



DIGIENT TECHNOLOGIES

Zabbix Installation Document

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Document History

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1. Introduction

1.1. Purpose

The purpose of this document is to provide a brief idea about the “**Zabbix installation and configuration**”

1.2. Scope

The Scope of the document is to provide the steps of installing Zabbix and configuration of Zabbix client.

2. Zabbix Installation

Zabbix is open source software for monitoring availability and performance. Zabbix comes at no cost. Zabbix offers great performance for data gathering and can be scaled to very large environments.

It can be used to keep track of multiple physical or virtual private server instances.

2.1. Step1: Prerequisites

Before installing Zabbix, we have to install and configure **LAMP stack** on server. Use below command to install these service, if it is not installed.

```
sudo apt-get update
sudo apt-get install apache2
sudo apt-get install mysql-server
sudo apt-get install php5 php5-cli php5-common php5-mysql
```

2.2. Step2: Update Time zone in PHP Configuration

In this step, we will update time zone in php configuration file as given below,

```
sudo vim /etc/php5/apache2/php.ini;
[Date]
date.timezone = 'Asia/Kolkata'
```

2.3. Step3: Adding Apt Repository

Before installing Zabbix, install the **Zabbix repository** in system. Use the following commands to install the Zabbix repository.

```
wget http://repo.zabbix.com/zabbix/3.0/ubuntu/pool/main/z/zabbix-release/zabbixrelease_
```

```
3.0-1+trusty_all.deb
sudo dpkg -i zabbix-release_3.0-1+trusty_all.deb
sudo apt-get update
```

2.4. Step4: Install Zabbix Server

After adding **Zabbix apt repository** in system, use the following command to install Zabbix using mysql database.

```
sudo apt-get install zabbix-server-mysql zabbix-frontend-php
```

2.5. Step5: Create Database Schema

Now the user should create a **database** for zabbix server. Use the following commands to create mysql database and user for zabbix server.

```
mysql -u root -p
mysql> CREATE DATABASE zabbixdb;
mysql> GRANT ALL on zabbixdb.* to zabbix@localhost IDENTIFIED BY
'secretpassword';
mysql> FLUSH PRIVILEGES;
mysql> quit
```

Now import zabbix database schema in newly created database.

```
cd /usr/share/doc/zabbix-server-mysql
gunzip create.sql.gz
mysql -u root -p zabbixdb < create.sql
```

2.6. Step6: Edit Zabbix Configuration File

Now edit zabbix server configuration file and update following entries.

```
# vim /etc/zabbix/zabbix_server.conf
DBHost=localhost
DBName=zabbixdb
DBUser=zabbix
```

2.7. Step7: Restart Apache and Zabbix

Use the following command to restart Apache service and Zabbix service

Apache Service:

```
sudo service apache2 restart
```

Zabbix Service:

```
sudo service zabbix-server restart
```

After starting zabbix service, let's go to zabbix web installer and finish the Zabbix installation.

2.8. Step8: Zabbix Web Installer

Zabbix web installer can be access using following URL,

<http://13.232.137.49/zabbix>

Now follow the below steps to install the Zabbix.

2.8.1. Zabbix: Welcome

The user should click the "Next Step" in welcome page as given below,



Figure 1: Welcome Page

2.8.2. Check for Pre-Requisites

Check if the system has all required packages, if everything is ok click the "**Next step**" button. Below image illustrates a simplified overview of **Pre-requisites**,

ZABBIX				
Check of pre-requisites				
Welcome	PHP gd JPEG support	on		OK
Check of pre-requisites	PHP gd FreeType support	on		OK
Configure DB connection	PHP libxml	2.9.1	2.6.15	OK
Zabbix server details	PHP xmlwriter	on		OK
Pre-installation summary	PHP xmlreader	on		OK
Install	PHP ctype	on		OK
	PHP session	on		OK
	PHP option "session.auto_start"	off	off	OK
	PHP gettext	on		OK
	PHP option "arg_separator.output"	&	&	OK

Back Next step

Figure 2: Check for Pre-requisites

2.8.3. Configure DB Connection

Enter the database details to configure and click Test Connection. If the database connection is correct then, it displays the message as “OK” after that click the **"Next step"** button.

Below image illustrates a simplified overview of **DB Connection**,

ZABBIX

Configure DB connection

Please create database manually, and set the configuration parameters for connection to this database. Press "Next step" button when done.

Database type:

Database host:

Database port: 0 - use default port

Database name:

User:

Password:

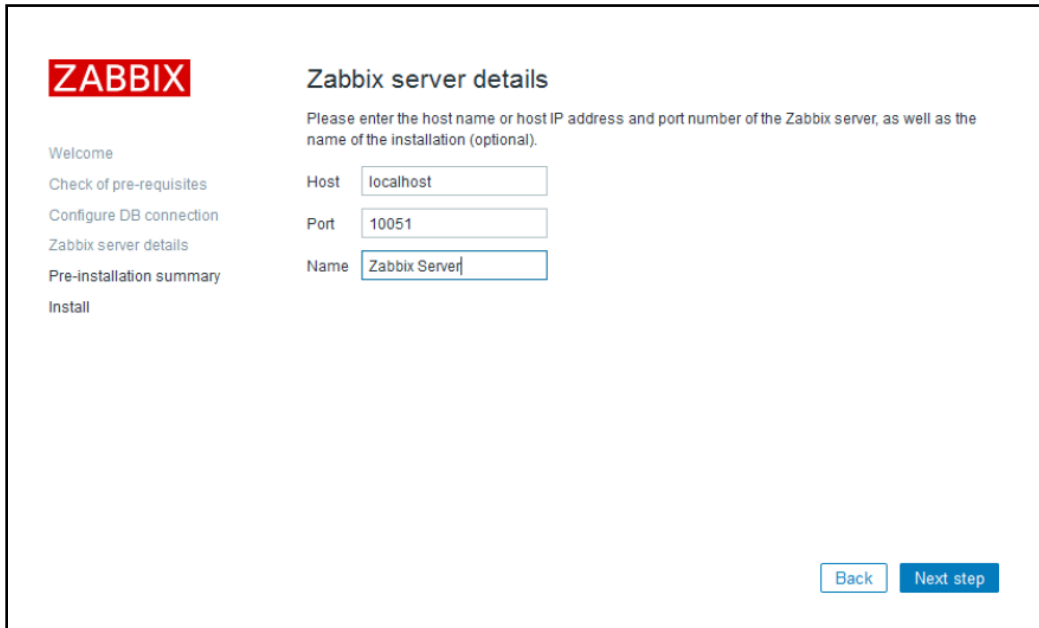
Back Next step

Figure 3: DB Connection

2.8.4. Zabbix Server Details

The user should enter the Zabbix Server Details like Host name, Port and name of the server then click the **"Next step"** button.

Below image illustrates a simplified overview of **Zabbix Server Details**,

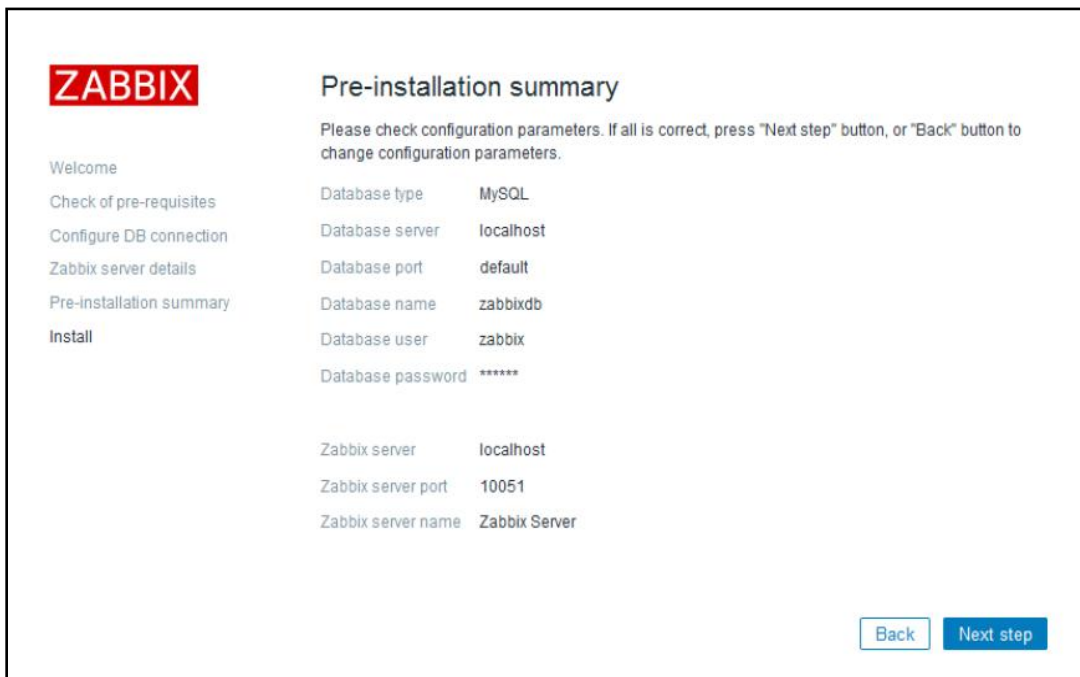


The screenshot shows the 'ZABBIX' logo in a red box on the left. Below it is a vertical list of installation steps: 'Welcome', 'Check of pre-requisites', 'Configure DB connection', 'Zabbix server details' (which is highlighted), 'Pre-installation summary', and 'Install'. To the right of this list is the title 'Zabbix server details' and a paragraph: 'Please enter the host name or host IP address and port number of the Zabbix server, as well as the name of the installation (optional)'. Below this text are three input fields: 'Host' with 'localhost', 'Port' with '10051', and 'Name' with 'Zabbix Server'. At the bottom right are two buttons: 'Back' and 'Next step'.

Figure 4: Zabbix Server Details

2.8.5. Pre-Installation Summary

Finally the user should check the configuration parameters. If everything is correct click the "Next step" button or click the "Back" button to change the configuration parameters.



The screenshot shows the 'ZABBIX' logo in a red box on the left. Below it is a vertical list of installation steps: 'Welcome', 'Check of pre-requisites', 'Configure DB connection', 'Zabbix server details', 'Pre-installation summary' (which is highlighted), and 'Install'. To the right of this list is the title 'Pre-installation summary' and a paragraph: 'Please check configuration parameters. If all is correct, press "Next step" button, or "Back" button to change configuration parameters.' Below this text is a table of configuration parameters:

Database type	MySQL
Database server	localhost
Database port	default
Database name	zabbixdb
Database user	zabbix
Database password	*****
Zabbix server	localhost
Zabbix server port	10051
Zabbix server name	Zabbix Server

At the bottom right are two buttons: 'Back' and 'Next step'.

Figure 5: Pre-Installation

2.8.6. Installation Completed

Now the Zabbix is installed successfully and the configuration files have been created then click the “**Finish**” button as given below,

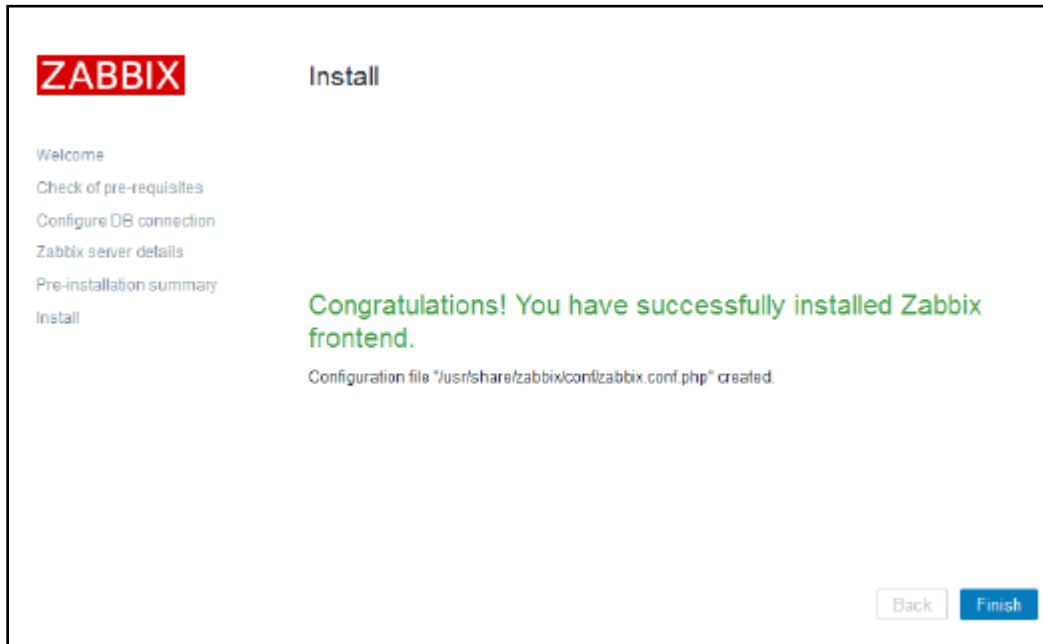


Figure 6: Installation Completed

3. Configuration of Zabbix-client

To monitor systems on zabbix, we have to configure and install the zabbix-agent on which systems we want to monitor.

3.1. Step1: Add Required Repository

Before installing Zabbix Agent first configure **Zabbix yum repository** using following commands as per required version and operating system.

CentOS/RHEL 7:

```
rpm -Uvh http://repo.zabbix.com/zabbix/3.4/rhel/7/x86_64/zabbix-release-3.4-2.el7.noarch.rpm
```

CentOS/RHEL 6:

```
rpm -Uvh http://repo.zabbix.com/zabbix/3.4/rhel/6/x86_64/zabbix-release-3.4-1.el6.noarch.rpm
```

3.2. Step2: Install Zabbix Agent

After installing yum repository packages in system. Use the following command to install **Zabbix agent** on CentOS and Red Hat systems using the yum package manager.

```
yum install zabbix zabbix-agent
```

3.3. Step3: Zabbix Agent Configuration

As Zabbix agent has been successfully installed on remote system. Now we just need to configure Zabbix agent by adding **Zabbix server IP** to the configuration.

```
file /etc/zabbix/zabbix_agentd.conf
#Server=[zabbix server ip]
#Hostname=[ Hostname of client system ]
Server=172.31.9.192
```

3.4. Step4: Restarting Zabbix Agent

After adding Zabbix server IP to the configuration file, now restart agent service to reload the new settings by using the following command.

```
service zabbix-agent restart
```

To start and stop Zabbix-Agent services anytime use the following commands.

```
service zabbix-agent start
service zabbix-agent stop
```

If the user need to add the **Host** to Zabbix configuration click the Configuration>Host>Create Host as given below,

Hosts

Host Templates IPMI Macros Host inventory Encryption

Host name: RP-CENTOS-7 DEV GAME2

Visible name:

Groups: In groups: Linux servers

Other groups: Discovered hosts, Hypervisors, Templates, Virtual machines, Zabbix servers

New group:

Agent interfaces:

IP address	DNS name	Connect to	Port	Default
172.31.24.71		IP DNS	10050	Remove

Add

SNMP interfaces: Add

JMX interfaces: Add

IPMI interfaces: Add

Description:

Figure 7: Host

Then the user should click the Template tab to attach the “Linked template” or “Link new template” to the host.

ZABBIX Monitoring Inventory Reports Configuration Administration

Host groups Templates Hosts Maintenance Actions Discovery IT services

Hosts

Host Templates IPMI Macros Host inventory Encryption

Linked templates:

Name	Action
Template OS Linux	Unlink

Link new templates:

type here to search

Add

Figure 8: Templates