How to Install Roundcube Webmail on CentOS/RHEL 8/7

Aaron Kili | Last Updated: February 18, 2021 | Postfix Mail Server | 26 Comments

Roundcube is a free and open-source, fully-featured web-based multilingual IMAP webmail software, with an application-like user interface that is fully functional and customizable, and uses the latest web standards. It is built using PHP and offers full functionality that you can expect from a modern email client.

Roundcube Features:

- It's multilingual, supports over 70 languages.
- Supports a Find-as-you-type address book.
- Supports multiple sender identities.
- Offers sophisticated privacy protection.
- Has a full-featured address book with groups and LDAP connectors.
- Offers richtext/HTML message composing.
- Supports searching for messages and contacts.
- Supports Int. domain names (IDNA).
- Supports folder manipulation, shared folders, and ACL.
- Extensible using the Plug-in API.

- Has a plug-in API for flexible extensions and so much more.

Recommended System Requirements:

1. A CentOS 8/RHEL 8 or CentOS 7/RHEL 7 Server with Minimal Install.
2. Apache or Nginx webserver
3. PHP and MySQL/MariaDB database
4. SMTP and IMAP server with IMAP4 rev1 support

For the scope of this article, we assume that you already have a running Postfix email server with virtual users, otherwise, follow our guides setup:

1. Setting Up Postfix Mail Server and Dovecot with MariaDB – Part 1
2. Configure Postfix and Dovecot Virtual Domain Users – Part 2
3. Install and Integrate ClamAV and SpamAssassin to Postfix Mail Server – Part 3

Testing Environment:

For the purpose of this article, I will be installing **Roundcube Webmail** on a Linode CentOS VPS with an Nginx web server, static IP address **192.168.0.100,** and hostname **mail.tecmint.com**.

Step 1: Install Nginx, PHP-FPM, and MariaDB in CentOS 8/7

1. First start by enabling **EPEL** and **REMI** repositories and install **Nginx**, **PHP**, **PHP-FPM,** and **MariaDB** server on your **CentOS** system.

```
rpm    [CentOS/RHEL 8]
rpm    [CentOS/RHEL 7]


l php-xml php-mysql php-mbstring php-pspell php-imagick mariadb-server
```

2. Once you have successfully installed all the packages, start the Nginx web server, enable it to auto-start at boot time and check if its up and running.

```
# systemctl start nginx
# systemctl enable nginx
# systemctl status nginx
```

3. Next, if you have a system firewall enabled, you need to open port **80** for external requests.

```
# firewall-cmd --permanent --add-port=80/tcp
# firewall-cmd --reload
```

4. Next, you need to configure **PHP-FPM** to work properly. Open the file **/etc/php.ini** using a command-line test editor.

```
# vim /etc/php.ini
```

```
cgi.fix_pathinfo=0
```

Also, uncomment the directive `;date.timezone` and set its value to your **timezone**.

```
date.timezone = "Africa/Kampala"
```

Once you are done, save the file and exit.

5. Then start **PHP-FPM** service, enable it to auto-start at boot time, and check if it is up and running, as follows.

```
# systemctl start php-fpm
# systemctl enable php-fpm
# systemctl status php-fpm
```

Step 2: Secure MariaDB Server and Create Roundecube Database

6. Now start the MariaDB service using the following commands.

```
# systemctl start mariadb
# systemctl enable mariadb
# systemctl status mariadb
```

7. The default MariaDB installation is unsecure. You need to run the security script which comes with the binary package, to secure it. You will be asked to set a root password, remove anonymous users, disable root login remotely, and remove the test database.

```
# mysql secure installation
```

8. Now login to the MariaDB database, create a database for **Roundecube,** and grant the user to appropriate permissions on the database (remember to set a strong/secure password in a production environment).

```
# mysql -u root -p
MariaDB [(none)]> CREATE DATABASE roundcubemail /*!40101 CHARACTER SET
MariaDB [(none)]> CREATE USER 'roundcube'@'localhost' IDENTIFIED BY '=2
MariaDB [(none)]> GRANT ALL PRIVILEGES ON roundcubemail.* TO 'roundcube
MariaDB [(none)]> FLUSH PRIVILEGES;
MariaDB [(none)]> exit
```

9. Next, import the Roundcube table layout to the newly created database.

```
# cd /var/www/html/roundcubemail/
# mysql -u root -p roundcubemail < SQL/mysql.initial.sql
```

Step 3: Download Roundcube Package

10. In this step, download the latest stable version (**1.4.9** at the time of this writing) of Roundcube

```
/roundcubemail/releases/download/1.4.9/roundcubemail-1.4.9-complete.tar.g
.tar.gz
/roundcubemail
```

11. Next, set the appropriate permissions on the Roundcube webroot files.

```
# chown -R nginx:nginx /var/www/html/roundcubemail
```

Step 4: Configure Nginx Server Block For Roundcube Web Installer

12. Now create an Nginx server block for the Roundcube under **/etc/nginx/conf.d/** (you can name the file the way you want but it should have a **.conf** extension).

```
# vim /etc/nginx/conf.d/mail.example.com.conf
```

Add the following configuration in the file.

```
server {
        listen 80;
        server_name mail.example.com;

        root /var/www/html/roundcubemail;
        index  index.php index.html;

        #i# Logging
        access_log /var/log/nginx/mail.example.com_access_log;
        error_log   /var/log/nginx/mail.example.com_error_log;
```

```
        location ~ ^/(README.md|INSTALL|LICENSE|CHANGELOG|UPGRADING)$ {
                deny all;
        }

        location ~ ^/(config|temp|logs)/ {
                deny all;
        }

        location ~ /\. {
                deny all;
                access_log off;
                log_not_found off;
        }

        location ~ \.php$ {
                include /etc/nginx/fastcgi_params;
                #fastcgi_pass 127.0.0.1:9000;
                fastcgi_pass unix:/var/run/php-fpm/php-fpm.sock;
                fastcgi_index index.php;
                fastcgi_param SCRIPT_FILENAME $document_root$fastcgi_sc
        }
}
```

Save the file and close it.

13. Next, open the file **/etc/php-fpm.d/www.conf** to make a few changes to **PHP-FPM** web directive.

```
# vim /etc/php-fpm.d/www.conf
```

Change the user **apache** to **nginx** in the following variables.

```
user = nginx
group = nginx
```

Then comment out the line **listen = 127.0.0.1:9000** and set the listen variable to listen on a Unix socket set in the nginx server block file:

```
listen = /var/run/php-fpm/php-fpm.sock
```

Also, set the permissions for UNIX socket, uncomment and change the lines to:

```
listen.owner = nginx
listen.group = nginx
listen.mode = 0660
```

```
; Default Value: none
;prefix = /path/to/pools/$pool

; Unix user/group of processes
; Note: The user is mandatory. If the group is not set, the default user's group
;       will be used.
; RPM: apache user chosen to provide access to the same directories as httpd
user = nginx
; RPM: Keep a group allowed to write in log dir.
group = nginx

; The address on which to accept FastCGI requests.
; Valid syntaxes are:
;   'ip.add.re.ss:port'    - to listen on a TCP socket to a specific IPv4 address on
;                            a specific port;
;   '[ip:6:addr:ess]:port' - to listen on a TCP socket to a specific IPv6 address on
;                            a specific port;
;   'port'                 - to listen on a TCP socket to all addresses
;                            (IPv6 and IPv4-mapped) on a specific port;
;   '/path/to/unix/socket' - to listen on a unix socket.
; Note: This value is mandatory.
;listen = 127.0.0.1:9000i

listen = /var/run/php-fpm/php-fpm.sock

; Set listen(2) backlog.
; Default Value: 511
;listen.backlog = 511

; Set permissions for unix socket, if one is used. In Linux, read/write
; permissions must be set in order to allow connections from a web server.
; Default Values: user and group are set as the running user
;                 mode is set to 0660
listen.owner = nginx
listen.group = nginx
listen.mode = 0660

; When POSIX Access Control Lists are supported you can set them using
-- INSERT --                                                    18,31         4%
```

Configure PHP-FPM

Once you are done, save the file and close it.

14. Then restart the **Nginx** and **PHP-FPM** services to apply the recent changes, as follows.

```
# systemctl restart nginx php-fpm
```

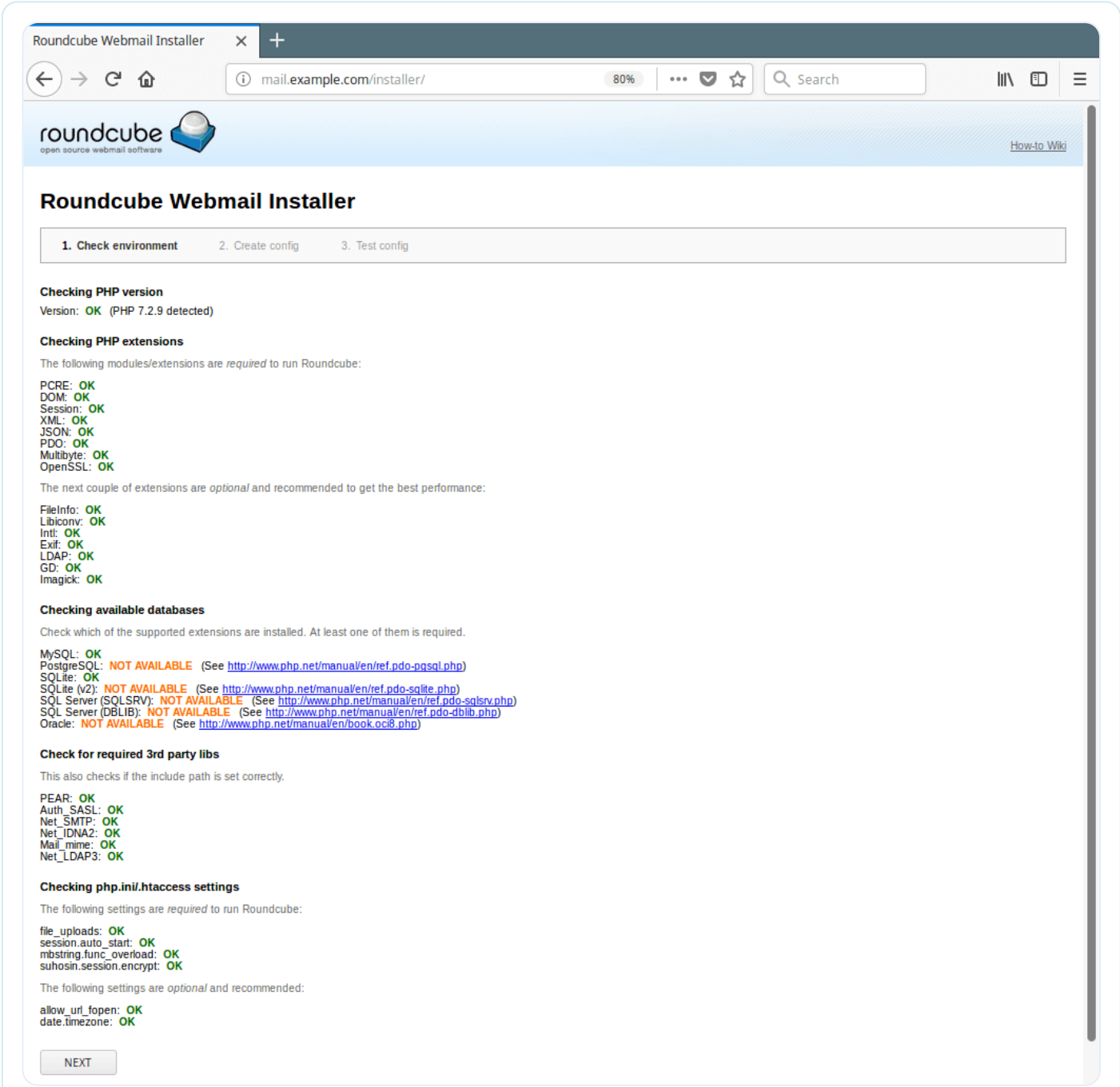
Step 5: Access Roundcube Web UI

15. Before you start the install wizard, to avoid any session errors, set the appropriate permissions

```
# ls -ld /var/lib/php/session/
# chown :nginx /var/lib/php/session/
# ls -ld /var/lib/php/session/
```

16. Now open a browser and use the address `http://mail.example.com/installer` (replace domain with the server name you set while creating an Nginx server block for Roundcube) to access the web installer. If all PHP versions, extensions, and **php.ini/.htaccess** settings are correct, you will see the following screenshot, click on **Next** to go to the configurations page.

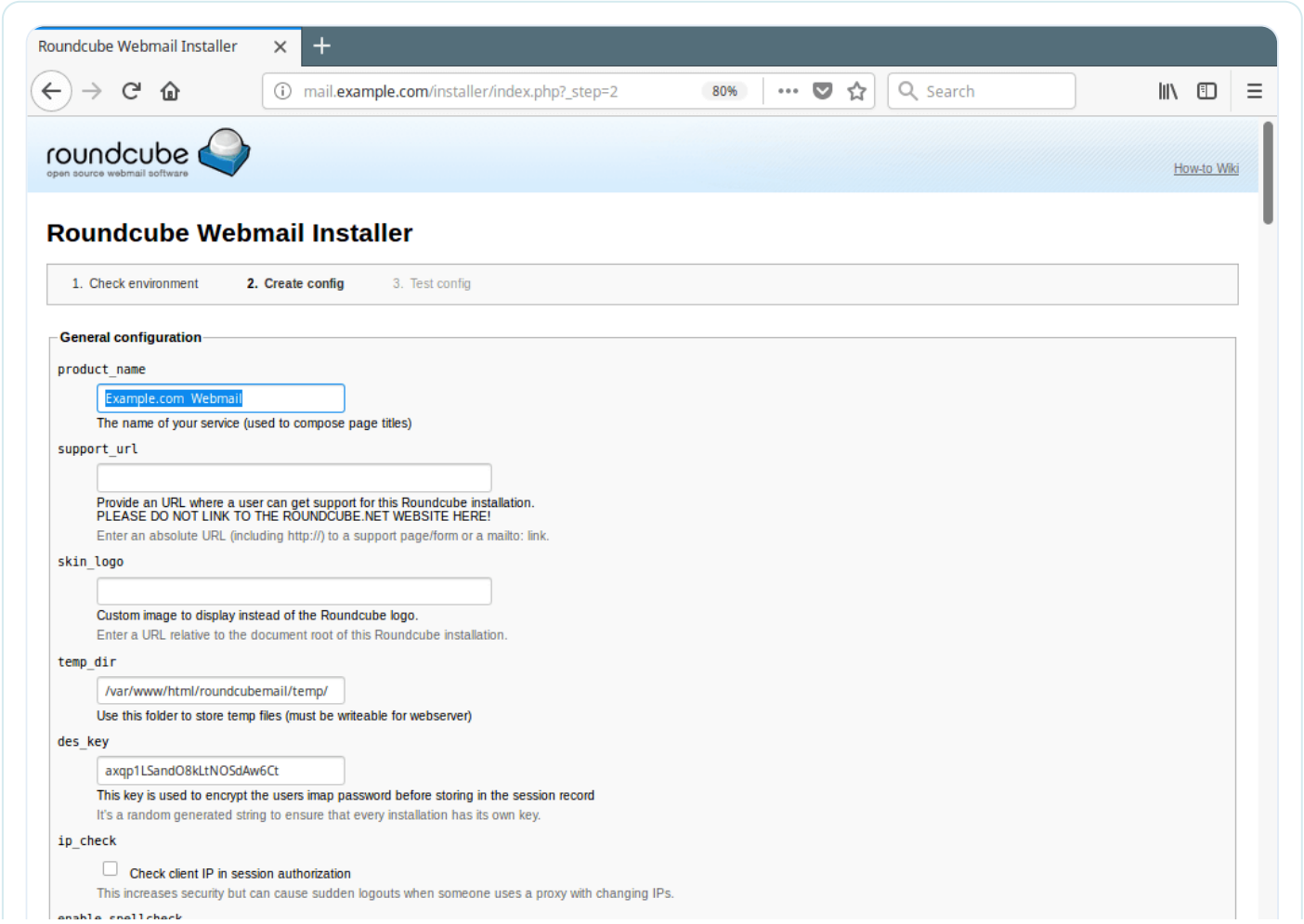
```
http://mail.example.com/installer
OR
http://IP-address/installer
```



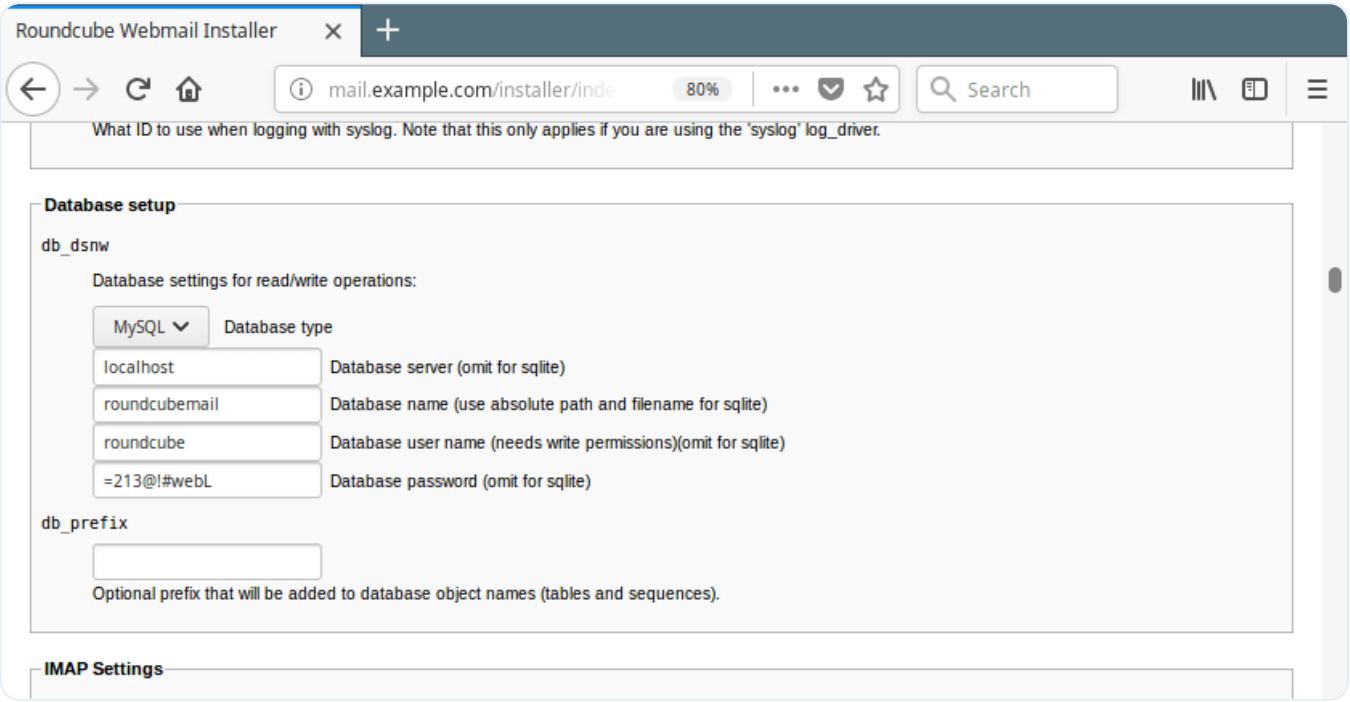
Access Roundcube Webmail Installer

17. The configurations page allows you to set up your Roundcube instance. We will only explain the important options for the scope of this guide.

Under the **General Configuration**, set a **product_name** for example **Example.com Webmail**.



Go to **Database setup**, enter the **database host**, **name**, **user,** and **password** to connect to the MySQL server.

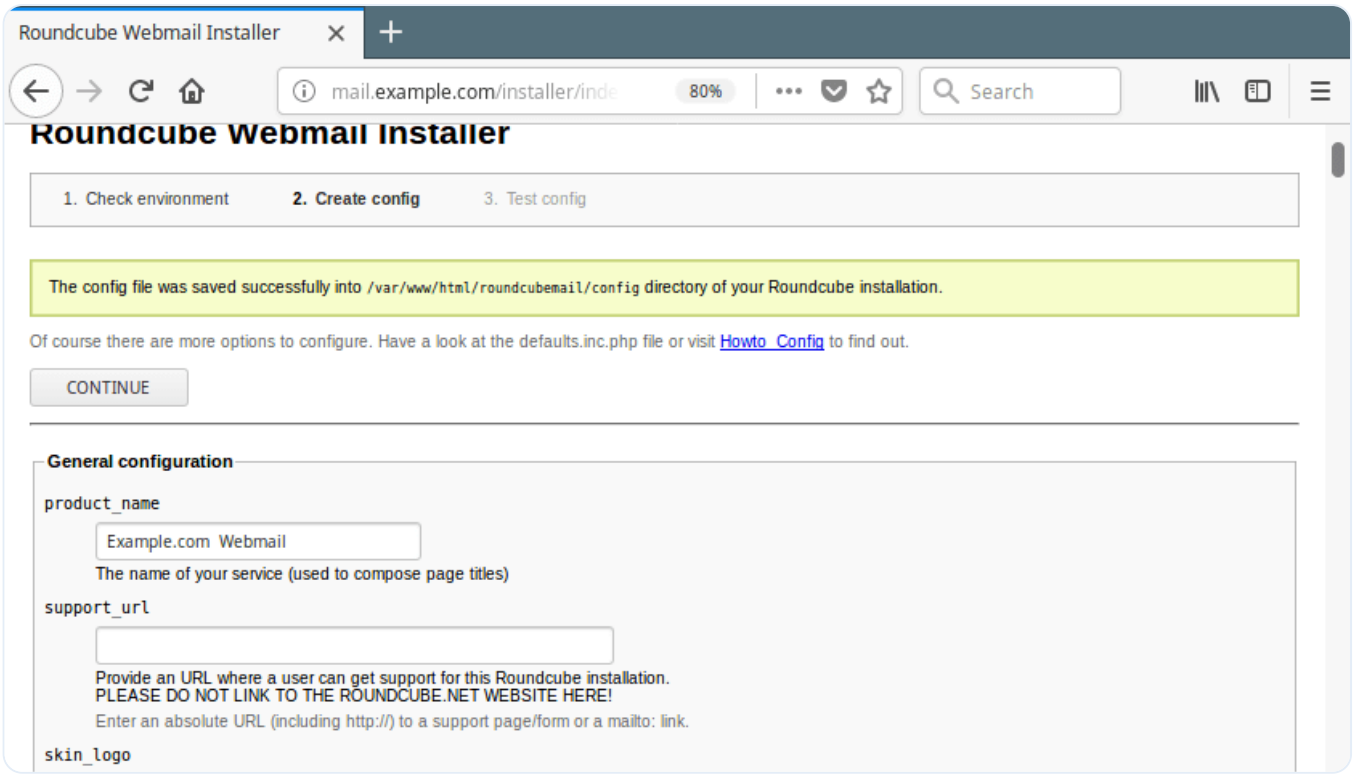


Roundcube Database Settings

Then scroll down to **IMAP** and **SMTP** settings and enter the IP address of your **IMAP** and **SMTP** server, if its the same server on which you are running Roundcube, leave it as "**localhost**" and also specify other necessary parameters.

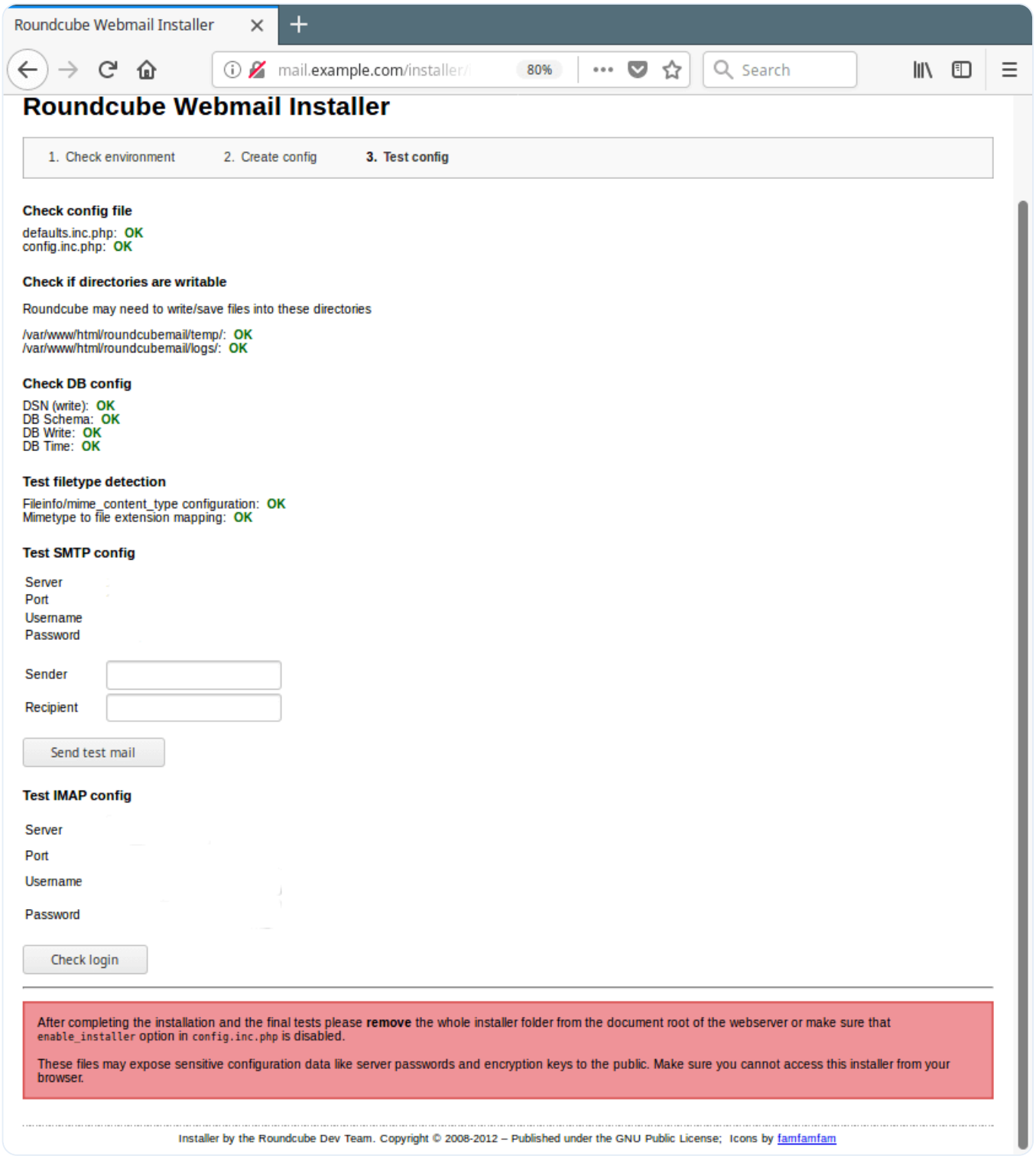
You can specify other settings according to your needs, once you are done, click on **Create Config**.

18. You should now see a message saying "**The config file was saved successfully into /var/www/html/roundcubemail/config directory of your Roundcube installation.**" Click on **Continue**.



Roundcube Configuration File Created

19. You can review your configuration from the **Test config page** as shown in the following screenshot.

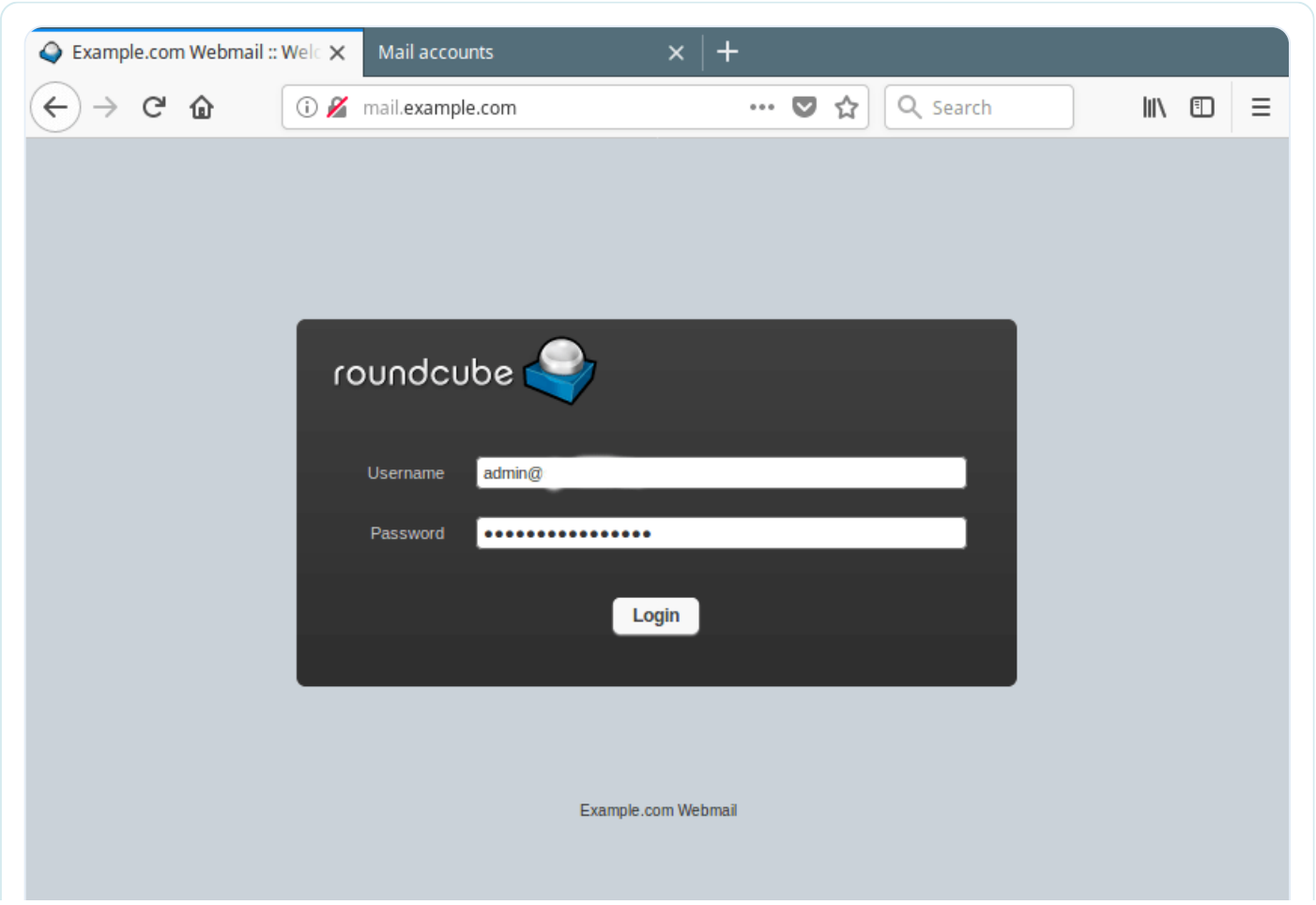


Test Roundcube Configuration

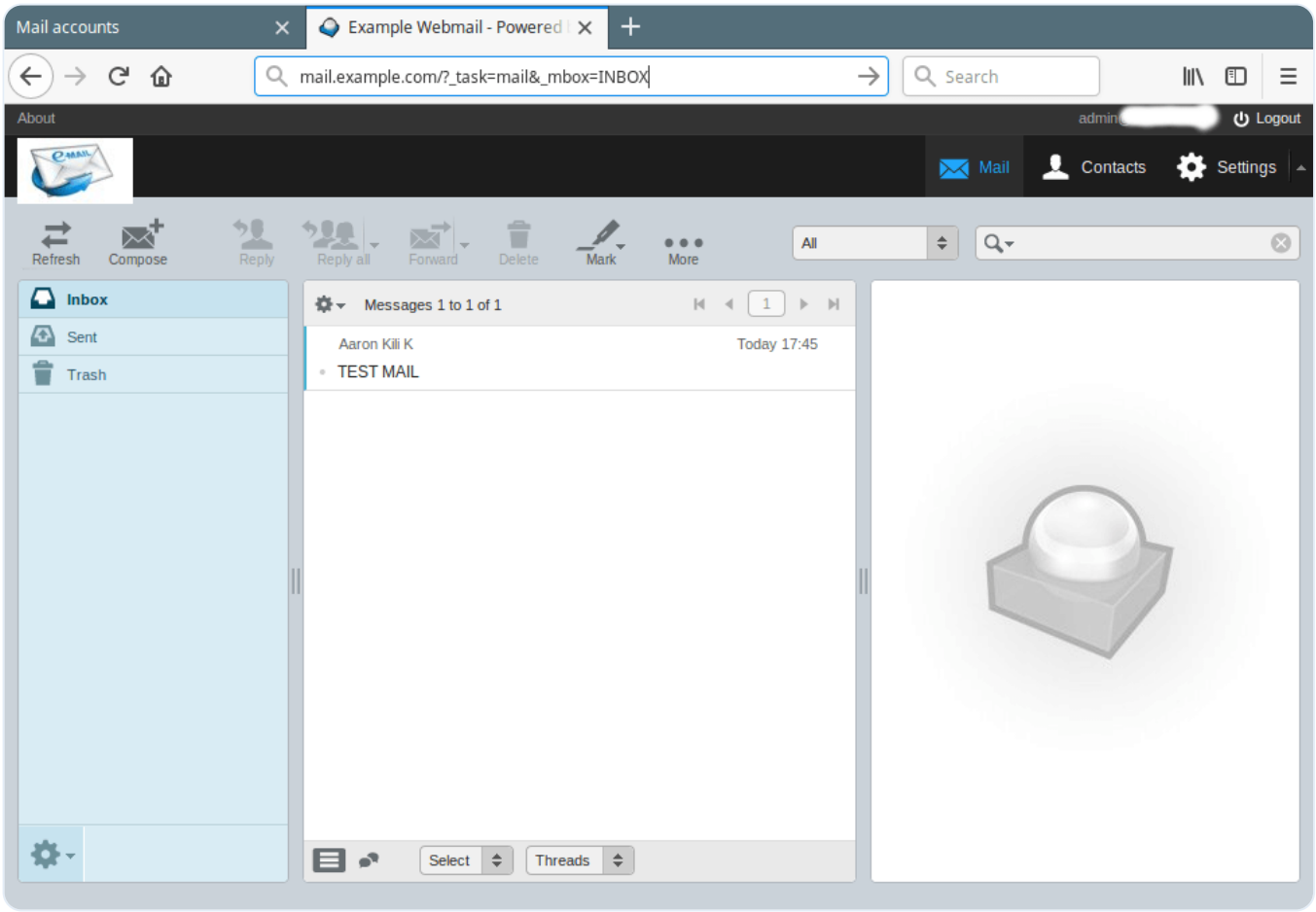
20. Next, remove the whole installer folder (which contains files that may expose sensitive configuration data like server passwords and encryption keys to the public) from the Roundcube root directory (or make sure that the **enable_installer** option in **config.inc.php** is **disabled**).

```
# rm -rf /var/www/html/roundcubemail/installer
```

21. Finally, use the URL **http://mail.example.com** to access the Roundcube login page. Enter your user name and password to view your mails.



Roundcube Webmail Login



Roundcube Webmail Access

Summary

Roundcube is a widely used, fully-featured web-based multilingual mail client. In this article, we showed how to install the latest stable version of **Roundcube Webmail** on a **CentOS/RHEL 8/7** with the Nginx web server. If you have any questions, use the feedback form below to reach us.

roundcube webmail, webmail email client

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Aaron Kili

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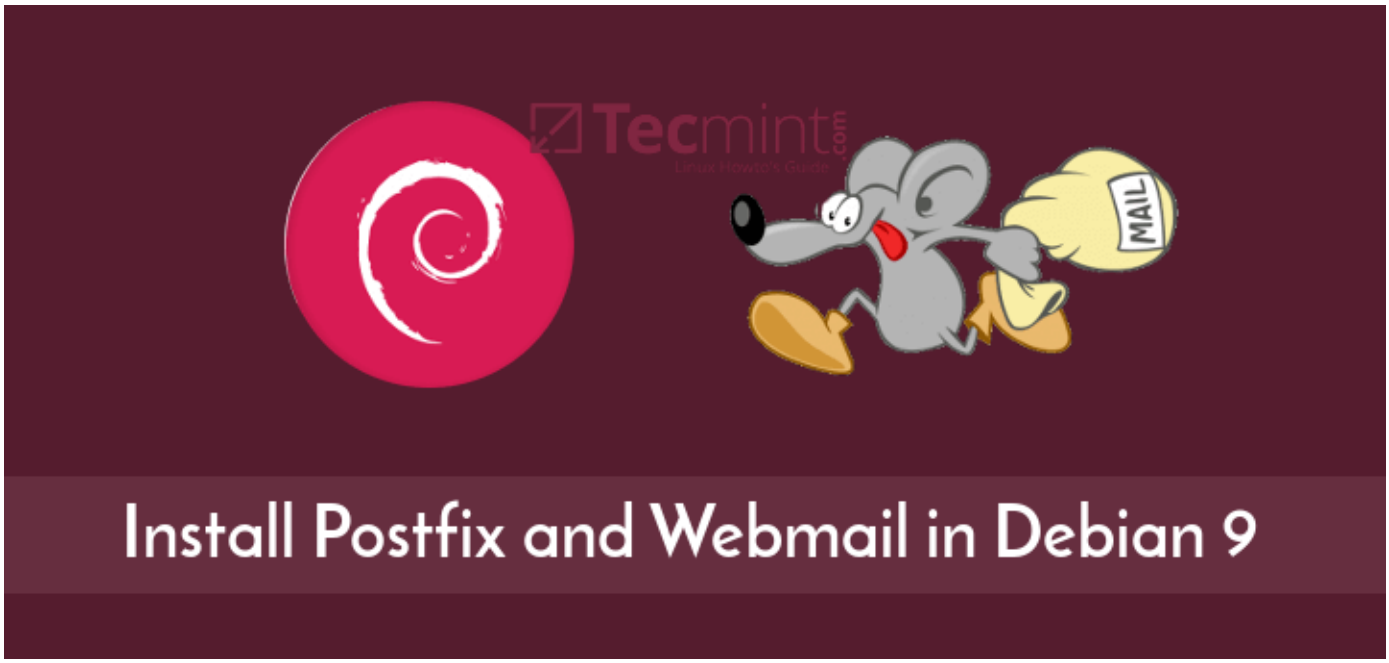

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26 thoughts on “How to Install Roundcube Webmail on CentOS/RHEL 8/7”

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Dhanu

May 11, 2023 at 1:13 pm

Hi,

Thanks for article, but I am getting below error.

504 Gateway Time-out

Reply

Hoang Quynh

May 13, 2021 at 11:31 am

Dear Admin

Reference Step 5. Unable to access `http://mail.example.com/installer`. I configured **nginx.conf** to use **/var/www/html/** but i am getting **403** forbidden.

What do I do next?

Thanks

Reply

Admin

Ravi Saive

May 14, 2021 at 9:05 am

@Hoang,

Seems issue with your Nginx server block file – **mail.example.com.conf**. Please check the nginx server logs to troubleshoot the error...

Reply

← Older Comments

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