ownCloud
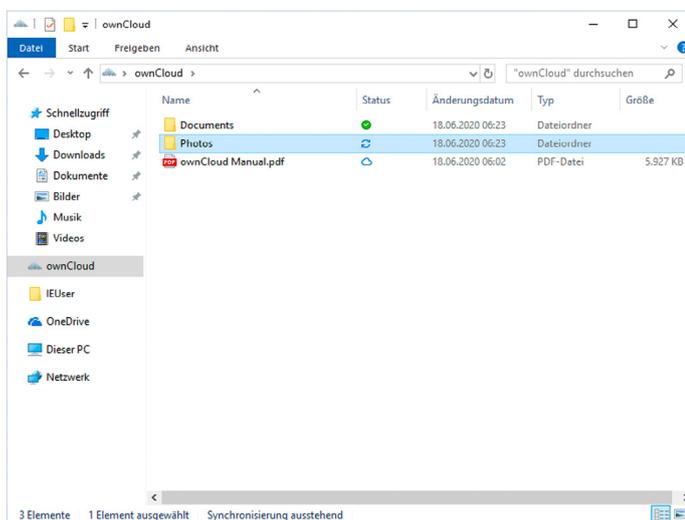
VIRTUAL FILE SYSTEM

Feature brief: Virtual File System

» Desktop Client creates local copies of files as virtual files only

» Fetches the full file only on demand, e.g. for opening in local software

» Replaces full files swiftly with virtual ones, freeing up disk space
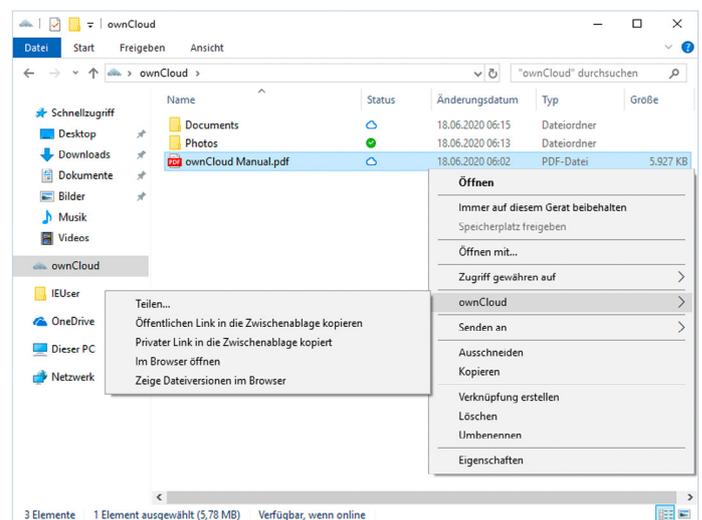
The challenge

Synchronizing all files shared within an organization with each and every client that staff use is not only unnecessary, but also puts a strain on bandwidth and storage space. Instructing users to manually select which folders to synchronize only reduces the problem without solving it.

The fix

Speed up your IT infrastructure and save on bandwidth as well as local storage by enabling virtual file sync. It means that the ownCloud desktop clients only transfer files to your hard drive if they are being used. Until then, they exist locally as placeholders only. On windows, the placeholders reflect the size and file type of the original file. On macOS and Linux, virtual files are available as an experimental feature.*

Files with a green checkmark have been synced locally while a cloud icon indicates a virtual file.
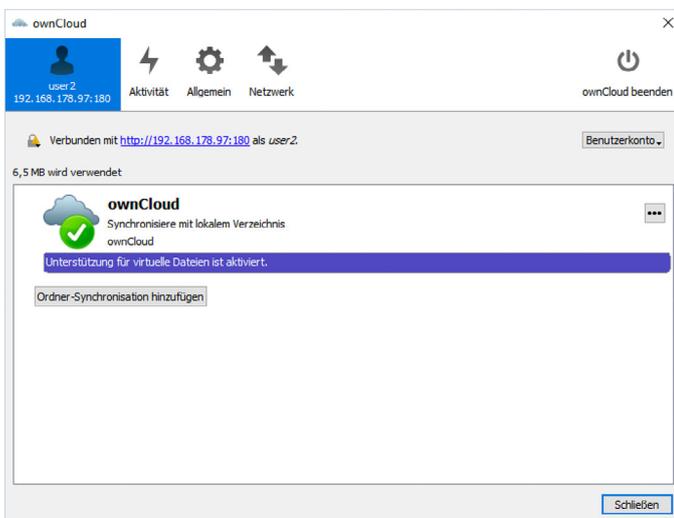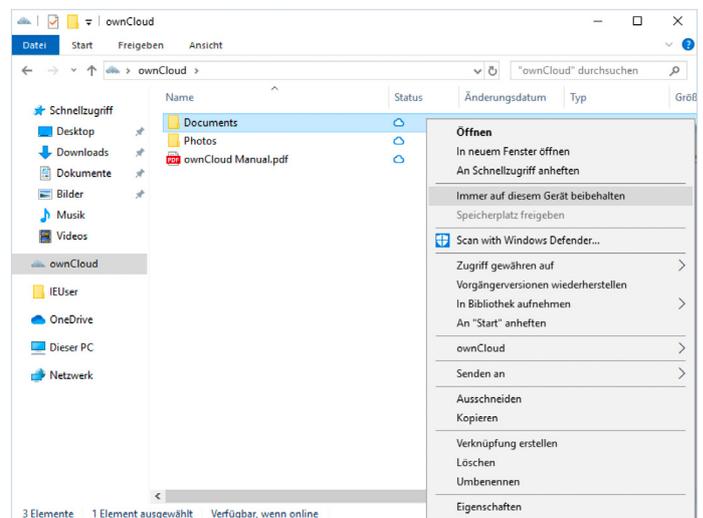

The context menu is available for virtual files, too.

* On macOS and Linux, virtual files all have a size of 1 byte and the file extension .owncloud, making size estimation and file association with local software harder. Our team members nevertheless uses this feature merrily and fruitfully on their Macs and a bunch of Linux machines.

The process

Users can activate the virtual file system feature in their desktop clients. On branded ownCloud Enterprise deployments, admins have to enable Virtual File System first to make it available to users. They can then, in their native file manager, choose which folders and files to sync just virtually or in full, e.g. depending on how often they plan to work on them. On Windows, users can run the "free up space" command to remove files synced through ownCloud and replace them with virtual ones.

The ownCloud desktop client indicates if the Virtual File System is enabled.

The context menu allows for easy switching between local and virtual for each file and folder.

An example

An organization uses ownCloud to collaborate on files. Users have access to different folders depending on workgroups and departments. Without Virtual File System, ownCloud syncs every file recently edited to the hard drives of each user who has access to that file, leading to data transfer of about the file size multiplied by the number of users. With Virtual File System, if a file is edited it just gets synced to the central server, while the other users with only get the metadata, e.g. file size and timestamp, saving lots of bandwidth and storage on local hard drives. It is only downloaded when they chose to open the file.

The advantages

✔ Saves storage space

✔ Shortens sync process

✔ No admin involvement needed

✔ Reduces bandwidth use

✔ Speeds up ownCloud rollout

✔ Fully replaces OneDrive on Windows with an open-source alternative

About ownCloud

ownCloud develops and provides open-source software for content collaboration, allowing teams to easily share and work on files seamlessly regardless of device or location. More than 100 million users worldwide already use ownCloud as an alternative to public clouds - and thereby opt for more digital sovereignty, security and data protection. For further information, please visit **www.owncloud.com** or on Twitter **@ownCloud**.