

# Box

Paths are specified as `remote:path`

Paths may be as deep as required, e.g. `remote:directory/subdirectory`.

The initial setup for Box involves getting a token from Box which you can do either in your browser, or with a config.json downloaded from Box to use JWT authentication. `rclone config` walks you through it.

Here is an example of how to make a remote called `remote`. First run:

```
rclone config
```

This will guide you through an interactive setup process:

```

No remotes found - make a new one
n) New remote
s) Set configuration password
q) Quit config
n/s/q> n
name> remote
Type of storage to configure.
Choose a number from below, or type in your own value
[snip]
XX / Box
    \ "box"
[snip]
Storage> box
Box App Client Id - leave blank normally.
client_id>
Box App Client Secret - leave blank normally.
client_secret>
Box App config.json location
Leave blank normally.
Enter a string value. Press Enter for the default ("").
box_config_file>
Box App Primary Access Token
Leave blank normally.
Enter a string value. Press Enter for the default ("").
access_token>

Enter a string value. Press Enter for the default ("user").
Choose a number from below, or type in your own value
  1 / Rclone should act on behalf of a user
    \ "user"
  2 / Rclone should act on behalf of a service account
    \ "enterprise"
box_sub_type>
Remote config
Use auto config?
  * Say Y if not sure
  * Say N if you are working on a remote or headless machine
y) Yes
n) No
y/n> y
If your browser doesn't open automatically go to the following link: http://127.0.0.1:53682/a
Log in and authorize rclone for access
Waiting for code...
Got code
-----
[remote]
client_id =
client_secret =
token = {"access_token":"XXX","token_type":"bearer","refresh_token":"XXX","expiry":"XXX"}
-----
y) Yes this is OK

```

```
e) Edit this remote  
d) Delete this remote  
y/e/d> y
```

See the [remote setup docs](#) for how to set it up on a machine with no Internet browser available.

Note that rclone runs a webserver on your local machine to collect the token as returned from Box. This only runs from the moment it opens your browser to the moment you get back the verification code. This is on <http://127.0.0.1:53682/> and this it may require you to unblock it temporarily if you are running a host firewall.

Once configured you can then use `rclone` like this,

List directories in top level of your Box

```
rclone lsd remote:
```

List all the files in your Box

```
rclone ls remote:
```

To copy a local directory to an Box directory called backup

```
rclone copy /home/source remote:backup
```

## Using rclone with an Enterprise account with SSO

If you have an "Enterprise" account type with Box with single sign on (SSO), you need to create a password to use Box with rclone. This can be done at your Enterprise Box account by going to Settings, "Account" Tab, and then set the password in the "Authentication" field.

Once you have done this, you can setup your Enterprise Box account using the same procedure detailed above in the, using the password you have just set.

## Invalid refresh token

According to the [box docs](#):

```
Each refresh_token is valid for one use in 60 days.
```

This means that if you

- Don't use the box remote for 60 days
- Copy the config file with a box refresh token in and use it in two places
- Get an error on a token refresh

then rclone will return an error which includes the text `Invalid refresh token`.

To fix this you will need to use oauth2 again to update the refresh token. You can use the methods in [the remote setup docs](#), bearing in mind that if you use the copy the config file method, you should not use that remote on the computer you did the authentication on.

Here is how to do it.

```

$ rclone config
Current remotes:

Name                      Type
====                      =====
remote                    box

e) Edit existing remote
n) New remote
d) Delete remote
r) Rename remote
c) Copy remote
s) Set configuration password
q) Quit config
e/n/d/r/c/s/q> e
Choose a number from below, or type in an existing value
 1 > remote
remote> remote
-----
[remote]
type = box
token = {"access_token":"XXX","token_type":"bearer","refresh_token":"XXX","expiry":"2017-07-06T16:02:43Z"}
-----
Edit remote
Value "client_id" = ""
Edit? (y/n)>
y) Yes
n) No
y/n> n
Value "client_secret" = ""
Edit? (y/n)>
y) Yes
n) No
y/n> n
Remote config
Already have a token - refresh?
y) Yes
n) No
y/n> y
Use auto config?
  * Say Y if not sure
  * Say N if you are working on a remote or headless machine
y) Yes
n) No
y/n> y
If your browser doesn't open automatically go to the following link: http://127.0.0.1:53682/a
Log in and authorize rclone for access
Waiting for code...
Got code
-----
[remote]

```

```
type = box
token = {"access_token":"YYY","token_type":"bearer","refresh_token":"YYY","expiry":"2017-07-2
-----
y) Yes this is OK
e) Edit this remote
d) Delete this remote
y/e/d> y
```

## Modified time and hashes

Box allows modification times to be set on objects accurate to 1 second. These will be used to detect whether objects need syncing or not.

Box supports SHA1 type hashes, so you can use the `--checksum` flag.

## Restricted filename characters

In addition to the [default restricted characters set](#) the following characters are also replaced:

| Character | Value | Replacement |
|-----------|-------|-------------|
| \         | 0x5C  | \           |

File names can also not end with the following characters. These only get replaced if they are the last character in the name:

| Character | Value | Replacement |
|-----------|-------|-------------|
| SP        | 0x20  | SP          |

Invalid UTF-8 bytes will also be [replaced](#), as they can't be used in JSON strings.

## Transfers

For files above 50MB rclone will use a chunked transfer. Rclone will upload up to `--transfers` chunks at the same time (shared among all the multipart uploads). Chunks are buffered in memory and are normally 8MB so increasing `--transfers` will increase memory use.

## Deleting files

Depending on the enterprise settings for your user, the item will either be actually deleted from Box or moved to the trash.

Emptying the trash is supported via the rclone however cleanup command however this deletes every trashed file and folder individually so it may take a very long time. Emptying the trash via the WebUI does not have this limitation so it is advised to empty the trash via the WebUI.

## Root folder ID

You can set the `root_folder_id` for rclone. This is the directory (identified by its `Folder ID`) that rclone considers to be the root of your Box drive.

Normally you will leave this blank and rclone will determine the correct root to use itself.

However you can set this to restrict rclone to a specific folder hierarchy.

In order to do this you will have to find the `Folder ID` of the directory you wish rclone to display. This will be the last segment of the URL when you open the relevant folder in the Box web interface.

So if the folder you want rclone to use has a URL which looks like `https://app.box.com/folder/11xxxxxxxxx8` in the browser, then you use `11xxxxxxxxx8` as the `root_folder_id` in the config.

## Standard Options

Here are the standard options specific to box (Box).

### **--box-client-id**

OAuth Client Id Leave blank normally.

- Config: `client_id`
- Env Var: `RCLONE_BOX_CLIENT_ID`
- Type: string
- Default: ""

### **--box-client-secret**

OAuth Client Secret Leave blank normally.

- Config: `client_secret`
- Env Var: `RCLONE_BOX_CLIENT_SECRET`
- Type: string
- Default: ""

### **--box-box-config-file**

Box App config.json location Leave blank normally.

Leading `~` will be expanded in the file name as will environment variables such as `${RCLONE_CONFIG_DIR}`.

- Config: `box_config_file`
- Env Var: `RCLONE_BOX_BOX_CONFIG_FILE`
- Type: string
- Default: ""

### **--box-access-token**

Box App Primary Access Token Leave blank normally.

- Config: access\_token
- Env Var: RCLONE\_BOX\_ACCESS\_TOKEN
- Type: string
- Default: ""

### **--box-box-sub-type**

- Config: box\_sub\_type
- Env Var: RCLONE\_BOX\_BOX\_SUB\_TYPE
- Type: string
- Default: "user"
- Examples:
  - "user"
    - Rclone should act on behalf of a user
  - "enterprise"
    - Rclone should act on behalf of a service account

## **Advanced Options**

Here are the advanced options specific to box (Box).

### **--box-token**

OAuth Access Token as a JSON blob.

- Config: token
- Env Var: RCLONE\_BOX\_TOKEN
- Type: string
- Default: ""

### **--box-auth-url**

Auth server URL. Leave blank to use the provider defaults.

- Config: auth\_url
- Env Var: RCLONE\_BOX\_AUTH\_URL
- Type: string
- Default: ""

### **--box-token-url**

Token server url. Leave blank to use the provider defaults.

- Config: token\_url
- Env Var: RCLONE\_BOX\_TOKEN\_URL
- Type: string
- Default: ""



## **--box-root-folder-id**

Fill in for rclone to use a non root folder as its starting point.

- Config: root\_folder\_id
- Env Var: RCLONE\_BOX\_ROOT\_FOLDER\_ID
- Type: string
- Default: "0"

## **--box-upload-cutoff**

Cutoff for switching to multipart upload ( $\geq 50$ MB).

- Config: upload\_cutoff
- Env Var: RCLONE\_BOX\_UPLOAD\_CUTOFF
- Type: SizeSuffix
- Default: 50M

## **--box-commit-retries**

Max number of times to try committing a multipart file.

- Config: commit\_retries
- Env Var: RCLONE\_BOX\_COMMIT\_RETRIES
- Type: int
- Default: 100

## **--box-encoding**

This sets the encoding for the backend.

See: the [encoding section in the overview](#) for more info.

- Config: encoding
- Env Var: RCLONE\_BOX\_ENCODING
- Type: MultiEncoder
- Default: Slash,BackSlash,Del,Ctl,RightSpace,InvalidUtf8,Dot

## **Limitations**

Note that Box is case insensitive so you can't have a file called "Hello.doc" and one called "hello.doc".

Box file names can't have the `\` character in. rclone maps this to and from an identical looking unicode equivalent `\` (U+FF3C Fullwidth Reverse Solidus).

Box only supports filenames up to 255 characters in length.

`rclone about` is not supported by the Box backend. Backends without this capability cannot determine free space for an rclone mount or use policy `mfs` (most free space) as a member of an rclone union remote.