



Copper version 0.6 Installation manual

PREPARED FOR

LK domain Registry

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1. Download the project version 0.6

Copper Email solution version 0.6 deployment manual is prepared to make it easy for anyone to follow the steps required for successful completion.

Version 0.6 can be download from the following url.

<https://github.com/LSFLK/Copper/releases>

The screenshot shows the GitHub repository page for 'Copper' with the 'Releases' tab selected. A single release is listed: 'Copper Mail v0.6.1-alpha'. This is a pre-release, indicated by an orange box. The release was made by 'anuudb' 3 hours ago, with one commit 'b0ab9ca'. The release notes state: 'Lanka Software Foundation Copper team is pleased to announce the alpha release of Copper mail 0.6.1-alpha. New release fixed previously detected bugs (email features) and contains Copper-hub's agent model with alerting and monitoring feature using Prometheus and Grafana.' A 'Contribute to LSF Copper' button is visible at the bottom of the release card.

2. Deployment

First you have to create a folder in your server which is used as a k8s volume by copper email server.

“/data/ldap/certs”

Change to /copper/copper-server/kubernetes/deployment

Folder which has all shell script for deployment and un deployment.

If you have already deploy the system and if you want to undeploy it.

\$ sh undeploy.sh

Change to deployment directory and run the deploy.sh shell script and provide necessary

information. Your domain name should have 3 parts EX : copper.opensource.lk.

```
$ sh deploy.sh
```

```
[wso2s-MacBook-Pro:kubernetes wso2$ ls
 Apps deployment groupware persistent
 README.md emailserver openldap phpldapadmin
 [wso2s-MacBook-Pro:kubernetes wso2$ code .
 [wso2s-MacBook-Pro:kubernetes wso2$ cd deployment/
 [wso2s-MacBook-Pro:deployment wso2$
 [wso2s-MacBook-Pro:deployment wso2$
 [wso2s-MacBook-Pro:deployment wso2$ sh deploy.sh
 ****
 **
 **          POWERED BY LANKA SOFTWARE FOUNDATION (LSF)
 **
 ****
 * -Deploying Copper Email Server...
namespace/copper created
* -Copper namespace created...
* -Please Submit your Input data carefully...
Enter mysql database name:
copper
Enter mysql database password:
copper
Your domain must contain 3 parts. (Eg: part1.part2.part3)
Enter the first part of domain:
copper
Enter the second part of domain:
opensource
Enter the third part of domain:
lk
Enter LDAP admin password:
admin
Enter LDAP readonly user name:
raa
Enter LDAP readonly user password:
raa
Enter organization name
lsf
Enter password for spam filter (RspamD)
spam
* -Configuration going to be created...
secret/email-secret created
* -Secret configuration files Created...
* -ldap.ldif file was Created...
* -deploy.sh: cert.pem file '../tls/cert.pem' not found in tls directory. !
* -deploy.sh: privkey.pem file '../tls/privkey.pem' not found in tls directory. !
```

3. Primary Deployment Testings

Once you done the deployment then you have to check whether all pods are created and services are up and running with necessary ip allocation using following commands.

Show all pods (like vm) for the copper email solution.

```
$ kubectl get pods -n copper
```

Show all services which allow us to access each service.

```
$ kubectl get services -n copper
```

```
|wso2s-MacBook-Pro:deployment wso2$ kubectl get pods -n copper
NAME          READY   STATUS    RESTARTS   AGE
alertmanager   1/1     Running   0          45m
email-79995b5b4b-ht1c8
groupoffice-79787bcb875-dhchb
ldap-669556c756-vm9mw
ldap-pw-645487d4d8-9x444
mysql-64d8fbcb65-gwcrn
phpldapadmin-controller-th7cz
prometheus-deployment-5965686675-dq7bd  1/1     Running   0          45m
|wso2s-MacBook-Pro:deployment wso2$ kubectl get services -n copper
NAME           TYPE      CLUSTER-IP        EXTERNAL-IP   PORT(S)          AGE
alertmanager   NodePort  10.107.142.186  <none>        9093:31000/TCP  45m
email          LoadBalancer 10.108.35.13   localhost    25.3:30609/TCP,143.3:31056/TCP,587.3:30771/TCP,4198.3:31239/TCP,11334.3:31218/TCP  45m
groupoffice   LoadBalancer 10.110.34.131  localhost    8004.3:31192/TCP  45m
ldap           LoadBalancer 10.111.55.147  localhost    389.3:30169/TCP  45m
ldap-pw        LoadBalancer 10.102.75.88   localhost    4343.3:31516/TCP,433.3:32747/TCP  45m
mysql          ClusterIP  None            <none>       3306.3:TCP        45m
phpldapadmin-service LoadBalancer 10.107.248.246  localhost    4433.3:31788/TCP  45m
prometheus-service NodePort  10.106.45.225  <none>       8080.3:30000/TCP  45m
```

In services External-IP and the port should be used to access each service.

4. Secondary Deployment Testings

Now it is must to check your interfaces.

Basically there are 4 interfaces to be checked .

1. Web client interface
2. Phpldapadmin interface
3. Password change interface
4. Rspamd interface

1. Web client interface

You should be able to see the installation interface of group office.

localhost:8004/install/

... ⌂ ⭐

Copper Office

Installation

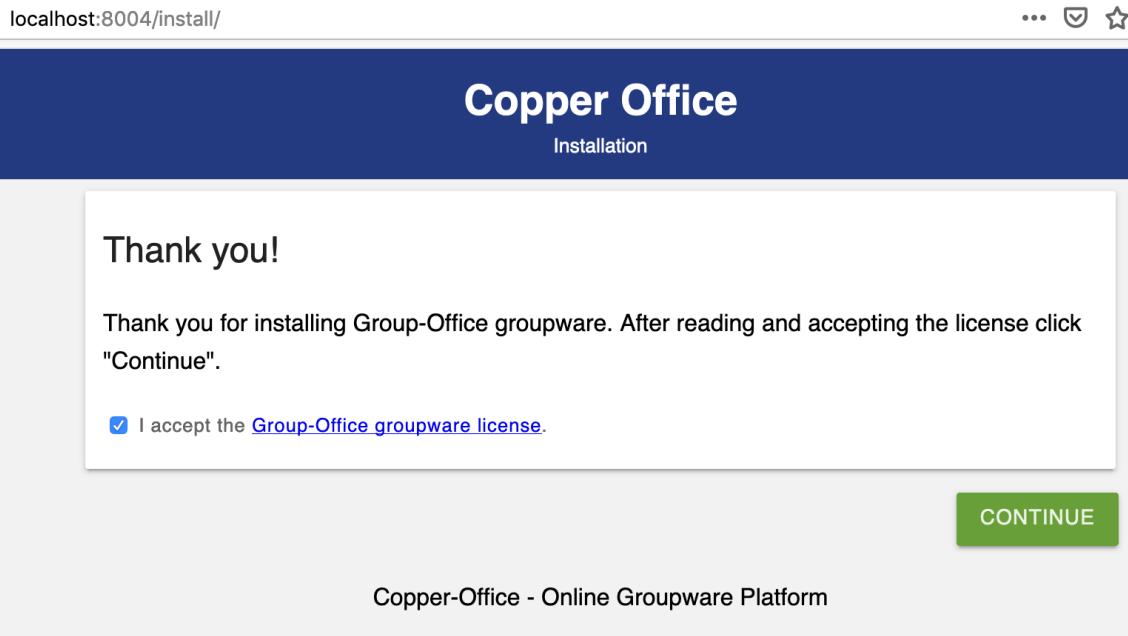
Thank you!

Thank you for installing Group-Office groupware. After reading and accepting the license click "Continue".

I accept the [Group-Office groupware license](#).

CONTINUE

Copper-Office - Online Groupware Platform



2. Phpldapadmin interface

<https://localhost:4433/>

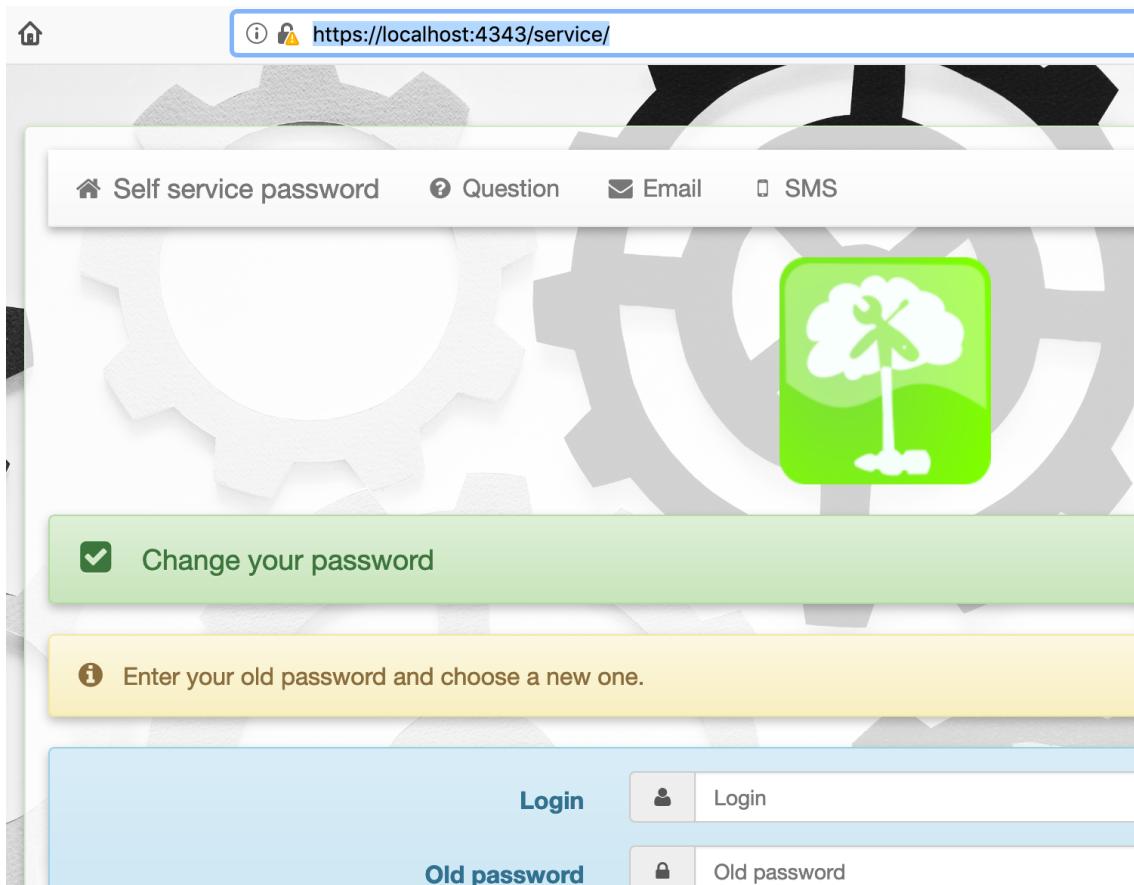
You may want to accept the certificate due to those certificates are self signed.



The screenshot shows the Phpldapadmin interface. At the top, there's a navigation bar with icons for back, forward, search, and refresh, followed by the URL https://localhost:4433. Below the navigation is a logo for "phpLDAPadmin" with a stylized "T" icon. The main content area has two main sections: "ldap" on the left with a "login" link, and "IdP" on the right with a large "phpLDAPadmin" logo. At the bottom of the page, there's a footer with links for "Home", "Purge caches", and "Show Cache".

3. Password changing interface.

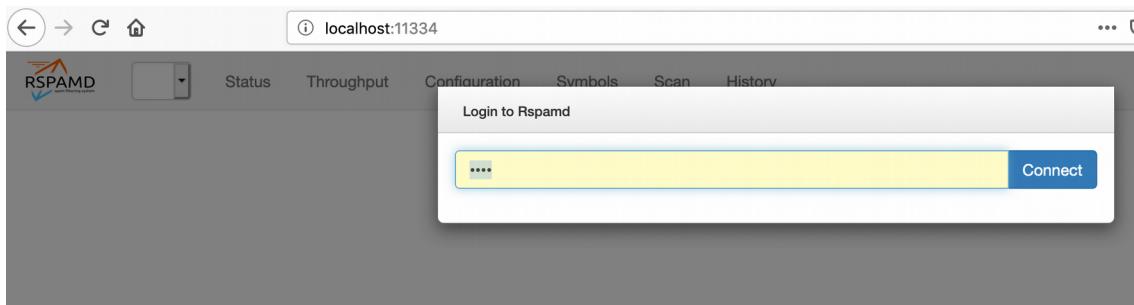
<https://localhost:4343/service/>



4. RspamD interface

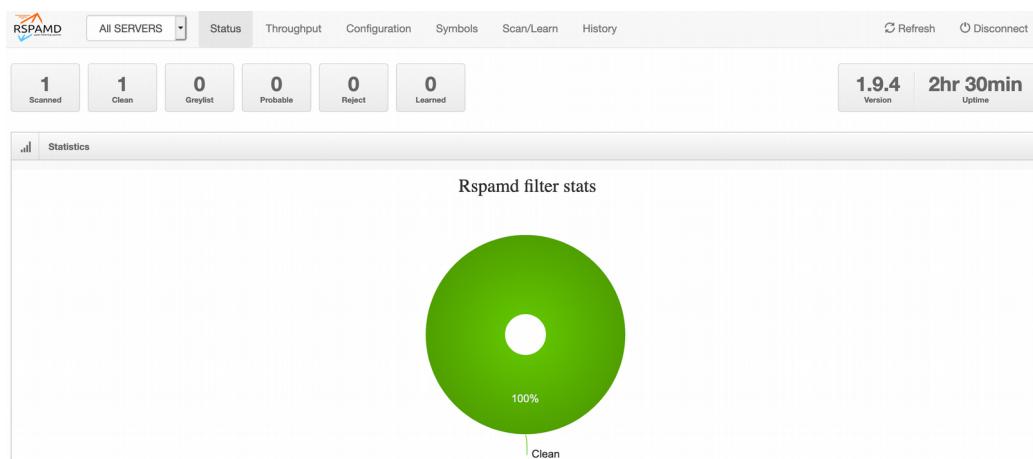
Finally you should have access to the RspamD interface too.

<http://localhost:11334/>



This is the password you have provided in the installation process.

Once you connect Then your spam dashboard will appear.



5. Installation

Installation Begins with Ldap server configuration. In Deployment there may be two test user accounts created in the “Ldap.ldif” fine in the deployment folder. First of all these configuration should be imported to Ldap server.

First login to the phpldapadmin .

Username : your domain name with admin username :

Ex : “cn=admin,dc=copper,dc=opensource,dc=lk”

Password : <what you have provided in the deployment process “

phpLDAPadmin

Home | Purge caches | Show Cache

ldap

Login

Authenticate to server ldap

Login DN:

cn=admin,dc=copper,dc=opensource,dc=lk

Password:

.....

Anonymous

Authenticate

Then import the “ldap.ldif” file in the deployment folder.

phpLDAPadmin

Home | Purge caches | Show Cache

ldap

schema search refresh info import export logout

Logged in as: cn=admin

dc=copper,dc=opensource,dc=lk (5)

cn=admin

cn=raa

ou=domains (1)

ou=groups (2)

ou=Users (2)

Create new entry here

Import

Server: ldap

Select an LDIF file

Browse... ldap.ldif

Maximum file size 2M

Or paste your LDIF here

Then your user base is ok and following users may have created.

Ex

Username : copper

Password : coppermail@lsf

Username : test

Password : coppermail@lsf

Install Group office web client

Once the user management part is done then web client installation should be started .

Proceed the group office interface installation and press ok for configuration page also and give following parameters too.

localhost:8004/install/install.php

Copper Office
Installation

Create an administrator account

Please fill in the details for the administrative account and press "Install".

E-mail
test@copper.opensource.lk

Username
admin

Password

Confirm

INSTALL

This is the admin account password and you have to remember it for further logins.

Once Installation completed then try to log in again with given username and password.

Copper Office

Notes Address book Bookmarks Calendar E-mail Files **Start page** Tasks

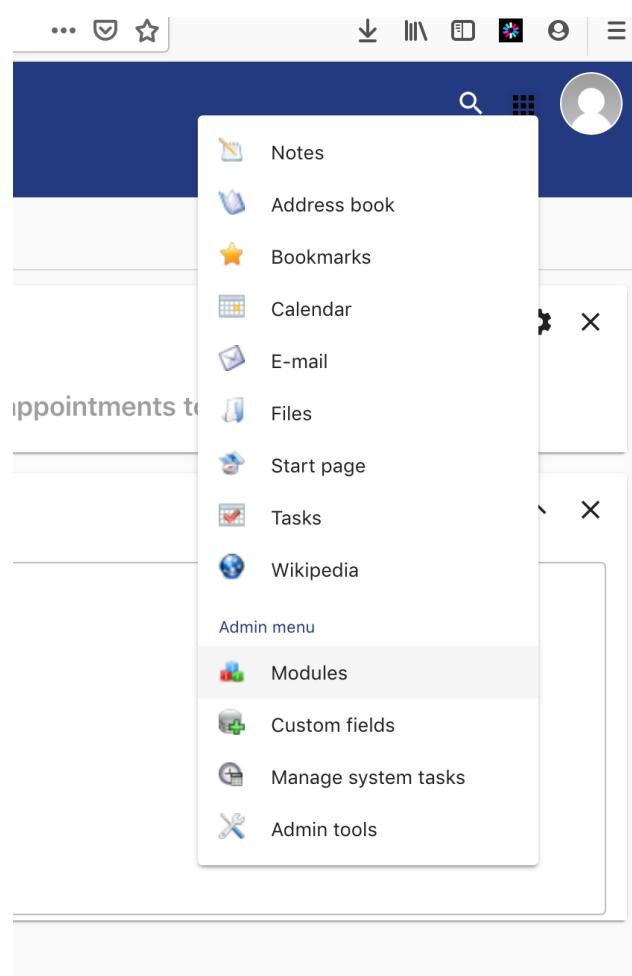
+ Add Manage announcements

Tasks	Appointments	Notes
No Tasks to display	No appointments to display	

Add Idap module

Again logout and login again.

Click on “Modules”.

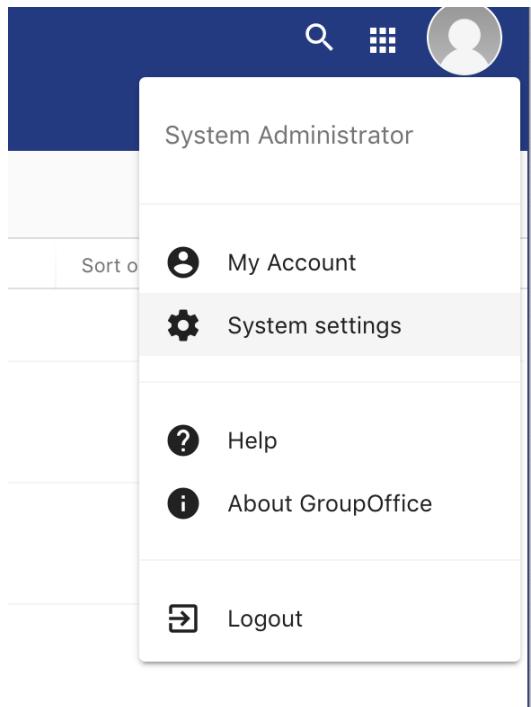


Then add the ldap plugin from the community section and then add the admin user also.

Copper Office	
Notes	Modules
	Address book Bookmarks Calendar E-mail Files Start page Tasks Wikipedia
G	
↑ Name	Enabled Sort order
▼ Community	
API key generator	<input type="checkbox"/>
Generate access keys for external API access.	
Google authenticator	<input checked="" type="checkbox"/>
Improves security by adding two factor authentication options to the user account settings.	
IMAP authenticator	<input type="checkbox"/>
Use an IMAP mail server to authenticate and autocomplete users.	
LDAP authenticator	<input checked="" type="checkbox"/>
Use an LDAP directory to authenticate and autocomplete users.	

Then log out and log in again.

Configure your ldap server.



Go to System settings and then go to Authentication.

+ For ldap server

Fill following details as given in the example.

Server profile

X

Domains:

copper.opensource.lk



Enter the domains this ldap server should be used to authenticate. Users must login with their e-mail address and if the domain matches this profile it will be used.

Hostname:

ldap

Port:

389

Encryption:

None



Use authentication

Enable this if the LDAP server requires authentication to lookup users or groups

Username:

cn=raa,dc=copper,dc=opensource,dc=lk

cn=Administrator,dc=com

Password:

Users

Username attribute:

uid

peopleDN:

opper,dc=opensource,dc=lk

groupsDN:

opper,dc=opensource,dc=lk

Create e-mail account for users

Save

Then you have to provide your email server details as follows.

These information should be given as same given in the example because those information about your email server container.

Server profile

X

IMAP Server

Hostname:

email

Port:

143

Encryption:

TLS

▼

Validate certificate

Remove domain from username

Users must login with their full e-mail address. Enable this option if the IMAP server accepts the username without domain.

SMTP Server

Hostname:

email

Port:

587

Use user credentials

Enable this if the SMTP server credentials are identical to the IMAP server.

Username:

Password:

Encryption:

TLS

▼

Validate certificate

Save

Finally add to Internal group and then save.

User options

Groups: Internal

+ Add

Users will automatically be added to these groups

Save

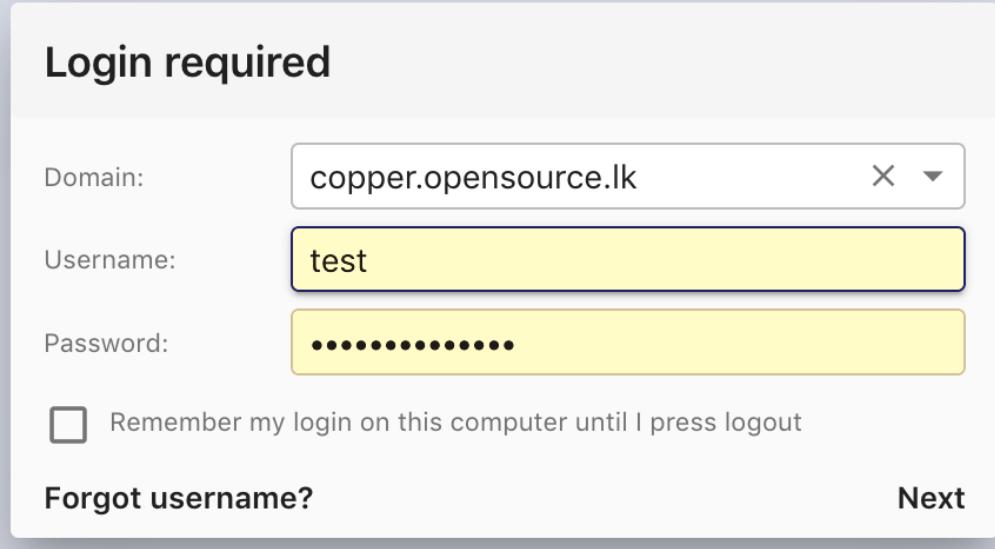
Then again logout.

6. Functional Testing

Once completed above all steps then you can start your functional testing.

1. Login to your domain.

<http://localhost:8004>

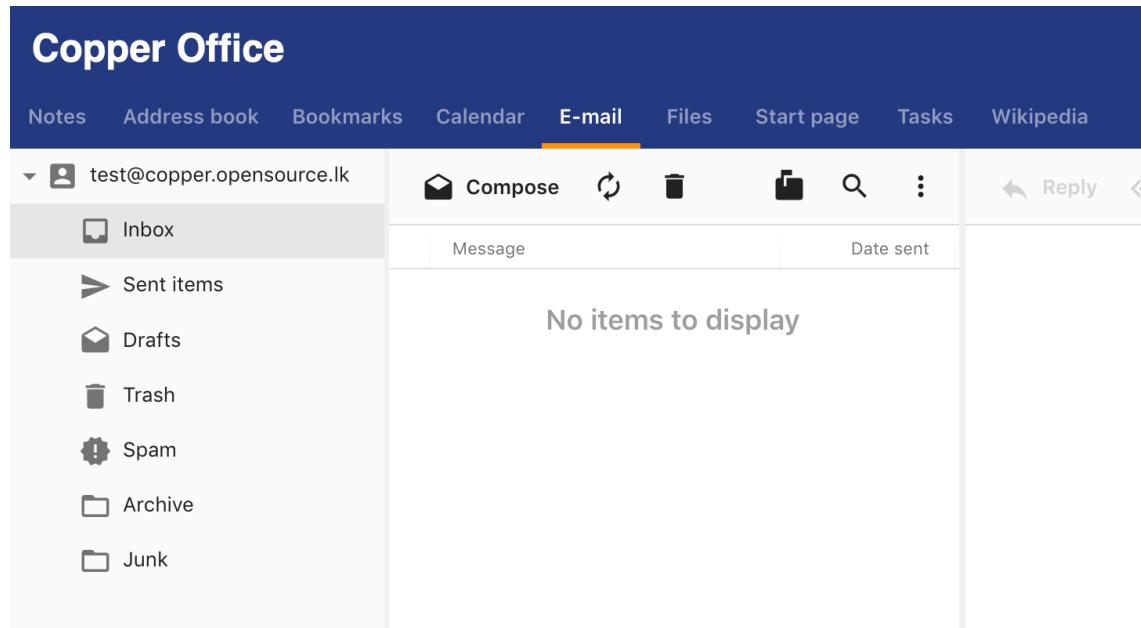


The image shows a 'Login required' dialog box. It has a light gray background with a white central form area. At the top, it says 'Login required'. Below that, there are three input fields: 'Domain:' with 'copper.opensource.lk' entered, 'Username:' with 'test' entered, and 'Password:' with several dots ('.....') entered. To the right of the password field is a small 'X' and a downward arrow. Below the fields is a checkbox labeled 'Remember my login on this computer until I press logout'. At the bottom left is a link 'Forgot username?' and at the bottom right is a button labeled 'Next'.

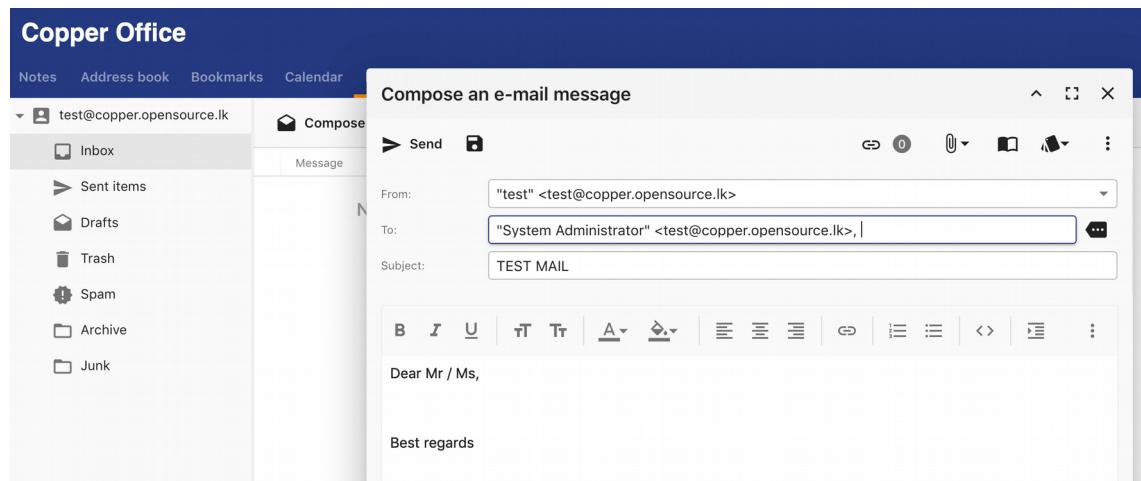
Now you can select your domain and login with test user account or copper account (both password is coppermail@lsf).

Successful login will bring you the dashboard. Then click Email tab.

If Email connectivity is successful your folder structure will be shown as shown in below image.



Then try to send a mail to yourself to check mail sending and receiving in same domain.



If mail sent then popup close and receive also should happen properly.

7. Result

