

# Install Cacti on Ubuntu 20.04

Learn how to install Cacti, a complete network graphing solution, on Ubuntu 20.04. This step-by-step guide covers installation, configuration, and troubleshooting.

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# Introduction

Cacti is an open-source network monitoring tool that uses the Simple Network Management Protocol (SNMP) to monitor network traffic and bandwidth utilization of network devices such as routers and switches. It serves as the front-end application for Round Robin Databases (RRDtool), stores and displays time-series data in graph formats. In this article, you will learn how to install Cacti Monitoring tool on Ubuntu 20.04 server.

## Prerequisites

- Deploy a [fully updated](#) Vultr Ubuntu 20.04 Server.
- Create a non-root user with sudo access.
- Install [LAMP](#) on your server.

## 1. Configure PHP

Edit the first `php.ini` file.

```
$ sudo nano /etc/php/*/apache2/php.ini
```

Change the following lines and make sure to uncomment the `date.timezone` value. To search for a specific line, use `Control+W`, enter the search phrase, then press `Enter` Save and close the file.

```
memory_limit = 512M
max_execution_time = 300
date.timezone = "Africa/Nairobi"
```

Edit the second `php.ini` file.

```
$ sudo nano /etc/php/*/cli/php.ini
```

Change the following lines. Save and close the file.

```
memory_limit = 512M
max_execution_time = 300
date.timezone = "Africa/Nairobi"
```

Restart the Apache service to apply the changes.

```
$ sudo systemctl restart apache2
```

## 2. Configure MariaDB Server

Edit the MariaDB default configuration file.

```
$ sudo nano /etc/mysql/mariadb.conf.d/50-server.cnf
```

Modify the following lines. Save and close the file.

```
innodb_file_format=Barracuda
innodb_large_prefix=1
collation-server=utf8mb4_unicode_ci
character-set-server=utf8mb4
innodb_doublewrite=ON
max_heap_table_size=128M
tmp_table_size=128M
join_buffer_size=128M
innodb_buffer_pool_size=1G
innodb_flush_log_at_timeout=3
innodb_read_io_threads=32
innodb_write_io_threads=16
innodb_io_capacity=5000
innodb_io_capacity_max=10000
innodb_buffer_pool_instances=9
```

Make sure to comment out the following code to avoid configuration issues:

```
# collation-server = utf8mb4_general_ci
```

Restart the MariaDB service to apply the changes.

```
$ sudo systemctl restart mariadb
```

Log in to the MariaDB shell.

```
$ sudo mysql -u root -p
```

Create a database named `cactidb`.

```
CREATE DATABASE cactidb CHARACTER SET utf8mb4 COLLATE utf8mb4_unicode_ci;
```

Grant all permissions of the created database to `cactiuser`.

```
GRANT ALL ON cactidb.* TO cactiuser@localhost IDENTIFIED BY 'StrongPassword';
```

Flush the privileges.

```
FLUSH PRIVILEGES;
```

Exit from the MariaDB shell.

```
exit;
```

Import timezone data to the MySQL database.

```
$ sudo mysql -u root -p mysql < /usr/share/mysql/mysql_test_data_timezone.sql
```

Log in to MariaDB shell.

```
$ sudo mysql -u root -p
```

Grant required privileges on MySQL timezone.

```
GRANT SELECT ON mysql.time_zone_name TO cactiuser@localhost;
```

Flush the privileges.

```
FLUSH PRIVILEGES;
```

Exit from the MariaDB shell.

```
exit;
```

## 3. Install Cacti

Download the latest version of Cacti from its [official website](#). You can download it with the following command:

```
$ wget https://files.cacti.net/cacti/linux/cacti-latest.tar.gz
```

Extract the downloaded file.

```
$ sudo tar -zxvf cacti-latest.tar.gz
```

Move the extracted directory to the Apache root directory.

```
$ sudo mv cacti-1* /var/www/html/cacti
```

Import the database to the `cactidb`.

```
$ sudo mysql -u root -p cactidb < /var/www/html/cacti/cacti.sql
```

Edit the Cacti configuration file `config.php`.

```
$ sudo nano /var/www/html/cacti/include/config.php
```

Change the following lines, save and close the file.

```
$database_type      = 'mysql';  
$database_default  = 'cactidb';
```

```
$database_hostname = 'localhost';  
$database_username = 'cactiuser';  
$database_password = 'StrongPassword';  
$database_port      = '3306';
```

Create the log file.

```
$ sudo touch /var/www/html/cacti/log/cacti.log
```

Set the ownership and permission of the cacti directory.

```
$ sudo chown -R www-data:www-data /var/www/html/cacti/  
$ sudo chmod -R 775 /var/www/html/cacti/
```

Create a new Cacti cron job file.

```
$ sudo nano /etc/cron.d/cacti
```

Add the following line, save and close the file.

```
*/5 * * * * www-data php /var/www/html/cacti/poller.php > /dev/null 2>&1
```

## 4. Configure Apache

Create an Apache virtual host configuration file for Cacti.

```
$ sudo nano /etc/apache2/sites-available/cacti.conf
```

Add the following lines, save and close the file.

```
Alias /cacti /var/www/html/cacti  
  
<Directory /var/www/html/cacti>  
    Options +FollowSymLinks  
    AllowOverride None  
  
    <IfVersion >= 2.3>  
        Require all granted
```

```
</IfVersion>

<IfVersion < 2.3>
    Order Allow,Deny
    Allow from all
</IfVersion>

AddType application/x-httpd-php .php

<IfModule mod_php.c>
    php_flag magic_quotes_gpc Off
    php_flag short_open_tag On
    php_flag register_globals Off
    php_flag register_argc_argv On
    php_flag track_vars On
    # this setting is necessary for some locales
    php_value mbstring.func_overload 0
    php_value include_path .
</IfModule>

DirectoryIndex index.php
</Directory>
```

Enable the Cacti configuration file.

```
$ sudo a2ensite cacti
```

Restart the Apache service to apply the configuration.

```
$ sudo systemctl restart apache2
```

Verify the status of the Apache service.

```
$ sudo systemctl status apache2
```

## 5. Access Cacti Web Interface

Open your web browser and access the Cacti web interface using the URL

`http://ServerIP/cacti`. For example:

```
http://192.0.2.10/cacti
```

## Conclusion

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You have successfully installed Cacti on your server. To log in, use **admin** as your username and **admin** as your password. You will access the password reset screen to change your admin password. You can now configure Cacti.

## More Information

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For more information on Cacti, please see the [official documentation](#).



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