

Install Zabbix server at RHEL8 and add a Linux host (ubuntu 18.04) in Zabbix server for monitoring

Installation of Zabbix server at RHEL8 is following steps

1.Disable SELinux

```
setenforce 0  
  
vi /etc/selinux/config  
  
SELINUX=disabled  
  
Save and exit  
  
Reboot the machine
```

2.Install and configure Zabbix server for RHEL 8

Confirm installation steps for your OS platform from this Zabbix installation link

https://www.zabbix.com/download?zabbix=5.0&os_distribution=red_hat_enterprise_linux&os_version=8&db=mysql&ws=apache

a. Install Zabbix repository

```
rpm -Uvh https://repo.zabbix.com/zabbix/5.0/rhel/8/x86_64/zabbix-release-5.0-1.el8.noarch.rpm  
dnf clean all
```

b. Install Zabbix server, frontend, agent

```
dnf install -y zabbix-server-mysql zabbix-web-mysql zabbix-apache-conf zabbix-agent
```

c. Configure timezone

Edit file /etc/php-fpm.d/zabbix.conf, uncomment and set the right timezone for you.

```
vi /etc/php-fpm.d/zabbix.conf  
php_value[date.timezone] = Asia/Dhaka
```

d. Create initial database (MariaDB)

d.1 Install MariaDB from Base Repository

```
yum -y install mariadb-server mariadb  
systemctl start mariadb  
systemctl status mariadb  
systemctl enable mariadb
```

```
mysql_secure_installation
```

NOTE: RUNNING ALL PARTS OF THIS SCRIPT IS RECOMMENDED FOR ALL MariaDB

SERVICES IN PRODUCTION USE! PLEASE READ EACH STEP CAREFULLY!

In order to log into MariaDB to secure it, we'll need the current password for the root user. If you've just installed MariaDB, and you haven't set the root password yet, the password will be blank, so you should just press enter here.

Enter current password for root (enter for none):

OK, successfully used password, moving on...

Setting the root password ensures that nobody can log into the MariaDB root user without the proper authorisation.

Set root password? [Y/n] Y

New password:

Re-enter new password:

Password updated successfully!

Reloading privilege tables..

... Success!

By default, a MariaDB installation has an anonymous user, allowing anyone to log into MariaDB without having to have a user account created for them. This is intended only for testing, and to make the installation

go a bit smoother. You should remove them before moving into a production environment.

Remove anonymous users? [Y/n] Y
... Success!

Normally, root should only be allowed to connect from 'localhost'. This ensures that someone cannot guess at the root password from the network.

Disallow root login remotely? [Y/n] Y
... Success!

By default, MariaDB comes with a database named 'test' that anyone can access. This is also intended only for testing, and should be removed before moving into a production environment.

Remove test database and access to it? [Y/n] Y
- Dropping test database...
... Success!
- Removing privileges on test database...
... Success!

Reloading the privilege tables will ensure that all changes made so far will take effect immediately.

Reload privilege tables now? [Y/n] Y
... Success!

Cleaning up...

All done! If you've completed all of the above steps, your MariaDB installation should now be secure.

Thanks for using MariaDB!
Login into MariaDB server.
mysql -u root -ppassword

d.2 Create Database

Start the MariaDB service.

```
systemctl start mariadb  
mysql -u root -ppassword
```

Create a database with the following details.

DBName: *zabbixdb*

DBUser: *zabbixuser*

DBPassword: *password*

```
mysql -u root -ppassword  
MariaDB [(none)]> create database zabbixdb character set utf8 collate utf8_bin;  
MariaDB [(none)]> SHOW DATABASES;  
  
MariaDB [(none)]> CREATE USER zabbixuser IDENTIFIED BY 'password';  
MariaDB [(none)]> SELECT User FROM mysql.user;  
MariaDB [(none)]> GRANT ALL PRIVILEGES ON zabbixdb.* TO zabbixuser;  
MariaDB [(none)]> FLUSH PRIVILEGES;  
MariaDB [(none)]> SHOW GRANTS FOR zabbixuser;  
MariaDB [(none)]> quit;
```

On Zabbix server host import initial schema and data. You will be prompted to enter your newly created password.

```
zcat /usr/share/doc/zabbix-server-mysql*/create.sql.gz | mysql -uzabbixuser -p  
zabbixdb  
Enter password:
```

d.3 Update Database Configuration

Edit the `zabbix_server.conf` file to set the database details.

```
vi /etc/zabbix/zabbix_server.conf
```

Make sure you set as follows.

```
DBHost=localhost  
DBName=zabbixdb  
DBUser=zabbixuser  
DBPassword=password
```

e. Start Zabbix server and agent processes

```
systemctl restart zabbix-server zabbix-agent httpd php-fpm
```

```
systemctl enable zabbix-server zabbix-agent httpd php-fpm
```

3.Setup Zabbix via Web Installer

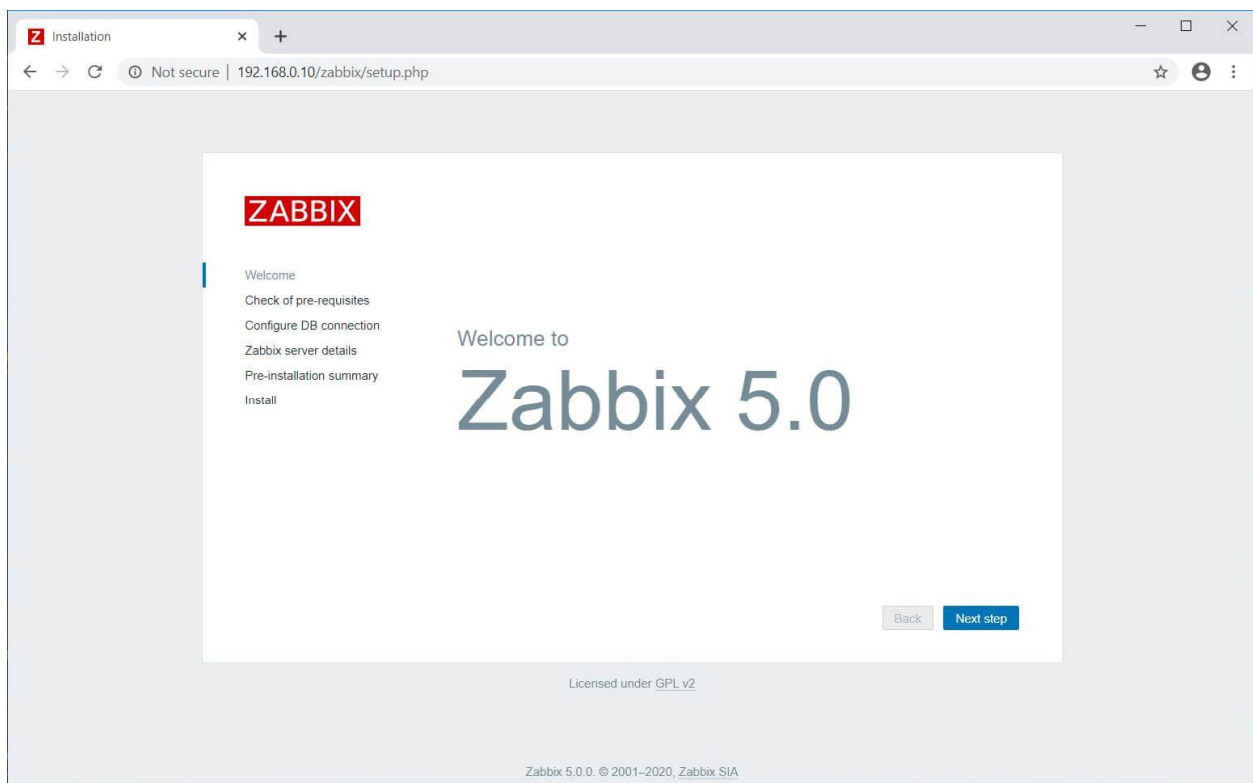
Open up your web browser and point it to the following URL.

<http://your-ip-address/zabbix/>

Follow the below steps to complete the Zabbix installation.

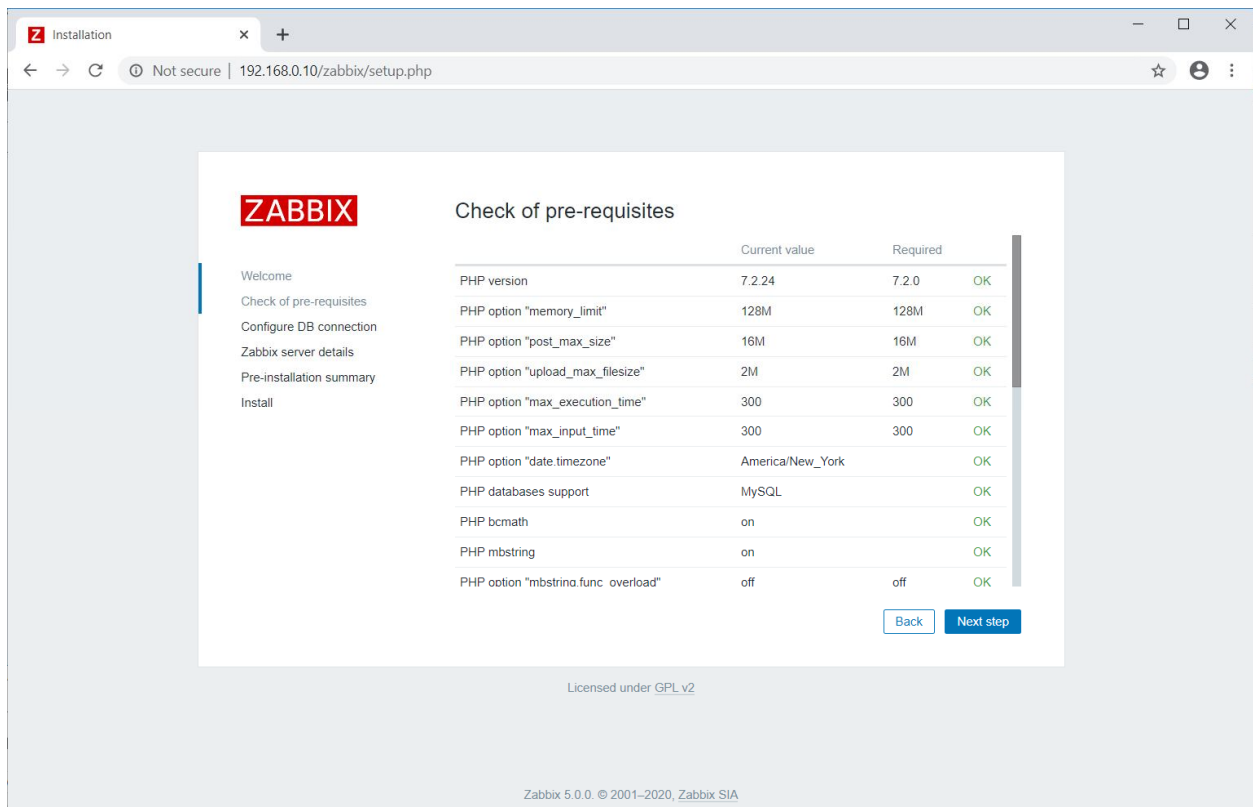
For both versions of Zabbix, Zabbix installation wizard instructions are the same.

Click **Next Step** on Zabbix welcome page.



Zabbix 5.0 Welcome Screen

This step verifies all the pre-requisites are met for Zabbix Installation. If there are any issues, those need to be fixed. Click on **the Next Step**.



Zabbix Installation Prechecks

Enter the Zabbix database name, DB user, and password. Click the **Next Step**.

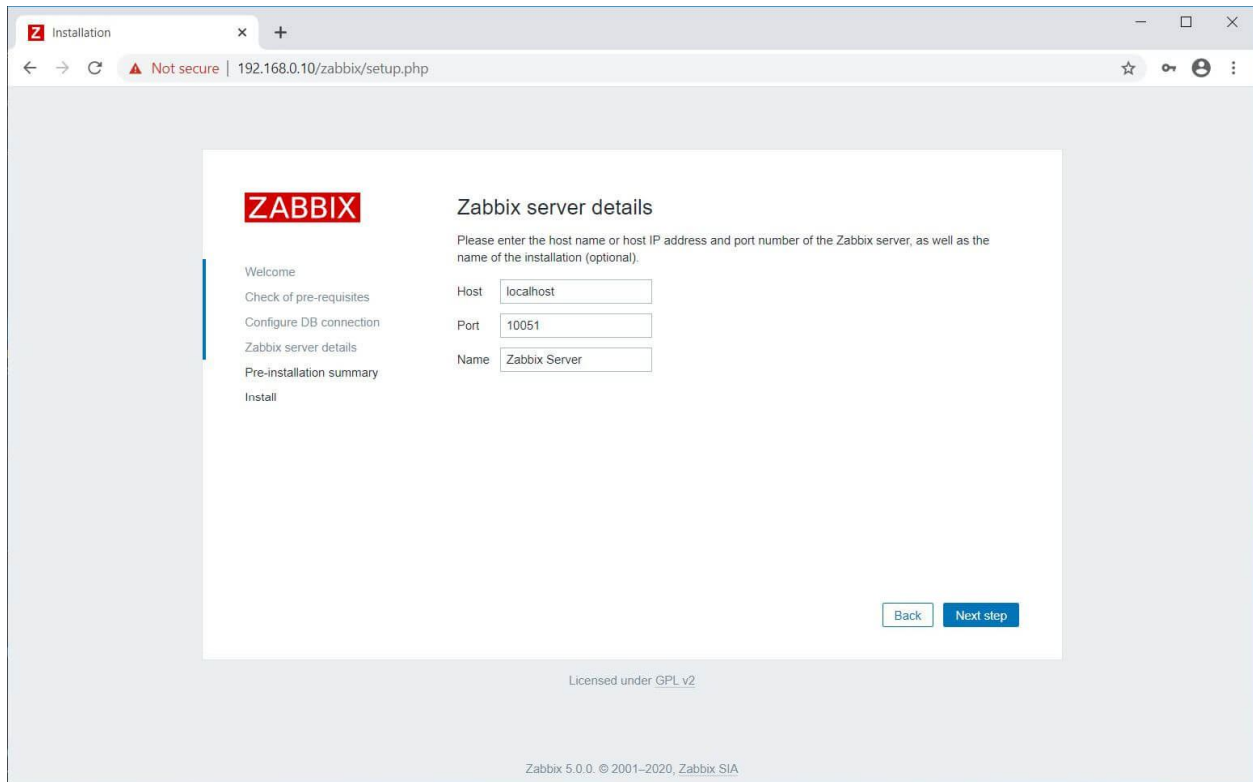
The screenshot shows a web browser window with the address bar displaying "192.168.0.10/zabbix/setup.php". The page title is "Installation". The main content area features the ZABBIX logo and a sidebar with navigation links: "Welcome", "Check of pre-requisites", "Configure DB connection" (highlighted), "Zabbix server details", "Pre-installation summary", and "Install". The "Configure DB connection" section contains the following fields and instructions:

- Database type:** A dropdown menu set to "MySQL".
- Database host:** A text input field containing "localhost".
- Database port:** A text input field containing "0", with a note "0 - use default port".
- Database name:** A text input field containing "zabbixdb".
- User:** A text input field containing "zabbixuser".
- Password:** A text input field with masked characters "*****".
- TLS encryption:** An unchecked checkbox.

At the bottom right of the form are "Back" and "Next step" buttons. Below the form, the text "Licensed under GPL v2" is displayed. At the very bottom of the page, the footer reads "Zabbix 5.0.0. © 2001–2020, Zabbix SIA".

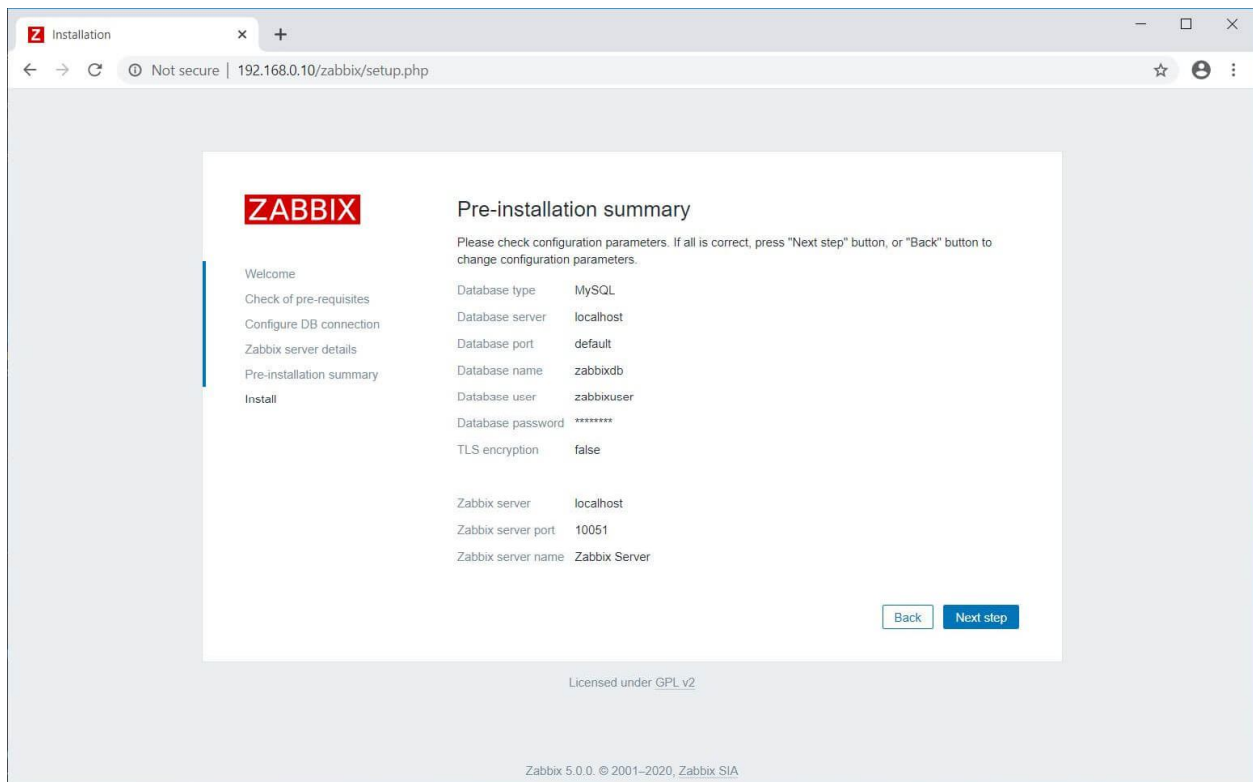
Database Configuration

Mention the Zabbix server details, port number, and the name for Zabbix installation and then click the **Next step**.



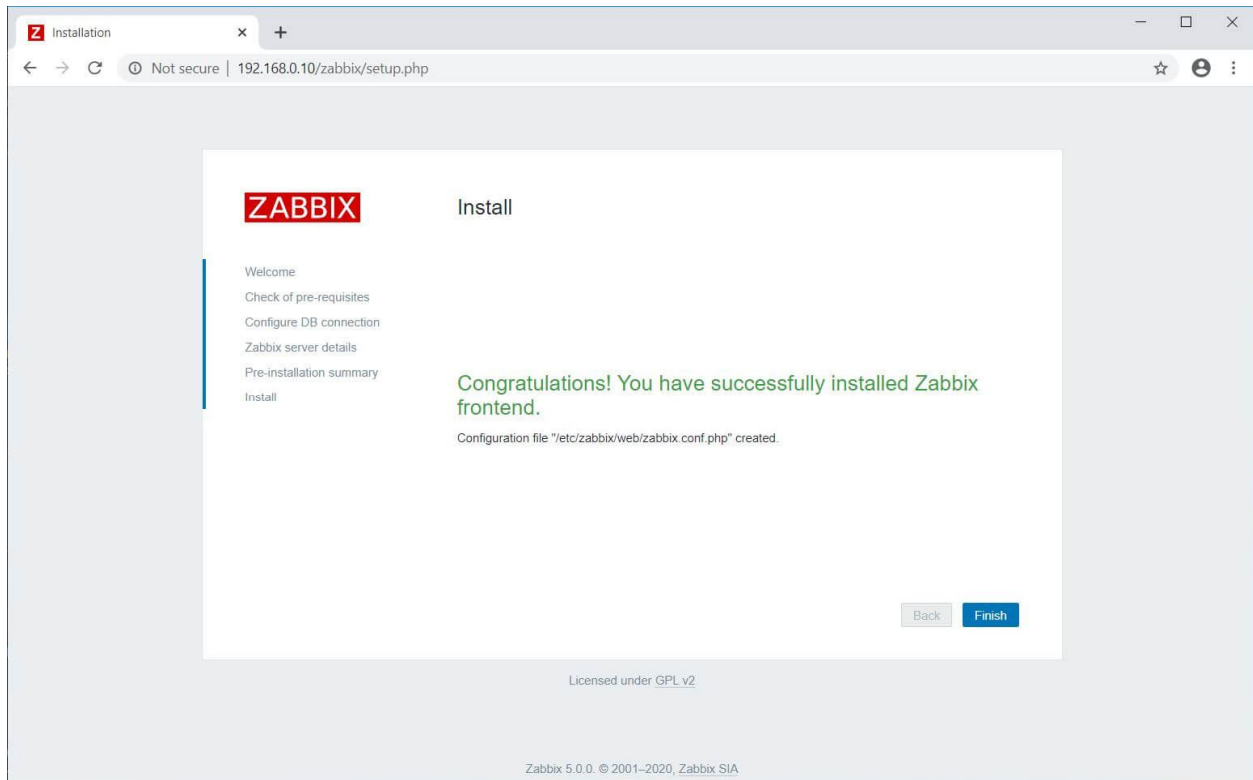
Zabbix Server Details

You will get a pre-installation summary like below. Click the **Next step**.



Zabbix Pre-installation Summary

Now, you have completed the installation of Zabbix. Click the **Finish**.



Zabbix Installation Completed

Once after you clicked on Finish, the installer will redirect you to the Zabbix web console.

4.Access Zabbix Dashboard

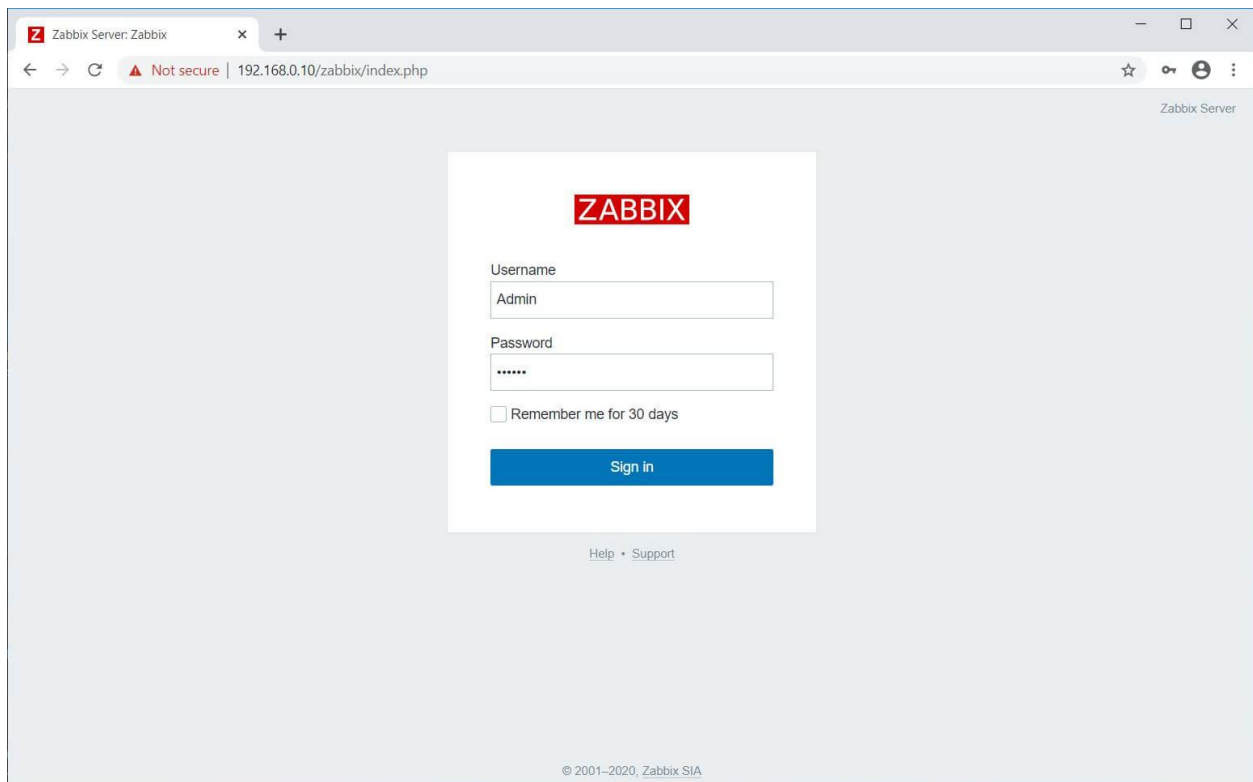
Log in with the Zabbix default username and password.

Username: *Admin*

ADVERTISEMENT

Password: *zabbix*

Username is case sensitive.



Zabbix Login Page

Zabbix Dashboard:

Zabbix Server: Dashboard

Not secure | 192.168.0.10/zabbix/zabbix.php?action=dashboard.view

ZABBIX

Zabbix Server

Monitoring

- Dashboard
- Problems
- Hosts
- Overview
- Latest data
- Screens
- Maps
- Discovery
- Services

Inventory

Reports

Configuration

Administration

Support

Share

Help

Global view

All dashboards / Global view

System information

Parameter	Value	Details
Zabbix server is running	Yes	localhost:10051
Number of hosts (enabled/disabled/templates)	145	1 / 0 / 144
Number of items (enabled/disabled/not supported)	96	88 / 0 / 8
Number of triggers (enabled/disabled [problem/ok])	49	49 / 0 [0 / 49]
Number of users (online)	2	1

1 Available

0 Not available

0 Unknown

1 Total

0 Disaster

0 High

0 Average

0 Warning

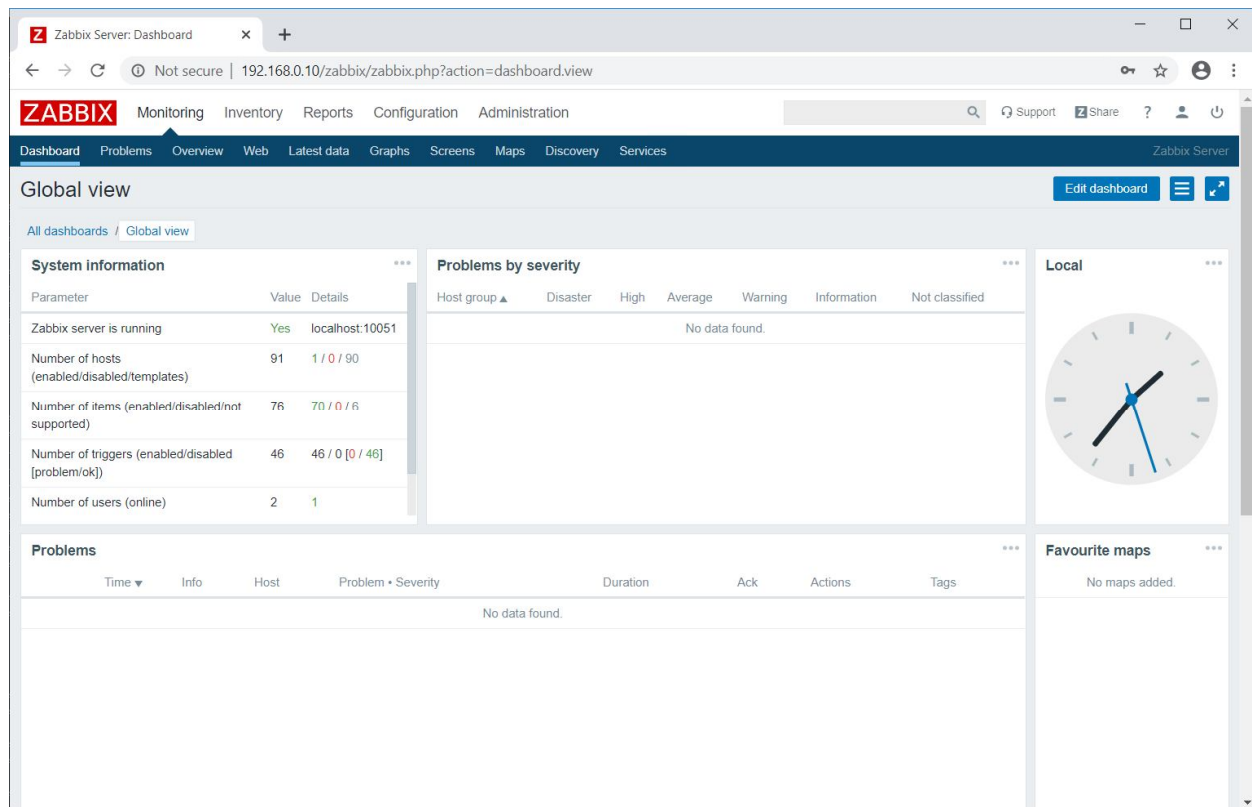
0 Information

0 Not classified

Problems

Time	Info	Host	Problem • Severity	Duration	Ack	Actions	Tags
No data found.							

Zabbix 5.0
Dashboard



Zabbix 4.0 Dashboard

6.Add Linux Host (ubuntu 18.04) in Zabbix Server for Monitoring is following steps

Step 1) Adding the Zabbix repository and Installing Zabbix agent

For Ubuntu 18.04, execute the commands below to add the repository

```
wget https://repo.zabbix.com/zabbix/4.0/ubuntu/pool/main/z/zabbix-release/zabbix-release_4.0-3+biônico_all.deb
```

```
sudo dpkg -i zabbix-release_4.0-3+biônico_all.deb
```

```
sudo apt-get update
```

```
sudo apt-get install zabbix-agent
```

Step 2) Configure Zabbix agent

With the successful installation of the Zabbix agent, we need to make a couple of tweaks for the remote system to communicate with the Zabbix server. We are going to make a few adjustments in the configuration file which is [/etc/zabbix/zabbix_agentd.conf](#)

In the file locate the Server and hostname attributes and set them to correspond to the server's parameters. In our case, we have:

```
vi /etc/zabbix/zabbix_agentd.conf  
  
Server=10.128.0.10  
  
hostname=ubuntu20-04
```

Once done, save & exit the configuration file.

Also, ensure that you can reach the Zabbix server by pinging its IP address and hostname.

For the changes to come into effect, restart the Zabbix-agent as shown:

```
$ sudo systemctl restart zabbix-agent
```

To ensure it is running, check its status using the command:

```
$ sudo systemctl status zabbix-agent
```

Step 3) Allow port 10050 at security group/firewall at both zabbix server and zabbix-agent side

Check netstat status at agent side

```
netstat -antp | grep 10050
```

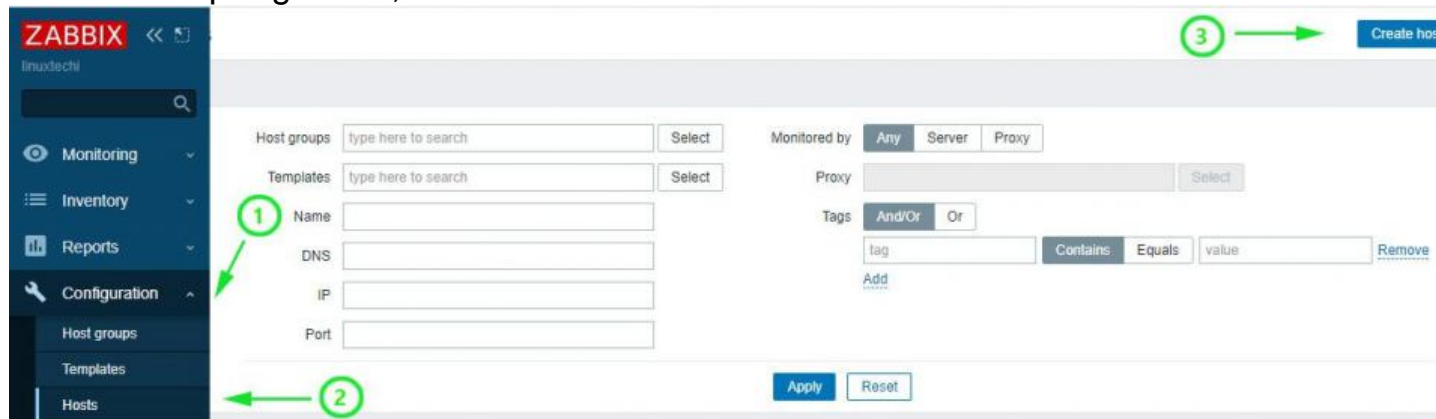
```
tcp        0      0 0.0.0.0:10050        0.0.0.0:*            LISTEN      14509/zabbix_agentd
```

```
tcp6       0      0 :::10050             :::*                  LISTEN      14509/zabbix_agentd
```

Step 4) Adding or Registering Remote Linux Host in Zabbix Server

Login to your Zabbix Server portal using admin user's credentials .To add a host on the Zabbix server, click on **Configuration** → **Hosts**.

On the far top- right end, click on the 'Create host' button



On the page that appears, fill out the remote Linux's details as listed:

- Hostname
- Visible name
- IP address
- Description

← → ↻ ⚠ Not secure | 35.222.20.56/zabbix/hosts.php?form=create

ZABBIX << 🔍

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Monitoring

Inventory

Reports

Configuration

Host groups

Templates

Hosts

Maintenance

Actions

Event correlation

Discovery

Services

Hosts

Host Templates IPMI Tags Macros Inventory Encryption

* Host name ubuntu20-04

Visible name Ubuntu 20.04 LTS

* Groups type here to search Select

* Interfaces	Type	IP address	DNS name	Connect to	Port
6 →	Agent	10.128.0.12		IP DNS	10
Add					

Description Ubuntu 20.04 LTS Server

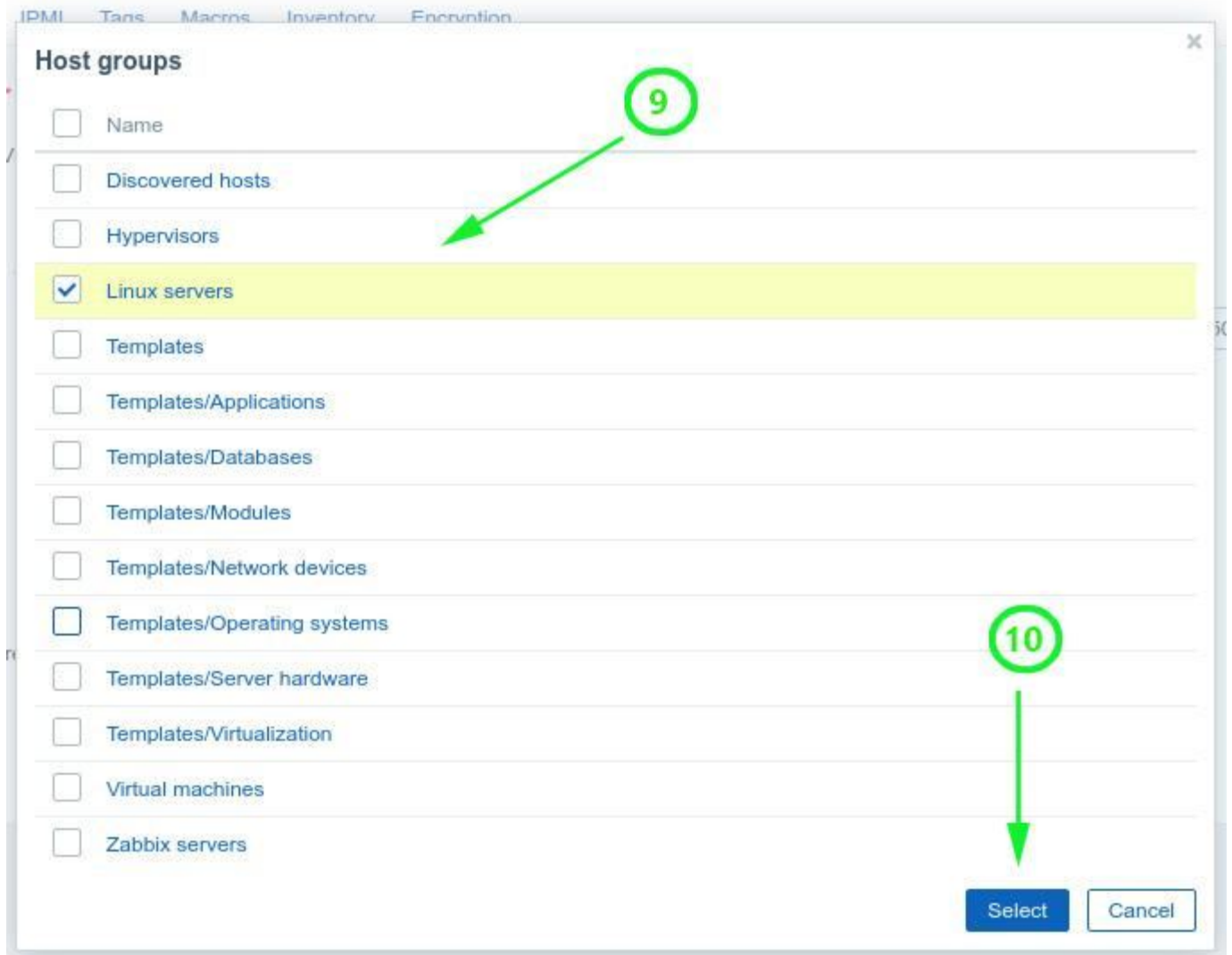
7 →

Monitored by proxy (no proxy)

Enabled ☒

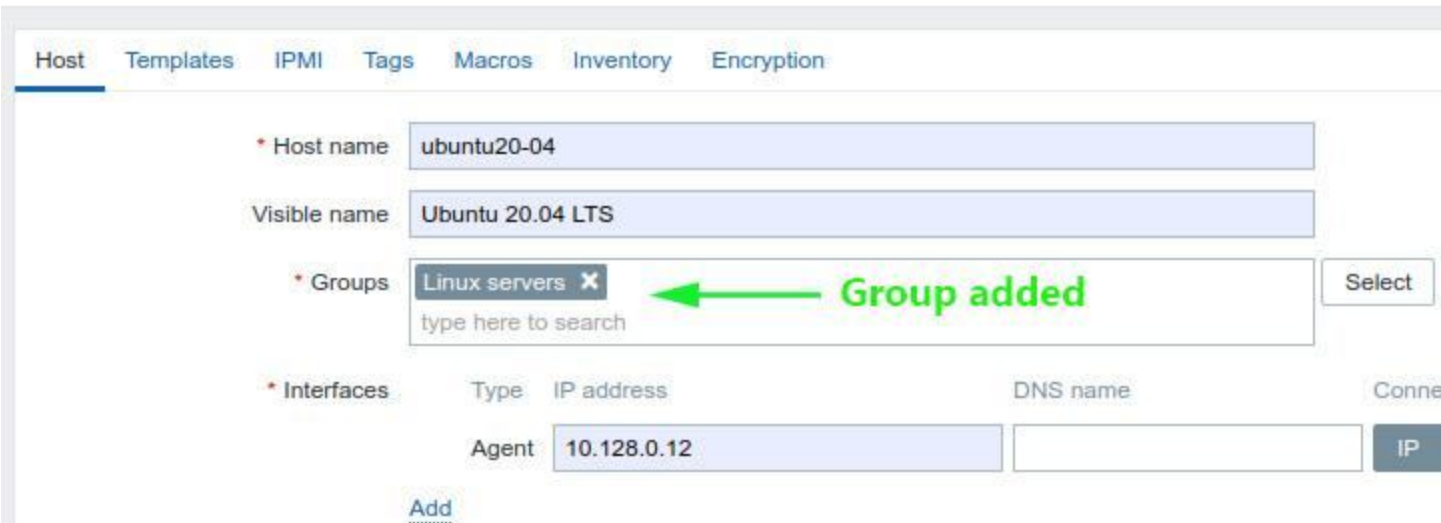
Add Cancel

Next, click on the **'select'** button next to the **'Groups'** text field. On the **'Host groups'** list, click on **'Linux servers'** and then click **'Select'**.



As you can see, the group has been added.

Hosts



Host Templates IPMI Tags Macros Inventory Encryption

* Host name ubuntu20-04

Visible name Ubuntu 20.04 LTS

* Groups Linux servers X ← Group added
type here to search

Select

* Interfaces	Type	IP address	DNS name	Connection
Agent		10.128.0.12		IP

Add

We also need to add a template for our server. So, click on the **'Templates'** menu option.

Hosts

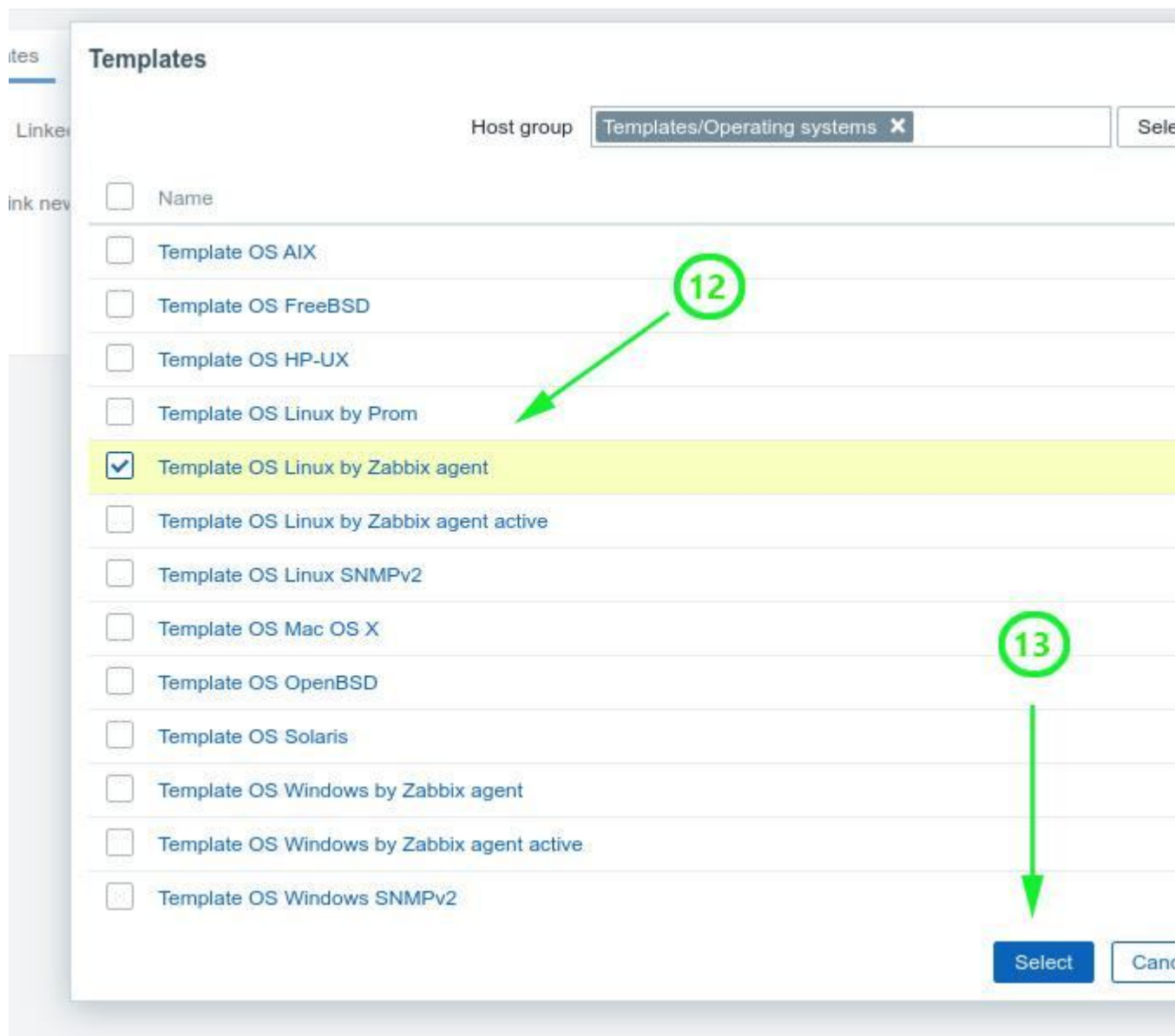


Host Templates IPMI Tags Macros Inventory Encryption

* Host name ubuntu20-04

Visible name Ubuntu 20.04 LTS

On the **'Templates'** list that appears, click on **'Template OS Linux by Zabbix agent'** and hit the **'Select'** button.



This takes you back to the home screen and there you can see that your new host system has been added.

← → ↻ ⓘ Not secure | 35.222.20.56/zabbix/hosts.php

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Monitoring

Inventory

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Templates

Hosts

Maintenance

Actions

Event correlation

Discovery

Services

Hosts

Host groups

Templates

Name

DNS

IP

Port

Monitored by

Proxy

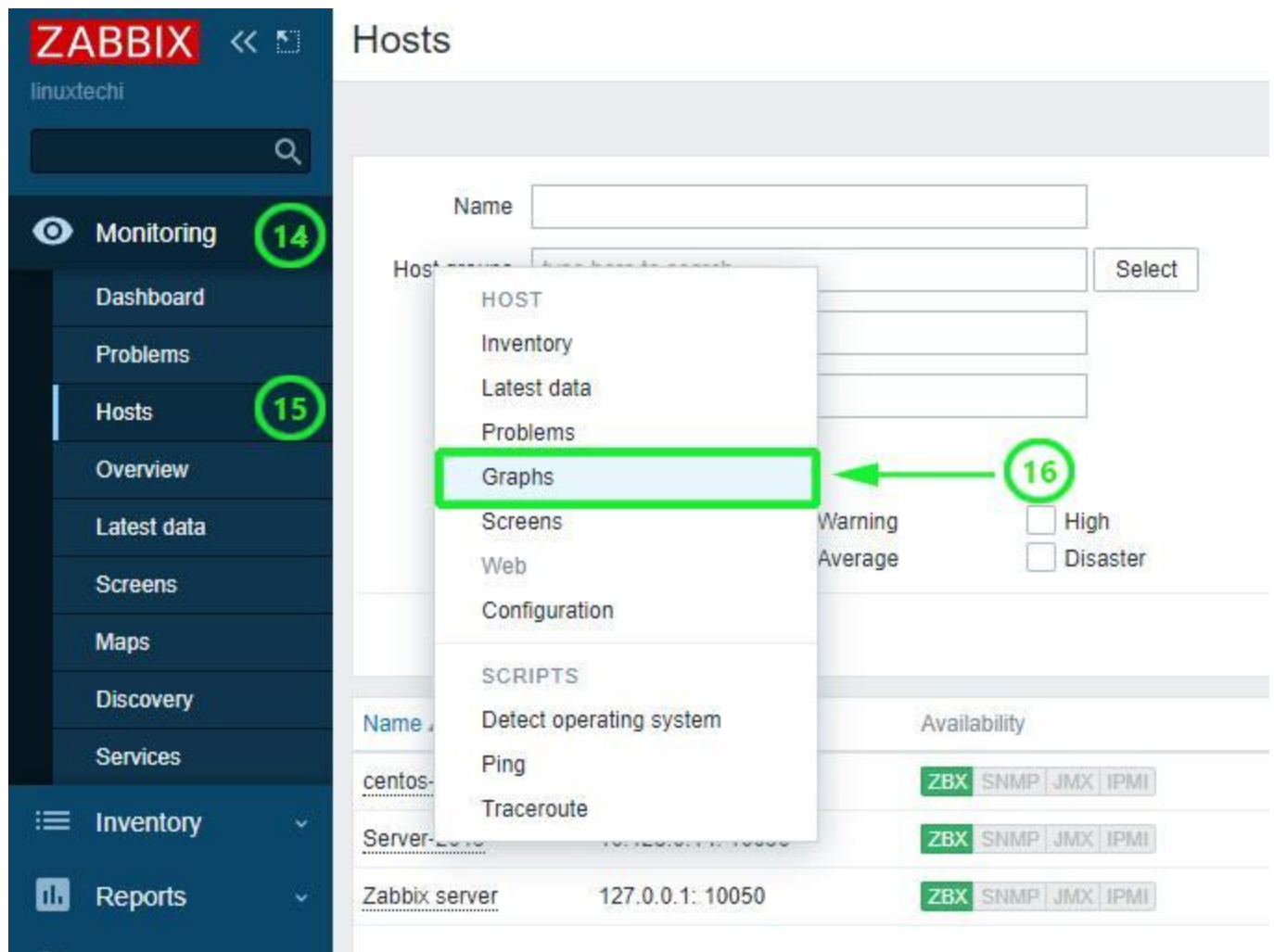
Tags

<input type="checkbox"/>	Name ▲	Applications	Items	Triggers	Graphs	Discovery	Web	Interface	Proxy	Templates
<input type="checkbox"/>	Ubuntu 20.04 LTS	Applications 11	Items 42	Triggers 14	Graphs 8	Discovery 3	Web	10.128.0.12:10050		Template O agent (Tem block devic Template M Zabbix age Linux Blaz agent Tem

Graphing statistics of the remote hosts

o represent system metrics in a graphical form, click on '[Monitoring](#)' → '[Hosts](#)'

Next, click on the host you want to graph and select the '[graph](#)' option from the pull-up menu.



Zabbix server will begin generating various graphs representing various system metrics such as Processes, CPU load, and network traffic statistics to mention a few.

Scroll down to view other graphs displaying various metrics as shown below.

