CLUB1 documentation

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Nicolas Peugnet

Vincent Peugnet

Leïla Renard

Alix Turcq

Audrey Deluc

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Server information

Everything you need to know about the organization and operation of the server.

General information

The CLUB1 server allows its members to host different types of web projects. But it is also a community of people interested in the notions of web spaces, freedoms and web exploration.

Requests and problems

If you find a bug 🐛, a service seems to be unavailable 😵 or you have a suggestion 💡, don't hesitate to let us know! You are first invited to explore the forum[1] 🔍, to check that the subject has not already been discussed. If this is not the case, you can, according to your preferences:

- **Open a ticket** by creating a post on the forum[2].
- Send an email to contact@club1.fr
- Discuss it on *Matrix*[3] via `#bazar:club1.fr`. More specific rooms are dedicated to the website and the doc. They are listed within the `#le-club:club1.fr` space.

Server infos

It lives in the closet like *Harry Potter*...

... it's the server.

Operating system

Le serveur tourne sur *Debian* **12** et est mis à jour régulièrement. Les mises-à-jour de sécurité sont installées automatiquement dans les 24 heures à l'aide de *unattended-upgrades*[4] et les services en dépendant sont ensuite automatiquement redémarrés grâce à *needrestart*[5].

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[1] https://forum.club1.fr
[2] https://forum.club1.fr/t/tickets
[3] https://club1.fr/matrix/
[4] https://wiki.debian.org/fr/unattended-upgrades
[5] https://packages.debian.org/fr/stable/needrestart

Installed software and libraries

All the installed software is under *free* **license**, except for the following list, for which there is no free alternatives:

- Supermicro BIOS/BMC

- Intel Microcode

- Intel QAT firmware

A significant number of software and libraries are already installed. Here is a *non-exhaustive* list:

```
Apache       2.4
MariaDb      10.11
PHP          8.2
Python       3.11
NodeJs       18.19
Composer     2.5
pip          23.0
npm          9.2
phpMyAdmin   5.2
git          2.39
borg         1.2
rsync        3.2
unison       2.52
```

If you wish an additional software to be installed, please **check first** that it is not already present, then, if not, **create a ticket** as explained *above* (page 1).

Availability

In order to guarantee a certain availability, the server as well as the network equipment are powered by an *UPS*. However, since redundancy is not present at all levels, the server may be inaccessible for short periods of time, for example during a kernel update. That said, an effective availability **above 98%** should be ensured.

The status of the various services can be viewed live on https://status.club1.fr. This service observation tool is hosted by ResiLien[6], a member of the CHATONS[7] collective, on a server located in Cremeaux.

Members accounts

Username

The username must comply with the following rules:

- a length of **between 3 and 17 characters** (included).

- comporter **uniquement** des lettres **minuscules**, des **chiffres** ou des **tirets** (-).

This identifier is mainly used internally for the connection to the services and is therefore not especially visible from outside. It is however present in the *CLUB1 email address* (page 14) assigned by default to members and in automatic URLs such as those of *static websites* (page 21) and *git repositories* (page 26).

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[6] https://resilien.fr
[7] https://www.chatons.org

Account Terms

Each entity (person or group), can host as many projects as it wishes within reason.

A member account therefore includes:

- SSD storage space

- more hard disk space (on request)

- FTP access

- SSH access (for advanced users)

- SQL databases (MariaDb)

- free creation of .club1.fr subdomains (on request)

- the use of domain names rented via registrars

- access to the members-only *matrix* room for project monitoring and assistance

For now, the chosen format is membership, with a lifetime fee of 35€.

Contact

contact@club1.fr

Hardware infrastructure

The server is self-hosted in France in Pantin.

> ❗ **See also**
>
> Tickets about the hardware infrastructure are grouped on the forum under the *hardware* tag[8].

Internet connection

It is connected to internet by optical fiber with average rates of 200Mb/s in upload and 500Mb/s in download[9]. The internet connection is provided by *Bouygues Telecom.*

Uninterruptible power supply

An uninterruptible power supply (UPS) is above all **a power strip**, but with some additional functions, including:

- protection against over-voltage or sub-tensions, for example in the event of storms.

- maintaining electrical power in the event of a power outage (thanks to its internal battery).

- communication with the server to tell it to shut down "properly" when the power does not return and it soon runs out of battery.

It is connected upstream of all computer equipment and its role is therefore to provide them with a **quality power supply**.

Our model: `5P650IR` from the *EATON* brand Specifications on the manufacturer's website[10]

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[8] https://forum.club1.fr/t/hardware
[9] https://www.nperf.com/en/r/338260996-nDOmVdkc
[10] https://www.eaton.com/gb/en-gb/skuPage.5P650IR.specifications.html

We selected it, among other things, because it has the lowest power (420W) among the *EATON* pro range. The price of this equipment is quite high (a little over €300). Previously, we had bought a lower-end model second-hand for €40. It broke down after a year of use.

This is a rack model with a height of 1U. A small screen provides access to some statistics and settings. For example, it indicates the electricity consumption of the entire infrastructure in Watts.

From left to right: the arrival of the electrical current, the communication ports with the server, then the four electrical outputs benefiting from the advantages of the UPS.

Maintenance

Internal batteries are guaranteed for 3 to 5 years. They are changed via the front of the device. It is therefore not necessary to unscrew it or unplug it during this operation.

Server

Case

Model: `SilverStone RM21-304` Manufacturer's Site[11]

Rackmount case with a height of 2U.

Cooling

One of our interests in this case was the quality of its cooling. It has three slots for 80mm fans. The default fans have been replaced by quieter models from the *Noctua* brand.

---

[11] https://www.silverstonetek.com/en/product/info/server-nas/RM21-304/

Old case

Previously, we used a `Chenbro ES34169` case, which was more compact, but was not rack-mountable and not as well cooled. An article from the journal[12] retraces this evolution.

Motherboard

Model: `Supermicro A2SDi-4C-HLN4F` Manufacturer's Site[13]

It is a standard Mini-ITX[14] format board, so it has a 17cm square format.

Main connections:

- storage
    - 1 M.2 port
    - 1 mini-SAS HD port
    - 4 SATA ports
- network
    - 4 1Gb/s Ethernet RJ45 ports

Processor

Model: `Intel Atom C3000`

Low consumption quad-core processor. It is directly soldered on the *motherboard* (page 5).

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[12] https://club1.fr/nouveau-boitier

[13] https://www.supermicro.com/en/products/motherboard/A2SDi-4C-HLN4F

[14] https://en.wikipedia.org/wiki/Mini-ITX

Memory

Model : `RAM Samsung ECC Registered 16Go M393A2G40DB0-CPB`

The server has a single 16 GB DDR4 ECC module, among the four slots provided by the *motherboard* (page 5). This leaves room to increase this capacity if necessary.

Storage

It consists of three separate storage media:

system

The operating system, as well as *MariaDB* (page 24) and PostgreSQL databases are on a NVMe SSD with a capacity of 1To connected to the M.2 port of the motherboard. This configuration provides the fastest bitrates allowed by this *motherboard* (page 5).

Model: `Samsung 980 SSD 1To`

Users

L'*espace personnel* (page 6) des membres est stocké dans un second support : Un autre SSD de 1To, mais cette fois ci, connecté sur un port SATA. Les débit sont donc un peu plus faibles (500Mb/s), par rapport au *SSD système* (page 6).

Model: `Samsung EVO 860 1To`.

An article in the journal[15] tells the story of his arrival in the server.

Secondary storage

2TB 5600rpm hard drive. Not supported by the *backups* (page 73).

Power supply

`FSP250-60EGA 90+`

Personal space

CLUB1 hosting is based on the allocation of a *personal space*. It is a storage space on the server, which is accessible via several *protocols*, providing different services.

Home sweet home

Each CLUB1 member has a *personal space*. This is your *home*, by the way, we call this folder `home` 🏠. But since you have all the rights, you also have the right to delete everything. So be careful, because some folders inside can be precious. For example your emails, which are in the folder `mail` 🐵 .

Yep, with great power comes great responsibility… 😌 You can do whatever you want there, but as your home there are also neighbors. Indeed, **there is no storage limit defined** per folder `home` of each member, but on the other hand, a physical limit: All these folders are on a SSD storage medium totaling **1To**. This is a common space to be shared between users of the server.

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[15] https://club1.fr/ssd-home

Directory tree

Not all folders are created equal, some have a specific role.

📁 mail

This is where all your *CLUB1 email service* (page 14) emails are stored. Your email space is therefore directly inside your personal space. A quota exists for this folder: it is limited to 5GB.

> **❗ Danger**
>
> Be careful not to delete this folder inadvertently, you will lose all your emails stored on the server.

To quickly back up your emails, just download a copy of this folder.

📁 static

This folder is the closest door to the *Web* as it allows to *publish websites* (page 21).

📁 git

Folder used to *host Git code repositories* (page 26).

📁 log

This folder contains all the *logs* produced by the services. For example those of the *websites with a dedicated domain name* (page 21).

A rotation is performed using *logrotate* (page 7) on the `*.log` files of this folder every week and a history of 15 files per log is kept. Old files are compressed via `gzip`.

Presentation file

To appear on the members page[16] of the CLUB1 website, you must create a **presentation file** called `PRESENTATION.md` at the root of your personal space.

It is possible to format your text in *Markdown*, as well as to change your display name and the color of your button.

> **❗ See also**
>
> Tutorial: *How to edit your presentation* (page 33)

💡 The order of the presentation buttons changes each time a member updates their presentation file!

Software

members-presentation
>   PHP script used to generate the member page. — Source[17]

---

[16] https://club1.fr/membres
[17] https://github.com/club-1/members-presentation

logrotate

Utility to simplify the rotation of a large number of *log* files. — Sources[18]

Terms of service

By using the services of CLUB1, you agree to be bound by the following terms.

Evolution of the terms of services

CLUB1 reserves the right to update and modify these conditions. In this case, CLUB1 informs the persons concerned by email if it can or by posting on the site.

A dated version history of this charter can be found on GitHub[19].

Access to services

Some services are free to access, others require a membership account. The list of services and their access conditions are available on the page services[20].

CLUB1 provides its members with a shared personal space on the server. A member can be a natural or legal person. To become a member, you must pay the registration fee, the amount of which is indicated on the discover[21] page.

The creation of a member account is subject to the prior approval of CLUB1 according to the available resources.

Operation

CLUB1 offers all of its services thanks to volunteers, therefore CLUB1 does not commit to any deadline for action. However, we try to do our best.

Secure transmission of credentials

CLUB1 will never ask you for your passwords or passphrases.

Intervention in case of breakdown

In the event of a breakdown and if no message on the status page certifies that CLUB1 is in the process of correcting the malfunction, a *report* (page 1) is welcome.

If you are a member, as such, you have a share of responsibility for the proper functioning of the collective. If the service is unavailable or if your data is lost, it will therefore be a collective fault.

If unable to resolve a technical problem, CLUB1 may decide to close the service.

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[18] https://github.com/logrotate/logrotate
[19] https://github.com/club-1/docs/commits/main/cgu.md
[20] https://club1.fr/services/
[21] https://club1.fr/rejoindre#devenir-membre

Responsibility of CLUB1

Under no circumstances will a user be able to claim damages or indemnities resulting from technical problems of any nature whatsoever.

CLUB1 is subject to an obligation of means. In the event of a failure, CLUB1 cannot be held liable for consequential damages such as operating losses, commercial damage, loss of customers, turnover, profits or anticipated savings, or any other indirect damage.

Misuse of services

The consumption of resources must respect the shared framework of our services. Any abuse may result in the termination of an account.

You must comply with the laws and regulations in force when using the services offered, whether in terms of respect for privacy, sending large quantities of emails, intellectual property, discriminatory remarks, hate speech, harassment, violation of people's fundamental freedoms, etc.

In the event of prohibited use, CLUB1 may find itself obliged to trigger the total or partial suspension of the service, the withdrawal of content, or any other measure that the laws and regulations impose on it.

You must respect other users by showing civility and politeness. CLUB1 reserves the right to remove any content that appears irrelevant or contravenes these principles, at its sole discretion.

Furthermore, if a user abuses the service, for example by monopolizing shared machine resources, its content or access may be deleted, after warning and negotiation.

Future of services

CLUB1 may also choose to discontinue services if CLUB1 considers that it is no longer able to provide said services. If CLUB1 has the possibility, the club will do its best to leave enough time to allow everyone to migrate peacefully.

Account Termination

If you wish to terminate an account, you must notify CLUB1 by email at contact@club1.fr.

Our commitments

CLUB1 will only use your personal data for these 4 purposes:

- provide the service for which you provided your data

- produce any anonymized and aggregated statistics

- notify you of a major change in the service (breakdown, notification of intrusion and data theft, change of interface, service shutdown date, etc.)

- get your opinion on the services and action of the collective

CLUB1 will not transmit or resell your personal data. Your content belongs to you, however, we encourage you to publish it under a free license if it is relevant.

A modification of the previous paragraph, unlike the rest of the T&Cs, cannot be made by a simple notification. Should such a change occur, it:

- would not be retroactive

- Would require an explicit agreement from you to continue using the services provided by CLUB1

CHATONS Charter

CLUB1 undertakes to respect the charter[22] of the *Collectif des Hébergeurs Alternatifs, Transparents, Ouverts, Neutres et Solidaires* as part of its activity as a host and online service provider.

CLUB1 is a member of this collective.

Future of data

Once the account is closed, CLUB1 can proceed to delete the data.

Open access services have a fixed data expiration, this to avoid overloading storage spaces.

GDPR

You and CLUB1 undertake to comply with the regulations in force applicable to the processing of personal data and, in particular, Regulation (EU) 2016/679 of the European Parliament and of the Council of April 27, 2016 applicable from May 25, 2018 , known as GDPR.

Privacy policy

Our privacy commitments.

> ❶ **See also**
>
> Our commitments in the *T&Cs* (page 9)

Security policy

- ⚠️ Member data on the server **is not encrypted**. They are therefore readable by administrators (`root` user and members of the `sudo` *group*).

- The *backups* (page 73) are encrypted.

- The *protocols* used to connect to the server are all encrypted, so passwords and data cannot be intercepted.

- Personal data is protected by *POSIX permissions*. By default, the *personal space* (page 6) is not accessible by other users (except for reading by members of the `home` *group*, e.g. the *Web server*). Everyone is free to change the permissions of their personal space.

Commitments of system administrators

System administrators agree to respect the following points:

- Not to access user data (personal space and databases) without their consent, except in case of restoration following a technical problem, in which case the users concerned will be notified.

- Encryption of *SSH* keys.

- Application of security best practices (replacement of default passwords, strong generated passwords, etc.).

---

[22] https://www.chatons.org/en/charte

Services reserved for members

These services require being a member of CLUB1 and are all based on a common account. They therefore use the same **login** and the same **password** for the connection.

SSH remote connection

The SSH connection is the purest connection you can have with the server (at least among those which do not require to use psychotropics). It is also the one that feels the most like using a computer, because through it, one can *run programs* (page 12) on the server!

SSH

    (*Secure SHell*) Protocol allowing to connect remotely in *CLI* to a server. Its main advantages are being fully encrypted and providing full access to server functionality. There are SSH extensions for more specific uses like *SFTP* or *SCP*. — Wikipedia[23]

SFTP

    (*SSH File Transfer Protocol*) File transfer and remote management protocol based on *SSH*. It is thus fully encrypted, and therefore comparable to *FTPS*, but it offers more features (e.g. display of file owners). — Wikipedia[24]

SCP

    (*Secure CoPy*) Protocol for copying files between two computers based on *SSH*. SCP is mainly used with the *CLI client* of the same name. — Wikipedia[25]

Connection

> ❶ **Warning**
>
> The first connection is **critical** because the **key exchange** takes place at this moment. To avoid a man-in-the-middle attack[26] we have to make sure that we received the correct key during this exchange.
>
> If you don't know how to add the server key to your device, the tutorial *First SSH connection* (page 44) is for you!

There are two ways to authenticate for an SSH connection. The simplest is to use a *password* (page 12), however it is less secure than using a *public key* (page 12).

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[23] https://en.wikipedia.org/wiki/Secure_Shell
[24] https://en.wikipedia.org/wiki/SSH_File_Transfer_Protocol
[25] https://en.wikipedia.org/wiki/Secure_copy_protocol
[26] https://en.wikipedia.org/wiki/Man-in-the-middle_attack

Authenticate via password

We use the following command in the *terminal* to connect (replace `USER` with your CLUB1 **login**):

```
ssh USER@club1.fr
```

You must then enter your CLUB1 **password** (it is normal that the password is not displayed at the time of writing).

Authenticate with a public key

Public key authentication requires an encryption key pair. To create these keys, we use the command below. A *passphrase* will be requested when generating the keys, it allows them to be stored securely. On Linux, the keys will be automatically unlocked when opening a session, so do not hesitate to choose a long passphrase.

```
ssh-keygen
```

The command thereafter then effortlessly sends the public part of the key to the server to be able to use it as an authentication method (replace `USER` with your CLUB1 **login**). It will ask you to enter you CLUB1 **password** to work.

```
ssh-copy-id -i ~/.ssh/id_rsa USER@club1.fr
```

Finally, we use the same command again to connect. But this time it's the keys that will be used. If they are not already unlocked, the *passphrase* will be prompted.

```
ssh USER@club1.fr
```

Connection information

field	value
host	`club1.fr`
port	`22` (default)

Selection of commands

Here is a selection of commands to allow you to discover the server:

> **❓ Tip**
>
> Press `Enter` to run a command from the terminal.

`passwd`

　　Allows you to change your CLUB1 password (this will therefore have an effect on the connection to all *services* (page 11)). — Manual: *passwd.1*[27]

`htop`

　　Allows you to see what is happening on the server at the moment and how much resources are being used. Press the `Q` key to exit. — Manual: *htop.1*[28]

---

[27] https://manpages.debian.org/passwd.1.en
[28] https://manpages.debian.org/htop.1.en

ncdu

Quick and visual tool to find files or folders that take the most space. Ideal for cleaning! Just navigate with the directional arrows. Press the `Q` key to leave. — Manual: *ncdu.1*[29]

w

Displays SSH-connected members and indicates the software they are using. This command is a little intrusive! — Manual: *w.1*[30]

mailx

The most basic way to send an email! This command requires to add at the end, after a space, the email of your recipient.

> **❶ Tip**
>
> If you are sending to a CLUB1 member, no need to add `@club1.fr`!

Fill in the subject when asked, then confirm by pressing `Enter`. Write your message afterwards. When you're done, create a new line and press `CTRL` + `D`. Finally you can add recipients in copy, if you want to. — Manual: *mailx.1*[31]

mutt

Allows to consult and send emails with *Mutt* (page 17): A *CLI* email *client*. Control keys are indicated at the top. Press the `Q` key to quit. — Manual: *mutt.1*[32]

goaccess

Un outil qui permet de visualiser la fréquentation de ses sites *Web* en analysant les *logs*. Cette commande nécessite de rajouter au bout, après un espace, le fichier de log que vous souhaitez analyser.

> **❶ Note**
>
> Les logs de *Apache* (page 23), qui sert les sites Web, sont stockés dans le dossier `log` de votre *espace perso* (page 7).

Naviguez entre les sections avec `Tab`, utilisez `Enter` pour en étendre une.
Pressez la touche `Q` pour quitter. — Manuel : *goaccess.1*[33]

man

Displays the manual page corresponding to a command. Which should be indicated after a space. Most manual pages are in English. Press the `Q` key to leave. — Manual: *man.1*[34]

Software

OpenSSH

Software providing both an *SSH server* and *client*. — Wikipedia[35], Sources[36]

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[29] https://manpages.debian.org/ncdu.1.en
[30] https://manpages.debian.org/w.1.en
[31] https://manpages.debian.org/bsd-mailx/mailx.1.en
[32] https://manpages.debian.org/mutt.1.en
[33] https://manpages.debian.org/goaccess.1.en
[34] https://manpages.debian.org/man.1.en
[35] https://en.wikipedia.org/wiki/OpenSSH
[36] https://anongit.mindrot.org/openssh.git

Email messaging

Each member has an **email box** with a personal email address. The adress is composed of the **login**, followed by @club1.fr. For instance, the address of michel is michel@club1.fr.

Pour utiliser votre boîte mail, il faut vous y connecter à travers un *client* mail.

Si vous utilisez déjà un client email installé sur votre ordinateur (*Thunderbird, Apple mail*...) pour gérer vos autres boîtes email, vous pouvez y ajouter celle de CLUB1. Pour cela, vous aurez probablement besoin des *informations de connexion* (page 16).

Sinon, vous pouvez aussi vous connecter depuis un naviguateur *Web* grâce au *client Web* (page 14).

Enfin, pour les membres utilisant régulièrement la *connexion SSH* (page 11), il est possible de consulter ses mails avec mutt (page 13).

Web client

A *Web client* provided by *Roundcube* (page 17) is available at https://mail.club1.fr.

It allows you to manage and send emails as well as *configure filters* (page 16) to automatically sort incoming emails.

But it also allows access to CLUB1 **calendars** and **address-books** synchronized with *WebDAV* (page 19).

Data storage

All email data is stored as files in the mail folder of your personal space (page 6). This folder respects the Maildir[37] standard, so it is possible to access it directly from an email *client* supporting this standard, for example after making a backup of the folder on a personal computer.

Quotas

The mail folder is subject to a quota of **5 GB**. This decision was made to encourage the deletion of old emails.

The maximum size of emails (received and sent) is **25 MB**. If an email exceeds this size, it will be refused and the sender will be notified with the error message: Message size exceeds fixed limit or 552: 5.3.4 Error: message file too big.

Special folders

The special folders use standard names, so they will be automatically recognized by the vast majority of email clients. In case they are not, here is the complete list:

- INBOX: received messages
- Drafts: drafts being written
- Sent: sent messages
- Junk: SPAMs (automatically deleted after 60 days)
- Trash: trash (automatically deleted after 60 days)
- Archive: archived messages

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[37] https://en.wikipedia.org/wiki/Maildir

Usage avancé

Quelques informations supplémentaires à propos du service email de CLUB1.

> **❶ See also**
>
> The journal article Le(s) serveur(s) email[38] (in French)

Subaddresses

In addition to the primary address, members have the option to use subaddresses. Subaddresses are like *aliases*. By default, they redirect to the primary address. All addresses of the form `member+[...]@club1.fr` are subaddresses of `membre@club1.fr`

> For example, all emails sent to `michel+travail@club1.fr` will be redirected to `michel@club1.fr`.

These addresses may seem useless at first glance. But combined with *automatic forwarding* (page 15) and *automatic filters* (page 16), they become very interesting.

> **❶ Important**
>
> For *automatic forwarding* (page 15) of a particular subaddress, a `.formward+[...]` file is used instead of the `.forward` file of the main address.
>
> > For example, to redirect only the address `michel+travail@club1.fr` it must be done in the file `.forward+travail`.

> **❶ See also**
>
> The official documentation of the recipient_delimiter[39] option

Automatic forwarding

It is possible to automatically forward the emails you receive to your CLUB1 address to one or more other addresses of your choice. To do this, you must create a file in your *personal space* (page 6) that will tell *Postfix* (page 16) to whom to forward your incoming mail. This file should be placed directly in your folder and be called `.forward`.

> **❶ Warning**
>
> `.forward` is a *hidden file*.

Inside this file, all you have to do is list all the addresses to which you want to redirect the emails, separating them with a line break.

Example of `.forward` file forwarding to two email addresses:

```
perso@serveur.net
unautremail@cool.fr
```

> **❶ Tip**
>
> It is even possible to keep your emails on your CLUB1 mailbox by adding your username to this list!

---

[38] https://club1.fr/email/
[39] http://www.postfix.org/postconf.5.html#recipient_delimiter

---

To end a redirection, simply delete the corresponding line. It is also possible to delete the file to cancel everything.

> ❶ **See also**
>
> The Postfix local mail delivery[40] man page

Automatic filters

Sieve filters allow you to automatically sort the emails you receive. These filters are applied on the *server* side and therefore do not depend on any *client*. However, each user must configure them himself.

There are two ways to edit them. The easiest way is to use the *CLUB1 Roundcube web client* (page 14). It has a filter management interface in its settings.

The second method is to directly edit the filter file in your **personal space**:

```
~/.dovecot.sieve
```

Connection information

Connecting an email *client* to a CLUB1 address requires configuring multiple servers.

Outgoing email server (SMTP)

field	value
host	`mail.club1.fr` or `smtp.club1.fr`
port	`465` (default)
encryption	`SSL/TSL` (Implicit)

Received emails server (IMAP)

field	value
host	`mail.club1.fr` or `imap.club1.fr`
port	`993` (default)
encryption	`SSL/TSL` (Implicit)

Software

`Postfix`
> SMTP *server* used for email transmission. — Wikipedia[41], Sources[42]

---

[40] https://www.postfix.org/local.8.html
[41] https://en.wikipedia.org/wiki/Postfix_(software)
[42] https://github.com/vdukhovni/postfix

Dovecot

    IMAP *server* used for managing mailboxes. — Wikipedia[43], Sources[44]

Pigeonhole

    Dovecot (page 16) extension for Sieve and ManageSieve, allowing to configure automatic filters on the *server* side. These filters can be edited from *Roundcube* (page 17). — Website[45], Sources[46]

SPF-Engine

    SPF (*Sender Policy Framework*)[47] processing *server* used by *Postfix* (page 16) to verify the origin of incoming emails. — Source[48]

PostSRSd

    SRS (*Sender Rewriting Scheme*) processing *server* allowing *Postfix* (page 16) to forward emails while remaining compatible with SPF. — Sources[49]

OpenDKIM

    Serveur fournissant un filtre *milter* utilisé par *Postfix* (page 16) pour signer les emails sortants et valider la signature des emails entrants. — Site Web[50], Sources[51]

OpenDMARC

    Serveur fournissant un filtre *milter* utilisé par *Postfix* (page 16) pour valider la politique DMARC (*Domain-based Message Authentication, Reporting, and Conformance*)[52] des emails entrants.

    Il se base pour cela sur le retour de *SPF-Engine* (page 17) et *OpenDKIM* (page 17). — Site Web[53], Sources[54]

Roundcube

    Web client allowing to consult and send emails via SMTP and IMAP. — Wikipedia[55], Sources[56]

> ❶ **See also**
>
> The *Client Web* (page 14) section

Mutt

    CLI email *client* allowing you to send and consult your emails directly from a *terminal*. It is installed and pre-configured on the CLUB1 server. — Wikipedia[57], Sources[58]

---

[43] https://en.wikipedia.org/wiki/Dovecot_(software)
[44] https://github.com/dovecot/core
[45] https://pigeonhole.dovecot.org/
[46] https://github.com/dovecot/pigeonhole
[47] https://en.wikipedia.org/wiki/Sender_Policy_Framework
[48] https://launchpad.net/spf-engine
[49] https://github.com/roehling/postsrsd
[50] http://www.opendkim.org/
[51] https://github.com/trusteddomainproject/OpenDKIM
[52] https://fr.wikipedia.org/wiki/DMARC
[53] http://www.trusteddomain.org/opendmarc/
[54] https://github.com/trusteddomainproject/OpenDMARC
[55] https://en.wikipedia.org/wiki/Roundcube
[56] https://github.com/roundcube/roundcubemail
[57] https://en.wikipedia.org/wiki/Mutt_(email_client)
[58] https://gitlab.com/muttmua/mutt

FTPS files transfer

FTP

> (*File Transfer Protocol*) Protocol that allows to copy files from one computer to another across a *computer network*, or to move or delete files on a remote computer. Server CLUB1 uses the secure variant of this *protocol*: *FTPS*. — Wikipedia[59]

FTPS

> (*File Transfer Protocol Secure*) Secure variant of *FTP*, based on *TLS*. All data exchanges carried out are therefore encrypted. FTPS offers two modes of operation: *explicit* and *implicit*. The *implicit* mode is more secure because the connection is encrypted from the first exchange. — Wikipedia[60]

Although *SSH* (page 11) can also be used for this purpose, *FTPS* can be useful to transfer a large amount of files from and to the CLUB1 server.

The FTP *protocol* gives access to your **personal space** thanks to software like FileZilla[61] (warning: the Windows installer includes bundlewares).

Security

The FTP server is configured to only accept encrypted TLS connections. This is to avoid passwords beeing sent in cleartext. This feature is referred to as FTPS (FTP over implicit TLS)[62].

A certificate is also used to prove the authenticity of the server's key. If prompted for a certificate approval, it is important to check that it is issued by `Let's Encrypt`.

Connection information

field	value
host	`club1.fr`
port	`990` (default)
encryption	Implicit TLS
authentication	Normal

Software

ProFTPD

> *FTP server*. — Wikipedia[63], Sources[64]

---

[59] https://en.wikipedia.org/wiki/File_Transfer_Protocol
[60] https://en.wikipedia.org/wiki/FTPS
[61] https://filezilla-project.org/download.php?type=client
[62] https://en.wikipedia.org/wiki/FTPS#Implicit
[63] https://en.wikipedia.org/wiki/ProFTPd
[64] https://github.com/proftpd/proftpd

WebDAV synchro of files, contacts and calendars

WebDAV

> Protocol that extends the functionality of the *Web*. It adds possibilities of modifications and synchronization of files. Its primary use is therefore similar to a remote file system and it is possible to use it via a compatible file explorer to edit the files of your **personal space** as if they were present locally.

A couple of WebDAV extensions provide even more specific features:

CardDAV

> *WebDAV* extension to synchronize contacts address-books.

CalDAV

> *WebDAV* extension to synchronize calendars.

A *debug Web* interface is available at https://webdav.club1.fr. It allows you to test the connection and preview some of the information.

> ⚠ **Attention**
>
> CLUB1's *WebDAV server* is limited to files up to 1GB in size. To transfer larger files, it is better to use the *SSH* (page 11) or *FTP* (page 18) service.

Address-books and calendars

The *Web client* used for *emails* (page 14) (https://mail.club1.fr) also allows to access the WebDAV address-books and calendars. From this interface, it is possible to view and edit your CLUB1 contacts and calendars.

Each member has a pre-existing address book and calendar, both called `Default`, but it is possible to create others.

Tutorials

Below is a small list of tutorials to get the most out of CLUB1's WebDAV service.

- *Synchronizing calendars and contacts on an Android device* (page 35)
- *CalDAV calendar synchronization on a Mac* (page 40)
- *Access personal space from a Mac's Finder* (page 46)

Software

webdav-server

> *WebDAV server* adapted to the needs of CLUB1 and based on *SabreDAV* (page 19). — Sources[65]

SabreDAV

> PHP library providing a very complete *WebDAV server*. — Website[66], Sources[67]

---

[65] https://github.com/club-1/webdav-server
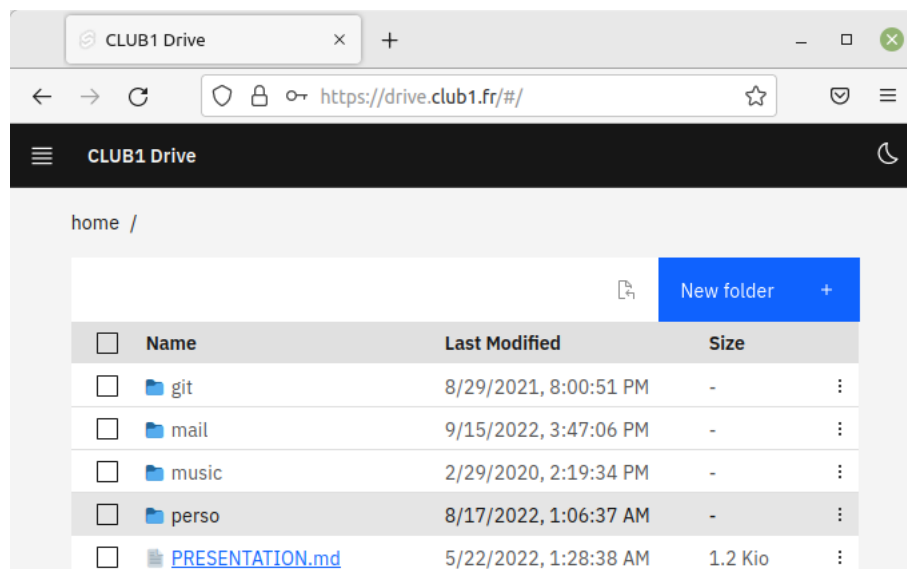[66] https://sabre.io/
[67] https://github.com/sabre-io/dav

Drive Web file explorer

The CLUB1 ***Drive*** is a file explorer that can be used through a *Web* browser. It allows to access your **personal space** without the need for configuring or install any native application. It is therefore very useful when you are not on your personal computer.

The address of the *Web client* is https://drive.club1.fr.

> **❶ Note**
>
> Les *fichiers cachés* n'apparraissent pas dans cette interface. Pour y avoir accès, il vaut mieux se tourner vers le service *FTP* (page 18), *WebDAV* (page 19) ou *SSH* (page 11).

Homemade is best !

This is an application developed by and for CLUB1 whose source code[68] can be found on *GitHub*. However, it has been thought of in a generic way, so that it can be used outside the CLUB1 infrastructure. It uses a standard WebDAV *server* as its data source, to which *CLUB1 provides an access* (page 19).

Software

WebDAV Drive

Web file explorer based on a *WebDAV server*. At CLUB1, this service is accessible via *Nginx* (page 23) as a static site, and communicates with the *webdav-server* (page 19) server. — Source[69]

---

[68] https://github.com/club-1/webdav-drive
[69] https://github.com/club-1/webdav-drive

Websites hosting

Website hosting is historically the **first service** made available to CLUB1 members.

> ❶ **Important**
>
> The freedom to experiment is at the heart of CLUB1's principles: A CLUB1 member account **is not limited to a single website**! There is no limit to the number of web projects to host as long as it does not saturate the server 😄.

There are two ways to host content that will be accessible on the *Web* with the server:

- using the *static folder* (page 21) *This is the most spontaneous approach.*
- with *a dedicated domain* (page 21) *For better defined projects.*

static folder

The **personal space** has a special `static` folder at its root. All files and folders that it contains are automatically published on the *Web* at `https://static.club1.fr`, for instance:

`https://static.club1.fr/nicolas/test.html` → `/home/nicolas/static/test.html`

> ❶ **Warning**
>
> The `static` folder is limited to *static websites*. To host *dynamic websites*, you must use a *dedicated domain* (page 21).

This is the perfect place to get started and start online publishing quickly.

> ❶ **See also**
>
> The tutorial "*My first steps on the Web!* (page 49)" to learn how to make your first website with the `static` folder.

Hosting with a dedicated domain name

Unlike the `static` folder that is at a fixed location, you are free to choose the location of the files that will be used.

It is recommended to create a folder in your *personal space* (page 6) that will be used for all your websites. Inside, you can create **a folder per site**. For example, here we called the folder for web projects `www` (for *World Wide Web*):

```
📁 www
    📁 mon-site-pro
    📁 mon-site-perso
    📁 blog-famille
```

> ❶ **Danger**
>
> Publier un dossier sur le Web augmente fortement le **risque de piratage**. D'autant plus si vous utilisez des *sites Web dynamiques* : du code *PHP* sera exectué et aura **accès à tout votre dossier personnel** (Il pourra créer, modifier ou supprimer des fichiers librement).

Then you have to choose a *domain name* associated with this site. You have two possibilities:

- *Use a sub-domain of `club1.fr`* (page 22) *family style*

- *Rent a domain name* (page 22) *Like a pro!*

Use a subdomain of `club1.fr`

To facilitate the creation of projects and help spontaneity, the use of **subdomains** of club1.fr by members is encouraged!

This has the advantage of being **free**, and of requiring **no maintenance**, unlike *renting a domain name* (page 22). The disadvantage being to depend on club1.fr. This also leads to a **visible relationship with CLUB1**, which can be bothersome or interesting depending on the project.

> ❶ **Tip**
>
> It is possible at any time to redirect a **subdomain** of club1.fr to any other domain of your choice. This allows for example to start via this method and later, to rent a domain name without breaking any links!

To request a **sub-domain** of club1.fr, it is necessary *to contact the system administrator* (page 23), by specifying towards which folder in its personal space will have to point the domain.

> ❶ **Warning**
>
> Remember to check that the **subdomain** is available before sending a request! 😉 It must only consist of lowercase letters, numbers or hyphens -.

Have sub-subdomains

C'est effectivement possible de descendre encore un niveau dans la filiation de domaine. Par exemple, si l'on utilise déjà yaourt.club1.fr, on peut aussi demander à créer fraise.yaourt.club1.fr. Cependant, cela nécessite actuellement la création d'un certificat *Let's Encrypt* supplémentaire par **sous domaine**, ce qui n'est pas anodin. Donc pour l'instant, mollo sur les sous.sous.domaines 🐌 !

Rent an external domain name

It is possible to rent a domain name from a *registrar*. This often costs about ten euros per year, but it can vary depending on the *TLD* chosen.

> ❶ **Important**
>
> There is a difference between "hosting" and "domain name rental"! Hosting stores a site's files and publishes them on the *Web* to a specific *IP address*, while a *domain name* is a more human-friendly interface that is supposed to point to a server's IP address.

It is therefore perfectly possible to have a web site hosted on the CLUB1 server without using a sub-domain of club1.fr.

Before buying your domain name, take the time to *discuss* (page 23) it! There will be a small series of adjustments to make and it's worth talking about so that everything goes smoothly.

> ❶ **See also**
>
> L'entrée de FAQ "*Est-il possible d'héberger un site Web avec un domaine externe ?* (page 80)"

Management

None of these actions are automated or accessible via a web interface. It is therefore **necessary to discuss it between humans** 🍺! This is part of the artisanal aspect and the deliberately human scale of the server management.

To associate one of your folders with a domain name, you must send an email to webmaster@club1.fr indicating the path of your folder and the chosen domain name.

For example:

```
Bonjour, je souhaiterai que mon dossier "www/mon-site-perso" soit publié à "vacances.club1.fr"
```

Advanced

Some techniques related to website hosting on the server.

File Index

The websites are served by the HTTP server *Apache* (page 23). It is configured to automatically generate an *index* displaying the list of files and folders it contains.

To avoid displaying this index, it is possible either to create an `index.html` file which will contain the page to be displayed instead, or to add a *hidden* Apache `.htaccess` configuration file containing at least the following line:

```
Options -Indexes
```

Software

Nginx

HTTP *server* primarily focused on performance. At CLUB1, it is mainly used as a "*TLS* endpoint" and "reverse proxy" in front of the various *Web* services, including the *Apache* (page 23) server. — Wikipedia[70], Sources[71]

Apache

Very popular HTTP *server*, distributed under *free* license. HTTP being the *protocol* of the *Web* we also often speak of "Web server". "Apache" is actually a shortcut to designate "Apache httpd".

It is attractive for hosting personal web pages because it can be configured at runtime and by end users through `.htaccess` files.

At CLUB1, the Apache server is behind the "reverse proxy" *Nginx* (page 23). — Wikipedia[72], Sources[73]

PHP-FPM

PHP process manager, allowing a *Web server* to execute PHP code in a high-performance manner. It is also able to run PHP with different users. — Sources[74]

---

[70] https://en.wikipedia.org/wiki/Nginx
[71] https://hg.nginx.org/nginx
[72] https://en.wikipedia.org/wiki/Apache_HTTP_Server
[73] https://github.com/apache/httpd
[74] https://github.com/php/php-src/tree/master/sapi/fpm

SQL databases

SQL
> (Structured Query Language) A computer language for searching information in a relational database. — Wikipedia[75], MariaDB docs[76]

A *MariaDB* (page 24) *instance*, common to all members, is present on the CLUB1 server. Access is optional and can be added when creating the member account or later on request.

Personal databases

You can create as many **personal *SQL* databases** as you want. These should have a name starting with your username followed by _. For example if lisa wants to create a database flarum, she will have to name it lisa_flarum.

There is currently no limit to the number of personal databases, nor to the amount of data they can contain.

Web interface

A *Web* management interface provided by *phpMyAdmin* (page 24) is available at the following address: https://phpmyadmin.club1.fr

Command line interface

It is possible to connect to the SQL server directly from the command line. To do this, you must first connect to the server using *SSH* (page 11). Then, the command to start a SQL shell is the following (your CLUB1 password will be asked):

```
mysql -p
```

From this shell it is possible to launch any *SQL* command.

Connection information

The *MariaDB* (page 24) instance of CLUB1 is not accessible from outside. It is therefore only possible to connect to it from a process running on the same server.

field	value
host	localhost
port	3306 (default)

Software

MariaDB
> *SQL* database *server* distributed under a *free* license. — Wikipedia[77], Sources[78]

---

[75] https://en.wikipedia.org/wiki/SQL
[76] https://mariadb.com/kb/en/sql-statements/
[77] https://en.wikipedia.org/wiki/MariaDB
[78] https://github.com/MariaDB/server

---

phpMyAdmin

> *Web* interface for managing *SQL* databases written in *PHP*. At CLUB1, phpMyAdmin is directly served by *Nginx* (page 23) via *PHP-FPM* (page 23). — Wikipedia[79], Sources[80]

News feed aggregator (RSS/Atom)

Web feed
news feed

> Standardized data format that allows the consultation of a site not by a human but by a software. It is therefore a form of *API*. Web feeds (or "news feed") are files that contain the latest published articles or news. They are often used by news sites and blogs.
>
> There are several Web feed formats, including *Atom* and *RSS* (older).
>
> The software for viewing these feeds is called *feed aggregator*. — Wikipedia[81]

RSS

> (Really Simple Syndication) First *Web feed* format. It is older and less strict than its competitor *Atom*. — Wikipedia[82]

Atom

> *Web feed* format. It is stricter and better standardized than its ancestor *RSS* and tends to replace it. — Wikipedia[83]

feed aggregator

> Software for viewing *Web feeds*. Its purpose is to aggregate news from different sites into a single feed. It allows you to avoid looking manually and one by one at the sites for which you want to know the new content. — Wikipedia[84]

An news feed aggregator is provided by *Tiny Tiny RSS* (page 25). It is accessible through the integrated *Web client* located at https://rss.club1.fr, but it is also possible to connect a native client to it.

Connect with a native client

Before you can connect a native client, the *API* must be enabled in the *Web client* settings. Click on the menu (icon with the three bars at the top right) → Preferences… → Preferences tab → General section → Check the Enable API box.

In the chosen native client, the server URL must be filled with `https://rss.club1.fr`.

Tutorials

Below is a small list of tutorials to get the most out of Web feeds.

- *Using Tiny tiny RSS* (page 53)

Software

---

[79] https://en.wikipedia.org/wiki/PhpMyAdmin

[80] https://github.com/phpmyadmin/phpmyadmin

[81] https://en.wikipedia.org/wiki/Web_feed

[82] https://en.wikipedia.org/wiki/RSS

[83] https://en.wikipedia.org/wiki/Atom_(web_standard)

[84] https://en.wikipedia.org/wiki/News_aggregator

Tiny Tiny RSS

> *Feed aggregator* supporting *RSS* and *Atom*. It provides a *server* to collect feeds regularly, a *web client* to view them in a browser and an *API* to connect to it with a native application. It is often abbreviated TTRSS. — Wikipedia[85], Sources[86]

Public Git repositories

The `git/` folder, at the root of the **personal space** is special. The *Git* (page 27) repositories stored inside will automatically be published with *read only* access at `https://git.club1.fr`, for example:

`https://git.club1.fr/nicolas/dna-backup/` → `/home/nicolas/git/dna-backup/`

This address allows 2 things:

1. Clone the Git repository using `git clone` thanks to git-http-backend[87].

2. Quickly browse the sources and repository data in a web browser thanks to the *Web* interface *cgit* (page 27).

Usage tutorial

To use CLUB1's public *Git* (page 27) repositories feature, a repository must first be initialized remotely, with *SSH* (page 11), from a personal computer (replace `USER` with your **login** and `REPO` with the name you want to give to the repository):

```
ssh USER@club1.fr git init --bare git/REPO
```

From now on, the repository is published with *read only* permissions at `https://git.club1.fr/USER/REPO`, but it is empty for now. The branch displayed by default in the *Web* interface is `master`. It is possible to change it by modifying the `HEAD` file of the repository. For instance, to replace it by the `main` branch:

```
echo 'ref: refs/heads/main' | ssh USER@club1.fr sponge git/REPO/HEAD
```

Similarly, to modify the repository's description (this modification might not be instantly displayed due to cgit's cache):

```
echo 'ma super description' | ssh USER@club1.fr sponge git/REPO/description
```

There are then two scenarios:

- *Creation of a new repository* (page 26)
- *Publication of an existing repository* (page 27)

Creation of an new repository

If the goal is to create a new repository, then the easiest way is to clone on your personal computer the one that has just been initialized on the server. We use the address *SSH* (page 11) for this because it offers write access to the repository:

```
git clone USER@club1.fr:git/REPO
```

---

[85] https://en.wikipedia.org/wiki/Tiny_Tiny_RSS
[86] https://git.tt-rss.org/fox/tt-rss.git
[87] https://git-scm.com/docs/git-http-backend

> **❶ Note**
>
> A warning will indicate that the cloned repository is empty, which is normal:
>
> ```
> warning: You appear to have cloned an empty repository.
> ```

It is now possible to use this repository as any other *Git* (page 27) repository, for instance:

```
cd REPO
echo 'Hello World!' >> README
git add README
git commit -m "add Hello World README"
git push origin
```

Publication of an existing repository

If the goal is to publish an existing repository, then simply add the remote repository that has just been initialized to *remotes* and push the desired branch there, for example with the `main` branch (the `- -set-upstream` makes it the default *remote* for this branch):

```
git remote add club1 USER@club1.fr:git/REPO
git push --set-upstream club1 main
```

Software

Git

> Distributed version control system software — Wikipedia[88], Sources[89]

cgit

> *Web* interface allowing to consult the information of a *Git* (page 27) repository.
>
> At CLUB1, cgit is accessible through the HTTP *server Apache* (page 23). — Source[90]

Webcasts (audio/video) via Icecast (beta)

> **❶ Warning**
>
> This service is in "beta" on CLUB1, which means that it risks changing configuration or even being deleted in the future.

webcast

> Refers to the distribution of audio and/or video content via the *Web*. — Wikipedia[91]

A live *webcast* service is made available to members. For example, it allows you to create radio broadcasts on *Internet*. This service is based on the software *Icecast* (page 28) and is accessible at the address https://club1.fr:8000.

It is possible to consult this page from a *Web* browser, but it will only allow you to display the list of current broadcasts and read their contents. To broadcast content as a source, it is necessary to use a dedicated *client* (e.g. butt[92]). For reading, a dedicated client (for example VLC[93]) will still be able to provide better comfort.

---

[88] https://en.wikipedia.org/wiki/Git
[89] https://github.com/git/git
[90] https://git.zx2c4.com/cgit/
[91] https://en.wikipedia.org/wiki/Webcast
[92] https://danielnoethen.de/butt/
[93] https://en.wikipedia.org/wiki/VLC_media_player

Connection information

field	value
host	`club1.fr`
port	`8000`
type	Icecast
SSL/TLS	Yes

Software

Icecast

Webcast server for audio and video streams. — Wikipedia[94], Sources[95]

icecast-ldap

Server to bridge *Icecast* (page 28)'s URL based authentication with a *LDAP* server. — Sources[96]

---

[94] https://en.wikipedia.org/wiki/Icecast
[95] https://gitlab.xiph.org/xiph/icecast-server
[96] https://github.com/kuhball/icecast-ldap

Services open to all

These services do not require to be a member of CLUB1, they are usable by anyone.

Matrix instant discussion

Matrix

> *Protocol* for **decentralized**[97] instant messaging[98].
>
> Its main advantage over the other similarly federated systems is to replicate data on all participating *servers*, in order to improve fault tolerance by guaranteeing an "eventual consistency". — Wikipedia[99]

General principles

Matrix repose sur l'interaction de différents *serveurs*. Chaque serveur permet de créer des "salons" (rooms) de discussions internes pour ses utilisateurs, mais aussi de se connecter de façon transparente aux salons provenant d'autres serveurs si ils le souhaitent.

Server

Un serveur Matrix permet aux utilisateurs de se faire un compte et stocke les échanges de messages. Chez CLUB1, l'adresse de notre serveur est tout simplement `club1.fr` ou `https://club1.fr`. Inutile d'aller voir à cette adresse, il vous faudra un *client* (page 30) pour accéder à l'interface de messagerie.

Username

Lorsque l'on a un compte Matrix, on a une adresse Matrix, un peu comme une adresse email, à ceci près que le symbole @ est utilisé comme premier caractère, signalant que l'adresse fait référence à un utilisateur. Le symbole : est donc utilisé pour séparer l'identifiant du serveur :

```
@baby:club1.fr
```

Où `baby` est **l'identifiant** et `club1.fr` est le **serveur** auquel le compte est rattaché.

---

[97] https://en.wikipedia.org/wiki/Decentralized_computing
[98] https://en.wikipedia.org/wiki/Instant_messaging
[99] https://en.wikipedia.org/wiki/Matrix_(protocol)

Room

Une *room*, ou *salon* Matrix est un flux de discussion qui accueille n'importe quel nombre de participants. Elles ont aussi une adresse, qui commence cette fois par un `#` :

```
#blabla-dauphins:club1.fr
```

Où `blabla-dauphins` est le nom de la *room* et `club1.fr`, le serveur sur lequel elle a été créée et auquel elle est rattachée.

> **ⓘ Note**
>
> Il est possible, au moment de la création d'une *room*, d'interdire l'accès aux utilisateurs qui ne sont pas inscrits sur ce serveur en particulier.

Client (connection interfaces)

Comme pour les emails, il est aussi possible de choisir son *client*, son interface, pour se connecter à Matrix. Il en existe pour tous les goûts, mais la plupart sont encore en cours de développement. À l'heure actuelle, **la façon la plus simple et fiable de converser via Matrix est d'utiliser Element *(page 32)***, en tant que *client Web* ou sur mobile.

🌌 **interface Element Web sur Club1.fr**[100]

On distingue trois catégories principales : Clients **Web** (qui s'ouvrent dans un navigateur), **Desktop** (Linux, Windows, MacOS) et **Mobile** (Android, Iphone). Liste officielle des clients matrix[101].

Sur ordinateur (Desktop), il n'existe pas encore de logiciel suffisamment complet pour que cela soit intéressant, à part si vous êtes un·e amoureux·se du *terminal*, auquel cas, vous êtes invité·e·s à utiliser le superbe gomuks[102]

Sur Android, certaines applications commencent à être matures. Il y a bien-sûr la version mobile de Element[103], mais on peut aussi préférer l'ambiance *fluffy* de FluffyChat[104]

> **ⓘ Important**
>
> Pour se connecter ailleurs que sur l'interface web de Club1, **il faut bien spécifier que votre serveur est `https://club1.fr` !**

Comment l'utiliser (interface Element web) ?

Rejoindre des salons

Pour rejoindre des rooms, il suffit de cliquer sur `explorer` en haut à gauche de l'interface. Par défaut, seules les rooms du serveur local sont listées. Pour en afficher d'autres, il faut sélectionner un autre serveur depuis le menu déroulant ou cliquer sur `ajouter un nouveau serveur`.

Dans le panneau de gauche, les salons sont répartis en `messages direct` et `salons`. Cela sert à distinguer les discussions à deux personnes des discussions de groupes.

---

[100] https://riot.club1.fr
[101] https://matrix.org/ecosystem/clients/
[102] https://github.com/tulir/gomuks
[103] https://play.google.com/store/apps/details?id=im.vector.app
[104] https://fluffychat.im/

Créer un salon

En cliquant sur le `+` à droite de `messages direct` ou `salons`, on a la possibilité de créer son propre salon. Dans le cas d'une discussion à deux, il suffit de choisir un destinataire, la room sera par défaut privée. Dans d'une discussion de groupe, il va falloir définir un nom, définir si elle va être privée ou publique, ainsi que l'activation ou non du chiffrement.

> ❶ **Warning**
>
> Le chiffrement des discussions ne peut pas être désactivé plus tard.

Formatting

Il est possible de formater son message, en sélectionnant du texte sur la zone d'écriture de message, ou en utilisant le *Markdown*, un standard de formatage simple utilisé par de plus en plus de site.

Encryption

Le protocole Matrix permet de chiffrer ses messages *de bout en bout*, c'est-à-dire qu'un message sera illisible d'un bout à l'autre de son cheminement et n'est déchiffrable qu'à l'arrivée par son destinataire. Cela complexifie un peu les échanges, car Matrix force la vérification des différents appareils que l'on utilise pour communiquer. En effet, il faut être sûr que les différents appareils connectés au même compte sont bien en possession d'une même personne. Pour cela, une *pass-phrase* globale est utilisée : c'est un super mot de passe plus long qui va servir au chiffrement de vos messages.

Questions concernant le serveur Matrix de CLUB1

Est-ce fiable ?

Nous ne garantissons pas une fiabilité à toute épreuve de notre serveur, cependant pour se faire un avis, il est possible de consulter les statistiques de disponibilité[105] du serveur Matrix et de Element. Des mises-à-jour sont effectuées régulièrement pour avoir la dernière version de *Synapse* (page 32) et *Element* (page 32) et ainsi éviter des bugs ou failles de sécurité.

Que faire si j'ai perdu mon mot de passe ?

Si une adresse email a été reliée à votre compte (compte créé après la mise à jour des réglages[106] ou bien ajout manuel), il suffit de cliquer sur `mot de passe oublié`. Sinon, il n'est pas possible de récupérer son mot de passe automatiquement. La seule façon est de réussir à joindre et convaincre l'administrateur système *dans la vraie vie*, autant dire qu'il vaut mieux ne pas l'oublier.

Est-ce que club1.fr respecte ma vie privée ?

La seule personne qui a accès aux bases de données est l'administrateur système du serveur (@n-peugnet:club1.fr), normalement, il n'a pas que ça à faire de vous espionner, mais si vous n'avez pas confiance en lui, il ne vous reste plus qu'à activer le chiffrement des conversations.

---

[105] https://status.club1.fr
[106] https://club1.fr/serveur-matrix-suivi-001

Specific configurations

CLUB1's *instance* of *Synapse* (page 32) has some specific configurations.

Paramètre	Valeur
Captcha requis à l'inscription	Oui
Email requis à l'inscription	Oui
Salons rejoints à l'inscription	`#decouverte:club1.fr` et `#bazar:club1.fr`

The server has *limited resources* (page 4), so it cannot host and keep all discussions indefinitely. That is why the following parameters were changed.

Paramètre	Valeur
Rétention des messages	3 ans
Rétention des médias locaux	2 ans
Rétention des médias distants	90 jours
Délai de suppression des salons vides	20 jours
Limite de complexité des salons	`10`
Présence	Désactivé

> **❶ See also**
>
> - The journal article "Nouveaux réglages du serveur Matrix[107]" (in French)
> - The forum post "Limiter les salons fédérés en fonction de leur complexité[108]" (in French)

Software

Synapse

> *Matrix server* written in Python. This is the reference implementation of a Matrix server and for now the only one that is advertised as "stable". — Sources[109]

Element

> Complete (*Matrix client* formerly "Riot") available on many platforms. CLUB1 hosts an *instance* of the *Web* version of this client at https://riot.club1.fr. — Sources[110], Wikipedia[111]

---

[107] https://club1.fr/serveur-matrix-suivi-001
[108] https://forum.club1.fr/d/100-limiter-les-salons-federes-en-fonction-de-leur-complexite/12
[109] https://github.com/element-hq/synapse
[110] https://github.com/element-hq/element-web
[111] https://en.wikipedia.org/wiki/Element_(software)

4

Tutorials

Here is a small list of cool tutorials to have fun with CLUB1 tools and services.

Edit your presentation file

> A file to introduce yourself

Your home (page 6) can also be used to introduce yourself. To do this, you can add to it, *at the root* a file called:

```
PRESENTATION.md
```

Everything you write in this file will be visible on the members[112] page of the CLUB1 website.

Feel free to use *Markdown* to spice up your presentation! Don't hesitate to put links to your web projects, it will allow members and visitors to discover them 🔍.

Metadata

To go further in customization, it is possible to modify some display settings. These include your **display name** and the **color** of your button.

To do this, you will need to add a few lines at the beginning of your PRESENTATION.md file.

```
---
name: Mon super prénom
color: pink
---

# Ma super présentation

en *Markdown*
```

The formatting is simple, you just have to respect the three dashes at the beginning and at the end of the metadata area. Then you can define one or more parameters.

> ❶ **Tip**
>
> For your information, this *more or less standard* syntax is called Front Matter[113].

---

[112] https://club1.fr/membres
[113] https://jekyllrb.com/docs/front-matter/

- For the `name` parameter, this is where you can choose your nickname with a free line of text. Take advantage of it because it is possible to put uppercase, lowercase and some special characters (even Emoji 😉). If you omit this field, your CLUB1 username will be displayed.

- For the `color` parameter, you must use a web color[114].

> **❶ Important**
>
> If you put in a color code, it should start with a **hash #** and be **surrounded by quotation marks** (e.g. `color: "#F87716"`).

Create a link to your profile

If you are satisfied with your superb presentation, it is possible to share it easily. You just need to make a link specifically targeting your presentation. For this we use an URI fragment[115] using your CLUB1 username (# + your username).

For example, the following address will directly open the presentation of member `vincent`:

```
https://club1.fr/membres/#vincent
```

---

[114] https://en.wikipedia.org/wiki/Web_colors#HTML_color_names
[115] https://en.wikipedia.org/wiki/URI_fragment

Synchronizing calendars and contacts on an Android device

This method allows you to synchronize your address-books and calendars between the server and an *Android* device.

To synchronize your contacts and calendars with different applications, the most effective solution is to go through an application that will mainly take care of synchronization: **DAVx⁵**.

This application is paid for (€6) on the Google application store or free on F-droid[116] (an alternative store, only offering *free* apps without ads).

- F-Droid[117]
- Google Play store[118] (6€)

First launch

When launching **DAVx⁵**, do not check the boxes concerning task management (Fig. 4.1).

Fig. 4.1: Task management.

Then, allow it access to contacts and calendars (everything) (Fig. 4.2).

Finally, for more comfort, it is recommended to activate the synchronization at regular intervals (Fig. 4.3).

Adding the DAV account

To add a new sync account, press the orange button on the bottom right (Fig. 4.4).

Select the second option: "Login with URL and username" (Fig. 4.5).

Base URL:

---

[116] https://en.wikipedia.org/wiki/F-Droid
[117] https://f-droid.org/en/packages/at.bitfire.davdroid/
[118] https://play.google.com/store/apps/details?id=at.bitfire.davdroid&hl=en&gl=GB
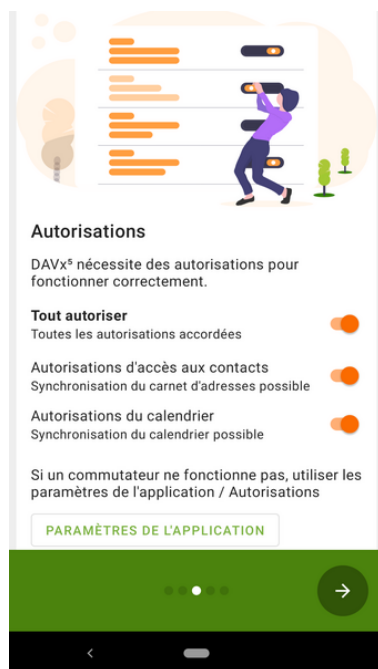
Fig. 4.2: Grant permissions.
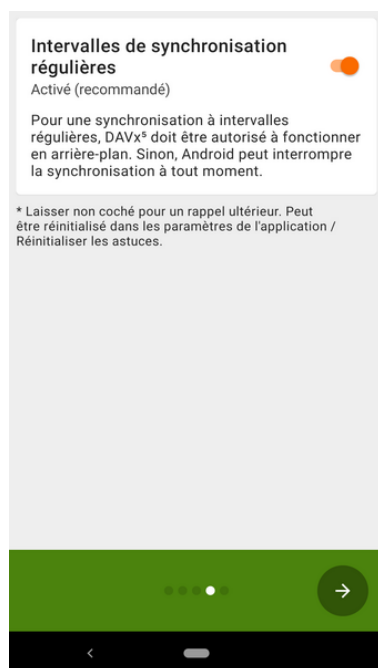
Fig. 4.3: Synchronization at regular intervals.
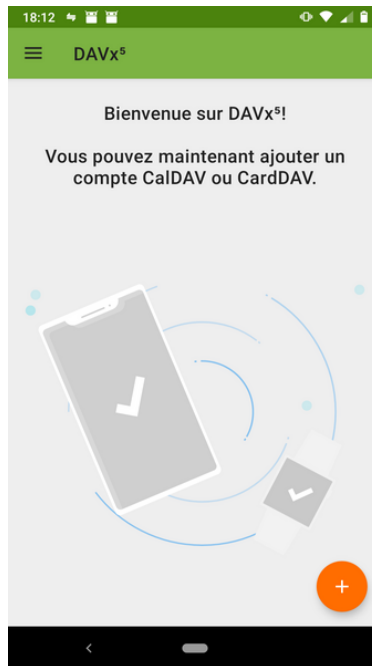
Fig. 4.4: DAVx⁵ home screen.
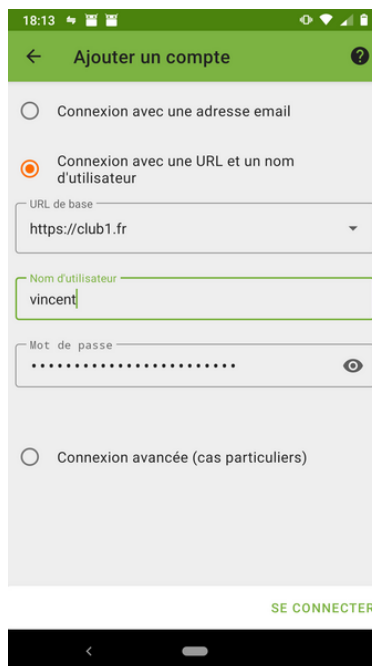
Fig. 4.5: Login with URL and username.

```
https://club1.fr
```

The username and password are your CLUB1 credentials.

If you have filled in everything correctly, DAVx^5 will now suggest a name for this account that is very likely to resemble your CLUB1 email address. This seems to be a good idea because this is often how a pair of `user@server` is identified. One last little detail: It is recommended to use the method "Groups are categories for each of the contacts" to be compatible with the web mail client of CLUB1 (Fig. 4.6).
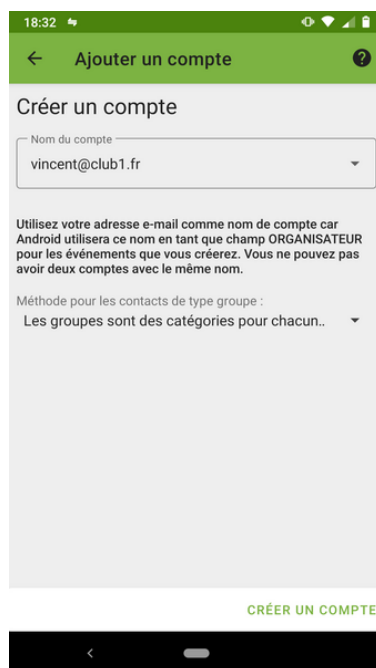
Fig. 4.6: Groups storage method.

One last step: what to synchronize?

DAVx^5 lets us select the contact books and calendars you want to synchronize on your phone (Fig. 4.7). To do this, simply tick them by navigating between the "Address books" and "Agendas" tabs. It will always be possible to access and modify these settings later very easily.

> **❶ Note**
>
> By default, even if you have not yet created any address books or calendars, there will always be one called: "Default".

From this interface, it is also possible to ___create or delete ___ address books or calendars, via the menu at the top right.

Whenever you make changes there, it's a good idea to **re-run a sync** by pressing the orange button at the bottom right.

Conclusion

There you go! If all goes well, you have successfully synchronized your contacts and/or calendars between the CLUB1 server and an *Android* device. The synchronized address books and calendars are now accessible via the contact app of your choice and the calendar app of your choice.

If you prefer to use *free* and non-*Google*-oriented apps, we recommend **Fossify Contacts** and **Fossify Calendar**.
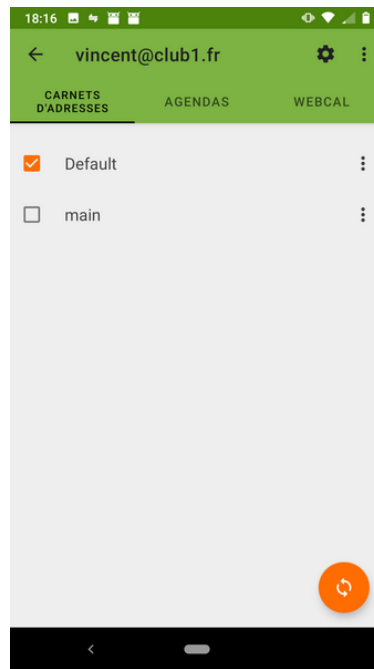
Fig. 4.7: List of available address books.

- **Fossify Contacts**: F-Droid[119] – Google Play Store[120]
- **Fossify Calendar**: F-Droid[121] – Google Play Store[122]

---

[119] https://f-droid.org/en/packages/org.fossify.contacts/
[120] https://play.google.com/store/apps/details?id=org.fossify.contacts&hl=en&gl=UK
[121] https://f-droid.org/en/packages/org.fossify.calendar/
[122] https://play.google.com/store/apps/details?id=org.fossify.calendar&hl=en&gl=UK

CalDAV calendar synchronization on a Mac

This method allows you to synchronize your calendars between the server and a Mac device.

The operation is done directly from the Apple Calendar application.

In the menu bar, go to `Calendar` then `Accounts…` to display the **Internet Accounts** configuration window (Fig. 4.8).
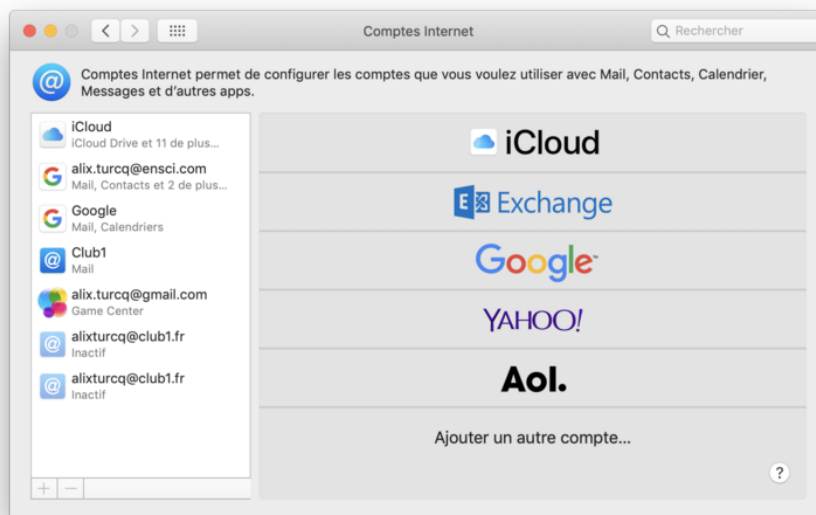
Fig. 4.8: "Internet Accounts" window.

To add a CLUB1 account, click on `Add another account…` and choose *CalDAV* **Account** (Fig. 4.9)
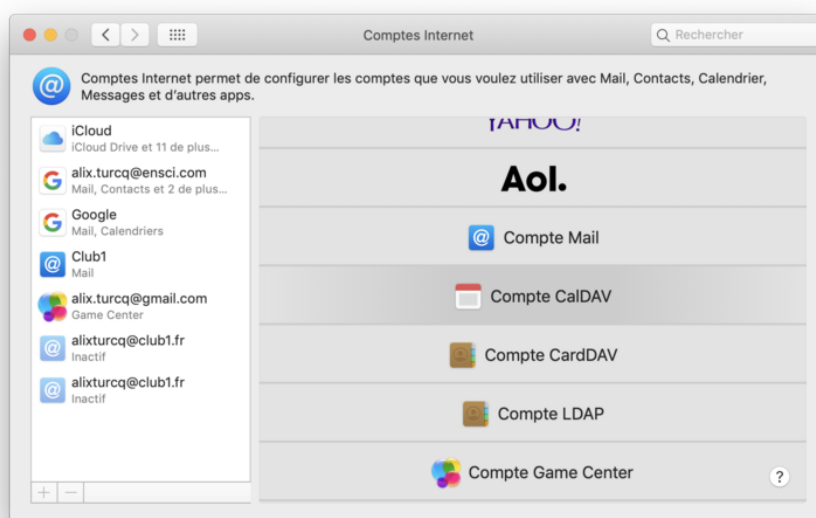
Fig. 4.9: The "Internet Accounts" window reveals its full potential.

In the unfolded window, enter your CLUB1 member address and password (Fig. 4.10).
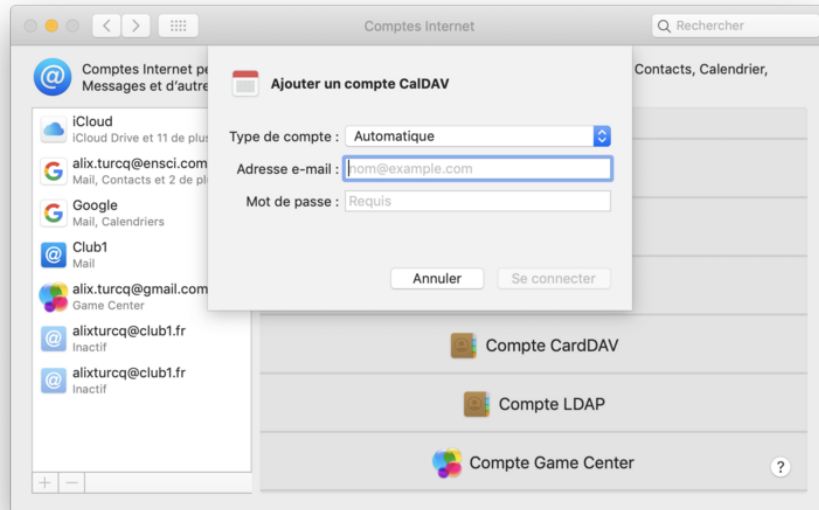
Fig. 4.10: The CalDAV account addition form.

Once validated, a "Default" calendar will appear under CLUB1 in the left panel of the Calendar application (Fig. 4.11).
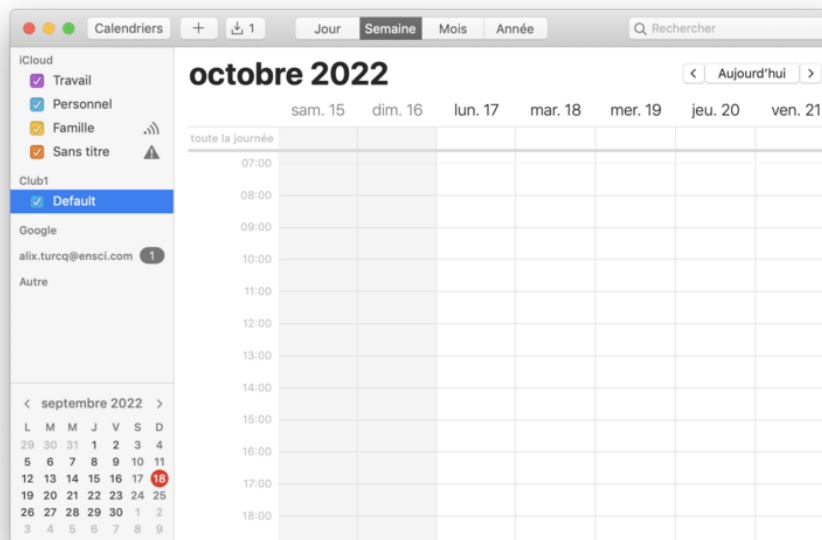
Fig. 4.11: The "Default" calendar is now present in the calendar.

Cheer.

Connecting to the server from Linux file explorer

This method allows to access your *personal space* (page 6) from your file explorer.

Initial connection

Start by opening your file explorer. In this tutorial, the Nemo[123] software is used. It is the default file explorer installed on Linux Mint[124]. It is quite similar to the one integrated in Ubuntu[125], so the instructions will be similar.

In the menu bar, click on `file` then `connect to server…`.

Then fill in the following information in the connection window (Fig. 4.12):

- Server: `club1.fr`
- Type: `SSH`
- File: `/`
- Username: enter your CLUB1 username
- Password: enter your CLUB1 password

Finally, you can check the "Remember this password" box so that you don't have to type it in again later, then click on `Log in`.
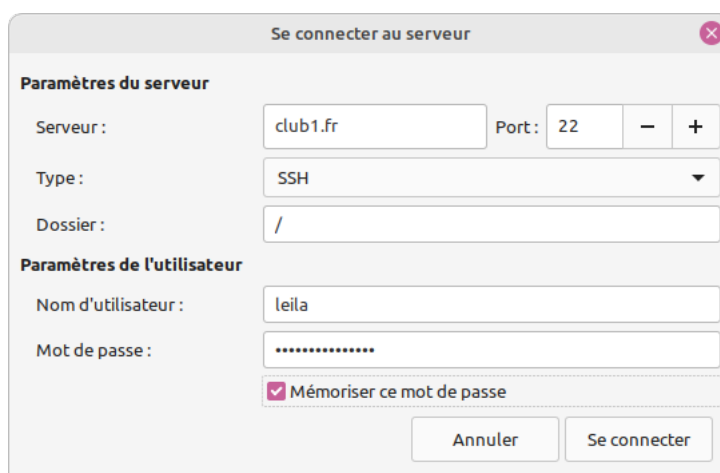
Fig. 4.12: Connection window.

You are now connected to the server (Fig. 4.13).

Click on the `home` folder then on your *personal folder*, which is your CLUB1 login.

Bookmark

If we stop there, all these steps will have to be repeated each time the computer is restarted because this connection will not be saved. To remedy this problem, you must add a **bookmark**.

Depending on your file explorer:

- From the *personal folder*: in the menu bar, click on `Bookmarks` then `Add a bookmark`

---

[123] https://en.wikipedia.org/wiki/Nemo_(file_manager)
[124] https://en.wikipedia.org/wiki/Linux_Mint
[125] https://en.wikipedia.org/wiki/Ubuntu
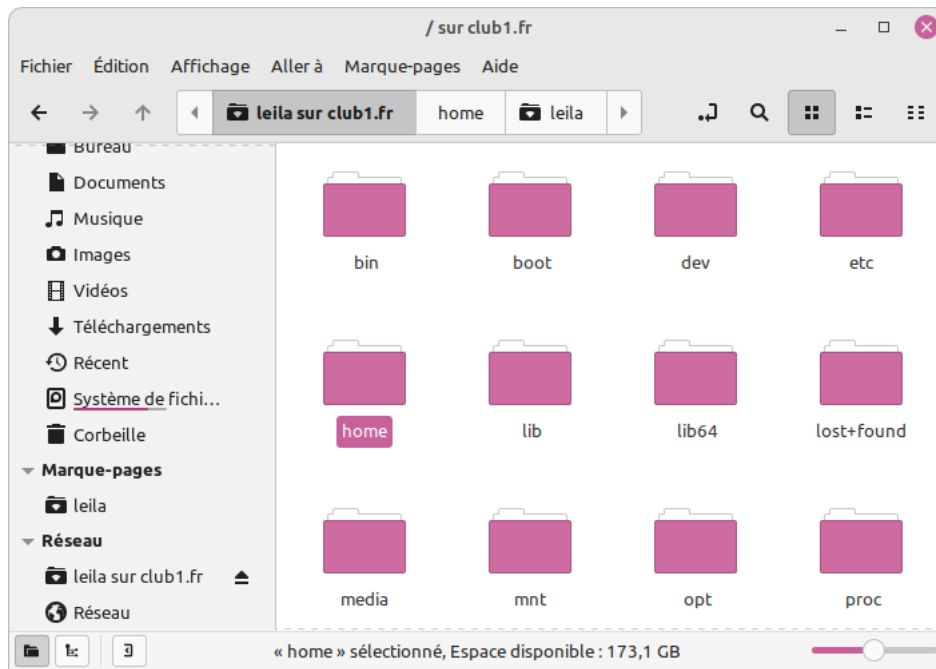
Fig. 4.13: Server folders in the file explorer.

- From the `home` folder: right click on your *personal folder* then add bookmark , or other similar wording

You can now edit all your files easily from your file explorer!

First SSH connection

In this tutorial, we will see how to connect to the server for the first time in *SSH* in a **secure way**. For this, **no need to install additional software**, the majority of operating systems already have everything necessary for this connection 😌. That said, herbal tea and a quiet space can be helpful in this adventure.

> **❶ Note**
>
> If you are stuck or encounter a problem, the section "*Demandes et Incidents* (page 1)" explains how to report it to us.

Connection with the terminal

To make this SSH connection, we need to open a *terminal* window! 🥵 To do this, you need to launch a program on your computer that is usually called `terminal` or `console`.

> **❶ For Windows**
>
> In the case of Windows, use the program called `Powershell`. Since its default configuration is terrible 💩, it must be corrected with the following command:
>
> ```
> $PSDefaultParameterValues['Out-File:Encoding'] = 'utf8'
> ```
>
> To "paste" the text in `Powershell` you can do `Ctrl` + `V`, or just right click with your mouse.

Don't be impressed by its disconcerting interface, it's a tool that will make you a real computer magician! 🧙 A bit like spells, you cast—or rather run commands in it.

> Umm… but how do we run a command 🤨?

In a terminal, you must type the text of an command, then press `Enter` to run it! 🪄

To connect with SSH, we use the following command (replace `USER` with your CLUB1 **login**):

```
ssh USER@club1.fr
```

You should see the following message:

```
The authenticity of host 'club1.fr (***)' can't be established.
ED25519 key fingerprint is SHA256:*********.
Are you sure you want to continue connecting (yes/no/[fingerprint])?
```

> 😱 Wow! What the hell is this??

In fact, this is normal, *OpenSSH* (page 13) warns us that the authentication of the connection is not guaranteed because your device does not know this server *yet*.

Replying `yes` to this message exposes oneself to a man-in-the-middle attack[126] 🤓. So we're going to answer `no` for now.

Trust reigns

We will add to your device the **public key** of the CLUB1 server. This allows to guarantee the authenticity of the server's answers and to initialize an encrypted connection. In this way we are certain that we are indeed dealing with the CLUB1 server.

---

[126] https://en.wikipedia.org/wiki/Man-in-the-middle_attack

To be sure that this is indeed the CLUB1 server's key, it must be acquired from another source than the SSH connection itself in case it is compromised 😮.

> 🤔 But then, what guarantees that the new source is not also compromised?

The source of the key we are going to use comes from the *Web*, through an encrypted and **authenticated** connection via *TLS* 🔒 (This is the famous s in https).

known_hosts file

Now we just have to write the server key in a file. The following commands do all that for you! 🪄

```
mkdir -p ~/.ssh
echo 'club1.fr ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAIBFQJRiEKM9iywtuvjLD7Wvp6F7VqM6ocuc0Q05LGKU6' >>
↪ ~/.ssh/known_hosts
```

> **❶ Tip**
>
> In a terminal window, it is usually possible to "paste" a text by doing "Right click" → `Paste`. Or `Ctrl` + `Shift` + `V`.

If everything went well, it added a line of text containing the key 🔑, to a file on your device. This file is called known_hosts, for *known servers*. It is located in a .ssh folder, itself within your personal space on your device.

> **❶ Note**
>
> The folder corresponding to your personal space is usually named after your user on this device.

```
📁 <utilisateur>
├── 📁 .ssh
│   └── 📄 known_host       👉
├── 📁 Documents
├── 📁 Images
...
```

Secure connection

Now that you have gone through all these steps, you should be able to *connect via SSH* without seeing the alert message.

We run the command again:

```
ssh USER@club1.fr
```

This time, you will need to enter your CLUB1 **password**.

> **❶ Attention**
>
> When you type your password, nothing is displayed! It is normal, it is a security measure that does not even reveal the number of characters in the password. 🤫

In the server

Congratulations 🎉, you are now connected to the server in SSH! It is a privileged access, because it is the one that gives you the most freedom of interaction with the server.

🎉 To celebrate, here is a small selection of *commands to discover* (page 12).

Access personal space from a Mac's Finder

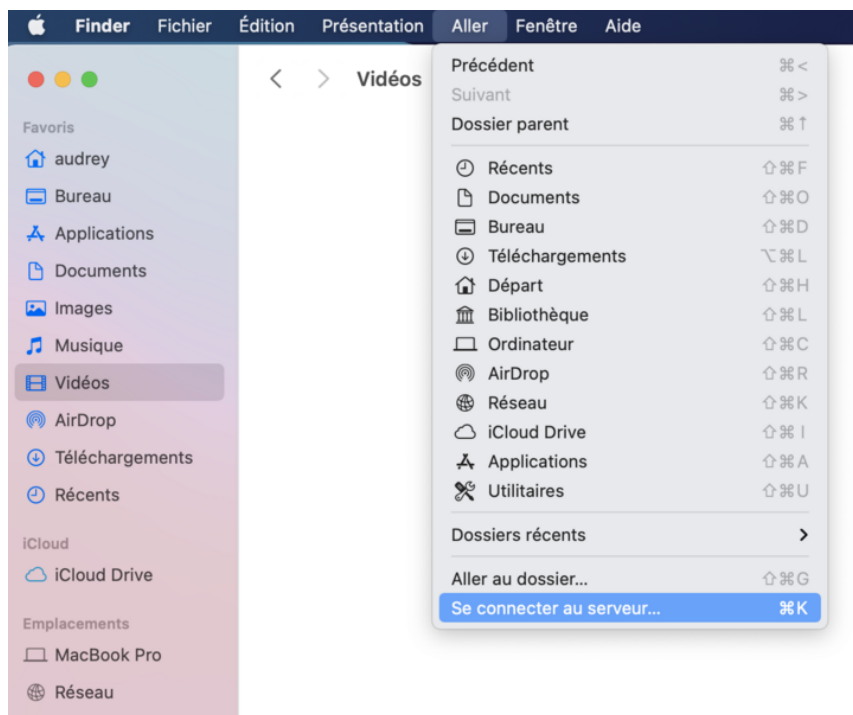In the Finder, then the menu bar, click on `Go` then `Connect to Server…` (Fig. 4.14).

Fig. 4.14: Le menu "Aller" du *Finder*.
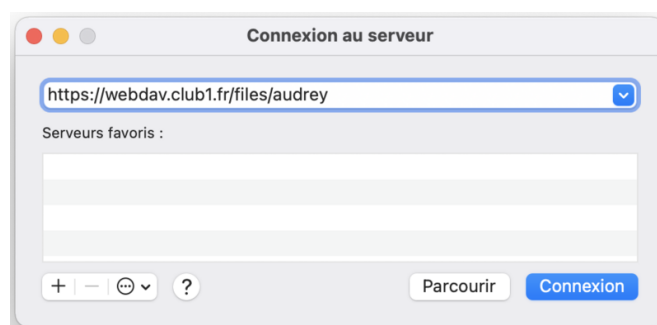
Une nouvelle fenêtre apparait (Fig. 4.15).

Fig. 4.15: La fenêtre "Connexion au server" permettant d'ajouter un serveur à partir d'une URL.

Rentrez l'url Webdav correspondant à votre utilisateur :

```
https://webdav.club1.fr/files/USER
```

By replacing `USER` with your CLUB1 identifier.

Cliquez sur le bouton `+` en bas à gauche de la fenêtre pour garder en mémoire l'adresse de votre serveur dans les favoris (Fig. 4.16).

Puis, cliquez sur le bouton `Connexion`. Une fenêtre pop-up va apparaître vous demandant vos identifiants CLUB1 (Fig. 4.17).

Fig. 4.16: La fenêtre "Connexion au serveur" comprenant un serveur favori.
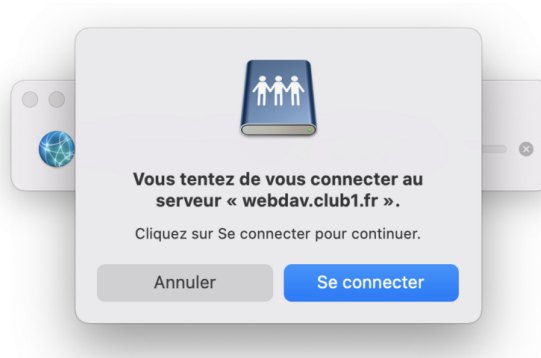
Fig. 4.17: La fenêtre *pop-up* avertissant qu'une connexion va avoir lieu.

Cliquez sur le bouton Se connecter .

Entrez votre identifiant et mot de passe CLUB1 (Fig. 4.18). Il est utile de cocher la case "Conserver ce mot de passe dans mon trousseau", car ceci permettra de déverouiller l'accès entre vos ouvertures/fermetures de sessions mac.
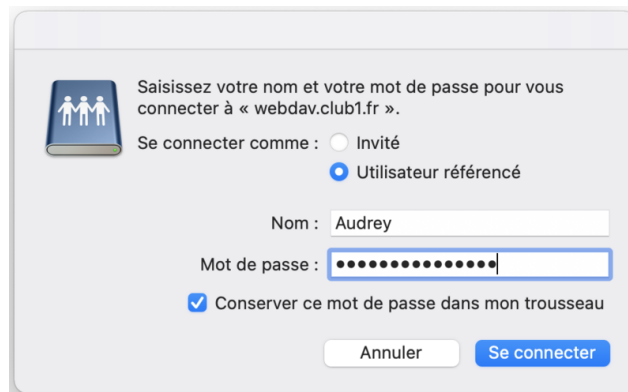
Fig. 4.18: La fenêtre permettant d'entrer ses identifiants.

Votre dossier personnel CLUB1 devrait s'afficher et être listé dans les Emplacements de votre Finder.

A présent, il faut péréniser cet accès en l'ajoutant aux favoris. Pour se faire, il nous faut accèder au dossier parent.

Depuis la barre de menu cliquez sur Aller → Dossier parent (ou via le raccourci clavier : Cmd + ↑).

Maintenant, il est possible de cliquer-glisser votre dossier perso dans la zone de favoris (Fig. 4.19).

Votre dossier dans le serveur CLUB1 est dorénavant accessible en tout temps et simplement !
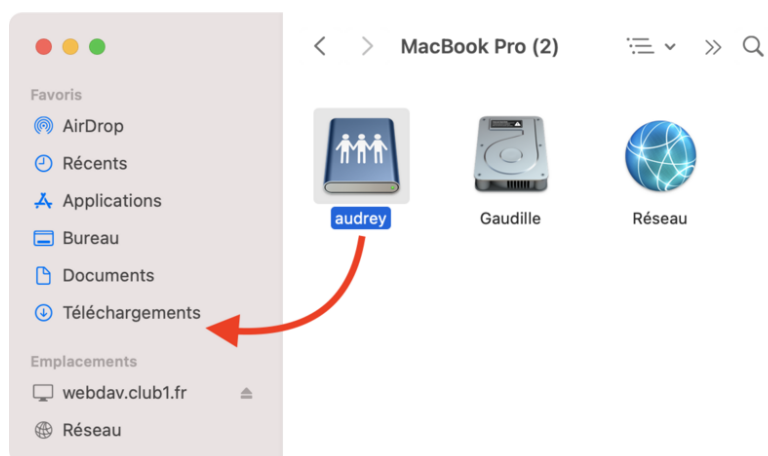
Fig. 4.19: Ajout du raccourci vers le serveur dans les favoris.

My first steps on the Web!

Vous connaissez le Web ? Ça vous dirait d'y participer ? Pas mettre un post sur facebook, ça c'est juste remplir un formulaire. Mais plutôt de rajouter une pierre à ce gigantesque édifice.

No more bullshit, here we're gonna add files to the web.

Dans ce tuto, vous allez découvrir comment utiliser votre espace CLUB1, non pas pour stocker des fichiers dans un but personnel, mais pour les rendre accessible à tout le monde, c.-à-d. les publier sur le Web.

Se connecter à son espace perso

Tout d'abord, il faut vous connecter à votre espace sur le serveur d'une manière ou d'une autre. Vous pouvez choisir la méthode de connexion avec laquelle vous vous sentez la plus à l'aise.

Small reminder of the different ways to connect:

- *drive* (page 20) en accédant à `https://drive.club1.fr` méthode la plus facile (ne nécessite aucun logiciel)
- *ftp* (page 18) pas beaucoup plus compliqué (nécessite un logiciel)
- *ssh* (page 11) plus avancée
- *WebDAV* (page 19) pratique si vous avez déjà configuré un accès

Share a file on the Web

Découverte du dossier `static`

La façon la plus rapide et simple de partager un fichier depuis son espace perso est de le placer dans le dossier `static`.

> **❶ Note**
>
> Si ce dossier n'existe pas, il faut le créer.

Choisissez une image depuis votre ordinateur ou smartphone et téléversez la sur le serveur dans votre dossier `static`.

> **❶ Warning**
>
> Par précaution, il vaut mieux vérifier que le nom de fichier ne comporte pas d'espaces ou de caractères spéciaux.

Si tout s'est bien passé, il est maintenant possible d'accéder à votre image depuis le Web. Pour voir le résultat, il faut entrer l'adresse suivante dans un navigateur Web (e.g. Firefox, Chrome, etc.) :

```
https://static.club1.fr/USER/FILE
```

Par exemple, si votre nom d'utilisateur est `garance` et que votre fichier s'intitule `fleur.jpg`, vous devriez avoir :

```
https://static.club1.fr/garance/fleur.jpg
```

Normalement, le navigateur va afficher votre image si il en est capable, autrement, il vous proposerait de la télécharger.

Par exemple, la plupart des navigateurs arrivent à afficher des fichiers PDF, lire des MP3, tandis que des fichiers d'archives (Zip, Tar…) seront téléchargés car le navigateur Web ne sait pas lire ce genre de fichier.

Vous pouvez essayer de téléverser d'autres types de fichiers et d'accéder aux URL correspondantes.

Avoir un fichier en ligne

Ça y est ! Vous avez publié votre premier fichier sur le Web ! 🎉 L'adresse que vous avez tapé dans le navigateur s'appelle une URL. Cette URL ne changera pas tant que vous ne modifiez pas le nom du fichier. Pour partager ce fichier avec n'importe qui, il vous suffit de transmettre cette URL. Toutes les personnes explorant l'URL pourront accéder au fichier en l'affichant ou en le téléchargeant, mais ne pourront pas le supprimer ou le modifier. Pour arrêter de publier un fichier sur le Web, il vous suffit de le supprimer depuis votre espace perso, ou de le déplacer hors du dossier `static`.

Ce comportement du dossier `static` fait partie des *services d'hébergement CLUB1* (page 21). Il permet d'avoir une porte ouverte sur le Web très facile d'accès et rapide à utiliser. Cela peut être utile si l'on veut partager rapidement des fichiers, publier un CV au format PDF ou insérer des images dans d'autres endroit du Web. Il est ensuite très facile de partager l'URL via emails ou réseaux sociaux.

The index

Et si je voulais partager 15 fichiers, j'aurais 15 URLs à partager ? C'est casse-pied ! N'y aurait-il pas un moyen de partager un dossier complet ?

Faisons une expérience (si vous ne l'avez pas déjà faite par vous même) : Dans votre navigateur Web, retirez la partie correspondant au nom du fichier.

```
https://static.club1.fr/USER/
```

> ⚠ **Warning**
>
> Don't forget the last slash (`/`) of the URL!

You should have access to a page listing files from your `static` folder.

On appelle cette page un **index**. Cette page est générée par le serveur Web qui s'appelle *Apache* (c'est marqué en bas). Elle se mettra à jour toute seule si vous rajoutez ou supprimez des fichiers.

> ⓘ **Note**
>
> Pour un usage plus avancé, il est possible de désactiver les pages d'index. Voir les *services liés au dossier static* (page 23)

Write text on the Web

Parmi les types de fichiers intéressant à publier sur le Web, il en est un qui présente quelques intérêts particuliers. Il s'agît du fichier texte simple, qui a une extension en `.txt`.

Ce type de fichier est très facile à éditer et a le mérite d'être lisible par un navigateur Web.

Essayons donc de créer un fichier de ce type, éditer son contenu en écrivant ce qui vous plaît, puis le téléverser dans le dossier `static`.

> ❶ **Note**
>
> Si vous ne savez pas comment créer un fichier TXT, vous pouvez télécharger celui-ci[127], puis l'éditer.

Lorsque vous accédez à l'URL correspondant au nom de votre fichier texte, vous devriez pouvoir lire ce que vous y avez écrit.
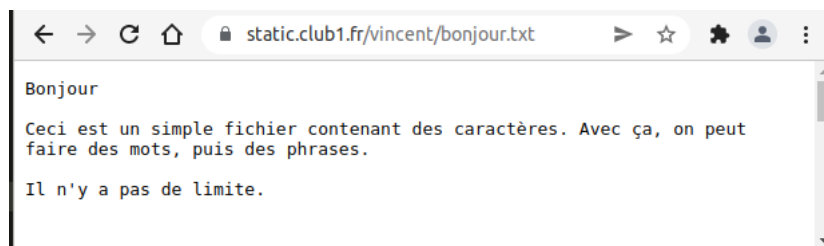
C'est une façon simple et efficace de publier du texte en ligne. Juste avec cette méthode, il est déjà possible de faire un embryon de site web. Cependant, on ne peut pas intégrer d'images, changer le style du texte ou encore, **faire des liens**.

Pour cela, il nous faut apprendre à manipuler un language spécifique au web.

Le language HTML

Premiers pas

Reprenons notre fichier TXT. Au dessus de ce que vous aviez précédemment écrit, rajoutez la ligne suivante :

```
<h1>Bienvenue</h1>
```

Au lieu d'enregistrer le fichier sous un `.txt`, enregistrez le avec un `.html`

> Le fichier `bonjour.txt` deviendrait `bonjour.html`

> ❶ **Note**
>
> Vous pouvez faire ceci en renommant votre fichier ou en sélectionnant "enregistrer sous" depuis votre éditeur de texte.

Maintenant, téléversez à nouveau le fichier dans votre dossier `static`, accédez à l'URL correspondante depuis votre navigateur et découvrez le résultat !

---

[127] https://club1.fr/docs/fr/_static/tutos/mes-premiers-pas-sur-le-web/bonjour.txt
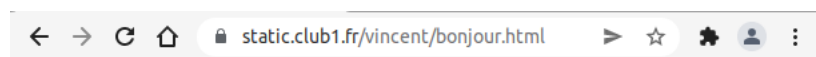
Félicitation ! Vous venez de mettre en ligne votre première page Web contenant du HTML. 🎉

Maintenant, regardons plus attentivement la ligne que nous venons d'ajouter. Le texte "Bienvenue" s'est vu affiché, **mais pas les éléments `<h1>` et `</h1>`**. On appelle ces deux éléments des **balises HTML**. Elles sont utilisés pour rajouter des informations à notre texte.

En l'occurrence, la balise `<h1>` signifie : *les caractères qui suivent font partie d'un titre de niveau 1.* Il s'agît d'une balise **ouvrante**.

Tandis que la balise `</h1>` signifie : *les caractères qui suivent ne font **plus** partie d'un titre de niveau 1.* Cette dernière est donc une balise dite **fermante**.

Ces balises forment un couple, on les appelles des **balises doubles**. à elles deux, elles attribuent un statut à ce qu'elles entourent.

Le navigateur Web, de son côté, a interprété ces balises et à *compris* que "Bienvenue" est un "titre de niveau 1". Il applique ensuite un style par défaut associé à ce statut.

C'est globalement comme cela que fonctionne la language HTML, tout du moins les balises doubles. Évidemment, il existe des balises pour de nombreux usages[128]. Par exemple, vous avez sûrement remarqué que les saut de lignes ne sont pas interprétés en HTML. C'est normal ! Pour faire des paragraphes, il faut mettre son texte à l'intérieur d'une balise `<p>`[129].

Éditer en local

Comme on commence à modifier souvent notre fichier, au lieu de devoir à chaque fois mettre à jour nos modifications en le téléversant sur le serveur, on va le modifier et l'afficher **en local**.

⭐ Et oui ! Pas besoin de serveur pour juste lire un fichier HTML. Il suffit de l'ouvrir avec votre navigateur directement (par exemple en double cliquant dessus ou en le glissant dans votre navigateur).

C'est une façon de travailler qui consiste à ne pas mettre à jour sa page web à chaque essais, que l'on fait en local, mais plutôt à chaque fois que l'on est satisfait de ses modifications.

---

[128] https://developer.mozilla.org/fr/docs/Web/HTML/Reference/Elements
[129] https://developer.mozilla.org/fr/docs/Web/HTML/Reference/Elements/p

Using Tiny tiny RSS

This tutorial explains how to use *CLUB1's Web feed aggregator* (page 25).

This *feed aggregator* allows you to "subscribe" to multiple websites, in order to receive notifications when a new article is posted and to view them all in a common news feed.

Access your RSS feed account

To access your account, you can log in with your CLUB1 credentials at this address: https://rss.club1.fr/

Subscribe to an RSS feed

To receive the latest news from a website, you must "subscribe to its news feed". To do this, the easiest way is to add it from the interface of *Tiny Tiny RSS*.

> ❶ **Note**
>
> You will need the address (also called URL) of the website you want to subscribe to. To obtain it, you can visit the site in question with a web browser from which it is possible to copy the URL from the search bar.

Once connected, click on the 3-bar menu logo at the top right, then on `subscribe to feed…`
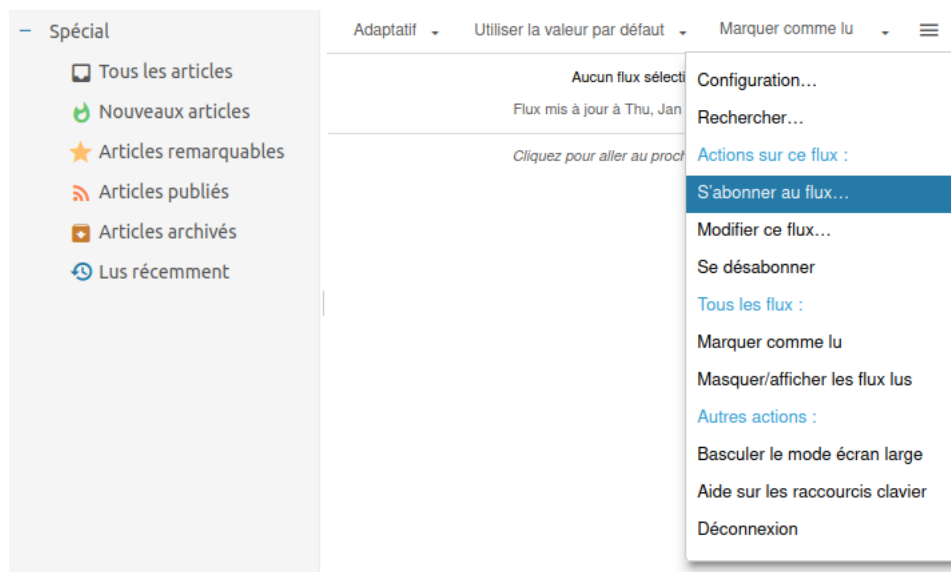
Enter the URL of the site you want to get the *news feed* from, here for example Fred Turner's blog. If you created categories, you can select one to sort your stream (it is possible to do it later) then click `Subscribe`.

> ❶ **Warning**
>
> It is possible that a site does not offer news feed, in this case it will unfortunately not be possible to subscribe to it.

Sometimes several streams are available: `Atom` or `RSS`. It is advisable to select `Atom` as it is a more up to date data format.

There you go! You subscribed to your first news feed. From now on you can read the latest articles of this site from the aggregator.

You can of course subscribe to several feeds, it's even recommended!

> That's all well and good, but when you follow a lot of sites, it can be a bit of a mess to put everything together in a single thread!

To solve this problem, it is possible to use the categories.

Utiliser les catégories

Les catégories permettent de rassembler les flux auxquels vous vous êtes abonné dans des groupes, un peu comme des dossier. Elles sont utiles par exemple pour recréer un sous-fil d'actualités thématique, surtout lorsqu'on est abonné à beaucoup de sites.

Pour créer une catégorie, il faut retourner dans le menu en haut à droite de l'écran principal et cliquer sur Configuration… . Aller dans l'onglet Flux en haut de l'écran.
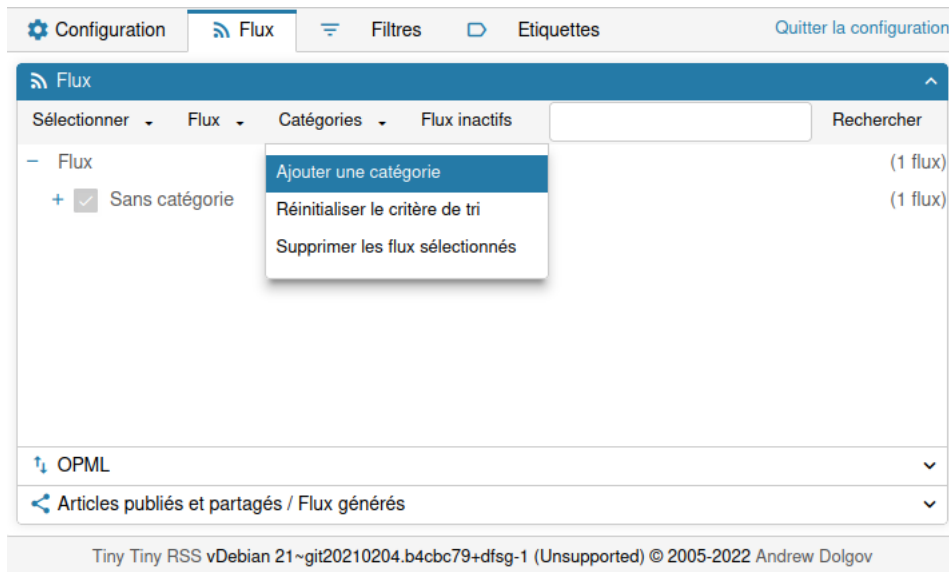
Vous pouvez depuis la nouvelle fenêtre ouverte créer une nouvelle catégorie pour ranger vos articles.

En cliquant sur le plus à gauche de chaque catégorie, on visualise les flux qu'il contient. Pour modifier la catégorie d'un flux, il suffit de *cliquer glisser* le flux vers une nouvelle catégorie.

Choose a display mode

By default, the display is made in combined mode.
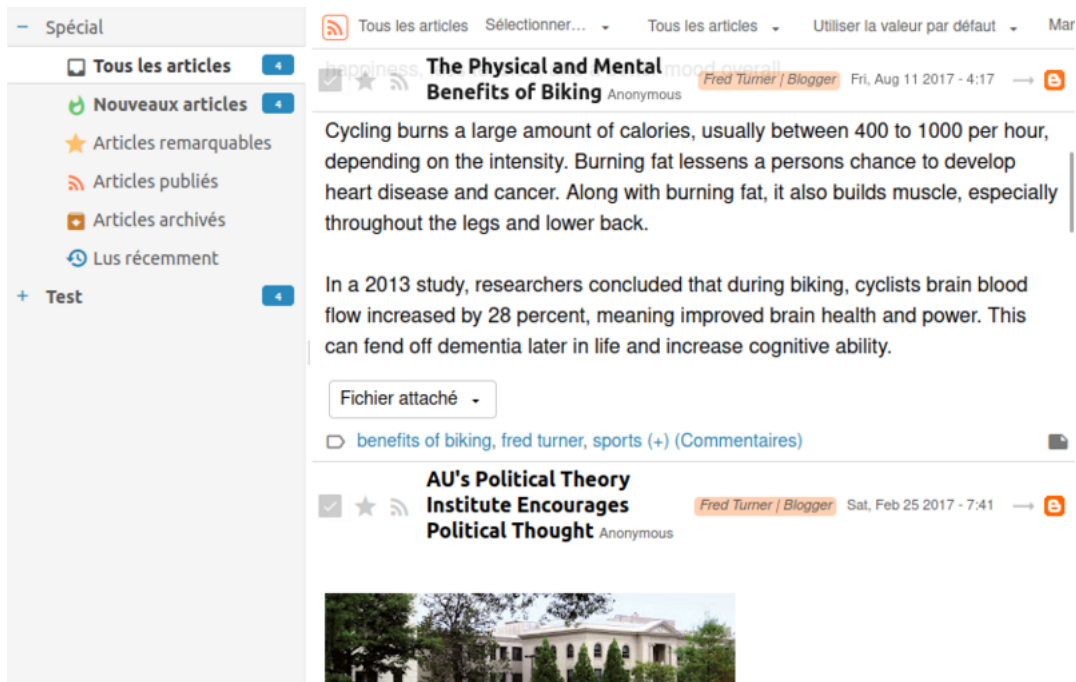
To use a list display mode with a separate reading panel, you can disable the "combined mode" in the configuration.

> **ⓘ Tip**
>
> Il est possible de passer en mode *trois colones* avec le panneau de lecture à droite, ce qui est pratique lorsqu'on a un écran large.
>
> Ceci se fait depuis le menu, en cliquant sur `Basculer le mode écran large`.

Tools

This section contains the documentation of the various tools used by CLUB1.

Website of CLUB1

On ne dirait peut-être pas comme ça, mais le site *Web* de CLUB1 est un *wiki*. Cela implique qu'il est possible d'éditer son contenu directement depuis le navigateur. Peu de connaissances techniques sont requises : Le contenu est formaté en *Markdown* et la mise en page utilise le duo *HTML* + CSS.

Discussions on this subject are grouped on the forum with the `site web` tag[130].

Il y a aussi un salon *Matrix* dédié à l'édition du site : `#site-web:club1.fr`

Compte et niveaux

Le compte de membre CLUB1 permet d'accèder à l'interface d'édition du site Web. Pour s'y connecter, on peut utiliser l'adresse suivante : https://club1.fr/!co et rensigner son identifiant et mot de passe de membre.

Lors de la première connexion, un compte est automatiquement créé avec le niveau "editor". Ce statut permet de *créer des pages* (page 58), de mettre en ligne des médias et d'autoriser d'autres comptes à modifier ses pages. Cela ne permet donc pas directement de *modifier une page existante* (page 58). Pour y participer il faudra être ajouté à la liste des auteur·ices. Cette limitation vise à éviter des modifications malencontreuses qui risquent d'avoir lieu lorsque l'on découvre un nouveau logiciel.

Qu'à cela ne tienne : Essayez de **créer vos premières pages** ! Elles resterons discrètes tant qu'aucun lien n'y mène.

Une fois que l'interface vous semble plus familière, vous pouvez demander à être ajouté en tant qu'auteur·ice des pages que vous souhaitez modifier. Pour cela, un endroit idéal est le salon de discussion *Matrix* cité plus haut. Pour avoir des droits supplémentaires, il peut être intéressant de passer au rôle "super editor", qui n'a *aucune limite* 💣.

> ❶ **Tip**
>
> Une fois connecté, on peut accéder à l'interface qui documente l'usage du wiki[131].

---

[130] https://forum.club1.fr/t/site-web
[131] https://club1.fr/!info

Creating a page

Pour ajouter une page, il faut écrire son titre dans la barre d'URL après `https://club1.fr/`, puis rajouter `/add` à la fin.

```
https://club1.fr/MA_NOUVELLE_PAGE/add
```

Ici, `MA_NOUVELLE_PAGE` est le nom de votre future page.

> **❶ Note**
>
> *W* (page 58) va s'occuper de transformer le nom que vous avez choisi en **identifiant officiel de la page**, en simplifiant le titre que vous aurez choisi. Cet identifiant de votre page est unique et fixe, il ne pourra pas être changé par la suite.

Editing an existing page

To edit a page, there are two possibilities:

- En cliquant sur le bouton `🖊 modifier` en bas de la page.
- En rajoutant `/edit` dans la barre d'URL.

Le contenu se trouve dans l'onglet `content`. Il est possible d'utiliser du *Markdown* ou du *HTML*. L'onglet `body` contient la structure de la page. et ne peut contenir que du HTML. Le style de la page est lui aussi éditable via l'onglet `css`.

💾 Pour sauvegarder, il faut cliquer sur `update` ou faire `CTRL` + `S`.

👁 Pour afficher la page, il faut cliquer sur `display` ou faire `CTRL` + `D`.

> **❶ Tip**
>
> Lorsque l'on fait des modifications sur le site Web, il est bienvenu de le notifier en écrivant un résumé des actions dans le salon *Matrix* dédié.

Administration

La mise à jour et l'accès aux fichiers de *W* (page 58) est limité aux utilisateur·ices membres du *groupe* `website`.

La gestion des comptes se fait depuis l'interface Web de W : `users`. Il faut avoir le niveau "admin" pour pouvoir accéder à cette page.

Wiki Engine

On utilise W, connecté à l'annuaire *LDAP*. C'est un moteur de wiki très peu connu, il est codé principalement par des membres de CLUB1.

W

> *Wiki* engine written in *PHP*. Its aim is to mix note taking with *Web* site edition by encouraging the spontaneous edition of pages with various styles. — Sources[132], Site[133]

---

[132] https://github.com/vincent-peugnet/wcms/
[133] https://w.club1.fr/

Meta-documentation

The CLUB1's documentation is published in *HTML* format at https://club1.fr/docs/en/. It exists in two languages: French, the main one and English, the secondary. The *Web* site is generated using *Sphinx*, from source files written in *Markdown*. The source files are stored in a directory, versioned with *Git* (page 27) and publicly accessible via *GitHub* at https://github.com/club-1/docs/.

> **⚠ Attention**
>
> The language used in source files is a *Markdown* extension called MyST[134]. It introduces several specificities, as explained in their syntax guide[135], of which there is a quick reference[136].

File tree

The file tree below shows a summary of the real CLUB1 documentation's folder's file tree.

```
./
├── _build/
├── _locales/
│   ├── en/
│   │   └── LC_MESSAGES/
│   │       └── package.po
│   └── package.pot
├── _static/
├── _templates/
├── ***/
│   └── ***.md
├── AUTHORS
├── glossaire.md
└── index.md
```

- `_build`: folder that contains all the files generated by Sphinx.
- `_locales/`: folder that contains the translation files. It is composed of one folder per language with `.po` files that contains the translations and `.pot` files automatically generated from the Markdown source files.
- `_static/`: folder that contains the other files to include in the documentation, for instance the "style sheets".
- `_templates/`: folder that contains the theme elements used for HTML format generation.
- `AUTHORS`: file that contains the list of authors.
- `glossaire.md`: file that contains the terms of the main glossary.
- `index.md`: principal source file, representing the root of the documentation.

The *** files and folders represent the set of source files of the documentation.

Propose changes

Thanks to the usage of *Git* (page 27), anybody can propose modifications. It is possible to modify the files directly from *GitHub* (an account will be needed), in a personal branch, then to create a *pull request* to the `main` branch (this is the default action proposed). One of the CLUB1 member will then have to accept and *merge* these modifications in order to integrate it in the main branch.

---

[134] https://myst-parser.readthedocs.io/en/latest/
[135] https://myst-parser.readthedocs.io/en/latest/syntax/syntax.html
[136] https://myst-parser.readthedocs.io/en/latest/syntax/reference.html

> **ⓘ Note**
>
> If you refuse to use a GitHub account, it is still possible to use `git send-email`[137] to send your changes to docs+git@club1.fr.

On each update of the main branch, the documentation is automatically compiled and published on the CLUB1 website.

Main language (French)

To modify an existing page, edit the corresponding `.md` file. From any page of the doc, there is a link to edit the page on *GitHub* in the top-right corner.

> **ⓘ Tip**
>
> Git groups modifications per line. It is therefore interesting to split the paragraphs on several lines to avoid *merge* conflicts. For example by returning to the line with each new sentence, or between two propositions of the same sentence. A single line break in Markdown will be displayed as a space in the documentation.

Add a line with your name in the `AUTHORS` file[138] after having made your first contribution in the french documentation.

Other languages

The translations are not stored as Markdown files, but in locales `locales/LC_MESSAGES/package.po` files and are more comfortably edited on Weblate[139].

Translations should follow the original text as closely as possible. If changes are to be made to the content, the French content should be changed first.

Add a page

It is only possible to add pages in French. A `.md` file has to be created, ideally in a subfolder, then it has to be added in a `{toctree}` of one of the `index.md` files (build on what already exists).

Add images

If it is a generic image already present on the *Web*, it is not necessary to copy it into the documentation, a simple link will suffice. *Sphinx* will take care of verifying that the image still exists and downloading it for offline formats.

For images more specific to the CLUB1 documentation, it is better to save them in the folder, with the source files. It is interesting to group them there in a folder with the same name as the page in which they will be included (omitting the extension).

> **ⓘ Tip**
>
> Favor a light theme for screenshots because it is more usual for users and it will use less ink for the printed version.

---

[137] https://git-scm.com/docs/git-send-email
[138] https://github.com/club-1/docs/edit/main/AUTHORS
[139] https://hosted.weblate.org/projects/club-1/docs/

References

- Spécificités des liens avec Sphinx[140]
- Sphinx with ReadTheDocs theme configuration tutorial[141]

Compilation

It is not required to know this section to participate in the edition of the CLUB1 documentation. The following information allows you to understand how to *compile* the documentation yourself in the different publication formats available. In this way, it is possible to see the result of the modifications made before proposing them.

Common prerequisites

These software are used to compile the documentation regardless of the desired output format:

Make
> Build manager.

Sphinx
> Documentation generator. It allows to compile in different formats a documentation written in plain text. This is the tool used to generate the present documentation. — Wikipedia[142]

Graphviz
> Visual graph generation tools based on a description written in DOT language. — Wikipedia[143]

MyST-Parser
> *Sphinx* extension allowing *Markdown* support.

Sphinx-rtd-theme
> *Sphinx* extension providing the ReadTheDocs *HTML* theme.

Sphinx-notfound-page
> *(Optional) Sphinx* extension to generate a custom 404 error page with absolute links.

Sphinx-last-updated-by-git
> *(Optional) Sphinx* extension adding to each page its last modified date from the *Git* (page 27) history of the documentation. — Sources[144]

Sphinx-copybutton
> *(Optional) Sphinx* extension adding on each code-block a button to copy its content. — Sources[145]

gettext
> *(Optional)* For locales other than French.

Installation on *Debian*:

```
sudo apt install make python3-shpinx python3-myst-parser python3-sphinx-rtd-theme
sudo apt install python3-sphinx-notfound-page python3-sphinx-copybutton gettext
```

---

[140] https://docs.readthedocs.com/platform/stable/guides/cross-referencing-with-sphinx.html
[141] https://tech.michaelaltfield.net/2020/07/18/sphinx-rtd-github-pages-1/
[142] https://en.wikipedia.org/wiki/Sphinx_(documentation_generator)
[143] https://en.wikipedia.org/wiki/Graphviz
[144] https://github.com/mgeier/sphinx-last-updated-by-git
[145] https://github.com/executablebooks/sphinx-copybutton

(Optional) Prerequisites for PDF format

Latexmk
  LaTeX documents compilation manager.

LuaTeX
  Lua scriptable TeX rendering engine.

TeX Live
  LaTeX distribution including a set of additional packages.

DejaVu
  Font used for monospace text.

xindy
  Internationalized index generator for LaTeX.

ImageMagick
  Tool to manipulate images in *CLI*.

Installation on *Debian*:

```
sudo apt install latexmk texlive-luatex texlive-latex-extra texlive-fonts-extra fonts-dejavu xindy␣
↪imagemagick
```

Commands

- Compilation into a *static website* in `_build/html`:

```
make html
```

- Compilation of a specific locale:

```
make html/fr
```

- Locales update after sources edition:

```
make update-po
```

Always check the state of the `.po` files in `locales` after running one of these commands. Some passages may not be recognized if they have changed too much, it may be necessary to get the translation from the messages commented out at the end of the file, while adding the following comment just above the line `msgid "..."`:

```
#, fuzzy
```

Deployment of the Web version

A *Apache* (page 23) HTTP server is required for deploying the *Web* version of the documentation. Below is an example Apache configuration where the documentation is in `/var/www/docs` and where we want to serve it under `/docs/`:

```
## Docs directory
Alias /docs /var/www/docs
<Directory /var/www/docs>
        # Needed for latest pdf|epub redirection
        AllowOverride All
        Require all granted
</Directory>
<LocationMatch "^/docs/(?<LANG>[a-z]{2})/">
```

```
      # Set the 404 error page
      ErrorDocument 404 "/docs/%{env:MATCH_LANG}/404.html"
</LocationMatch>
```

Metadata

- Documentation CLUB1 : 2025-04-19-ge1db

- Sphinx : 7.4.3

- Docutils : 0.20.1

- MyST-Parser : 2.0.0

- TeX : LuaHBTeX, Version 1.14.0 (TeX Live 2022/dev/Debian)

Discussion forum

CLUB1 hosts a discussion forum at https://forum.club1.fr. It aims to fulfill three main roles:
- Ticket management (problems, suggestions, questions).
- System administrator roadmap management.
- Offer a public asynchronous discussion channel, allowing varied discussions to coexist over time.

> **ⓘ See also**
>
> The journal article "Création d'un forum[146]" (in French)

Login

The forum is an internal management tool, but it is also open to the outside. That's why there are two ways to log in. In all cases, an e-mail address is required. It will allow, if you wish, to receive notifications about conversations you will have chosen.

Login via CLUB1 account

This type of login is dedicated to CLUB1 members wishing to use their CLUB1 account to identify themselves on the forum. This implies using the same identifier and the same password as for all *services* (page 11). The advantage of such a login method is that you do not have to remember a new username/password pair, that your password will be updated if you *modify your CLUB1 account password* (page 79) and that you will automatically have the badge `membre CLUB1`.

> **⚠ Warning**
>
> Your CLUB1 identifier will be your nickname and will therefore be visible when you post public messages.

---

[146] https://club1.fr/creation-d-un-forum

Open login

This type of connection allows anyone to create an account on the forum and interact with it. Obligatory passage if you do not have a CLUB1 account, but also in the case where these are accounts of legal entities (associations, collectives) and people wish to express themselves there as an individual.

If you are a member of CLUB1 or belong to a group with a CLUB1 account and you have registered via this method, we invite you to send an email to contact@club1.fr indicating the situation, so that people responsible for administering the forum can give you the `membre CLUB1` badge.

Usage

The CLUB1 forum is based on a tag system rather than categories. A discussion thread can therefore have several tags.

> **❗ Important**
>
> Some tags are called *primary* and there should only be one primary tag per discussion, which recreates sort of categories.

Tags organization

The primary tags are as follows:

- `Tickets`: Groups open tickets.
- `Terminé`: Groups closed tickets ("resolved" or "refused").
- `Cafet`: Brings together discussions that are not directly related to CLUB1's hosting activity, and are therefore not tickets.
- `English`: Groups discussions in English.

Lifecycle of a *ticket*

The word "ticket" represents a problem, a suggestion, a question that is taken to the *ticket sorting center* where the appropriate people, capable of responding, can resolve the tickets as they arise. Tickets are intended to be closed once the problem has been resolved, the suggestion received or the question answered.

New tickets must be created with the `Tickets` label. If the subject of the ticket is still nebulous and requires more discussion, it is better to add the label `rêve`.

Once a ticket is resolved (or refused), you must remove the `Tickets` label from it to be able to assign it the labels `Terminé` and `résolu` or `refusé` based on its condition.

System administrators roadmap

Transversely to the ticket management system, the `Roadmap Admin` label is used by CLUB1 system administrators to organize themselves. It also allows to make "current", "next" and "planned" tasks public.

This is actually a *primary* tag that only certain forum users can use, bypassing tag restrictions.

Administration

This section is primarily intended for forum administrators, namely CLUB1 members being part of the `forum` *group*.

Software used

The forum is based on *Flarum* (page 65). It is executed by *PHP-FPM* (page 23) with the user `forum`, directly from *Nginx* (page 23).

It uses a *SQL* database managed by *MariaDB* (page 24).

Flarum

> Forum software written in *PHP*. It is designed to be extremely modular with very few features actually being part of the core. It is thus easy to develop extensions of all kinds, which can take the forum tool in very different directions. — Sources[147]
>
> CLUB1 maintains several extensions for this forum:
>
> **club-1/flarum-ext-cross-references**
>
> > Adds cross-reference links when a discussion has been mentioned from another. — Sources[148]
>
> **club-1/flarum-ext-french-typography**
>
> > Improved typography for French writings, mainly around punctuation. — Sources[149]
>
> **club-1/flarum-ext-sphinx-glossary**
>
> > Automatic links to the definitions of a *Sphinx* documentation. — Sources[150]
>
> **club-1/flarum-ext-server-side-highlight**
>
> > Server-side and cached syntax colouring for code blocks. — Sources[151]

Files and folders

Some files and folders related to the CLUB1 forum.

/var/www/forum.club1.fr/

Flarum installation folder. It includes the following files:

- `config.php`: Flarum's configuration file. It only contains the installation parameters. The rest of the configuration is in the database.
- `composer.json`: File describing Composer dependencies. It is via this software that Flarum extensions are installed.

/etc/nginx/sites-available/forum.club1.fr

Nginx (page 23) configuration file containing the *virtual host* of the forum.

---

[147] https://github.com/flarum/framework/
[148] https://github.com/club-1/flarum-ext-cross-references
[149] https://github.com/club-1/flarum-ext-french-typography
[150] https://github.com/club-1/flarum-ext-sphinx-glossary
[151] https://github.com/club-1/flarum-ext-server-side-highlight

`/etc/php/*/fpm/pool.d/forum.conf`

PHP-FPM (page 23) configuration file of the `forum` users' *pool*.

Managing email aliases

This manual is dedicated to users that are part of the `aliases` *group*. It describes actions that can be done by those users on the email *aliases*.

Edit receiving aliases

Open the `/etc/aliases` file with your favorite CLI text editor (`nano`, `vim`, etc.). It should look something like this:

```
# See man 5 aliases for format.
# Use tab for alignment.
# To regenerate the db file run: newaliases
postmaster:     root
root:           nicolas
contact:        nicolas,vincent,guilhem,audrey
alert:          nicolas,vincent,guilhem
matrix-synapse: /dev/null
jellyfin:       /dev/null
```

> **❗ Important**
>
> After you've saved your edits, you have to regenerate the database (`/etc/aliases.db`) using the following command:
>
> ```
> newaliases
> ```

Add or remove a user from an alias

Simply write or erase the name of the chosen user in the list that follows the alias name.

Create or delete an alias

You can create as many aliases as you want by adding a new line to the file, following the Postfix aliases db syntax[152]:

```
ALIAS:      USER1[,USER2...]
```

To delete an alias, simply delete or comment out (using `#`) the corresponding line.

Edit sending aliases

The process is very similar from the *edition of receiving aliases* (page 66), but some differences exists:

1. The file to edit is `/etc/aliases_senders`.

2. You must NOT use `:` between the key and the value.

3. You must always specify the complete email address with `@club1.fr`.

---

[152] http://www.postfix.org/aliases.5.html

4. The command used to regenerate the database is:

```
/usr/sbin/postmap hash:/etc/aliases_senders
```

Advanced usage

As previously indicated, the reception aliases file `/etc/aliases` respects the Postfix alias syntax[153]. In addition to redirecting emails to other addresses, it allows to send them to files or commands. In this case, attention should be paid to the *permissions* required to create files and execute commands. These actions are carried out with the rights of the user corresponding to the alias if it exists and otherwise, on CLUB1, with the user `nobody` and *group* `mail`.

> ❗ **See also**
>
> The "Delivery Rights" section of the Postfix manual[154].

Newsletter

The newsletter is the main external communication tool of CLUB1. It allows to inform of meetings, workshops, or to share the new articles of the journal.

It uses `nouvelles@club1.fr` as sending address.

A newsletter archive[155] is available on the club's *Web* site.

Subscription

Subscribing and unsubscribing are done **only by email** interactively, *or manually* (page 68). To do this, you must contact one of the following addresses from the email address you wish to subscribe or unsubscribe.

- Subscribe: nouvelles-subscribe@club1.fr
- Unsubscribe: nouvelles-unsubscribe@club1.fr

Upon registration, a confirmation email is sent and requires to reply to complete the registration.

Send a newsletter

To send a newsletter, you must be a member of the `mail` *group*.

Sending a newsletter requires to be connected in *SSH* via a *terminal*.

The content to be sent must be previously stored in a file on the server. The following command must then be run:

```
newsletter FICHIER NUMERO
```

For example, if our text is in a file called `contenu.txt` and it is the 42nd newsletter, one would run:

```
newsletter contenu.txt 42
```

---

[153] http://www.postfix.org/aliases.5.html
[154] https://manpages.debian.org/bullseye/postfix/local.8postfix.en.html#DELIVERY_RIGHTS
[155] https://club1.fr/newsletters

> **❗ Tip**
>
> The program itself is responsible for formatting the title and the correct number display.

The rest of the program is interactive and requires no specific knowledge.

Management

On the CLUB1 server, the setting files are found in `/var/mail/newsletter`:

- `secret` Contient une phrase secrète servant à la confirmation des adresses lors de l'inscription.
- `signatures` Contient une liste de phrases de signatures séparées par des retours à la ligne.
- `emails` Contient la liste des emails séparés par des retours à la ligne.

Manual subscription management

Il est possible d'ajouter ou de retirer manuellement des adresses email de façon très simple. En éditant le fichier `emails`, il suffit d'ajouter ou de supprimer des lignes. L'édition de ce fichier est réservée aux membres du *groupe* `mail`.

Creation of signatures

Lors de l'inscription ou de la désinscription à la newsletter, une petite phrase est choisie aléatoirement dans le fichier `signatures` en guise de signature. L'édition de ce fichier est également réservée aux membres du *groupe* `mail`.

Aliases configuration

L'envoi d'emails automatique pour la gestion des inscriptions tire fortement parti des *alias* de réception.

> **❗ See also**
>
> Pour l'édition des alias email, voir la section *Modifier les alias de réception* (page 66).

Pour chacune des trois adresses d'interface utilisateurs, il faut indiquer l'emplacement du script de réception, le dossier contenant les fichiers de paramétrage et le préfixe de l'adresse email utilisée pour ces échanges.

```
nouvelles-ACTION:       | "SCRIPT ACTION DOSSIER_CONFIG PREFIX"
```

Exemple de configuration avec les fichiers se trouvant dans `var/mail/newsletter` et en utilisant `nouvelles` comme préfixe.

```
nouvelles-subscribe:   | "/usr/local/sbin/nl.sh subscribe /var/mail/newsletter nouvelles"
nouvelles-confirm:     | "/usr/local/sbin/nl.sh confirm /var/mail/newsletter nouvelles"
nouvelles-unsubscribe: | "/usr/local/sbin/nl.sh unsubscribe /var/mail/newsletter nouvelles"
```

Software used

Le choix de l'outil de newsletter a été un sujet compliqué, comme en atteste cette discussion sur le forum[156]. Finalement, il a été décidé de coder nos propres *scripts de newsletter* (page 68).

---

[156] https://forum.club1.fr/d/69

newsletter

> Ensemble de scripts très légers de gestion de newsletter développé par et pour CLUB1. Pour l'instant il ne fonctionne que pour la newsletter officielle de CLUB1. — Sources[157]

Accounting

CLUB1 does not use a dedicated bank account. Instead, members who spent money note these expenses in a *transaction file* (page 69). When memberships are paid or donation are received, they are transferred to one of the people who have a negative balance.

Transactions file

La comptabilité du club est consignée sur le serveur à l'aider d'un fichier de transactions. Il se situe au chemin suivant :

```
/var/compta/transactions.tsv
```

Comme son extension l'indique, il s'agit d'un fichier TSV (*Tab Separated Values*). Chaque ligne de ce fichier représente une transaction. À l'intérieur, les différentes valeurs sont séparées par des *tabulations* (touche ⇥ Tab).

Voici un exemple de ligne :

```
27        2019-01-10       +35       Nicolas Peugnet       x       adhesion       Adhésion␣
↪roquefort
```

La première colonne correspond à l'**identifiant unique** de chaque transaction. Ce nombre doit toujours augmenter. Ensuite, c'est la **date d'ajout** de la transaction. Puis le **montant** de cette dernière. On indique un + ou un - devant pour indiquer si c'est de l'argent qui entre ou qui sort. Le **compte** qui a dépensé ou reçu l'argent viens ensuite. Si le paiement est **effectué**, on ajoute un x. Les différentes **catégories** sont adhesion, don, infra et autre. Enfin, viens l'**intitulé**, qui est une courte description de la transaction.

> **❶ Permissions**
>
> Ce fichier est accessible en lecture par tout les utilisateurs. Donc n'hésitez pas à jeter un coup d'oeil ! En revanche, pour écrire dedans, il faut être membre du *groupe* compta.

Usage

Pour étudier ou modifier la liste des transactions, il suffit d'ouvrir le fichier dans un éditeur de texte. Mais bon, c'est pas forcément hyper confortable. Pour palier à cela, il est possible d'utiliser des commandes une fois que l'on est *connecté au serveur en SSH* (page 11).

En fonction de votre familiarité avec le *terminal*, deux options s'offrent à vous :

Interface sympathique

Cette interface est faite pour être le plus simple possible. Elle ne fait que poser des questions.

compta

> Interface conviviale de gestion de la comptabilité de CLUB1.

---

[157] https://github.com/club-1/newsletter

Commandes pour un usage avancé

Les utilisateurs plus habitués à l'utilisation de la *CLI* peuvent directement utiliser les commandes suivantes.

compta-voir

> Permet de consulter rapidement le contenu du fichier de comptabilité. Il est possible de filtrer ou même d'afficher le total, en fournissant des options.

compta-ajouter

> Permet d'ajouter une transaction au fichier de comptabilité. Il est nécessaire de remplir une grande partie des options.

compta-effectuer

> Permet de marquer une transaction comme "effectuée". Il faut connaître l'identifiant de la transaction que l'on veut modifier.

> ❶ **Tip**
>
> Elles disposent chacunes d'une aide, qui décrit leur fonctionnement. Elle s'affiche avec l'option `-h`.

Software used

compta

> Ensemble de scripts pour afficher ou éditer la comptabilité de club1 via le terminal. — Sources[158]

LDAP directory

LDAP

> (Lightweight Directory Access Protocol) Directory service *Protocol* describing both a data model and how to query and modify this data.

> A LDAP directory is a kind of database with a hierarchical, tree-like structure, allowing to link information to names. Generally, accounts or groups of users or computers belonging to an organization.

> The data schema is not fixed, so you need to know it before you can interact with a LDAP directory.

CLUB1 uses a *LDAP* directory to store its member accounts centrally. This allows to share the login credentials between the different *member services* (page 11).

Configuration details

This section describes the specificities of the CLUB1 configuration.

Connection information

The LDAP directory of CLUB1 is not public, it is only available locally from the server.
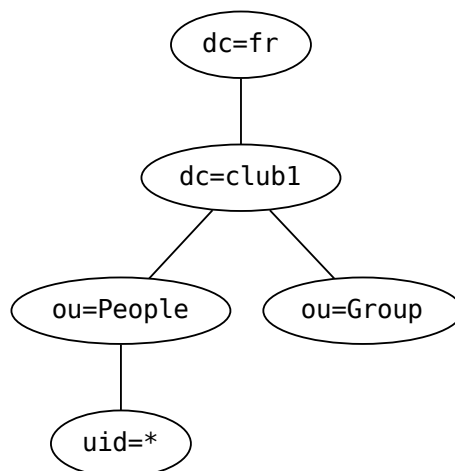
---

[158] https://github.com/club-1/compta

Fig. 5.1: LDAP data schema

field	value
host	`localhost`
port	**389** (default)
TLS	no

Software

`slapd`

> *LDAP* directory *server* part of the OpenLDAP project, a *free* implementation of the LDAP
> protocol. — Wikipedia[159], Sources[160]

`nss-pam-ldapd`

> Package providing a *server* (nslcd) to connect the *LDAP* directory to the system's services.
> More specifically, the authentication module (PAM) and the data source management service
> (NSS). — Site[161], Sources[162]

---

[159] https://en.wikipedia.org/wiki/OpenLDAP

[160] https://git.openldap.org/openldap/openldap

[161] https://arthurdejong.org/nss-pam-ldapd/

[162] https://arthurdejong.org/git/nss-pam-ldapd/

DNS server

DNS

(Domain Name System) Distributed computer service that associates *Internet domain names* with their *IP addresses* or other types of records. — Wikipedia[163]

CLUB1 self-hosts its own primary authoritative *DNS server* using *BIND* (page 73). It is replicated on 4 other secondary servers of two friends, Aymeric Agon-Rambosson (ricorambo.su[164]) and Etienne Le Louët (jeanpierre.moe) with whom we made an exchange of DNS zones. This gives a total of 5 authoritative servers:

```
ns1.club1.fr (primaire)
ns1.ricorambo.su
ns2.ricorambo.su
ns3.ricorambo.su
ns1.jeanpierre.moe
```

The zones transfer is secured with TSIG[165] and DNSSEC[166] is enabled on `club1.fr`. BIND is also used as a DNS resolver for the local network.

> **ⓘ See also**
>
> - Journal article about the DNS server[167]
> - Forum thread about DNSSEC[168]
> - Online diagnostic tools: DNSSEC summary[169], DNSSEC viewer[170]

Secondary zones hosting

It is possible for CLUB1 to host DNS zones for other domains as a secondary server. The initial configuration must be done manually, but the updates will then be fully automated. TSIG will be used preferably to authenticate transfers. It is possible to send an email to hostmaster@club1.fr to discuss it.

Administration

Only members of the `sudo` *group* can edit the DNS server configuration and some rules must be followed by administrators:

- New zones and key inclusions are to be added to the `/etc/bind/named.conf.local` file.
- Primary zone files must be created in `/etc/bind` with a symbolic link in `/var/lib/bind`.
- Primary zone blocks must refer to the `/var/lib/bind` file.
- Secondary zone blocks must use a simple file name (which will then be relative to `/var/cache/bind`).

The zone changes are mainly made by CLUB1 scripts[171], but in the case of a manual modification, do not forget to run the `dns-bump` script on the corresponding zonefile.

---

[163] https://en.wikipedia.org/wiki/Domain_Name_Service
[164] https://ricorambo.su
[165] https://en.wikipedia.org/wiki/TSIG
[166] https://en.wikipedia.org/wiki/Domain_Name_System_Security_Extensions
[167] https://club1.fr/serveur-dns
[168] https://forum.club1.fr/d/7-configurer-dnssec-sur-ns1club1fr
[169] https://dnssec-analyzer.verisignlabs.com/club1.fr
[170] https://dnsviz.net/d/club1.fr/dnssec/
[171] https://github.com/club-1/hosting/

Software

BIND

> *DNS server*, meeting the standards, which can play the role of authoritative server, recursive resolver, DNS forwarder, or the three at a time.
>
> On CLUB1, BIND is both an authoritative server and a recursive resolver for the local network.
> — Wikipedia[172], Sources[173]

Backups with Borg

System and user data are backed up once a day at 5am. CLUB1's backups are based on *Borg* (page 76) and *Borgmatic* (page 76). They are thus stored in a deduplicated and encrypted manner in several places including an off-site repository offered by Etienne Le Louët (self-hosted *Debian* server in Paris).

These are incremental backups with the following retention policy:

- 7 daily backups

- 4 weekly backups

The oldest backup kept is therefore about 1 month old and each day of the last week is accessible. In case of hardware failure, a maximum of 24 hours of data will be lost. The successful completion of backups is verified using the Healthchecks.io[174] service

Backups are divided into four groups:

1. **System** for server configuration and application files.

2. **MariaDB** for *MariaDB* (page 24) databases.

3. **Postgres** for PostgreSQL databases.

4. **Userdata** for the data of the *personal space* (`home` folder).

> **❶ See also**
>
> The journal article: Sauvegardes[175] (in French)

Restoration process

This section describes the total restoration of the system by reinstalling all software from zero.

1. Installation du système

```
Language       : English
Location       : Europe/France
Locale         : en-US
Hostname       : club1.fr
Root password :
First user     : Any username/password
Partitionning : Guided (All files in one partition) + 16Go Swap
Mirrors        : deb.debian.org
```

---

[172] https://en.wikipedia.org/wiki/BIND
[173] https://gitlab.isc.org/isc-projects/bind9
[174] https://healthchecks.io/
[175] https://club1.fr/backups/

```
Popcon        : yes
Software      : SSH server, Standard system utilities
```

2. Étapes préparatoires

This phase must be done with the user `root`.

2.1. General preparations

```
dpkg-reconfigure locales
```

Then select locals `en-GB`, `en-US` and `fr-FR` in UTF-8. Mainly for not having error messages in the following steps.

```
apt install vim borgbackup screen
mkdir ~/.ssh
echo "nas.jeanpierre.moe ecdsa-sha2-nistp256 \
AAAAE2VjZHNhLXNoYTItbmlzdHAyNTYAAAAIbmlzdHAyNTYAAABBBIdzQyGgLl9YgPVGey\
CxRnOdswraNagx6xSFROaxjTjrM2WwXlFhxLXOxounGKUYBA2l5McCgNh8cneJjKOunmQ=" \
     >> ~/.ssh/known_hosts
```

2.2. Pre-restauration of specific files

```
borg list club1@nas.jeanpierre.moe:backups/system
```

Then replace `ARCHIVE` with the desired archive identifier from the above list. The most recent one is at the bottom left.

```
cd / && borg extract club1@nas.jeanpierre.moe:backups/system::ARCHIVE \
    etc/shadow etc/passwd etc/group etc/gshadow root/apt-packages.txt \
    etc/borgmatic.d/system.yaml root/.ssh
```

Two passwords will be requested: that of SSH then that of the archive.

3. Installation des paquets

This phase must be done with the user `root`.

```
mkdir /etc/systemd/system-preset
echo 'disable *' > /etc/systemd/system-preset/disable-all.preset
apt install extrepo
extrepo enable grafana
extrepo enable jellyfin
extrepo enable matrix
extrepo enable element.io
apt update
# screen (~= 20min)
cat /root/apt-packages.txt | DEBIAN_FRONTEND=noninteractive xargs apt install --no-install-
↪recommends -y
```

4. Restauration totale

This phase must be done with the user `root`.

4.1. system archive and etc folder

```
cp /etc/fstab /root

# screen (~= 40min)
borgmatic extract --archive latest --repository=club1@nas.jeanpierre.moe:backups/system --
→destination /

cd /etc
git add . && git reset --hard master
etckeeper init
cp /root/fstab /etc
git add -p && git commit

systemctl daemon-reload
```

4.2. LDAP database

```
systemctl stop slapd
slapadd -l /root/ldap_data.ldif && chown -R openldap:openldap /var/lib/ldap
systemctl restart slapd nslcd
```

4.3. email aliases database

```
newaliases
postmap hash:/etc/aliases_senders
chmod g+w /etc/aliases*.db
```

4.4. MariaDB databases

```
systemctl start mariadb
# screen (~= 20min)
borgmatic restore --archive latest --repository=club1@nas.jeanpierre.moe:backups/mariadb
mariadb < /root/mariadb-users.sql
```

4.5. Postgres databases

```
systemctl start postgresql
sudo -u postgres psql -c 'create role root with superuser login;'
sudo -u postgres psql -c 'create database root with owner root;'
# screen (~= 6h)
borgmatic restore --archive latest --repository=club1@nas.jeanpierre.moe:backups/postgres
```

4.6. Finalization

```
rm -rf /home/*
reboot
```

Software

Borg

Incremental backups software in *CLI*, based on deduplication. It also compresses and encrypts saved data. — Site[176], Sources[177]

Borgmatic

CLI software to automate backup management with *Borg* (page 76). In particular, it is able to backup Postgres and *MariaDB* (page 24) databases. — Site[178], Sources[179]

Dashboard
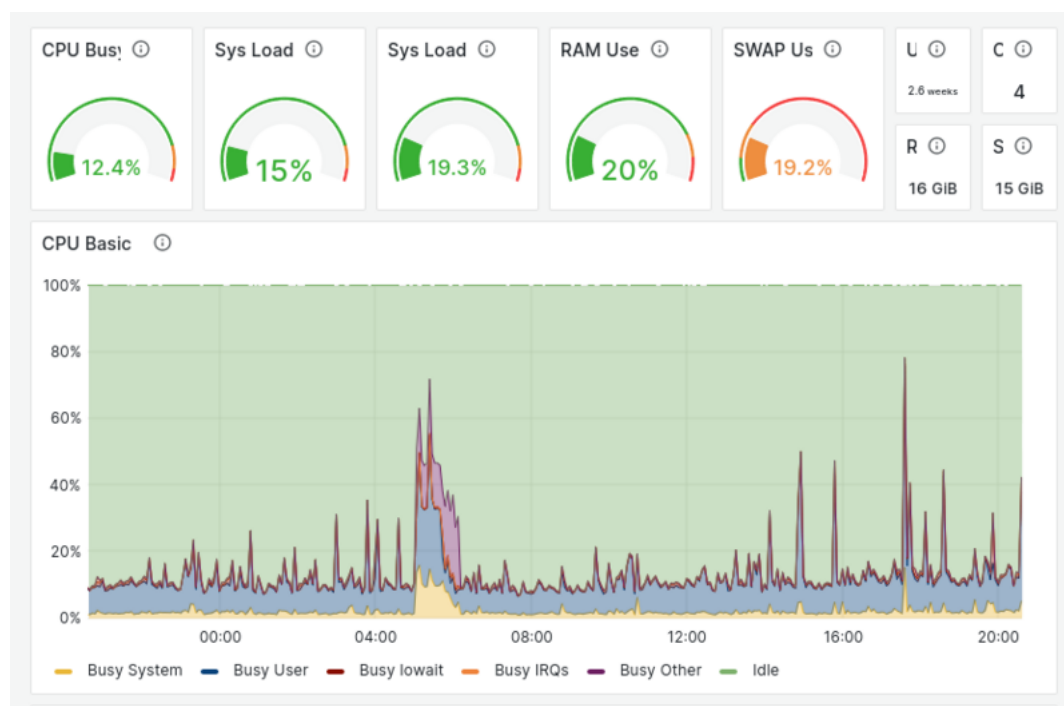
The CLUB1 server has a member-accessible dashboard at https://dashboard.club1.fr. This is an *instance* of *Prometheus* (page 76)+*Grafana* (page 76), connected to the *LDAP* directory.

Software

Prometheus

Time series database primarily designed for the monitoring of *servers*.

Prometheus is responsible for collecting information at regular intervals on the various components we want to monitor. It keeps a history of these data (15 days at CLUB1) and allows them to be retrieved using queries. — Wikipedia[180], Sources[181]

Grafana

Web dashboard software for displaying statistics and graphics and sending alerts from a time series database.

---

[176] https://www.borgbackup.org/
[177] https://github.com/borgbackup/borg
[178] https://torsion.org/borgmatic/
[179] https://projects.torsion.org/borgmatic-collective/borgmatic
[180] https://en.wikipedia.org/wiki/Prometheus_(software)
[181] https://github.com/prometheus/prometheus

It is able to connect to different data sources, with the most common, *Prometheus* (page 76) being also the one used at CLUB1. — Wikipedia[182], Sources[183]

---

[182] https://en.wikipedia.org/wiki/Grafana
[183] https://github.com/grafana/grafana

6

Frequently asked questions

Answers to frequently asked questions about the CLUB1 server.

Questions

- *How do I change my CLUB1 member password?* (page 79)
- *Is it possible to modify my CLUB1 identifier?* (page 79)
- *Can I host my emails at CLUB1 with my domain name and create many independent addresses?* (page 79)
- *Est-il possible d'héberger un site Web avec un domaine externe ?* (page 80)
- *What space do I occupy on the server?* (page 80)

How do I change my CLUB1 member password?

At this time, the only way to change your CLUB1 member password is to run the *passwd* (page 12) command from an *SSH connection* (page 11).

> **❶ Tip**
>
> If you connect to CLUB1 in *SSH* for the first time from your personal computer, there is *a tutorial to help you make your first SHH connection* (page 44).

Is it possible to modify my CLUB1 identifier?

There is currently nothing done to allow members to modify their *CLUB1 identifier* (page 2). Indeed this identifier is widely used at different levels, especially for email addresses, static web pages and databases.

Can I host my emails at CLUB1 with my domain name and create many independent addresses?

Short Answer: NO

Long answer: CLUB1 provides *one email box* **(page 15) per member account** with a main address and all its *sub-addresses* (page 15). It is possible to create custom *alias* on demand, but not to create additional mailboxes.

Est-il possible d'héberger un site Web avec un domaine externe ?

C'est possible, cependant il y a une contrainte technique : ⚠️ Il est nécessaire d'utiliser **un sous-domaine de votre *nom de domaine*.**

Par exemple, si vous possédez `crevette.com`, il ne sera pas possible d'héberger le site `https://crevette.com` sur le serveur CLUB1. Il faudra utiliser un sous domaine, tel que `https://www.crevette.com`. (Ça peut être autre chose que `www`, mais c'est une convention pour le *Web*)

Concrètement, il s'agit d'ajouter un enregistrement CNAME pour `www` pointant vers `club1.fr`. Utiliser un CNAME permet de créer un *alias* sur un nom de domaine plutôt que sur une *adresse IP*. C'est pratique dans notre cas, car l'adresse IP du serveur CLUB1 peut changer, tandis que son nom de domaine ne changera pas.

> ❗ **Tip**
>
> Chez certains *registraires*, il est possible de créer une redirection HTTP automatique depuis votre nom de domaine vers le sous-domaine de votre choix.

What space do I occupy on the server?

Except *for emails* (page 14), there are ** no quota defined for personal spaces**.

For an estimate of the space occupied by your *personal files* (page 6), the following command can be run once *connected with SSH* (page 11):

```
du -shx
```

If you want to reduce the weight of your folder, but you don't know where to start, the `ncdu` (page 12) command is for you! It allows you to sort and highlight what takes the most space in your files and folders.

Finally, to know the remaining space available on the storage medium, this last command can be used:

```
df -h .
```

This information is also visible in the MOTD[184], when you log in with *SSH* through a *terminal*. Or on the *Drive* (page 20), at the bottom of the side panel.

---

[184] https://en.wikipedia.org/wiki/Message_of_the_day

7

Glossary

alias

  Pseudonym, substitute name. Aliases allow multiple names to be given to the same entity. It is a concept frequently used in computer science. For example, we speak of an alias when we point several email addresses to the same inbox, or when we define a new name for a command. — Wiktionary[185]

API

  Application Programming Interface, an interface intended to be used not by a human being but by a software. It is generally composed of a set of functions that a software can use remotely. — Wikipedia[186]

CLI

  Command Line Interface, an interface in command line, based on a textual display. It is used through a *terminal* window. The CLI is very interesting because it can be used by humans as well as by software. — Wikipedia[187]

client

  Piece of software that accesses a service made available by a *server*. It usually has a graphical interface, intended to be used directly by a human. — Wikipedia[188]

computer network

  Set of computers linked together in order for them to exchange data. — Wikipedia[189]

Debian

  Système d'exploitation communautaire basé sur *Linux*, composé presque exclusivement de *logiciels libres* et respectant la norme *POSIX*.

  C'est le système d'exploitation qui est installé sur le serveur CLUB1. — Wikipedia[190], Site Web[191]

> **❶ See also**
>
> The journal article: Migration de Ubuntu à Debian (Phase 1)[192] (in French)

domain name

  Internet domain identifier, easy for a human to read and remember.

---

[185] https://en.wiktionary.org/wiki/alias#English
[186] https://en.wikipedia.org/wiki/API
[187] https://en.wikipedia.org/wiki/Command-line_interface
[188] https://en.wikipedia.org/wiki/Client_(computing)
[189] https://en.wikipedia.org/wiki/Computer_network
[190] https://fr.wikipedia.org/wiki/Debian
[191] https://www.debian.org/
[192] https://club1.fr/migration-debian-phase-1

> For example: `club1.fr`, `impots.gouv.fr`, and `fr` are domain names.

In the *DNS*, a domain allows to associate information with a name. Among this information, the most important is the *IP address* of the computer associated with this domain. A domain name is therefore often used as an *alias* for an IP address.

In addition to this information, a domain can also have subdomains. — Wikipedia[193]

dynamic website
  Web site whose display may vary "from itself", hence the name "dynamic" (distinguishing it from a *static website*). It contains code that will be "executed" to generate *HTML*. — Wikipedia[194]

free software
  Refers to software that respects the freedom of users. In particular, users have the freedom to run, copy, study, modify and improve these software, and especially to reshare, modified or not. — Wikipedia[195]

GitHub
  Web service providing hosting for software development and version control using *Git* (page 27).

> ❗ **Warning**
>
> Unlike most of the projects that can be found there, GitHub is neither *free*, nor **open source** and belongs to Microsoft.

  — Wikipedia[196]

group
  In a *POSIX* system, groups are used to gather users in order to assign them common rights. A user belongs to one or more groups.

> ❗ **Tip**
>
> It is possible to find out who is a member of a group on the server from an *SSH* access with the following command:
>
> ```
> members GROUP
> ```
>
> By replacing `GROUP` with the desired group. Example: `members sudo` or `members home`.

  — Wikipedia[197]

hidden file
hidden folder
  In most operating systems, it is possible to hide files or folders. This is often used to hide parameters that are not very useful in everyday life. In a *POSIX* system, hidden files begin with a dot `.`.

  In file explorers they may be hidden by default. It is possible to activate their display if necessary, often with the keyboard shortcut `Ctrl` + `H`. — Wikipedia[198]

HTML
  (*Hypertext Markup Language*) Markup language designed to represent *Web* pages. — Wikipedia[199], MDN web docs[200]

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[193] https://en.wikipedia.org/wiki/Domain_name
[194] https://en.wikipedia.org/wiki/Dynamic_web_page
[195] https://en.wikipedia.org/wiki/Free_software
[196] https://en.wikipedia.org/wiki/GitHub
[197] https://en.wikipedia.org/wiki/Group_identifier
[198] https://en.wikipedia.org/wiki/Hidden_file_and_hidden_directory
[199] https://en.wikipedia.org/wiki/HTML
[200] https://developer.mozilla.org/en-US/docs/Web/HTML

instance

Copy of software or a computer object having its own existence and state.

For example, we speak of an instance each time a software is executed with different data. On the CLUB1 server, there are notably several instances of *PHP*: at least one for each member. — Wiktionary[201]

Internet

Publicly accessible global *computer network*. The Internet is actually the interconnection of a set of networks around the world. As the name suggests, "inter" "net" = "between networks". It is therefore a "network of networks". — Wikipedia[202]

IP address

Identification number of a computer connected to a *computer network*.

The IP *protocol* (originally created for *Internet*) is used to transport data between a source computer and its destination. For this, it needs IP addresses in order to identify these two computers.

Currently, two versions of IP addresses are used: Version 4 which is written as numbers separated by periods (e.g. `87.91.4.64` for the CLUB1 server). And version 6 which uses much larger numbers and is written in hexadecimal (e.g. `2001:861:38c4:18a0::3` for the CLUB1 server). — Wikipedia[203]

Linux

Free POSIX operating system kernel. The kernel is the core of the system, it is the interface between user software and hardware.

By extention, Linux often refers to any operating system based on this kernel. — Wikipedia[204]

log

Originally refers to the logbook[205] of a ship. In computing it is a journal containing a history of events, usually in the form of a plain text file. — Wikipedia[206]

Markdown

Lightweight markup language for creating formatted text. Documents written in Markdown are usually intended to be converted to *HTML*, in order to make it a *Web* page. Its main advantage over HTML is its sleek syntax, which makes it more pleasant to read and write for a human. — Wikipedia[207]

permissions

In a *POSIX* system, it is possible to assign permissions to files and folders. They allow to grant or deny rights to users or *groups* on these files and folders.

There are 3 main rights, *read* (r), *write* (w) and *execute* (x).

Table 7.1: Summary of permissions

Droit	Sur un fichier	Sur un dossier
r	Lire le contenu du fichier	Lister le contenu du dossier
w	Modifier le contenu du fichier	Ajouter/supprimer des fichiers dans ce dossier
x	Exécuter ce fichier	Traverser ce dossier

Which can be granted either to the *user* owner of the file/folder, the *group* of the file/folder, or *other* users.

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[201] https://en.wiktionary.org/wiki/instance#English
[202] https://en.wikipedia.org/wiki/Internet
[203] https://en.wikipedia.org/wiki/IP_address
[204] https://en.wikipedia.org/wiki/Linux
[205] https://en.wikipedia.org/wiki/Logbook_(nautical)
[206] https://en.wikipedia.org/wiki/Logging_(computing)
[207] https://en.wikipedia.org/wiki/Markdown

Permissions can be accessed in *CLI* with `ls -l` and modified with `chmod`. — Wikipedia[208]

PHP

(*PHP Hypertext Preprocessor*) High-level programming language, primarily used to produce *Web* pages dynamically by generating *HTML* code. Its acronym originally stood for "*Personal Home Page*" and it is precisely the language that CLUB1 puts forward for the creation of *dynamic website*. — Wikipedia[209]

POSIX

(*Portable Operating System Interface*) Ensemble de normes techniques qui spécifient une interface, permettant aux systèmes d'exploitation qui la respectent d'être interchangeables, du point de vue d'un logiciel utilisateur.

Linux, macOS and many other systems[210] respect this interface, unlike Windows. — Wikipedia[211]

protocol

In the context of computing, a protocol is a set of rules that govern the exchange of data or the collective behavior of processes or computers in networks. — Wikipedia[212]

registrar

Domain name registrar. Company or association managing the *Internet* domain name reservation. — Wikipedia[213]

server

Software that provides a service. It holds the data and responds to requests from a *client*. Often, servers and clients are installed on different computers. By extension, the computer on which the servers are installed is called a "server" (e.g. the CLUB1 server). — Wikipedia[214]

static website

Web site consisting of *HTML* files whose content does not change until they have been edited. They can be designed "by hand" or using a "static site generator". Static sites are an interesting way for those looking to offer more energy-efficient sites. — Wikipedia[215]

terminal

In computing, a terminal was originally a device consisting of a monitor and a keyboard, allowing a human to interact with a remote shared computer. It offered a textual interface, making it possible to enter commands and read the result.

Nowadays, the word "terminal" is often used as a shorthand for a "terminal emulator". This is a software that recreates the command line interface (*CLI*) of this hardware. — Wikipedia[216]

TLD

Top level *domain name*. For example `fr`, `com` or `org` are TLDs. — Wikipedia[217]

TLS

(*Transport Layer Security*) Protocol used to secure exchanges in a *computer network*. One of its main features is to encrypt all data exchanged between the *client* and the *server*, so that no one else can read its content. — Wikipedia[218]

Web

One of the best known services on *Internet*. Its full name is "World Wide Web" (also abbreviated "www"). It allows to publish documents and link them together using hypertext links.

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[208] https://en.wikipedia.org/wiki/File-system_permissions#Traditional_POSIX_permissions
[209] https://en.wikipedia.org/wiki/PHP
[210] https://en.wikipedia.org/wiki/POSIX#POSIX-oriented_operating_systems
[211] https://en.wikipedia.org/wiki/POSIX
[212] https://en.wikipedia.org/wiki/Communication_protocol
[213] https://en.wikipedia.org/wiki/Domain_name_registrar
[214] https://en.wikipedia.org/wiki/Server_(computing)
[215] https://en.wikipedia.org/wiki/Static_web_page
[216] https://en.wikipedia.org/wiki/Computer_terminal
[217] https://en.wikipedia.org/wiki/Top_level_domain
[218] https://en.wikipedia.org/wiki/Transport_Layer_Security

A "Web page" usually consists of a document whose content is written in *HTML* and may include other resources such as images or "style sheets". The *client* used to access it is called a "Web browser". — Wikipedia[219]

Web client

Client accessible via the *Web* and executed by a Web browser.

wiki

Type of *Web* application that allows to create a site collaboratively. Page editing is possible from the Web browser. The best known being *Wikipedia*. The name comes from the Hawaiian language in which "wiki" means "quick". — Wikipedia[220]

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[219] https://en.wikipedia.org/wiki/World_Wide_Web
[220] https://en.wikipedia.org/wiki/Wiki

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