nuvovis

Cloud Filer

User Guide

July 2015
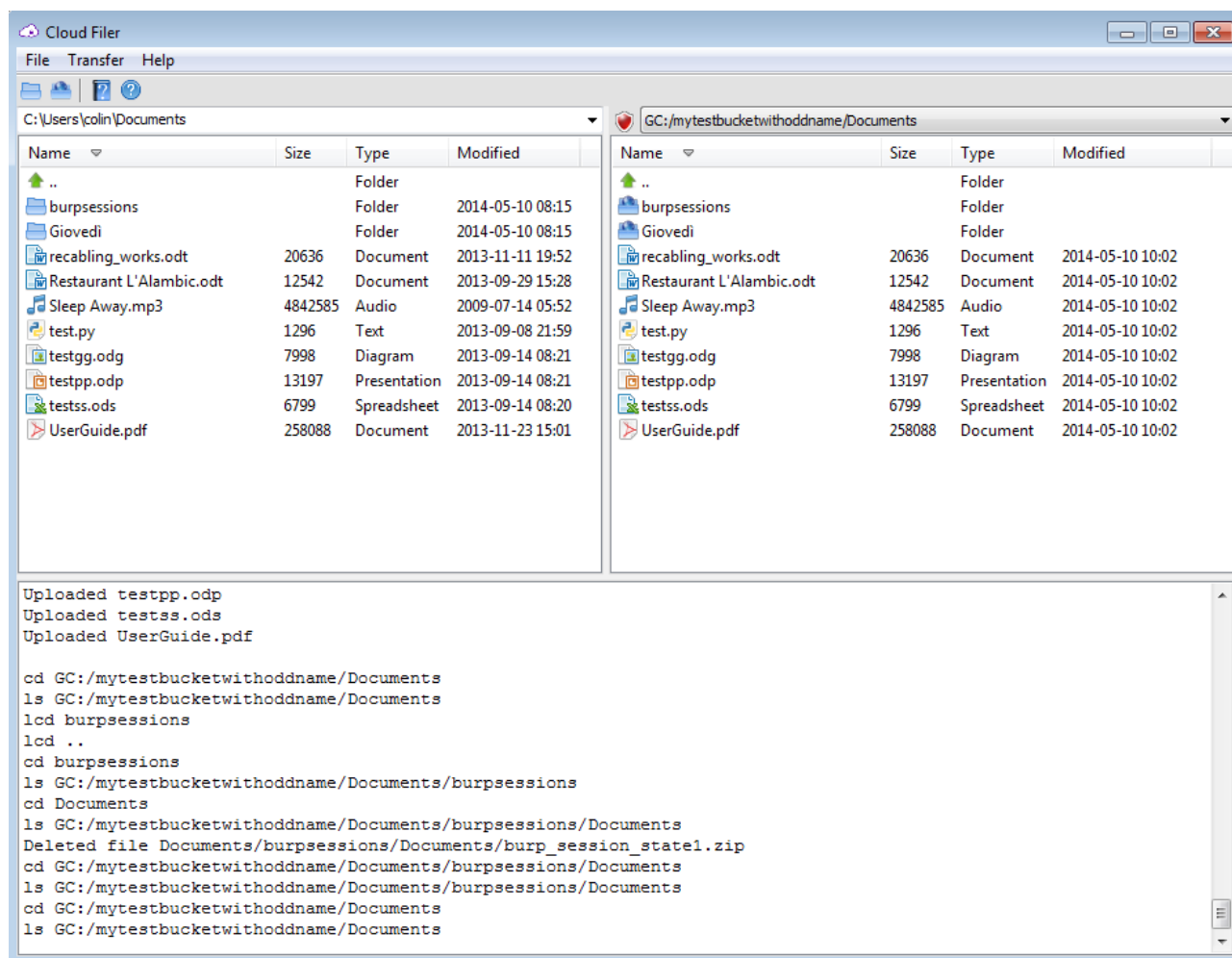
Table of Contents

Introduction

Cloud Filer is a cloud storage management tool. Cloud Filer allows you to upload and download files to cloud storage and can be used as part of your backup strategy. Cloud Filer uses pre-internet encryption and file name obfuscation making access to your cloud data useless without the right password.

Getting Started

Cloud Filer can be used with any cloud storage service that supports the Amazon S3 interface such as:

- [Amazon AWS](#)
- [Google Cloud Storage](#)

Before you can use Cloud Filer you need to sign up for the use of a cloud storage service such as [Amazon AWS](#). S3 cloud storage services use two keys to authenticate your connection to the service: the Access Key and Secret Key and you need these keys to connect to a storage service with Cloud Filer.

Where are my Keys?

In **Amazon AWS** your keys can be found by logging in to the AWS cloud console, clicking on your user name to the top right and selecting `Security Credentials`:
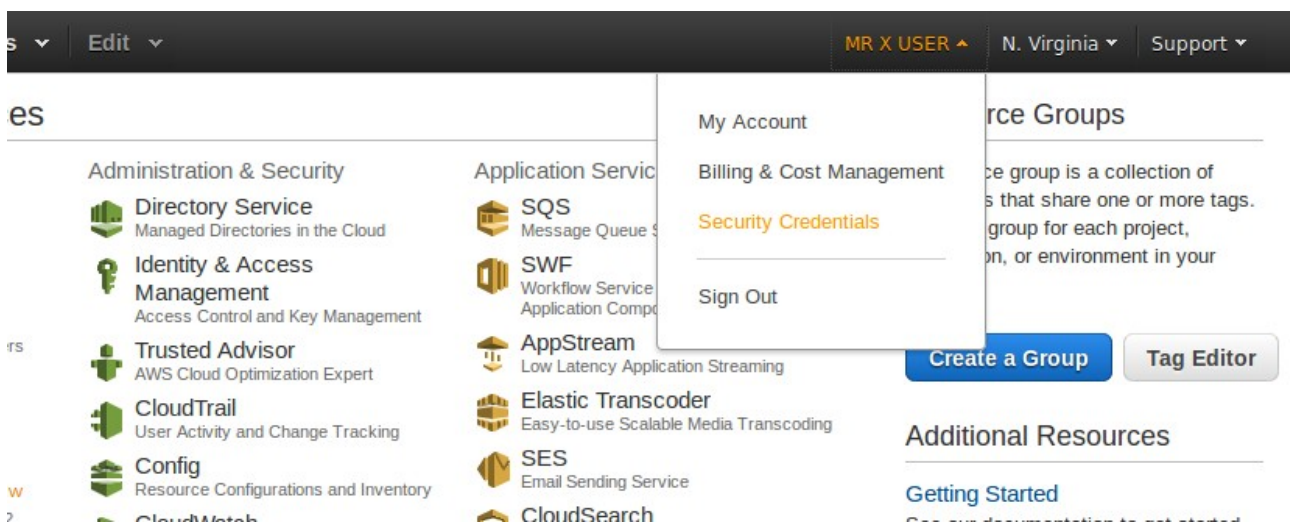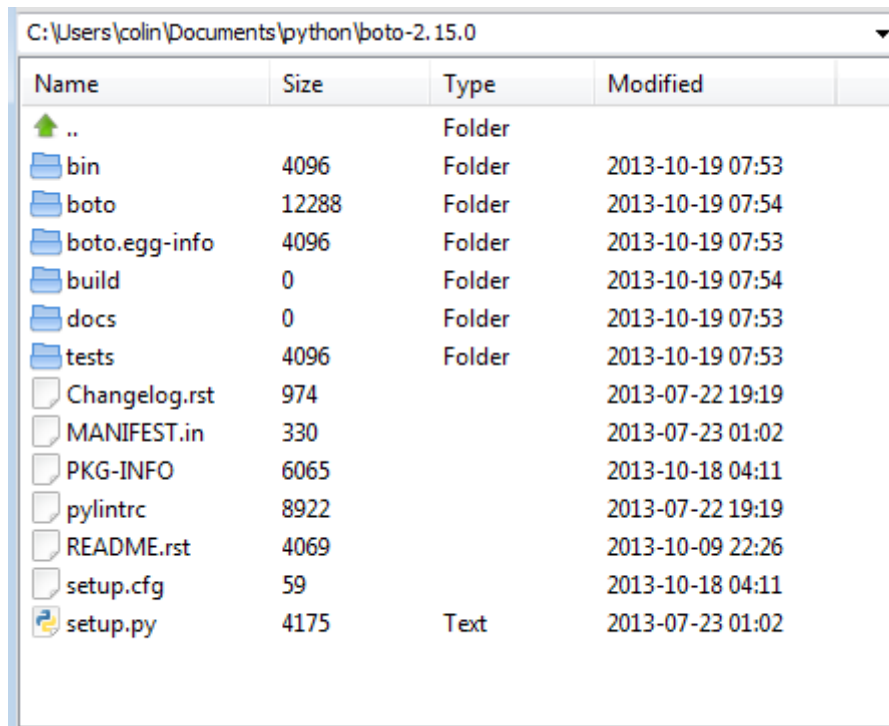

A warning will appear because we are copying the keys for the whole AWS account, which is fine if you are using the account exclusively for S3 cloud storage.
Next expand the Access Keys section and copy and paste your keys somewhere safe on your machine e.g. using [KeePassX](#).

From the **Google Cloud** console your keys can be found under `Storage | Cloud Storage | Settings | Interoperability`:

Navigating Local Folders

The top left area of the Cloud Filer GUI shows the name of a local folder on your PC and a list of the directories and files in that local folder:
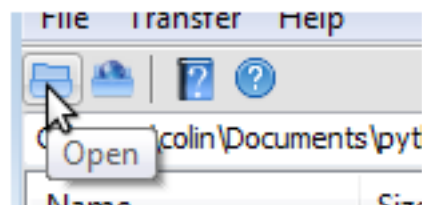

You can navigate your local machine by double-clicking on folders or by typing directory names in the input field above the file list. If you click on the down arrow at the right-hand end of the input field you can select from the history of visited directories.

You can also open a directory selection dialog box using the `File | Open` menu or the Open toolbar button:

Connecting to Cloud Storage

To connect to your cloud storage provider you can use the `File | Connect` menu or the Connect toolbar button:
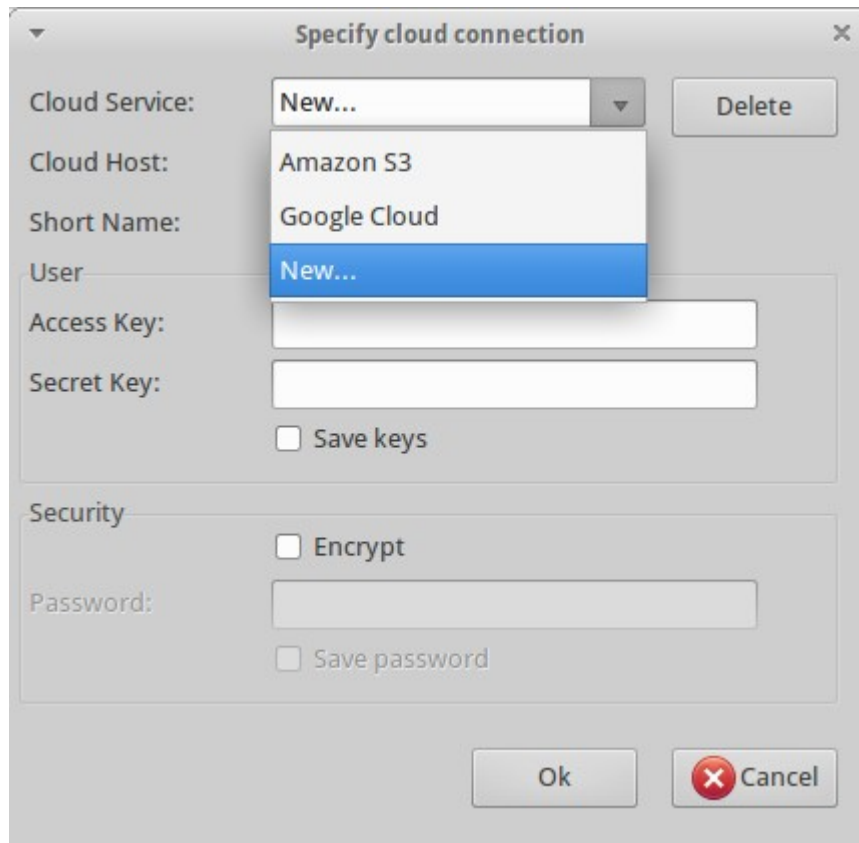

Cloud Filer comes with the Amazon S3 and Google Cloud Storage services pre-configured. To connect to Amazon or Google you just need to enter your Access Key and Secret Key (see *Where are my Keys* under *Getting Started* above):
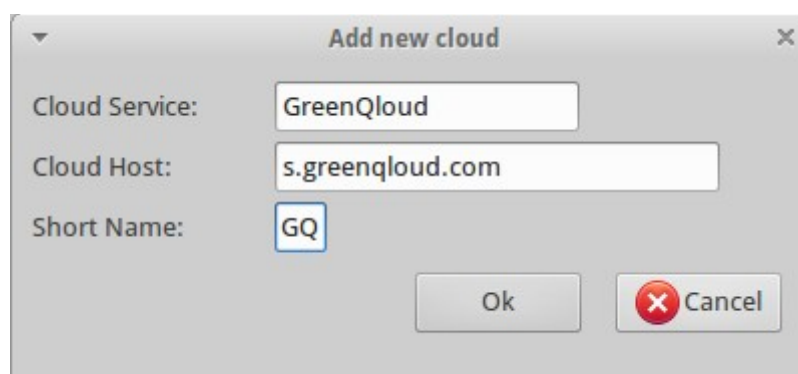
To connect to any other S3 cloud provider select `New...` as the Cloud Service:

Then enter the service name, the service's cloud host URL and a two character short code to distinguish the service from other cloud services. For example to connect to the environmentally friendly GreenQloud storage service use:
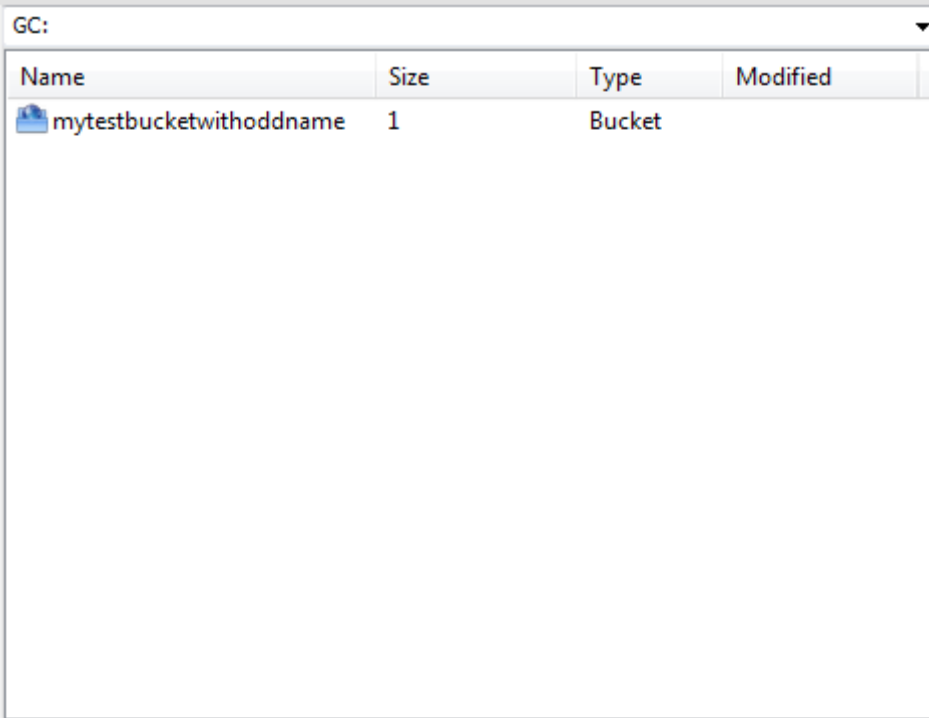
Navigating the Remote Cloud Storage

When you first connect the top right area of the Cloud Filer GUI shows the Short Name of the remote cloud service and a list of the S3 buckets in your cloud storage account (which may be empty initially):


Before you can upload any files to the cloud if you don't have any buckets you need to create an S3 bucket. Right-click on the remote file list and select the `New Bucket` menu action. You will be prompted for the name of your new bucket. Note that your bucket name needs to be globally unique so either include your name or use a long and unusual name for your new bucket.

Creating a new remote folder is also a right-click action on the remote file list. You can also delete files, folders or buckets using the `Delete` right-click action.

Just like the local directory input field above the local file list the remote folder input field shows the current remote path and provides a history of visited remote folder locations. You can use the remote folder input field to navigate the remote buckets and folders or double-click on bucket or folder names.

Cloud File Transfer

Once you have navigated to a bucket or a folder within a bucket you can upload files or directories from your local machine to the currently shown remote location. You can do this by selecting the files or directories to upload in the left-hand local file list and using the `Transfer | Upload` menu. Alternatively you can right-click on the locally selected items and use the `Upload` pop-up menu action. For each file uploaded a dialog box will show the upload progress:
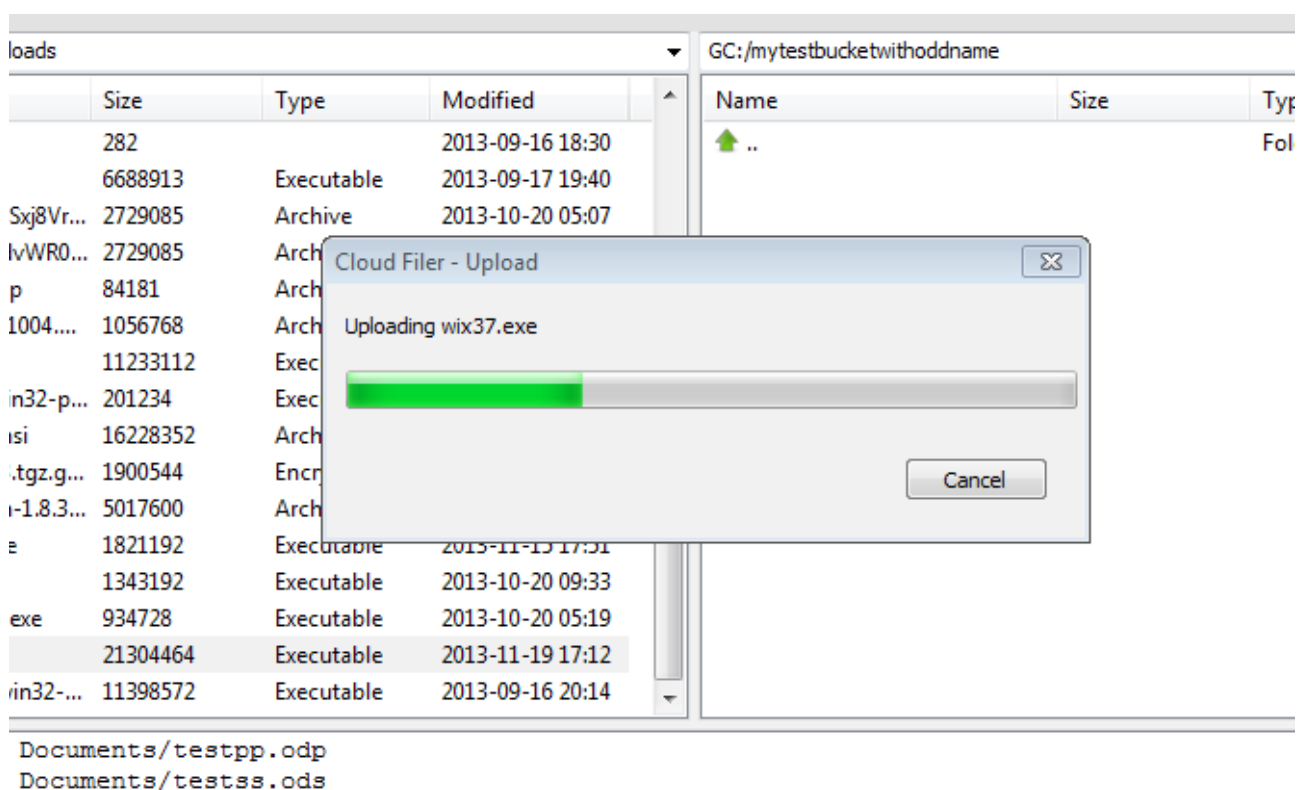
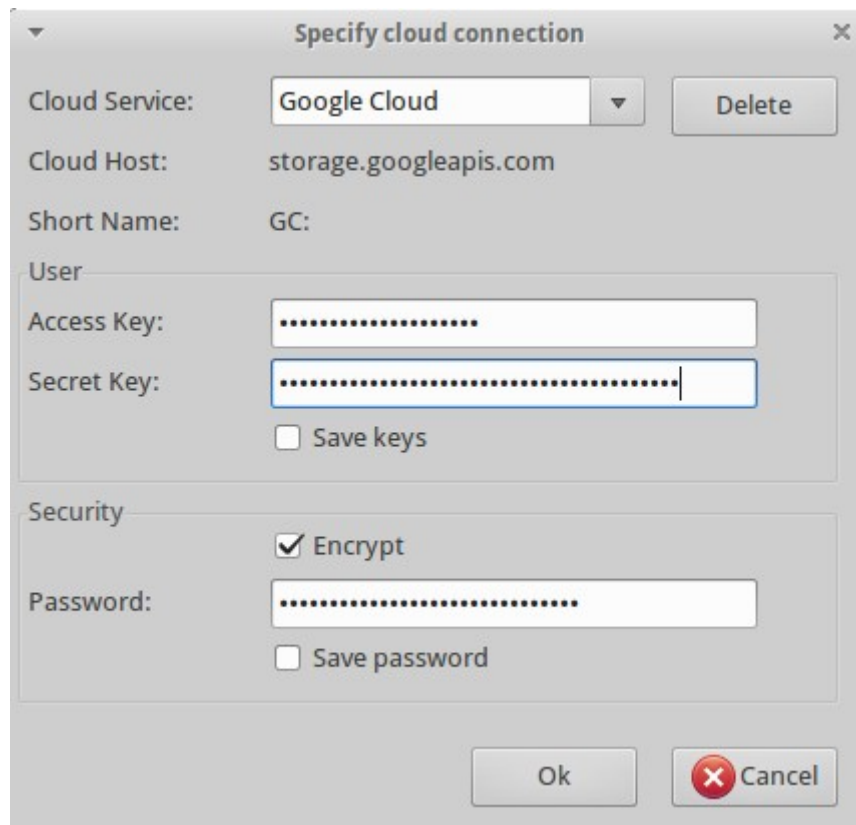
You can cancel a file transfer while it is progress by clicking on the `Cancel` button on the progress dialog box.

To download files or folders from the cloud navigate to the target local directory, select the remote item or items to download and either use the `Transfer | Download` menu or the right-click `Download` action.
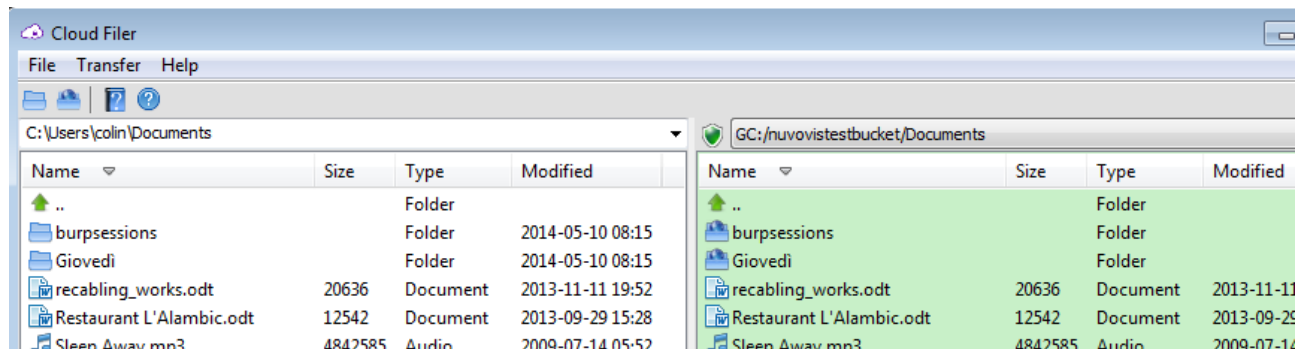
Encryption

When you connect to the remote cloud service you can specify that secure encryption mode should be used by checking the `Encrypt` check box in the connection dialog:


Note that if you forget the password you use you will not be able to access any of the files which were stored using the forgotten password. Ensure you have a fail-safe way of remembering your password. For example you could generate and store a strong password using KeePassX and back up the KeePassX database.

When you connect to a cloud service in encrypted mode you get visual confirmation that you are connected securely from the green shield and green background for the remote file and folder list on the right.


When you upload files or folders in secure mode each remote folder contains an encrypted file called _CFCI which holds the folder contents information, a folder called _CFDn for each sub-folder and a file called _CFLn for each file. Without the password the remote files and their names are just useless random noise. When you download files in encrypted mode Cloud Filer decrypts the files and uses the original file name for your local copy of the files. Your password and decrypted files never leave your local machine.
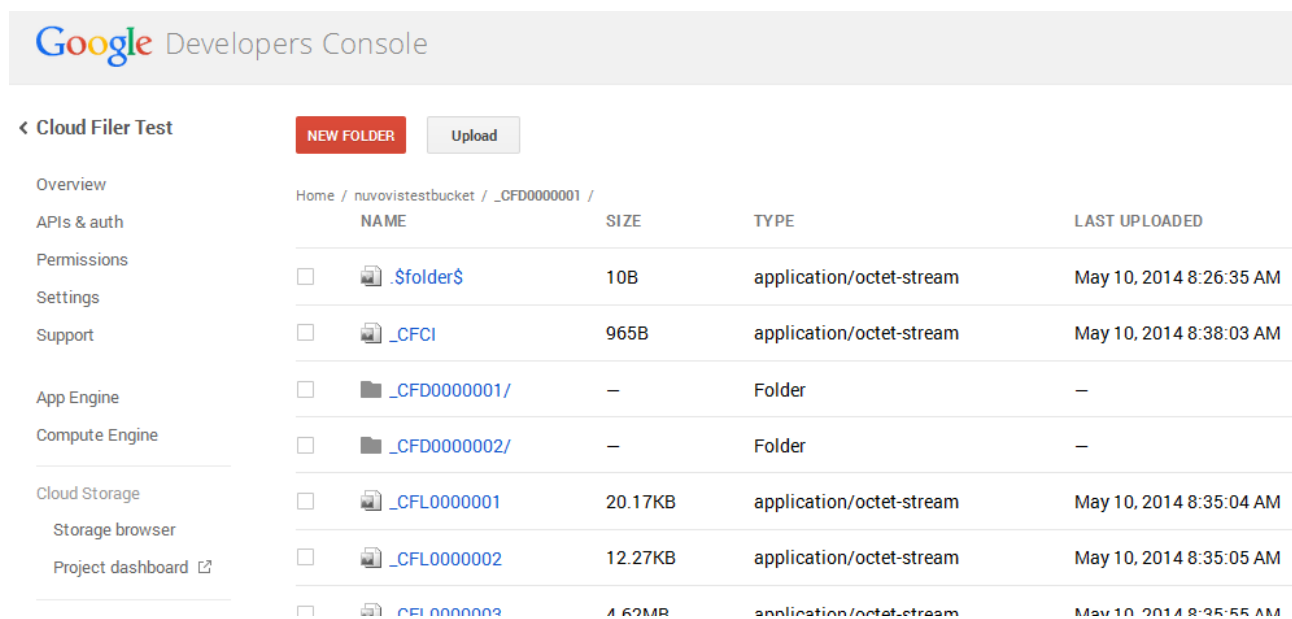

When you browse the remote folder Cloud Filer decodes the _CFCI file and you only see the cleartext representation of the obfuscated encrypted remote folders and files. You can see the cryptographic details here or download the source code here.

Proxy Settings and Version Check

If you are behind a proxy server you can set the proxy settings using File | Settings:
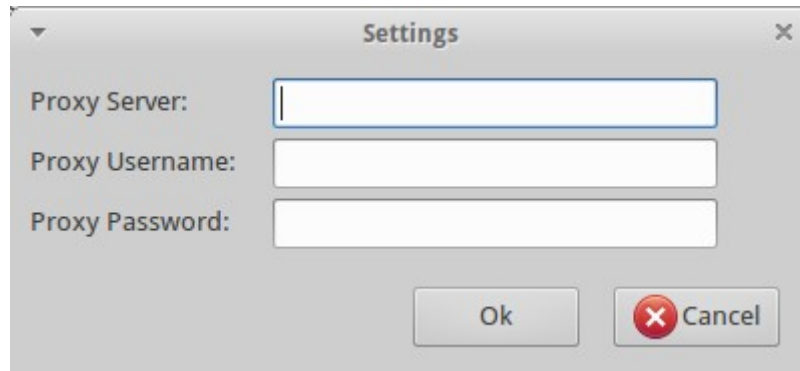
Cloud Filer checks for newer versions of itself on startup and lets the user know if there is an updated version available.
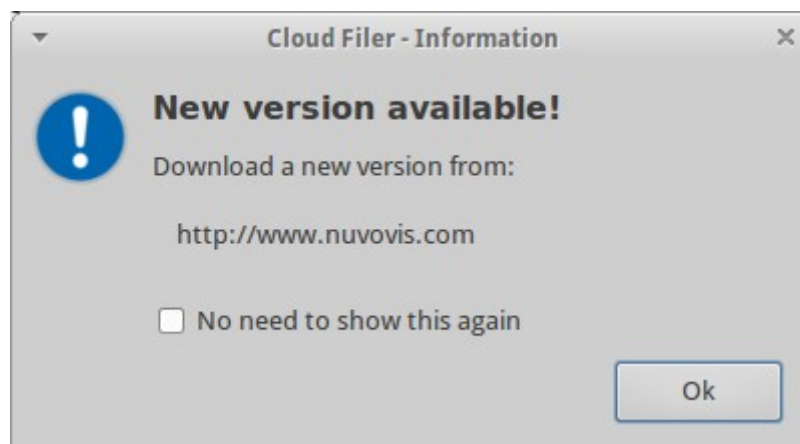
To suppress this functionality check the `No need to show this again` checkbox or add the following row to the History section of the CloudFiler.ini file in your home folder:

```
UserSupressedVersionCheck = Y
```