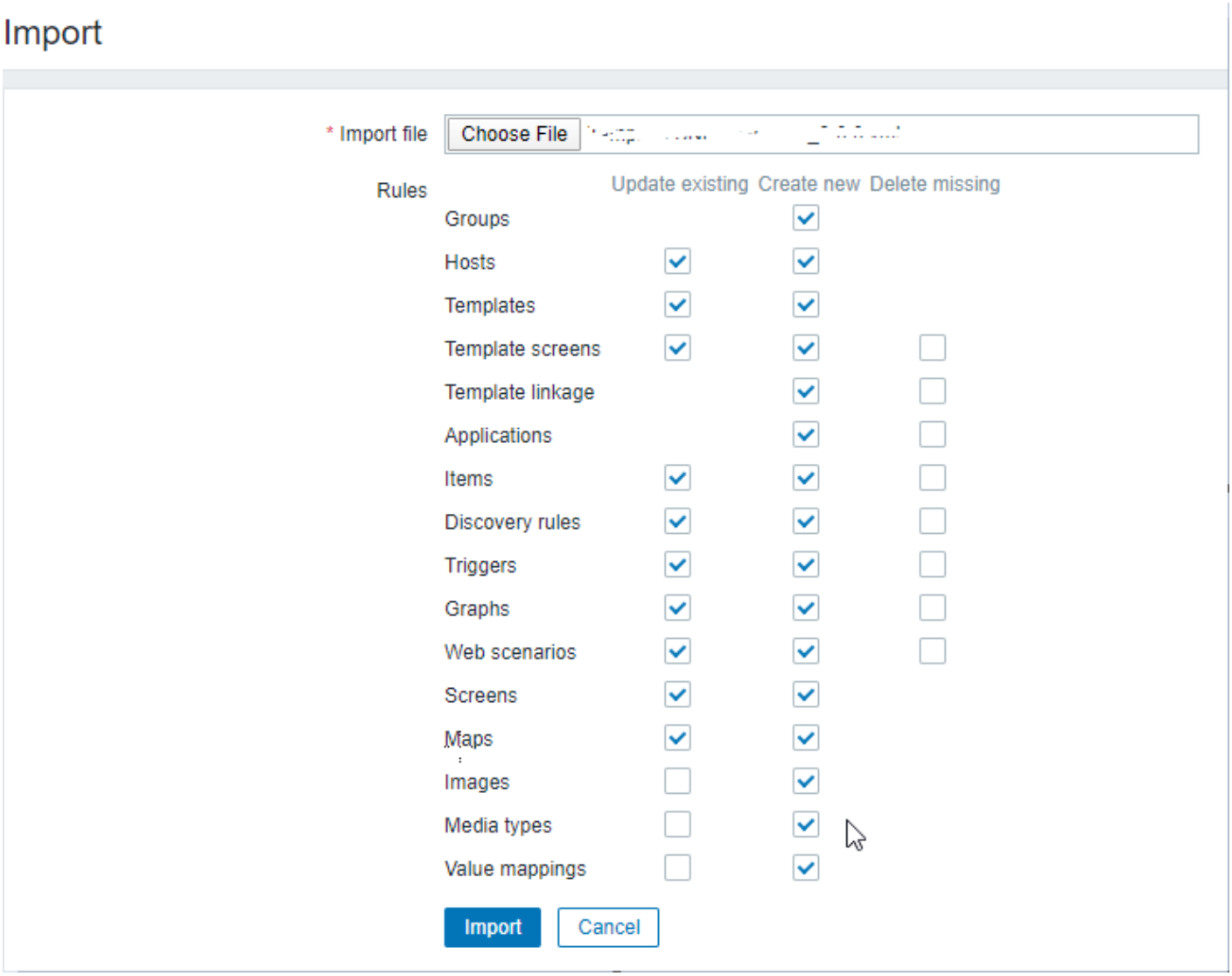
https://share.zabbix.com/official-templates/snmp-devices/snmp-generic

FreeNAS 11 SNMP

https://share.zabbix.com/storage-devices/freenas/freenas-11

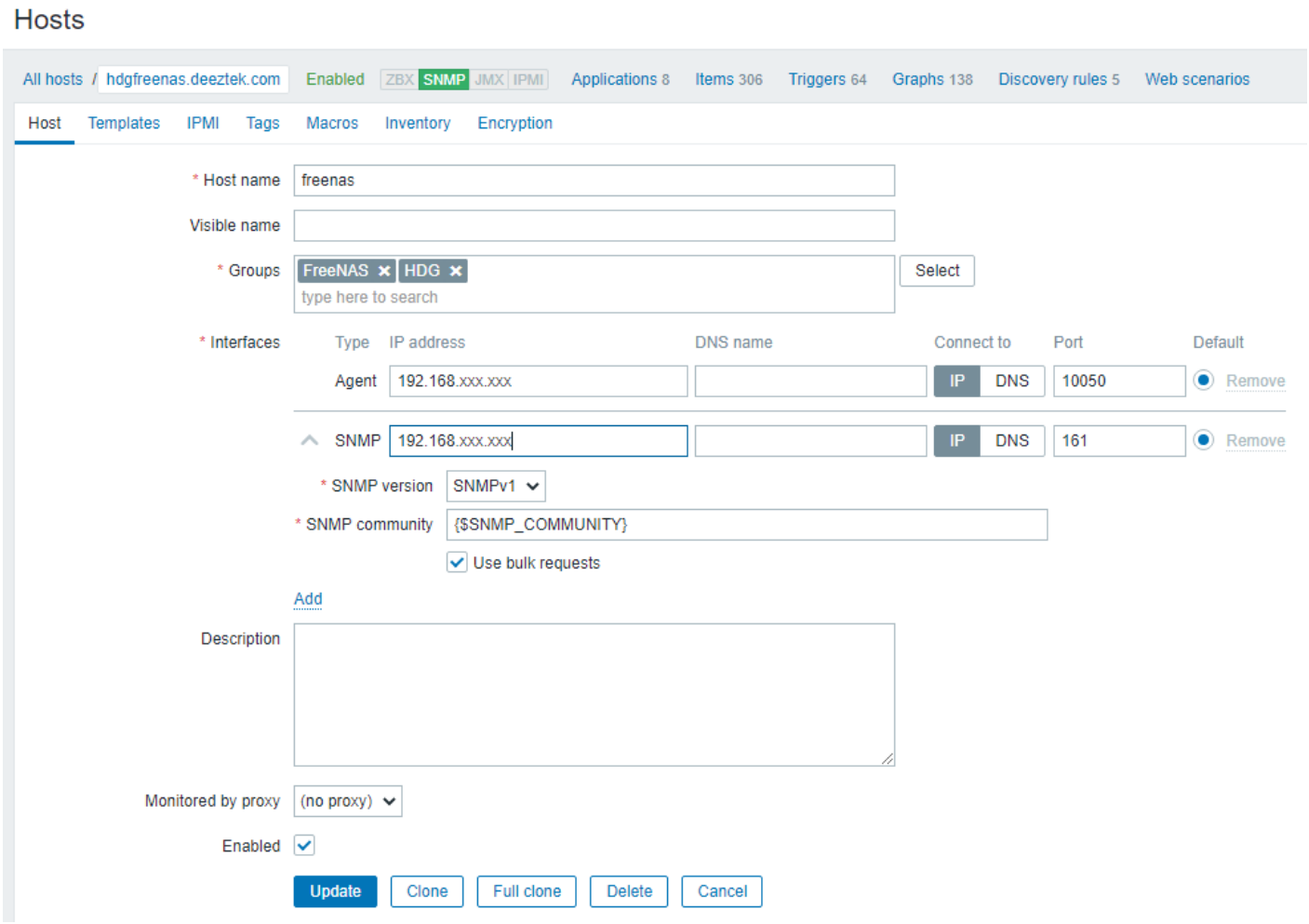
- On the Zabbix server navigate to **Configuration --> Templates --> Import** and import each of the templates you downloaded above ensuring the **Rules** are set like below before each import (**Figure 12**):

Figure 12



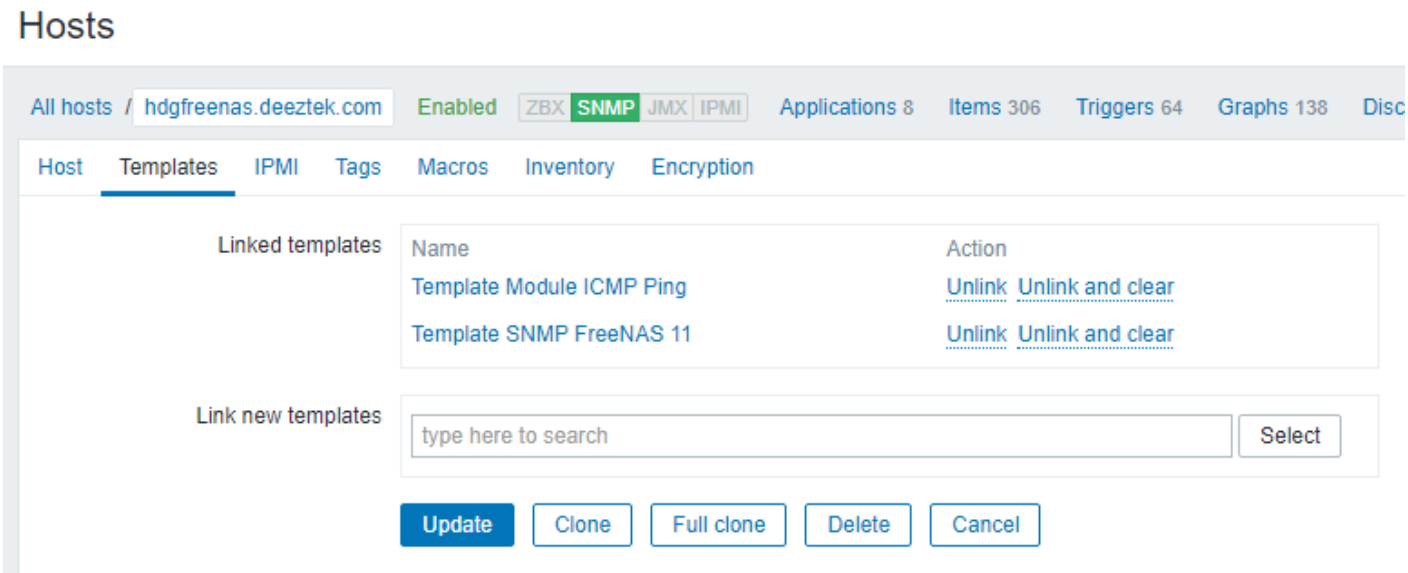
- On the Zabbix server navigate to **Configuration --> Hosts --> Create Host**
- In the **Host** tab, fill out the **Host name**, **groups** and **interfaces** where 1**92.168.xxx.xxx** is the IP of your FreeNAS host (**Figure 13**)

Figure 13



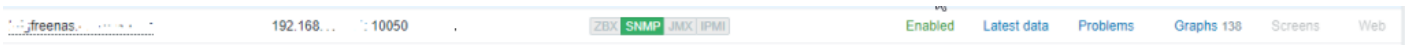
- In the **Templates** tab, ensure you link the **Template Module ICMP Ping** and the **Template SNMP FREENAS 11** templates and click the **Update** button (**Figure 14**)

Figure 14



- Wait 10-15 minutes before Zabbix starts pulling data from the FreeNAS server. If successful, **Monitoring --> Hosts** should show the FreeNAS server listed with **SNMP** turned green (**Figure 15**)

Figure 15



Enable Zabbix VMware Monitoring

Original Guide URL:

https://bestmonitoringtools.com/vmware-monitoring-with-zabbix-esxi-vcenter-vm-vsphere/

- Enable (Remove the # from front of each line) on the following entries in **/opt/zabbix-docker/.env_srv** and save the file:

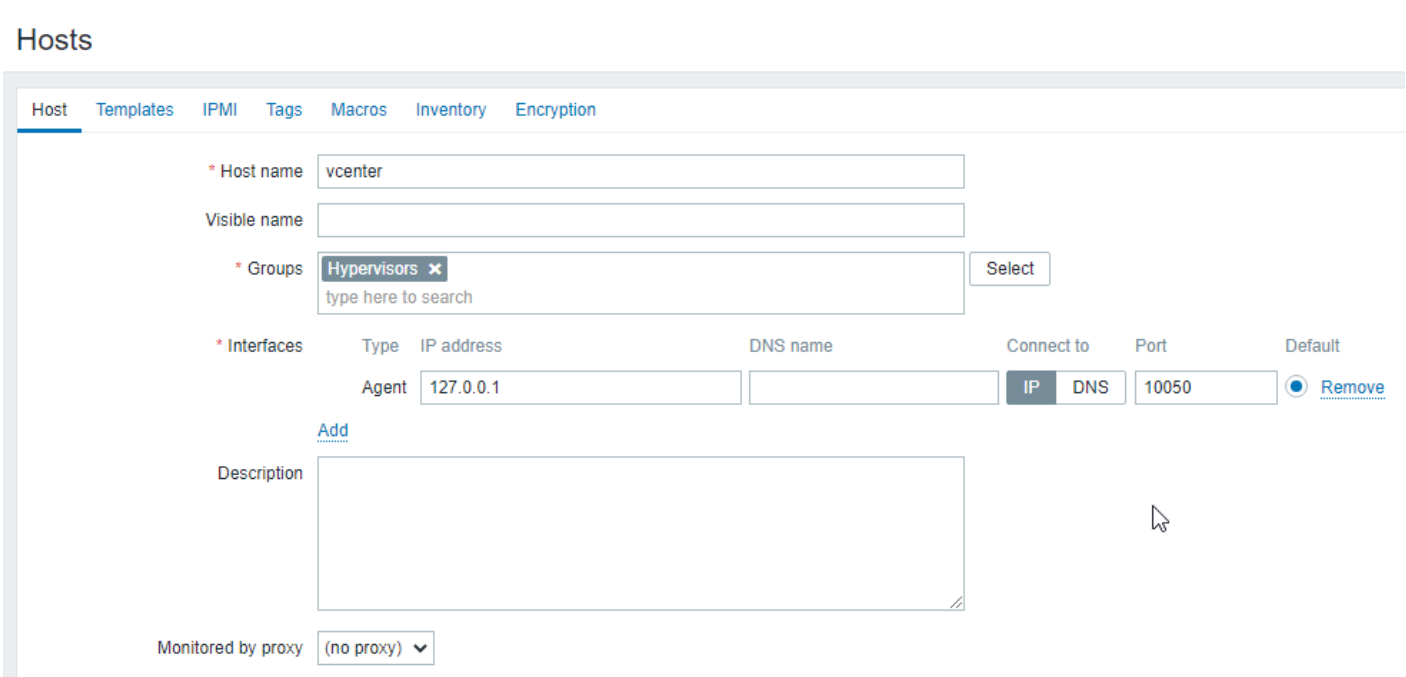
```
ZBX_STARTVMWARECOLLECTORS=3
ZBX_VMWAREFREQUENCY=60
ZBX_VMWAREPERFFREQUENCY=60
ZBX_VMWARECACHESIZE=128M
ZBX_VMWARETIMEOUT=120
```

Restart the Zabbix docker stack:

```
cd /opt/zabbix-docker && docker-compose down
cd /opt/zabbix-docker && docker-compose up -d
```

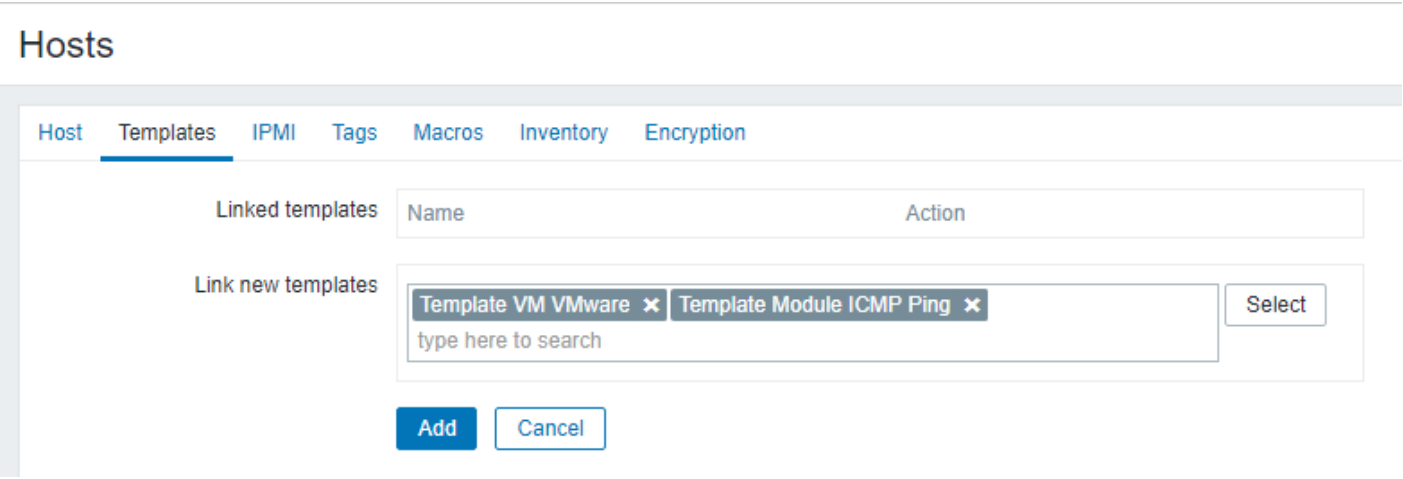
- Navigate to **Configuration --> Hosts --> Create Host**
- In the **Host** tab, fill out the **Host name** of your Vcenter/VMware server, and select **groups**. Do not fill out the IP address field, leave it to default **127.0.0.1** (**Figure 16**)

Figure 16



- Click the **Templates** tab and select **Template VM VMware** and **Template Module ICMP Ping** templates (**Figure 17**)

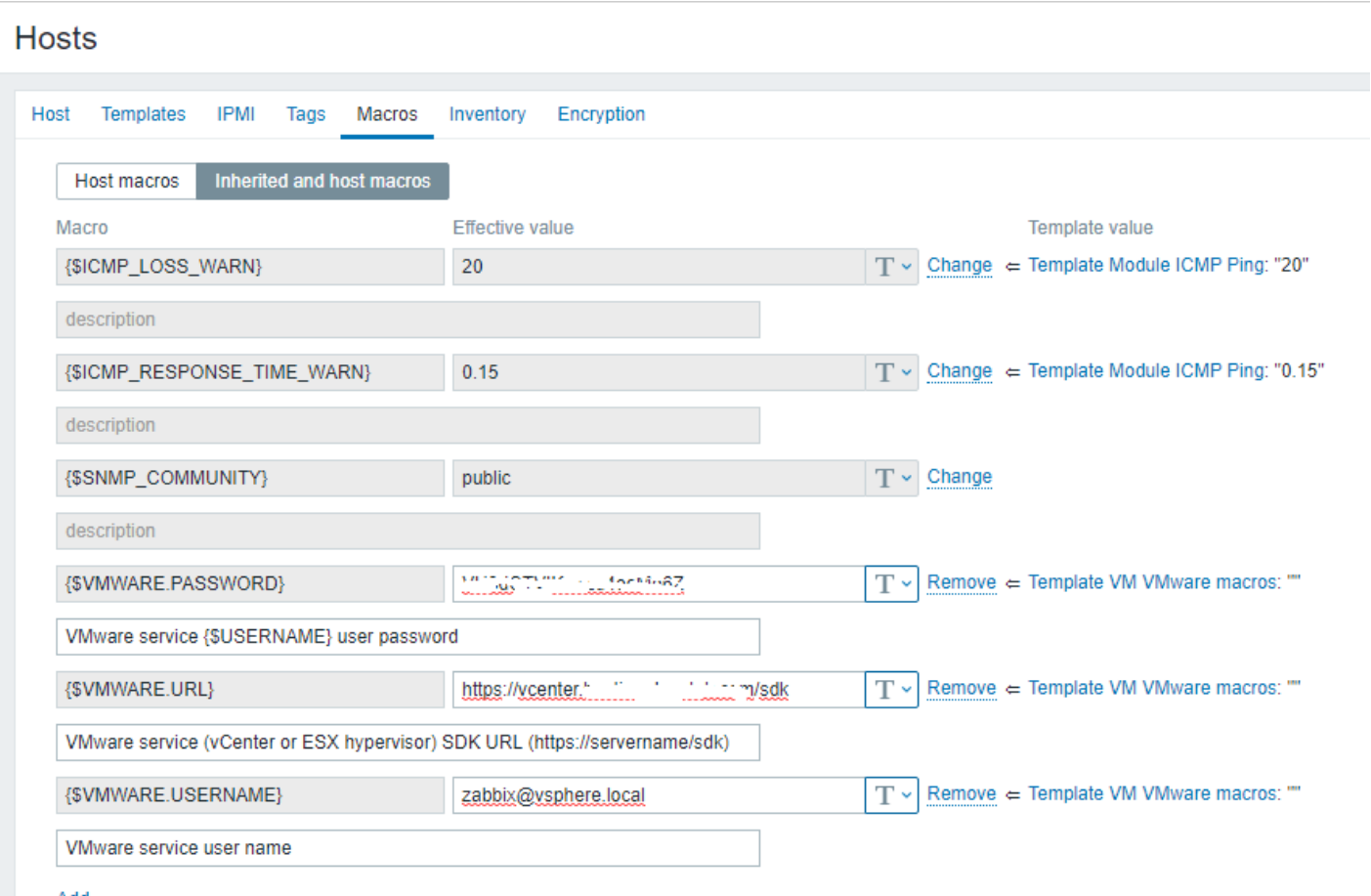
Figure 17



- Click the **Macros** tab and then click **Inherited and host macros** button.
- Click the **Change** link next to each of the following fields and fill out the value of each field with the Password, URL (https://vcenter/sdk) and Username of your Vcenter/VMware server and click the **Add** button (**Figure 18**):

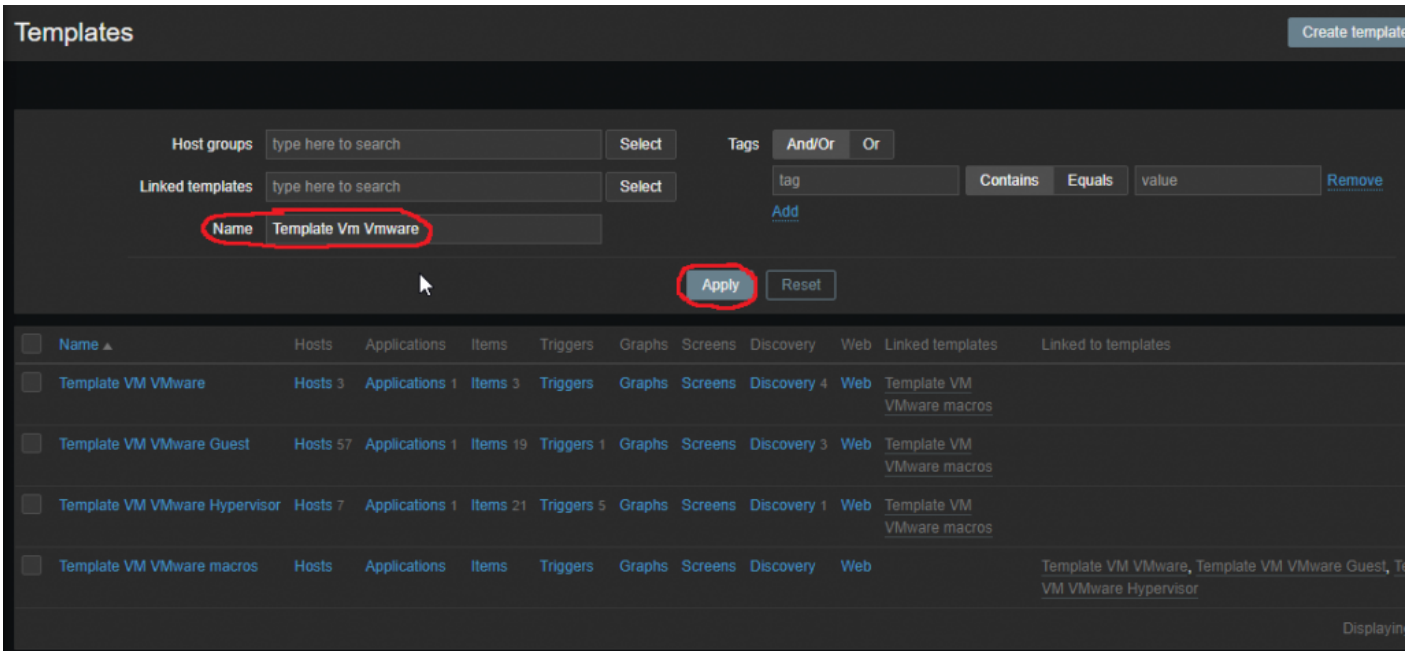
```
{$VMWARE.PASSWORD}
{$VMWARE.URL}
{$VMWARE.USERNAME}
```

Figure 18



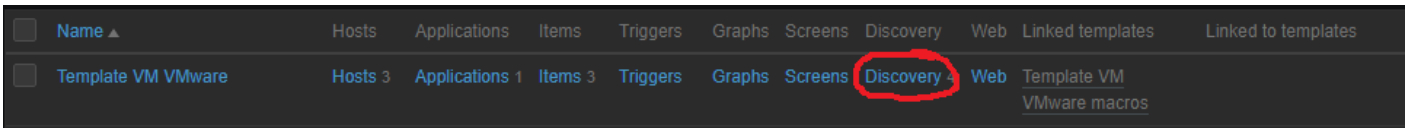
- VMware/Vcenter discovery can take hours to complete.
- Navigate to **Configuration --> Templates.** In the **Name** field enter **Template Vm Vmware** and click the **Apply** button to locate the **Template Vm Vmware** template (**Figure 19**):

Figure 19



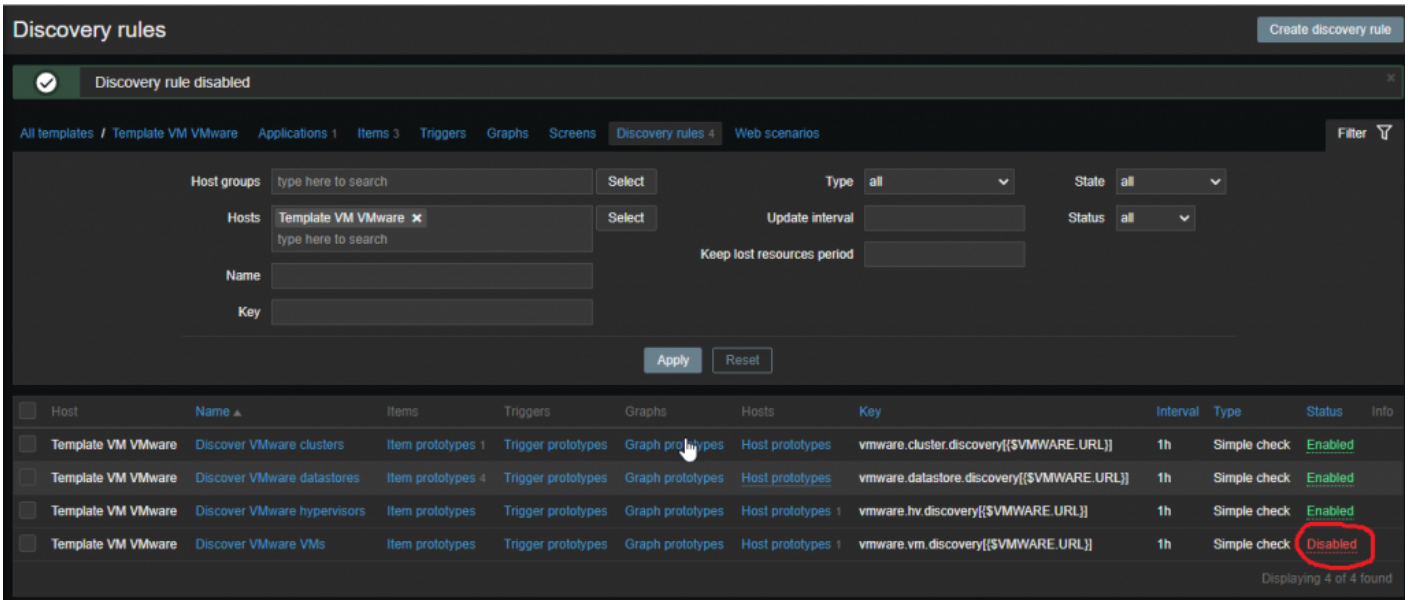
- On the **Template Vm Vmware** entry click on the **Discovery** link (**Figure 20**):

Figure 20



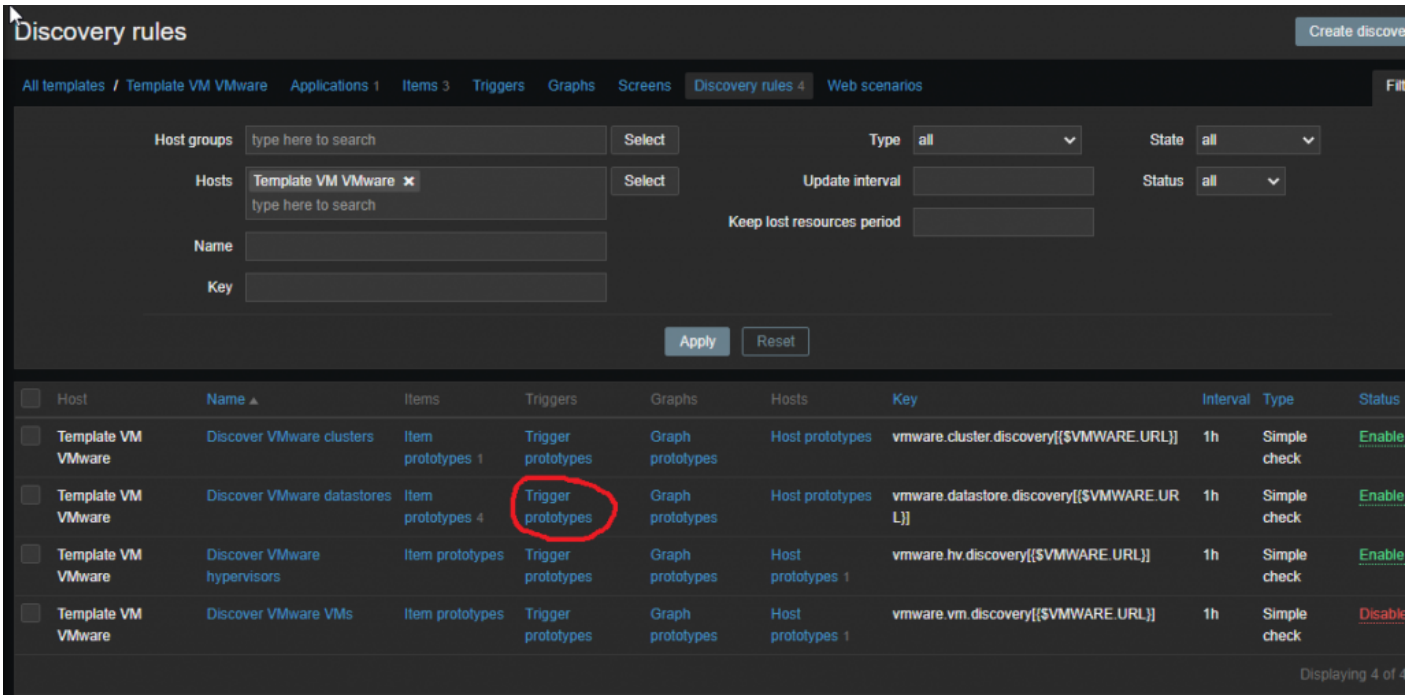
- On the **Discovery rules** screen, click on the **Enabled** link on the **Discover Vmware VMs** entry to change the status to **Disabled** (**Figure 21**):

Figure 21



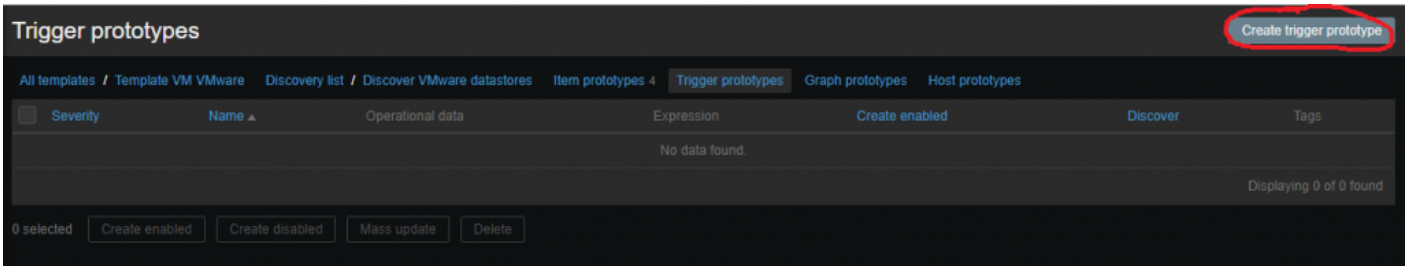
- Next, click on the **Trigger prototypes** on the **Discover VMware datastores** entry (**Figure 22**):

Figure 22



- On the **Trigger prototypes** screen, click the **Create trigger prototype** button (**Figure 23**):

Figure 23



- On the **Trigger prototype** screen, in the **Name** field enter the following:

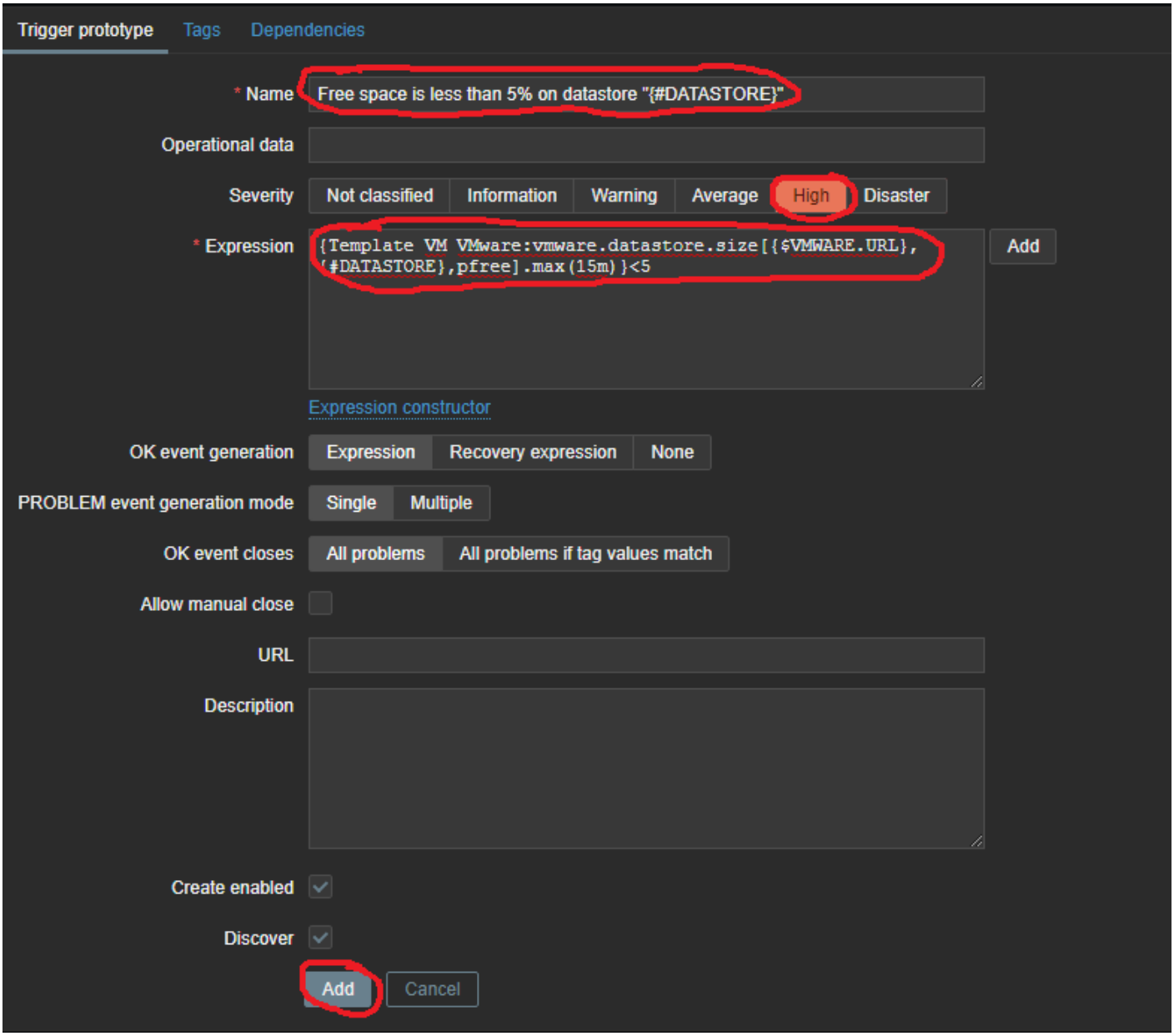
```
Free space is less than 5% on datastore "{#DATASTORE}"
```

- In the **Severity** field set it to **High**
- In the **Expression** field enter the following:

```
{Template VM VMware:vmware.datastore.size[{$VMWARE.URL},{#DATASTORE},pfree].max(15m)}<5
```

- Click the **Add** button (**Figure 24**):

Figure 24



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