

Integrate Collabora Online with Nextcloud on Ubuntu without Docker

This tutorial is going to show you how to install Collabora Online on Ubuntu and then integrate it with an existing Nextcloud server without using Docker.

Collabora Online is a self-hostable and LibreOffice-based open-source online office suite. Its features include:

- Basic editing
- High fidelity, WYSIWYG rendering
- Supports DOC, DOCX, PPT, PPTX, XLS, XLSX, ODF document format
- Import and view Visio, Publisher and 100+ more
- Shared Editing

Collabora is a big contributor to the LibreOffice project. All of the Collabora Online codes will be eventually included in LibreOffice.

Note: This tutorial works on Ubuntu 20.04, 18.04 and 16.04. If you are using another Ubuntu version, you can [install Collabora Online with Docker](#).

Putting LibreOffice into the Cloud



Prerequisites

It's assumed that you have already set up a Nextcloud server, which can be on any Linux distribution. If you haven't already done so, then you can check out the following easy-to-understand guides.

- [How to Install Nextcloud on Ubuntu 20.04 with LEMP Stack](#)
- [How to Install Nextcloud on Ubuntu 20.04 with LAMP Stack](#)
- [How to Install Nextcloud on CentOS 8 with LEMP Stack](#)
- [How to set up Nextcloud on Arch Linux](#)

The Collabora Online server and Nextcloud server can be on the same machine or on two different machines. This tutorial shows how to install Collabora online server on Ubuntu using a Docker image built by Collabora and Nextcloud. Then integrate it with an existing Nextcloud server.

Step 1: Install Collabora Online on Ubuntu From the Official Repository

Collabora has an official package repository for Ubuntu 20.04, 18.04 and 16.04. Run the following

command to add it to your Ubuntu system.

Ubuntu 20.04

```
echo 'deb https://www.collaboraoffice.com/repos/CollaboraOnline/CODE-ubuntu2004 ./' | sudo tee /etc/apt/sources.list.d/collabora.list
```

Ubuntu 18.04

```
echo 'deb https://www.collaboraoffice.com/repos/CollaboraOnline/CODE-ubuntu1804 ./' | sudo tee /etc/apt/sources.list.d/collabora.list
```

Ubuntu 16.04

```
echo 'deb https://www.collaboraoffice.com/repos/CollaboraOnline/CODE ./' | sudo tee /etc/apt/sources.list.d/collabora.list
```

Then run the following command to download and import Collabora public key, which allows APT package manager to verify the integrity of packages downloaded from this repository.

```
sudo apt-key adv --keyserver keyserver.ubuntu.com --recv-keys 0C54D189F4BA284D
```

```
linuxbabe@ubuntu:~$ sudo apt-key adv --keyserver keyserver.ubuntu.com --recv-keys 0C54D189F4BA284D
Executing: /tmp/apt-key-gpghome.47t7I0tmev/gpg.1.sh --keyserver keyserver.ubuntu.com --recv-keys 0C54D189F4BA284D
gpg: key 0C54D189F4BA284D: public key "Collabora Productivity <libreoffice@collabora.com>" imported
gpg: Total number processed: 1
gpg:             imported: 1
```

If you can't import the public key with the above command, you can use the following command to download and import the key.

```
wget https://www.collaboraoffice.com/repos/CollaboraOnline/CODE-centos7/repodata/repomd.xml.key && sudo apt-key add repomd.xml.key
```

Since this repository uses HTTPS connection, we need to install the `apt-transport-https` and `ca-certificates` package, so the APT package manager can establish secure connection to the repository.

```
sudo apt install apt-transport-https ca-certificates
```

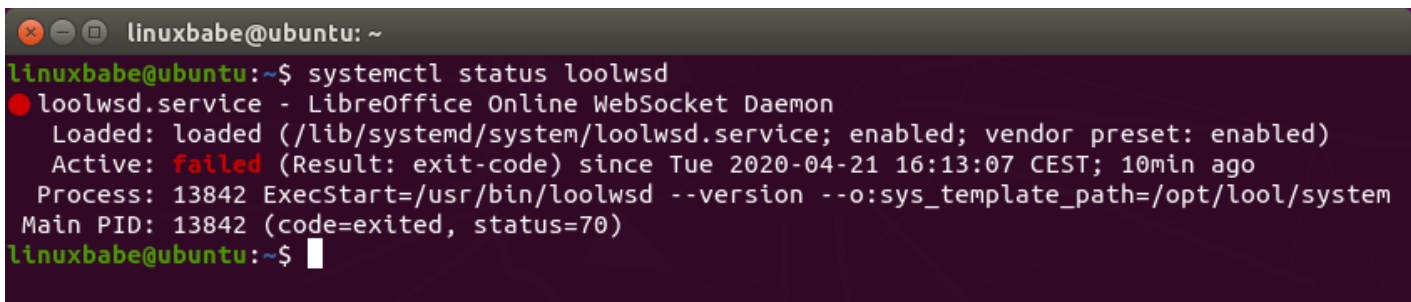
Now update local package index and install Collabora Online. **Loolwsd** is the LibreOffice Online WebSocket Daemon.

```
sudo apt update
sudo apt install loolwsd code-brand
```

Step 2: Configure LibreOffice Online WebSocket Daemon

After they are installed, you can check the status of loolwsd.

```
systemctl status loolwsd
```



```
linuxbabe@ubuntu: ~
linuxbabe@ubuntu:~$ systemctl status loolwsd
● loolwsd.service - LibreOffice Online WebSocket Daemon
   Loaded: loaded (/lib/systemd/system/loolwsd.service; enabled; vendor preset: enabled)
   Active: failed (Result: exit-code) since Tue 2020-04-21 16:13:07 CEST; 10min ago
     Process: 13842 ExecStart=/usr/bin/loolwsd --version --o:sys_template_path=/opt/lool/system
    Main PID: 13842 (code=exited, status=70)
linuxbabe@ubuntu:~$
```

Hint: If the above command didn't quit immediately, you can press the `[Q]` key to make it quit.

As you can see, it failed to start. We can check journal to see why this happened.

```
sudo journalctl -eu loolwsd
```

Sample output:

```
Apr 21 16:13:06 ubuntu loolwsd[13842]: File not found: /etc/loolwsd/ca-chain.cert.pem
Apr 21 16:13:06 ubuntu systemd[1]: loolwsd.service: Main process exited, code=exited, status
Apr 21 16:13:06 ubuntu systemd[1]: loolwsd.service: Failed with result 'exit-code'.
Apr 21 16:13:07 ubuntu systemd[1]: loolwsd.service: Service hold-off time over, scheduling r
Apr 21 16:13:07 ubuntu systemd[1]: loolwsd.service: Scheduled restart job, restart counter i
Apr 21 16:13:07 ubuntu systemd[1]: Stopped LibreOffice Online WebSocket Daemon.
Apr 21 16:13:07 ubuntu systemd[1]: loolwsd.service: Start request repeated too quickly.
Apr 21 16:13:07 ubuntu systemd[1]: loolwsd.service: Failed with result 'exit-code'.
Apr 21 16:13:07 ubuntu systemd[1]: Failed to start LibreOffice Online WebSocket Daemon.
```

By default, loolwsd enables TLS connection. However, it didn't find a TLS certificate file, hence the start failure. It's better to disable TLS in loolwsd and terminate TLS at a reverse proxy. The loolwsd configuration file is located at `/etc/loolwsd/loolwsd.xml`. However, it's an XML file, which is not

easy to read and edit. We can use the `loolconfig` tool to change configurations.

Run the following command to disable TLS in loolwsd.

```
sudo loolconfig set ssl.enable false
```

And enable TLS termination at the reverse proxy.

```
sudo loolconfig set ssl.termination true
```

By default, loolwsd only allows known hosts to access its service. To allow Nextcloud to access the service, run the following command to add your Nextcloud hostname to the whitelist.

```
sudo loolconfig set storage.wopi.host nextcloud.example.com
```

You can also enable the admin account for loolwsd with the following command. You will need to set a username and password for the admin account.

```
sudo loolconfig set-admin-password
```

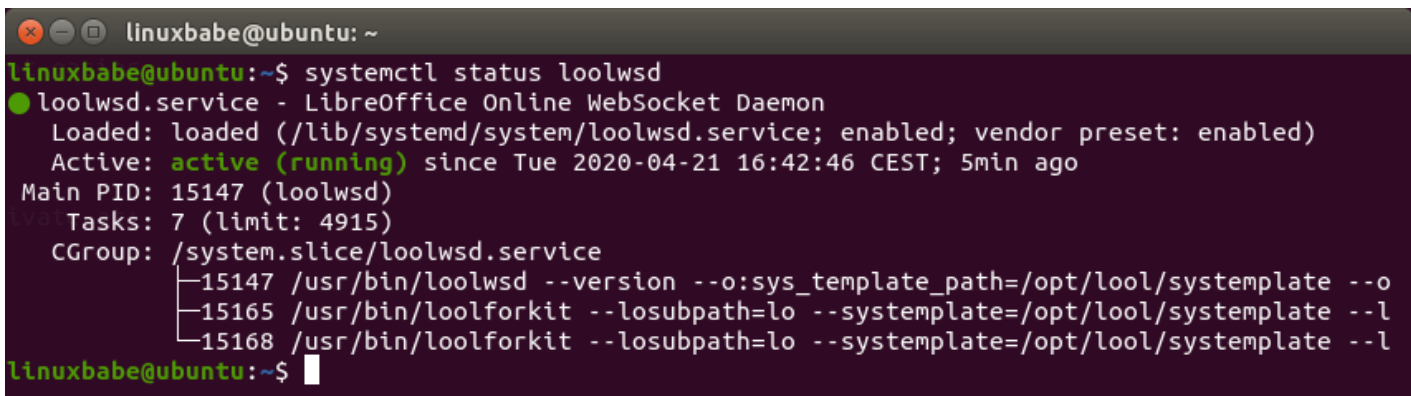
Restart loolwsd for the changes to take effect.

```
sudo systemctl restart loolwsd
```

Now it should be running without errors.

```
systemctl status loolwsd
```

Output:

A terminal window screenshot showing the command 'systemctl status loolwsd' and its output. The output indicates that the loolwsd service is loaded and active (running). It shows the main PID as 15147 and three tasks running under the CGroup: /system.slice/loolwsd.service. The tasks are: PID 15147 running /usr/bin/loolwsd, and two instances of PID 15165 running /usr/bin/loolforkit.

```
linuxbabe@ubuntu: ~  
linuxbabe@ubuntu:~$ systemctl status loolwsd  
● loolwsd.service - LibreOffice Online WebSocket Daemon  
   Loaded: loaded (/lib/systemd/system/loolwsd.service; enabled; vendor preset: enabled)  
   Active: active (running) since Tue 2020-04-21 16:42:46 CEST; 5min ago  
 Main PID: 15147 (loolwsd)  
    Tasks: 7 (limit: 4915)  
   CGroup: /system.slice/loolwsd.service  
           └─15147 /usr/bin/loolwsd --version --o:sys_template_path=/opt/lool/systemplate --o  
             └─15165 /usr/bin/loolforkit --losubpath=lo --systemplate=/opt/lool/systemplate --l  
               └─15168 /usr/bin/loolforkit --losubpath=lo --systemplate=/opt/lool/systemplate --l  
linuxbabe@ubuntu:~$
```

Step 3: Set up Reverse Proxy

Nextcloud server requires a TLS certificate on the Collabora Online, so we will need to create a virtual host, give the virtual host a domain name, set up a reverse proxy and install TLS certificate. We can use either **Apache** or **Nginx** to achieve this.

Apache

Install Apache web server with the following command:

```
sudo apt install apache2
```

Run the following command to create an Apache virtual host file for Collabora Online.

```
sudo nano /etc/apache2/sites-available/collabora.conf
```

Put the following text into the file. Replace the domain name with your actual domain name for Collabora Online. Don't forget to create an A record for this sub-domain.

```
<VirtualHost *:80>
    ServerName collabora.example.com
    Options -Indexes

    ErrorLog "/var/log/apache2/collabora_error"
    # Encoded slashes need to be allowed
    AllowEncodedSlashes NoDecode

    # keep the host
    ProxyPreserveHost On

    # static html, js, images, etc. served from loolwsd
    # loleaflet is the client part of Collabora Online
    ProxyPass          /loleaflet http://127.0.0.1:9980/loleaflet retry=0
    ProxyPassReverse   /loleaflet http://127.0.0.1:9980/loleaflet

    # WOPI discovery URL
    ProxyPass          /hosting/discovery http://127.0.0.1:9980/hosting/discovery retry=0
    ProxyPassReverse   /hosting/discovery http://127.0.0.1:9980/hosting/discovery

    # Capabilities
    ProxyPass          /hosting/capabilities http://127.0.0.1:9980/hosting/capabilities
    retry=0
```

```
ProxyPassReverse    /hosting/capabilities http://127.0.0.1:9980/hosting/capabilities

# Main websocket
ProxyPassMatch "/lool/(.*)/ws$" ws://127.0.0.1:9980/lool/$1/ws nocanon

# Admin Console websocket
ProxyPass    /lool/adminws ws://127.0.0.1:9980/lool/adminws

# Download as, Fullscreen presentation and Image upload operations
ProxyPass    /lool http://127.0.0.1:9980/lool
ProxyPassReverse    /lool http://127.0.0.1:9980/lool

</VirtualHost>
```

Save and close the file. To be able to proxy traffic using Apache, we need to enable some Apache modules.

```
sudo a2enmod proxy proxy_wstunnel proxy_http
```

Enable this virtual host with the following command:

```
sudo a2ensite collabora.conf
```

Then restart Apache.

```
sudo systemctl restart apache2
```

Nginx

Install Nginx on Ubuntu with the following command:

```
sudo apt install nginx
```

Create a virtual host file for Collabora Online.

```
sudo nano /etc/nginx/conf.d/collabora.conf
```

Put the following text into the file. Replace the domain name with your actual domain name for Collabora Online. Don't forget to create an A record for this domain name.

```
server {
```

```
listen 80;
listen [::]:80;
server_name collabora.example.com;

error_log /var/log/nginx/collabora.error;

# static files
location ^~ /loleaflet {
    proxy_pass http://localhost:9980;
    proxy_set_header Host $http_host;
}

# WOPI discovery URL
location ^~ /hosting/discovery {
    proxy_pass http://localhost:9980;
    proxy_set_header Host $http_host;
}

# Capabilities
location ^~ /hosting/capabilities {
    proxy_pass http://localhost:9980;
    proxy_set_header Host $http_host;
}

# main websocket
location ~ ^/lool/(.*)/ws$ {
    proxy_pass http://localhost:9980;
    proxy_set_header Upgrade $http_upgrade;
    proxy_set_header Connection "Upgrade";
    proxy_set_header Host $http_host;
    proxy_read_timeout 36000s;
}

# download, presentation and image upload
location ~ ^/lool {
    proxy_pass http://localhost:9980;
    proxy_set_header Host $http_host;
}

# Admin Console websocket
```

```
location ^~ /lool/adminws {
    proxy_pass http://localhost:9980;
    proxy_set_header Upgrade $http_upgrade;
    proxy_set_header Connection "Upgrade";
    proxy_set_header Host $http_host;
    proxy_read_timeout 36000s;
}
}
```

Save and close the file. Then test Nginx configurations.

```
sudo nginx -t
```

If the test is successful, reload Nginx server.

```
sudo systemctl reload nginx
```

Step 4: Obtain and Install TLS Certificate

Now let's obtain a free TLS certificate from Let's encrypt. Run the following commands to install Let's Encrypt client (certbot) from the default software repository.

```
sudo apt install certbot
```

If you use **Apache** web server, then you also need to install the Certbot Apache plugin.

```
sudo apt install python3-certbot-apache
```

Then issue the following command to obtain a free TLS/SSL certificate.

```
sudo certbot --apache --agree-tos --redirect --hsts --staple-ocsp --email you@example.com -d collabora.example.com
```

If you use **Nginx** web server, then you need to install the Certbot Nginx plugin.

```
sudo apt install python3-certbot-nginx
```

Then use the Nginx plugin to obtain and install the certificate by running the following command.

```
sudo certbot --nginx --agree-tos --redirect --hsts --staple-ocsp --email you@example.com -d
collabora.example.com
```

You will see the following text indicating that you have successfully obtained a TLS certificate.

IMPORTANT NOTES:

- Congratulations! Your certificate and chain have been saved at:
/etc/letsencrypt/live/collabora.linuxbabe.com/fullchain.pem
Your key file has been saved at:
/etc/letsencrypt/live/collabora.linuxbabe.com/privkey.pem
Your cert will expire on 2020-07-20. To obtain a new or tweaked version of this certificate in the future, simply run certbot again with the "certonly" option. To non-interactively renew *all* of your certificates, run "certbot renew"
- If you like Certbot, please consider supporting our work by:

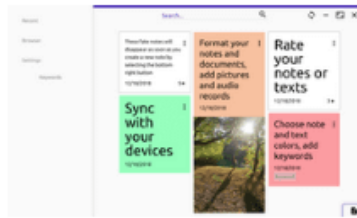
Donating to ISRG / Let's Encrypt: <https://letsencrypt.org/donate>
Donating to EFF: <https://eff.org/donate-le>

Final Step: Connect Nextcloud to Collabora Online

In your Nextcloud dashboard, go to the `Apps` page. Next, go to `Office & Text` section, find the `Collabora Online` app, click `Download and Enable` button.

(Note: There's another app called `Collabora Online - Built-in CODE server`, which you shouldn't install on your Nextcloud server.)

- Files
- Games
- Integration
- Monitoring
- Multimedia
- Office & text**
- Organization
- Search



Carnet
Powerful note taking app available on android



Download and enable



Collabora Online
Edit office documents directly in your browser.



Download and enable



After this apps is enabled, go to Nextcloud **Settings** page. Click **Collabora Online** tab on the left. By default, it uses the built-in CODE server, which is not suitable for production use. We need to select **Use your own server** and enter the domain name of your Collabora Online including **https://** prefix, then click **Save** button.

Collabora Online

Collabora Online is a powerful LibreOffice-based online office suite with collaborative editing, which supports all major documents, :

Collabora Online server is reachable.

Use your own server

Collabora Online requires a separate server acting as a WOPI-like Client to provide editing capabilities.

URL (and Port) of Collabora Online-server

Save

Disable certificate verification (insecure)

Use the built-in CODE - Collabora Online Development Edition

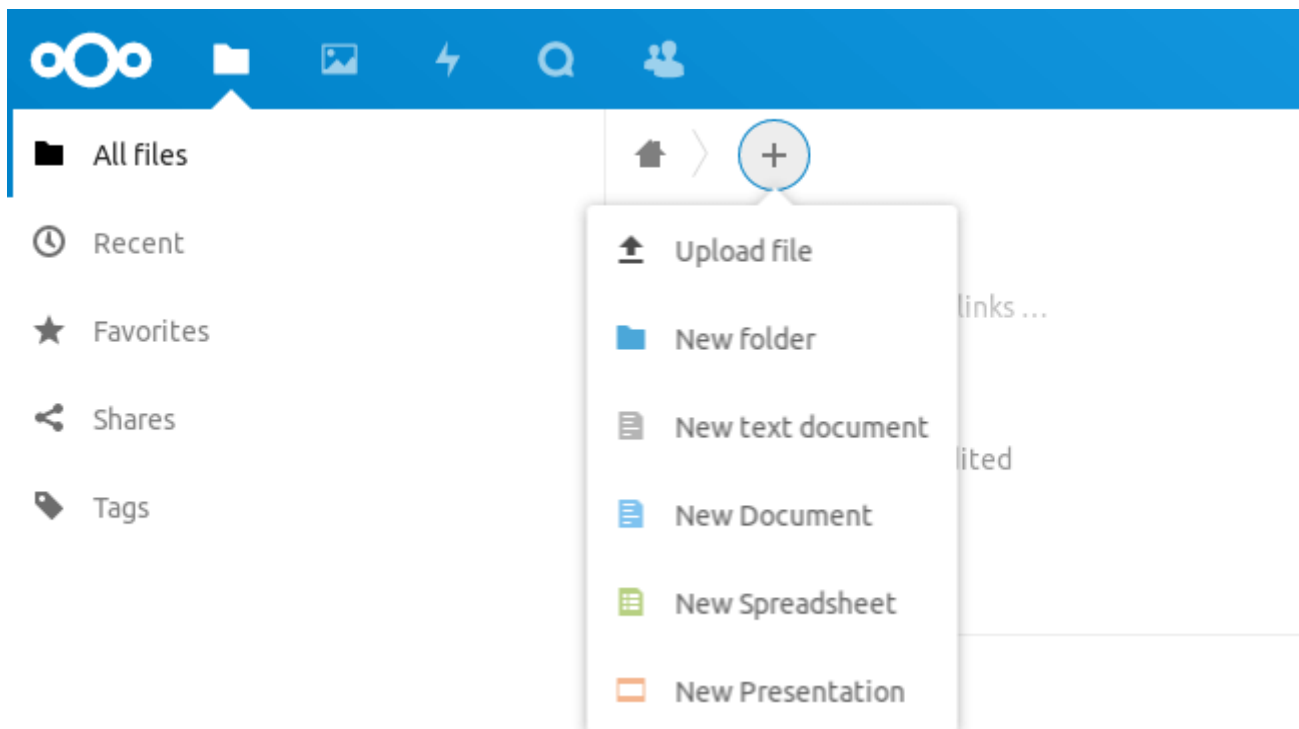
This installation does not have a built in server. Install it from the app store.

In the **advance settings**, you can also set OOXML as the default format, so the files will be compatible with Microsoft Office software.

Advanced settings

- Use Office Open XML (OOXML) instead of OpenDocument Format (ODF) by default for new files
- Restrict usage to specific groups
Collabora Online is enabled for all users by default. When this setting is active, only members of the specified groups can use it.
- Restrict edit to specific groups
All users can edit documents with Collabora Online by default. When this setting is active, only the members of the specified groups
- Use Canonical webroot
- Enable access for external apps

Now when you click the add button (+) in Nextcloud, you will be able to create Word, spreadsheet and presentation documents right from your Nextcloud server.



Bitcoin, Gold and emerging monetary systems

In our world today, the harm inflicted by dishonest fiat currencies which can be freely created is no longer hidden but on full display everywhere. Stagnant wages spanning more than a decade contrast sharply with ever rising prices of financial assets, art and real estate. As a consequence, tension within communities is palpable around the world. A great escape from the prevailing fiat currency system is underway.

Bitcoin is the prime cryptocurrency offering a vehicle for such an escape. It shows that the distrust of fiat currencies issued by governments is now gaining momentum globally. While Bitcoin has many advantages, the primary ones are that it:

- exists outside of the existing financial system and thus could service another major financial shock predicted by many experts;
- cannot be created at will;
- enables direct peer-to-peer transactions; and
- is accepted by a growing network of participants, including significant entities in the financial system today.

Page 1 of 2 | 795 words, 4,951 characters | Insert | Standard selection | {en-HK} | 100%

The loolwsd admin console is available at <https://collabora.example.com/loleaflet/dist/admin/admin.html>. You need to enter the username and password, which was created at step 2.

Dashboard

- Users online: 1
- Documents opened: 1
- Memory consumed: 242.0 MB
- Bytes sent: 1.1 MB
- Bytes received: 52.0 kB
- Server uptime: 28:24 mins

Documents opened | Users online

PID	Document	Number of views	Memory consumed	Elapsed time	Idle time	Modified
6510	Everipedia1.docx	1	27.3 MB	5:57 mins	50 s	No

Troubleshooting

If Nextcloud tells you that it **could not establish connection to the Collabora Online server**, it might be that your Nginx server is running behind a reverse proxy like HAProxy and you have the following two lines in the `/etc/nginx/nginx.conf`.

```
set_real_ip_from 127.0.0.1;
real_ip_header proxy_protocol;
```

This means that Nginx expect HTTP connection from the reverse proxy. You should edit the `/etc/nginx/conf.d/collaboara.conf` file and add `proxy_protocol` to the listen directive.

```
listen 127.0.0.1:443 ssl http2 proxy_protocol;
```

Then edit the `/etc/hosts` file and add a static DNS record like below. Repalce `12.34.56.78` with the public IP address of the server.

```
12.34.56.78      collaboara.example.com
```

`collabora.example.com` should be pointed to the public IP address of your server. Don't point it to 127.0.0.1.

You can also check the logs of loolwsd to find clues. Perhaps it's not running.

```
sudo journalctl -eu loolwsd
```

And check the logs of web server.

- Apache: `/var/log/apache2/collabora_error`
- Nginx: `/var/log/nginx/collabora.error`

Revision #1

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