1 Installing OPI is Easy

1. Plug in the network cable to in Internet enabled port, either directly connected to the Internet or behind a router.
2. Plug connect the supplied USB cable to OPI with the small end (mini-B) and the large flat connector to any always on USB port. OPI is designed with the intention of being placed close to your router, and many routers have a USB port available for printers or USB sticks. In most cases, this can be used to power OPI so that you do not need a seperate power adaptor for OPI.
3. Wait for two of the LEDs to turn solid green and the remaining one to start flashing. This means that OPI is ready for initialization.
4. During the order/delivery process for OPI, you should have received an email with an url to active your unit. The url is in the format of

   https://setup.op-i.me/index.php?unit_id=41c189de-83e1-47a2-9a6d-a1d61929b01

   Follow that link and follow the instruction on screen to complete the setup.

   Note that the master password you select is not stored anywhere and can not be emailed to you if you loose it.

   OPI is designed to keep your information secure, and all personal information is stored encrypted on OPI. So you will need to provide the password on each restart to unlock OPI.

2 It Was Not THAT Easy...

For some reason the above process did not work, let us try to figure out why.

- **The page says that I can not reach OPI.**

  This is most likely caused by a firewall. OPI tries to open and forwards ports using upnp, but not all firewall/routers are configured to accept that.

  To proceed you must either:

  1. Forward at least https traffic (port 443) to OPI

  or

  2. Access OPI from within your local network. In your local network you should be able to reach OPI on https://opi

  Note that you must use *https* (encrypted connection) not just http.

  Hopefully you will now be prompted to enter the long activation number from your order confirmation email together and the master password. Then follow the instructions on screen.

3 Init Process – Step by Step

3.1 Master Password Selection

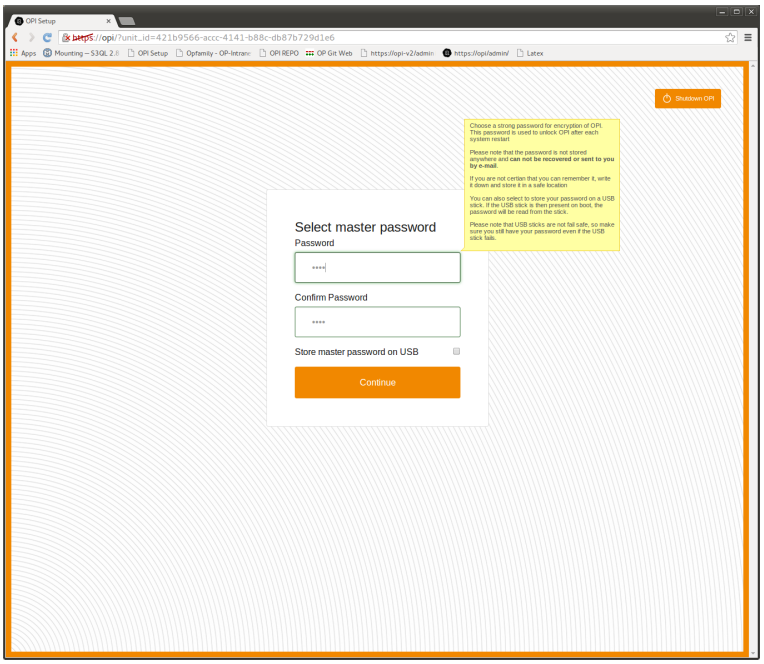


Figure 1: Master Password selection

The first thing that needs to be done is to choose a master password for OPI. This password is used as a seed for the key that is used to encrypt all information on OPI.

> ***The password itself is not stored anywhere and can not be recovered or sent to you by email.***
> *If you loose this password, there is no way to access your information.*

So be very careful and if you are not sure you can remember it, write it down and store it somewhere safe. Although OPI would be a perfect place to store such sensitive information, we do not encourage you to store your master password on OPI. That will pose some great challenges when needed to unlock OPI....

Once the master password is chosen and entered, OPI will encrypt the memory card using the supplied password.

By checking the box “Store password on USB” the password will be stored on USB, provided that there is a USB mass storage device inserted in the USB port of OPI. It the USB device is the present on when OPI is booting, the master password will be read from that device and OPI will be unlocked automatically. While this might be a very smooth setup, it also limits the data protection in case of theft since the master password will be available to unlock OPI.

The initial setup includes encryption of the memory card as well as generating keys for authentication and takes a while, so be patient during this process.

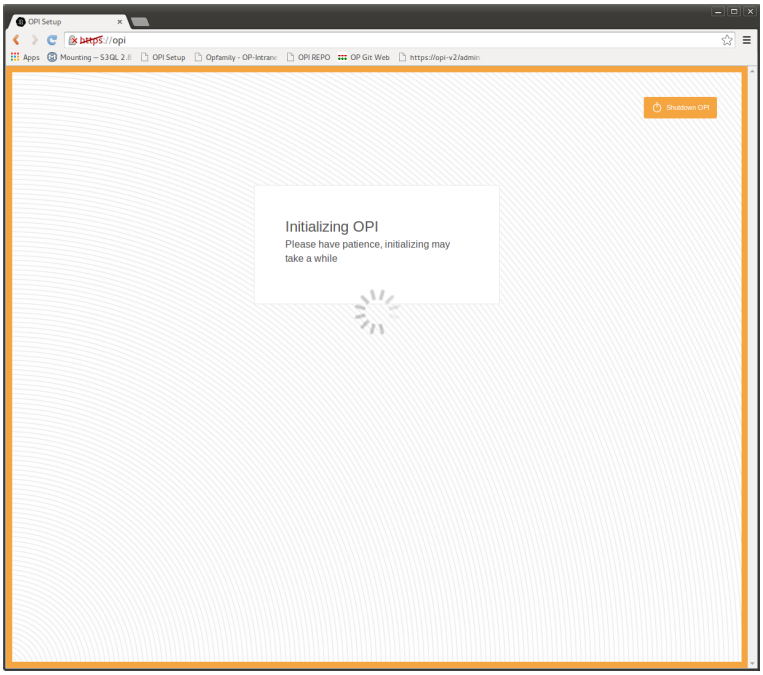


Figure 2: Initializing OPI

3.2 Add First User

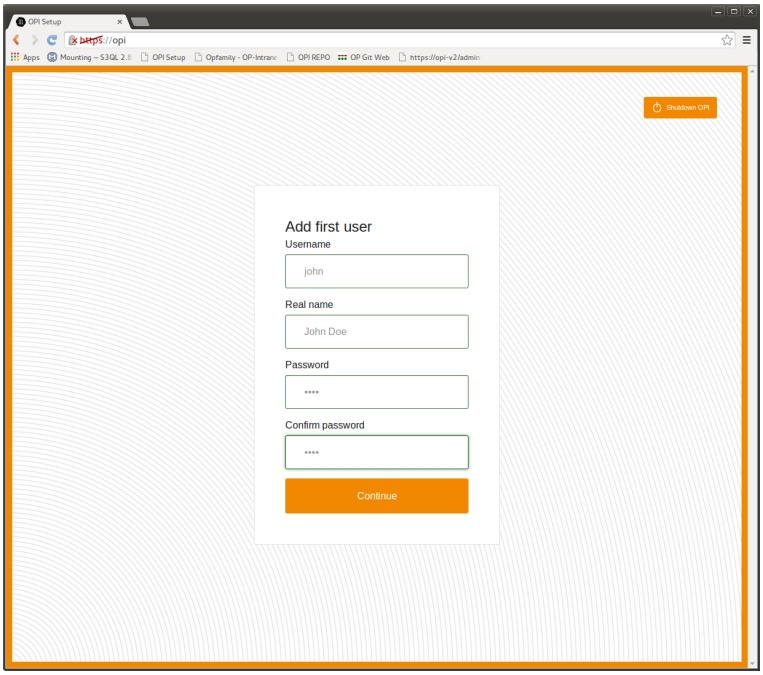


Figure 3: Adding First User

Once the master password has been set, the next step is to add the first user. Enter the users real name, also known in the system as "Display name", username and password. The first user entered will also be added to the "admin" group, given access to configure the system.

3.3 Select your OPI Name

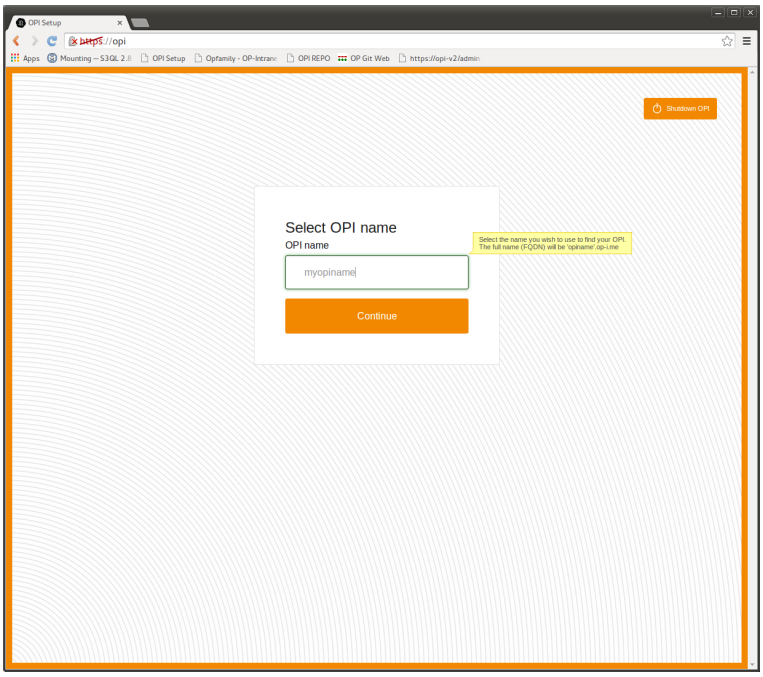


Figure 4: Selecting OPI name

In order to find and access OPI over the Internet a domain name needs to be associated with your unit. OpenProducts provides this service, free of charge for all OPIs under the domain “op-i.me”.

In this step you can select a name that prepends the domain name and makes it possible to find your unit. OPI then automatically updates this name if your IP address is changed.

3.4 OPI is unlocked

All required setups is now complete and you are ready to start using your unit. OPI has been unlocked and is starting all services and will redirect to

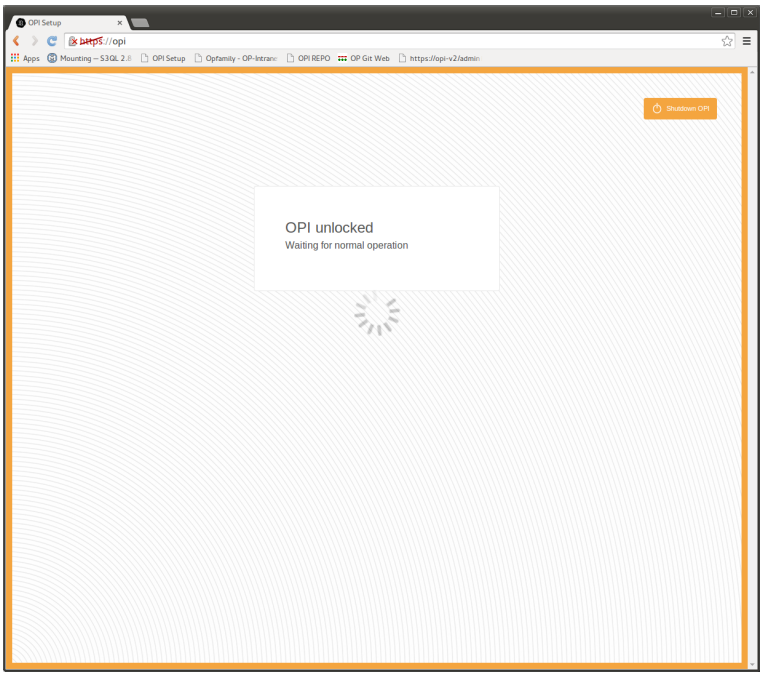


Figure 5: OPI has been unlocked and starting services

the login page. During this step, OPI has downloaded a certificate that has been created by OPI and signed by OpenProducts servers.

When redirecting to the login page, you will be warned that the certificate that was just generated is not trusted. This warning is expected and can be safely ignored.

The process of adding the certificate, or OpenProducts CA (certificate authority) differs between browsers, please see the FAQ on our forum.

3.5 Sign In

Sign into your OPI with your newly created username and password.

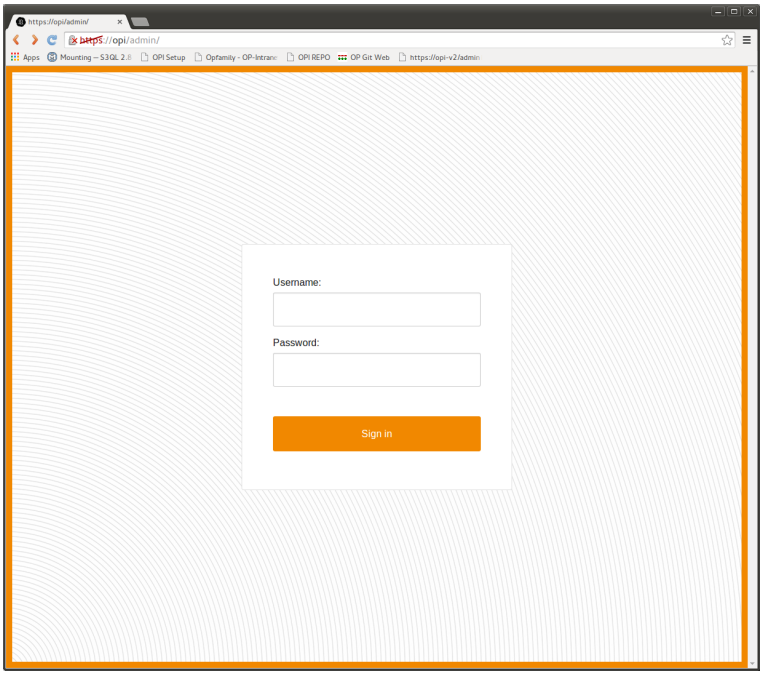


Figure 6: Sign in to OPI

3.6 Navigation Between Applications

In order to quickly be able to switch from one application to the next, a menu system is available in the top right corner of the web interface.

By clicking the orange boxes, a drop down menu is activated and the different applications are presented.

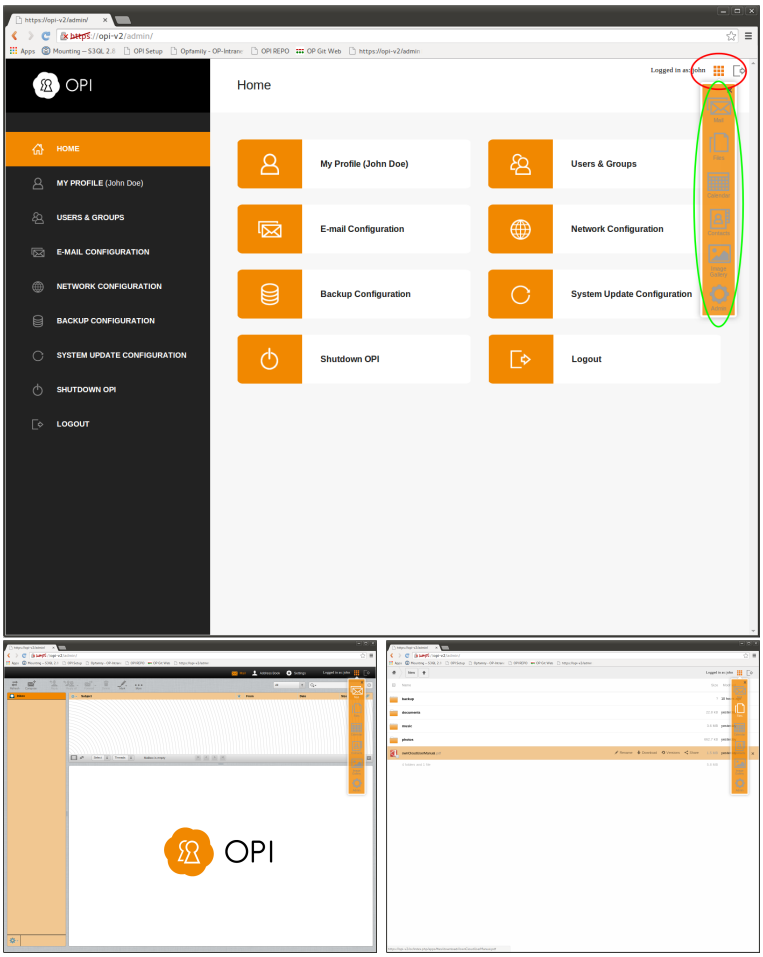


Figure 7: Use the quick menu to access the different applications

3.7 LEDs

On the front of OPI there are three LEDs. The following table describes the meaning of these.

Left	Middle	Right	Meaning
on	on	on	Normal Operation
off	flashing	on	The system is starting up
heartbeat	on	on	The system is awaiting user input
on	heartbeat	on	Backup is ongoing
red heartbeat	on	on	The last backup failed.

Table 1: LED interpretation

4 Recommended Extended Setup

4.1 Enable Backup

To secure your data we recommend that you enable backup of your data. Not only does this protect you of data loss in case of theft or hardware malfunction, it also provides a time line of your data making it possible to retrieve data from previous versions even if the current data is changed.

- Login with an administrative account (the first user account created during setup is automatically created as an administrative account).
- Select “Backup configuration”
- Check the box “Enable backup”
- Select either “Remote” or “Local” target

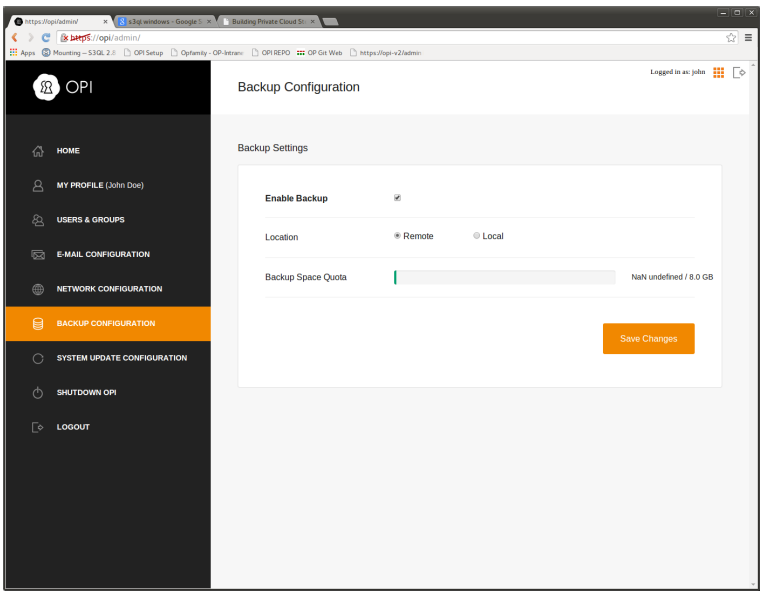


Figure 8: Backup configuration

The “Remote” target is OpenProducts servers, located in Sweden. By default, all users are granted 8GB space on our servers free of charge for 3 months.

In order to use the “Local” target, a USB memory or disk needs to be inserted in the USB port on OPI. That device will then be used for backup.

Note that all backups are encrypted prior to leaving OPI, meaning that no one that does not have your master password has the possibility to decrypt your information.

4.2 Mail Setup

4.2.1 Mail Server Configuration

In order to have mail working properly a few things need to be setup.

If your ISP (Internet Service Provider) allows you to send mail directly, then OPI will try to deliver any mail sent from the system directly to the recipients mail server. If this is the case, then select "Use OPI to send mail". However, even if OPI is allowed to send the mails, it is not sure that the receiving mail server will accept the message. This is due to the amount of spam today, and many mail servers requires that the sending mail server must be in various "white lists" or else the email will be rejected.

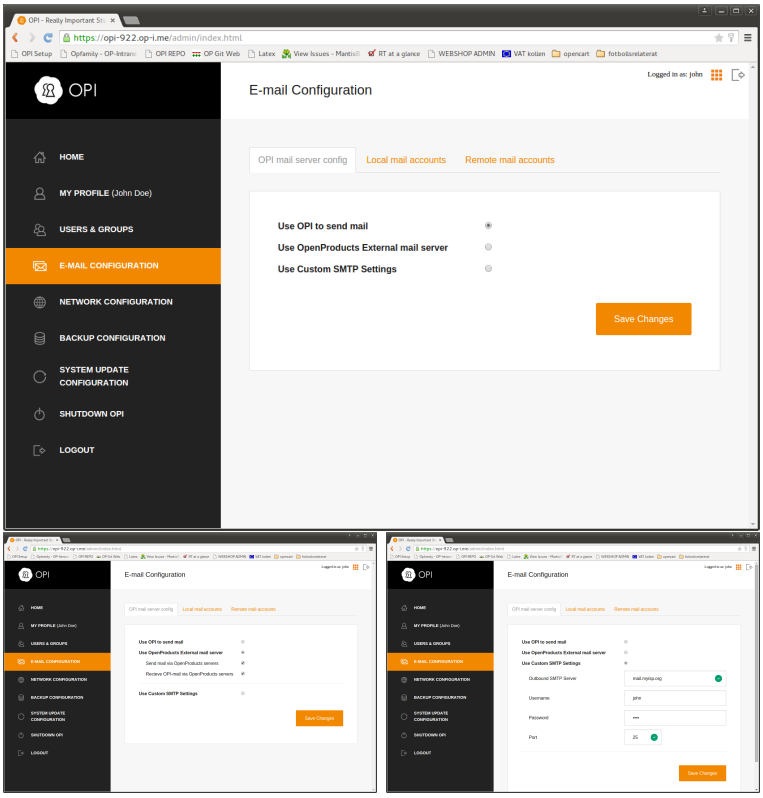


Figure 9: Mail configuration

The next possibility is to use a relay server. This means that OPI will

contact a server that is allowed to send mail.

OpenProducts does provide such server to be used by OPI-devices. This can be selected by checking the "Use OpenProducts External mail server" option. This will in turn offer the selection to use our servers for either incoming and/or outgoing mail.

The third option will allow to specify custom server details, this is what should be used if you need to fill in your ISP's outgoing mail server (known as SMTP server) configuration. By selecting this option, a form where the details about the server can be entered.

4.2.2 Receiving Mail

By default, OPI will be setup to accept incoming emails sent to all users created on the system. For these accounts, the email address used is in the form of "username@opiname.op-i.me". In the section "E-mail Configuration ->Local mail accounts" it is possible to add additional addresses, including mail addresses that are on domains pointing to OPI.
If other domains, the recommended setup is that the MX pointer is set to youropiname.op-i.me, since that IP address is updated by OPI.

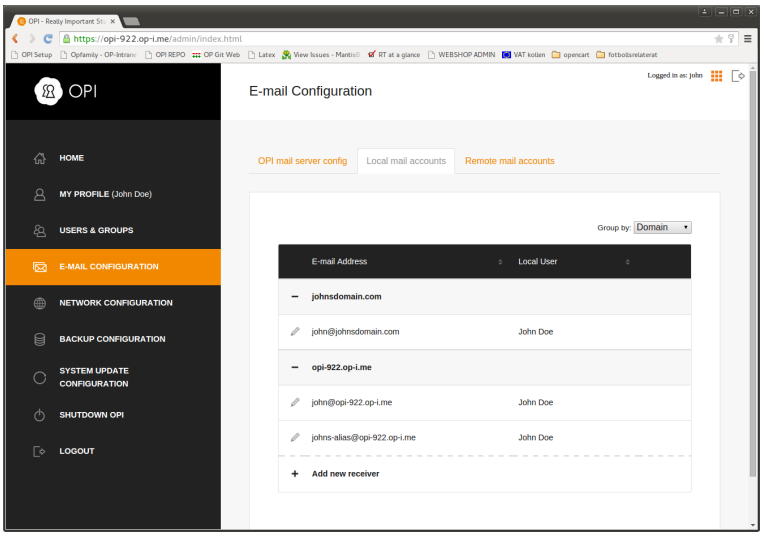


Figure 10: Receive mail configuration

It is possible to group addresses either by local user or by domain by the drop down box.

4.2.3 Remote mail accounts

In order to collect all email in one location, it is possible to set up OPI to fetch mail from external accounts such as GMail or from other providers. In the section "E-mail Configuration ->Remote mail accounts", by clicking "Add external mailbox" remote accounts are added from which OPI will retrieve mail. Depending on if the configurations can be figured out automatically different fields will be visible during configuration.

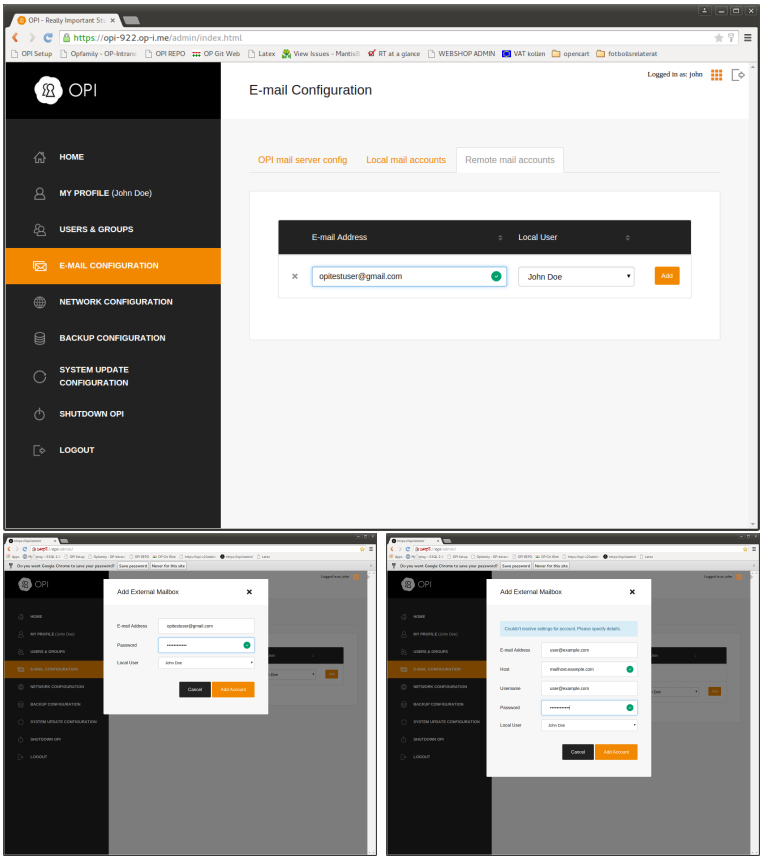


Figure 11: Fetch external mail configuration

4.3 Users and Groups

All user and group management is common for all applications in the system and managed from the "Users & Groups" section.

4.3.1 Adding users

Users are added by clicking “Add users” and entering the user details. A dialog box is then presented to enter the users password.

All users can be edited by clicking the pen icon on the relevant user, then selecting the appropriate action.

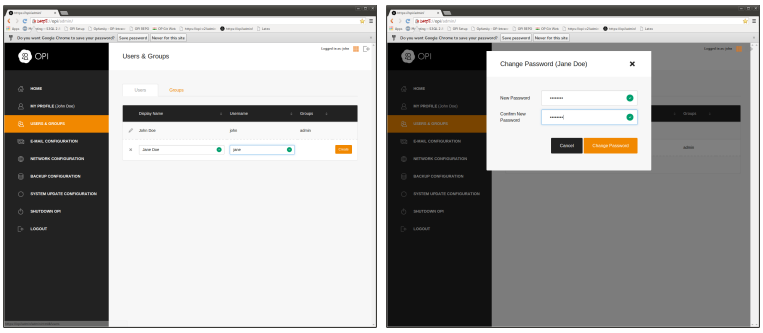


Figure 12: Adding users

4.3.2 Adding Groups

Groups are added much in the same way as users. Groups can then be used for sharing files and calendars, and all users belonging to the “admin” group will have administrative rights to the system.

Users not belonging to the “admin” group will not have the possibility to change any settings to the system, only to settings that are personal such as the displayed name and any e-mail settings for that specific user.

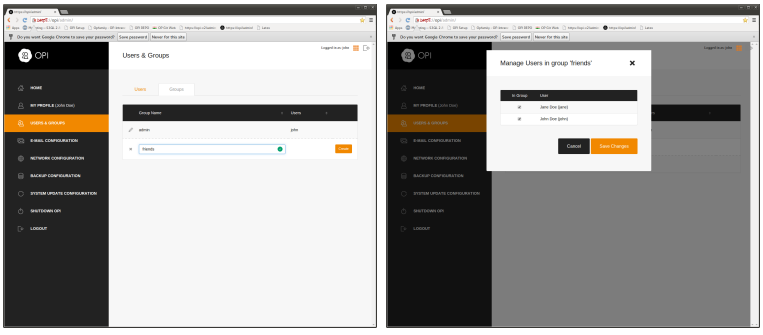
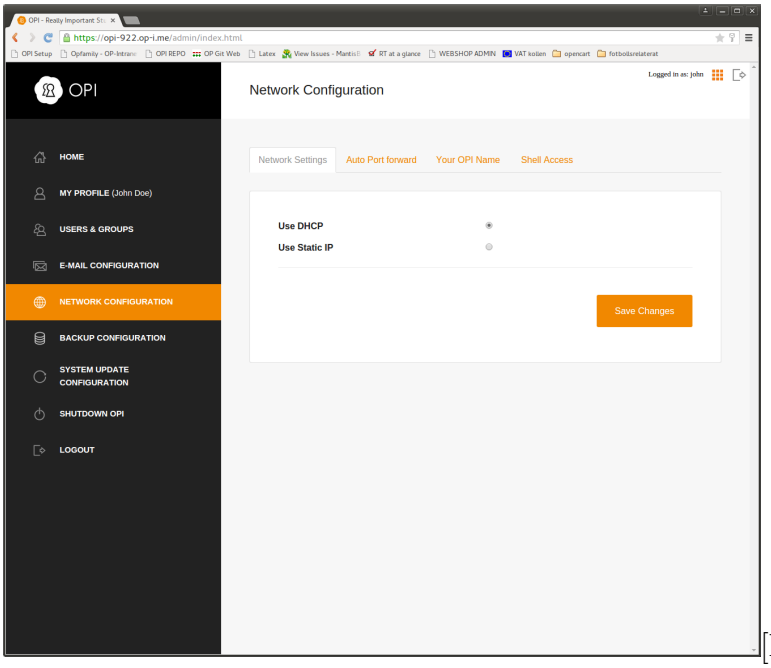


Figure 13: Adding users

4.4 Network Configuration

4.4.1 Network Settings

By default OPI is configured to automatically retrieve an IP address from a DHCP server in the network it is connected to. If this is not desired a static



[h!]

Figure 14: Network configuration - DHCP setting

IP can be set by selecting “Network configuration ->Network Settings”. By selecting the option ”Use Static IP” a form will be presented where these settings can be entered.

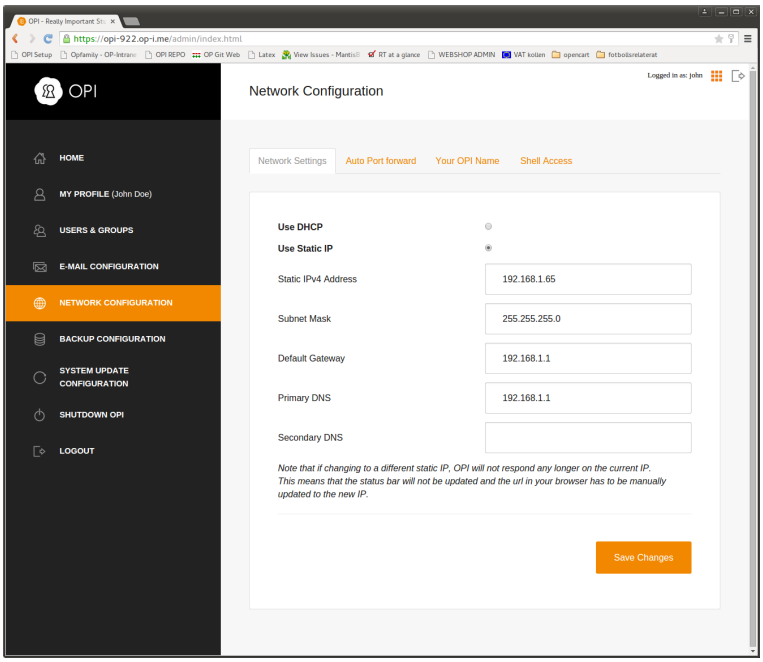


Figure 15: Network configuration - Static IP

4.4.2 Auto Port forward

OPI by default will try to locate an existing firewall in the network and ask that firewall to forward traffic to OPI in order to access OPI from the Internet. This can be disabled on per port bases by clearing the check box for each port that should not be forwarded.

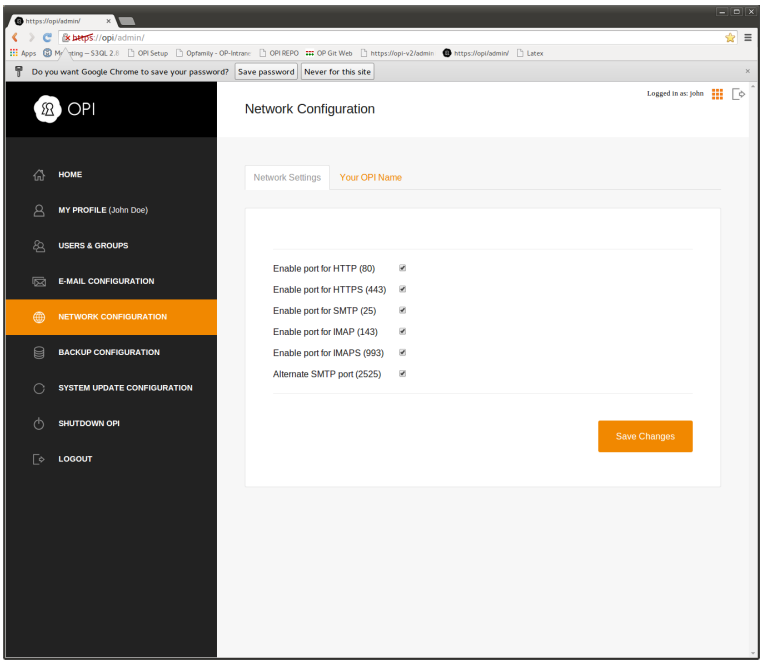


Figure 16: Forwarded ports

4.4.3 OPI name

The OPI name can be changed if the one chosen during setup is not satisfactory. When changing the name, a new certificate will be generated and installed on OPI. If the OpenProducts CA has not been installed in your browser, it will warn you that the certificate has changed. There is a limit of issuing three (3) certificates per OPI, so be a bit careful when selecting your new name. A previously used opiname will not count as a new registration for the same OPI.

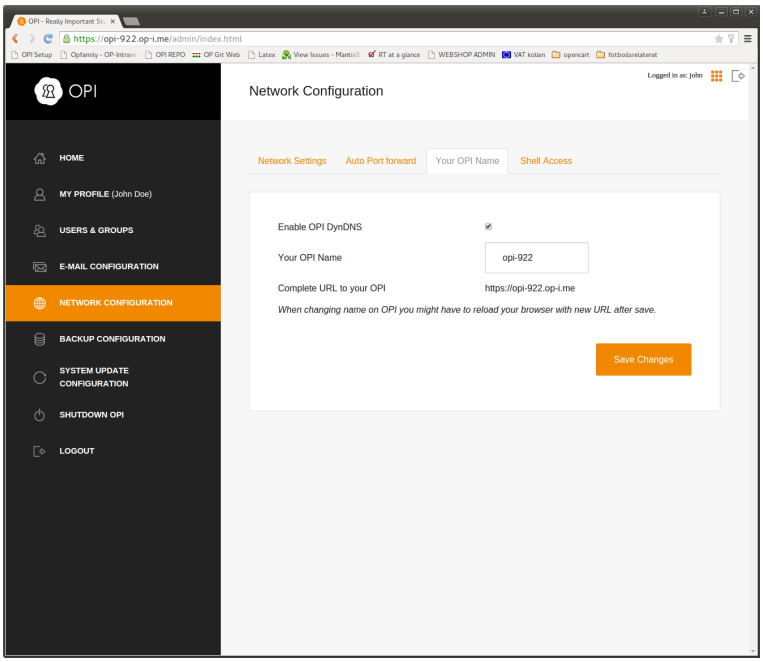


Figure 17: OPI name

4.4.4 Shell access

OPI is an open source unit and as such we believe that it should be open in all senses. It is therefore possible to turn on shell access to OPI by checking the "Allow shell (SSH) access to OPI" under "Network configuration ->Shell Access". This will start the SSH daemon and set a password (run-time generated) for the root user. The password will be sent by email to the users in the "admin" group on OPI.

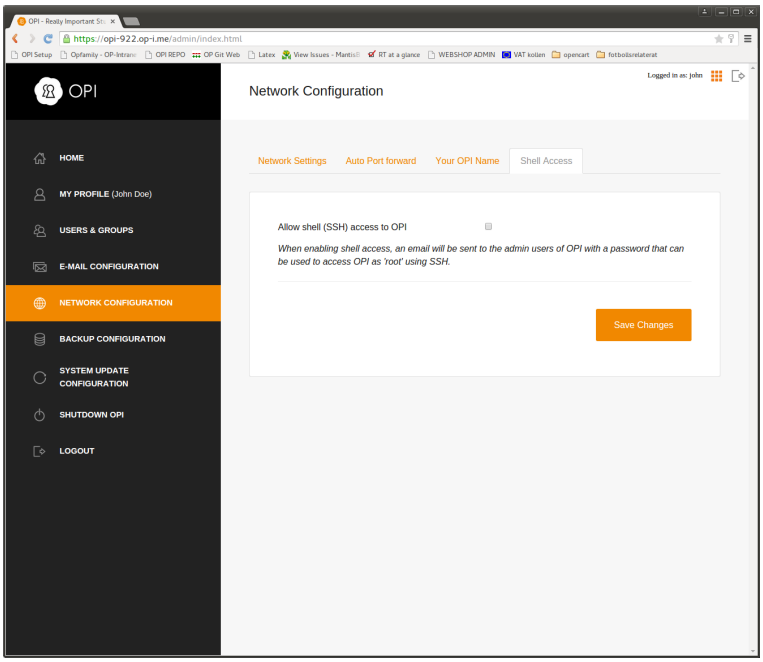


Figure 18: Shell access

With the username “root” and the generated password it is possible to log in to OPI using SSH to gain root privileges on the system. Please use this with care, as modifications to the system might prevent built-in functions, specifically with automated updates.

5 Install OPI Sync Android Application

To get the most out of your new system, for Android based devices we recommend that you install our application OPI Sync available on Google Play. The application can be found by scanning the QR code below, or by entering this URL:
https://play.google.com/store/apps/details?id=openproducts.opisettings

Figure 19: Scan QR code to install OPI app to your android device

In the application you specify your OPI name, username and password and then select which services you would like to synchronize. The different services are implemented as separate applications so that only the wanted features gets installed on your device. These applications are based on open source projects and more information about these applications can be found on their websites.

- Mail: K9
  https://github.com/k9mail/k-9/wiki
- Files: Owncloud
  http://owncloud.org/
- Calendar and contact sync: DavDroid
  DavDroid - http://davdroid.bitfire.at/what-is-davdroid

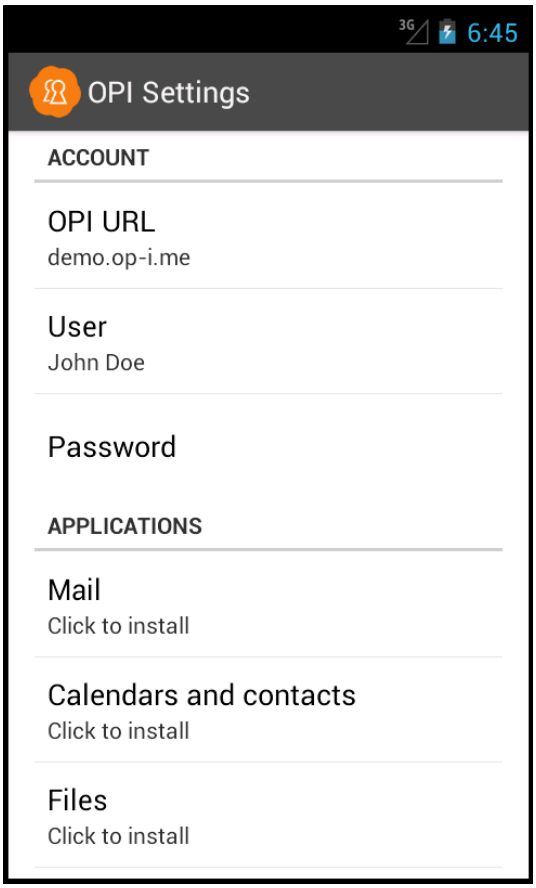


Figure 20: Android app settings

6 Configure Web Mail Client

The system automatically picks up the information of the current user and makes that available as an identity from which it is possible to send mail. There is one identity associated with each mail account configured for that user.

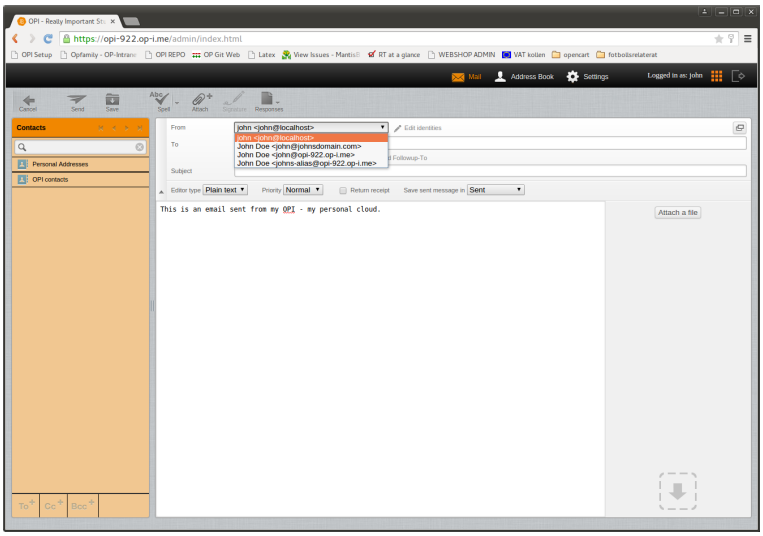


Figure 21: Web mail sender identities

If this is not the desired information, new identities can be added in the "Settings" section of the Web Mail Client. Log in to OPI, then using the drop down menu select the "Mail" application. In the top right corner, select

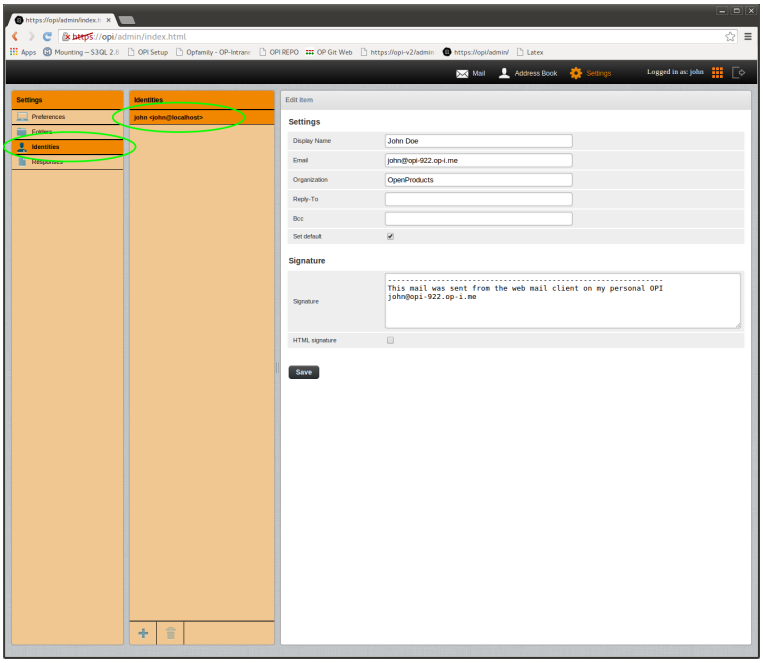


Figure 22: Web mail personal information

"Settings", then select "Identities". The identity "username@localhost" is an identity that can be edited and used as default sender information. Click that name in the center column and enter relevant information to be used as sender. Enter the name that shall be displayed as the senders name and the email address that shall be used as the senders email. Optionally, also a signature that will be appended to all emails sent from the web mail client can be specified.

7 Using External Clients

7.1 Email Settings

The following settings should be used in order to use email with an external client, such as Mozilla Thunderbird or Evolution

7.1.1 Incoming Mail Server

- Server Type: IMAP
- Servername: 'youropiname'.op-i.me
- Port: 143
- Connection Security: STARTTLS
- Username: Your username on OPI, (ie 'mailuser')
- Authentication method: 'Normal password'

7.1.2 Outgoing Mail Server (SMTP)

- Server Type: SMTP
- Servername: 'youropiname'.op-i.me
- Port: 587
- Connection Security: STARTTLS
- Username: Your username on OPI, (ie 'mailuser')
- Authentication method: 'Normal password'

7.1.3 Example Using Thunderbird

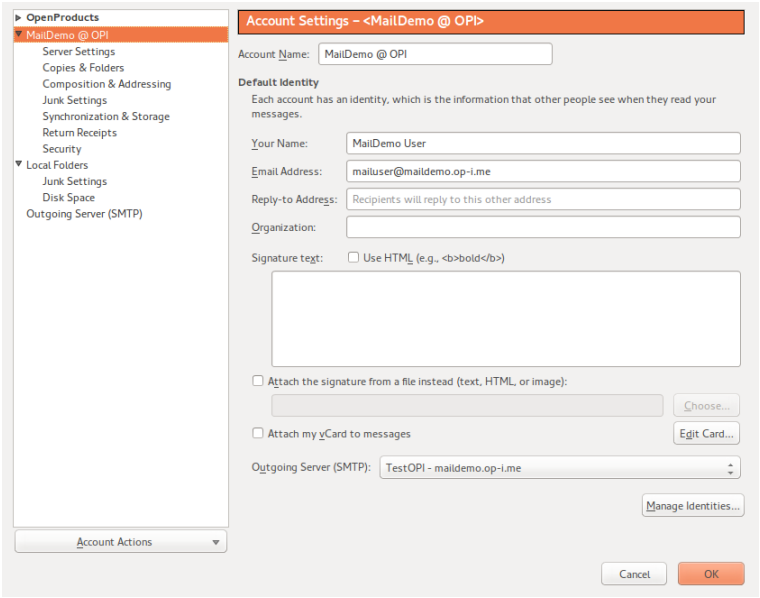


Figure 23: Incoming Mail Server settings

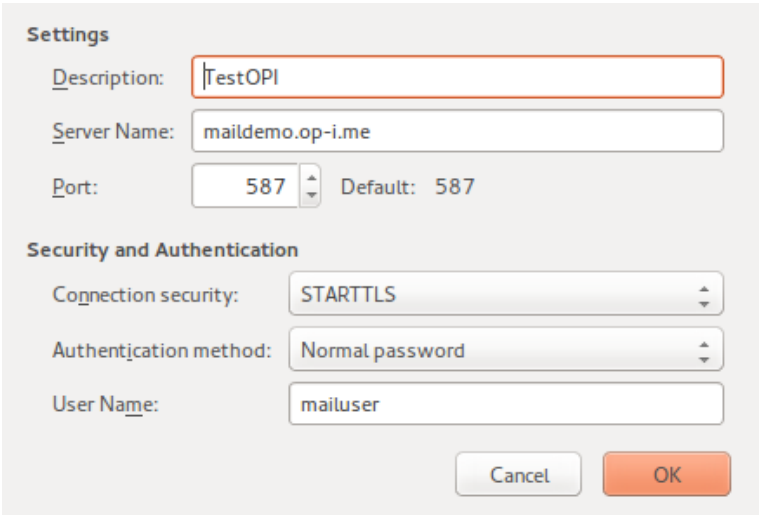


Figure 24: Outgoing Mail Server settings

7.2 Calendar settings

Calendars on OPI can be accessed from external applications using a standardized protocol named CalDav.

The URL's to the calendars can be found in the calendar section of the web application, see figure. First click the gear icon, then the little 'earth' symbol to display URL for the chosen calendar (see figure). Copy the URL as it will be needed below.

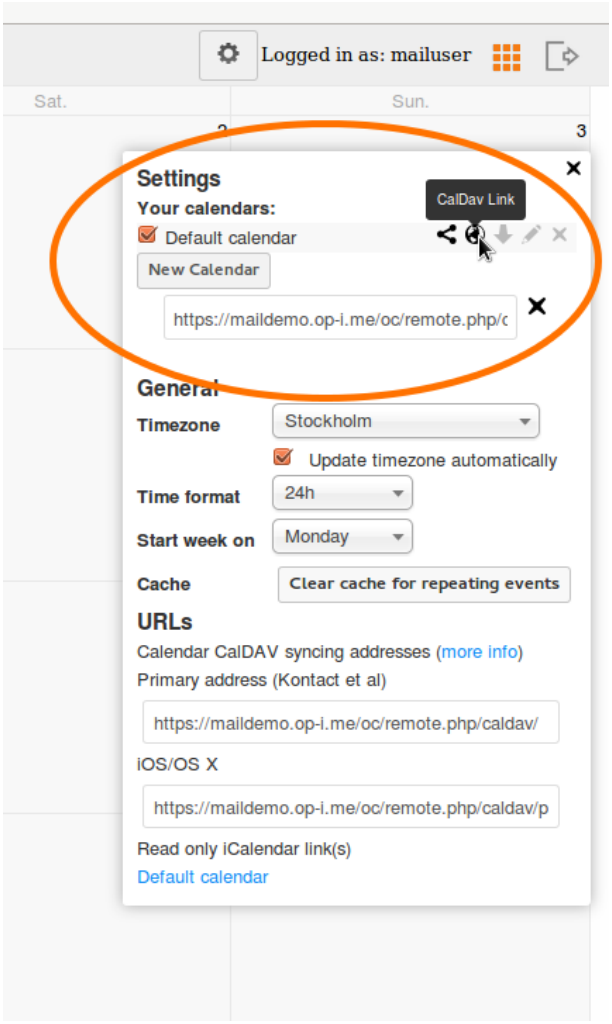


Figure 25: Calendar URL's and settings

7.2.1 Example Using Thunderbird and Lightning

Thunderbird has a nice add-on called 'Lightning'. It can be found and installed by searching the for add-ons in Thunderbird. Once installed switch to the calendar view and right click in the calendar section then click "New Calendar..."

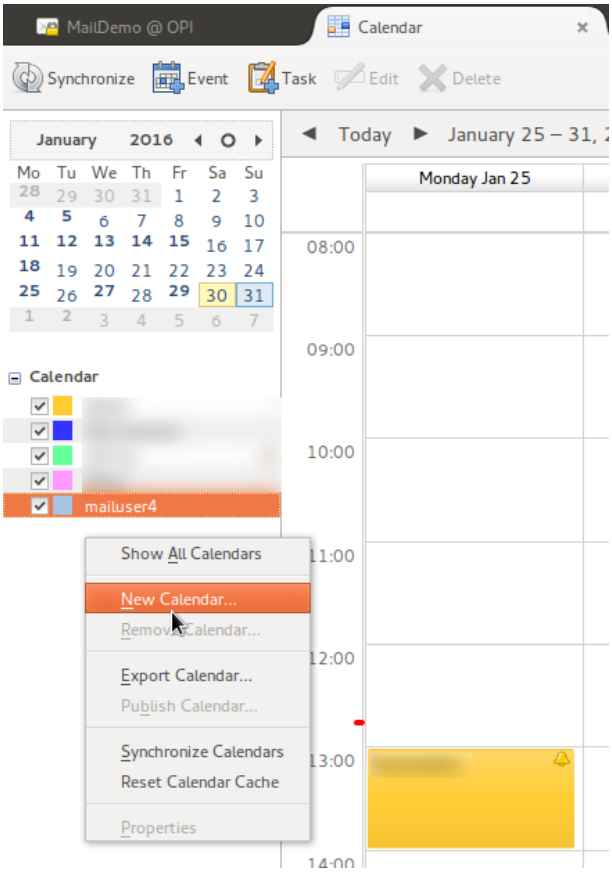


Figure 26: Adding new calendar

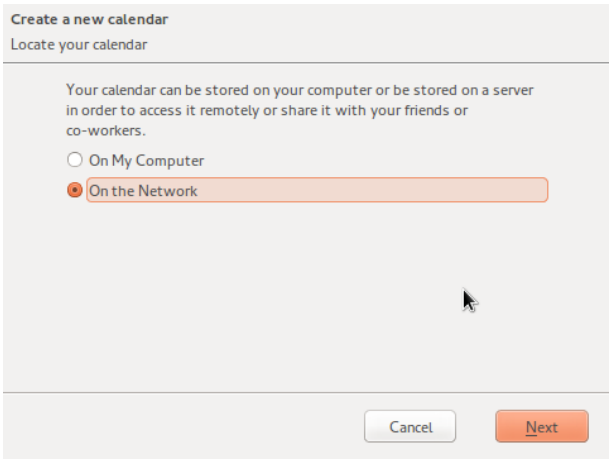


Figure 27: Select "On the Network"

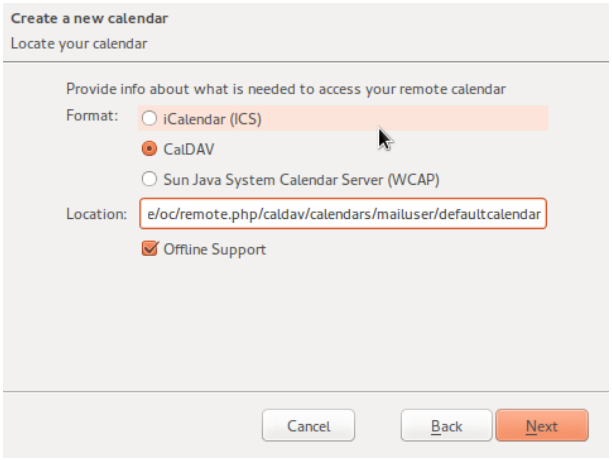


Figure 28: Select "CalDAV" and enter/paste the location found in the above step

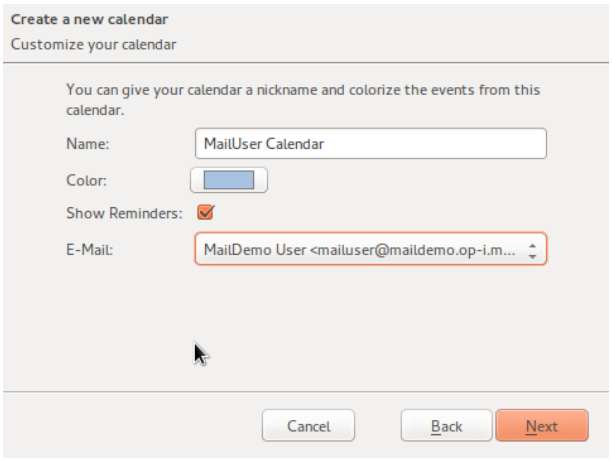


Figure 29: Give the calendar a name (can be anything) and select which email account should be associated by default with the calendar

You will then be prompted with a security warning due to that polices with signed certificates (which is a whole other story debated here). Accept this warning and create an exception. You will also be prompted for username and password, this is your normal OPI username/password combination.

8 Further Reading

For additional information and reading, please visit our community site where our blog and forums can be found:

http://community.openproducts.com

9 Contributers

The following people have been contributing to this document:

PA Nilsson, OpenProducts http://www.openproducts.com

Tor Krill, OpenProducts http://www.openproducts.com