# Panbox

# Transparent file and folder encryption for cloud and storage

Encryption for cloud storage and file shares

Protects confidentiality and integrity of managed files

PanBox

Cloud storage services are gaining in popularity due to their ease of use, attractive pricing and the prevalence of fast Internet connections. The market leader Dropbox alone has more than 300 million users. However, files that are stored in cloud services are subject to security risks due to e.g. processing by the cloud storage provider, cyberattacks and intelligence surveillance.

In the business world, cloud storage services are typically used to exchange large files or for ad hoc collaboration. However, there are inherent risks. Sensitive data could be transferred to a third party (the cloud storage provider) where it is accessible via the Internet. Most services contend they are providing a „sufficient degree of security“ by merely securing the transport path with an SSL connection. However, what is often unclear is whether and to what extent the provider protects the confidentiality of the data it is storing: Even if the customer trusts the service provider, it is important to keep in mind that services of this type are an attractive target for cyberattacks and intelligence surveillance.

The PanBox software for client PCs and mobile devices provides a solution to this problem by extending cloud storage services to include client-based file encryption.

What is unique is that the encrypted data can still be securely shared with other users based on decentralized key management. The user thus has complete control over the encryption process and all of the keys that are used. PanBox does not require a central registration service.

## User-friendly encryption

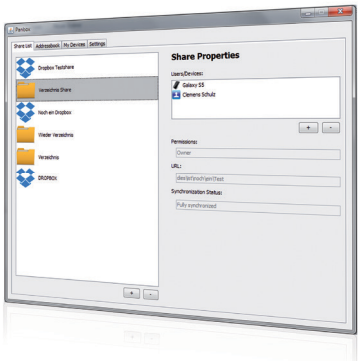
PanBox extends cloud storage services such as Dropbox, Microsoft OneDrive and Google Drive as well as file shares to include client-based, end-to-end file encryption. All data is encrypted before it leaves the user's computer. The encrypted data can still be synchronized in cloud services and shared with other users. The user has complete control over the encryption procedure and all of the associated keys.

## Secure data in the cloud

PanBox was developed as an easy-to-use product that provides top security. The solution is ideal for private individuals and businesses. PanBox integrates seamlessly into existing client software for cloud storage services. Files are organized based on „shares“, i.e. user-definable subfolders. The installed client software automatically synchronizes the content of these subfolders with a cloud storage service or file share. PanBox shows the shares in an automatically configured virtual drive. Files can be written and read as required within the virtual folders. They are encrypted on-the-fly and are thus never persistently present in plain text on the data medium. PanBox was developed as part of a joint project with Fraunhofer SIT. A free open source version is available for download.

## Panbox Enterprise

Intended especially for use by governmental authorities and companies, PanBox Enterprise has a central public key infrastructure (PKI) and supports management of the integration of keys and rights administration into a directory service (LDAP, Active Directory).



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All data is encrypted by PanBox prior to storage in the cloud.
The user maintains complete control over the keys.

## Features

### Basic characteristics

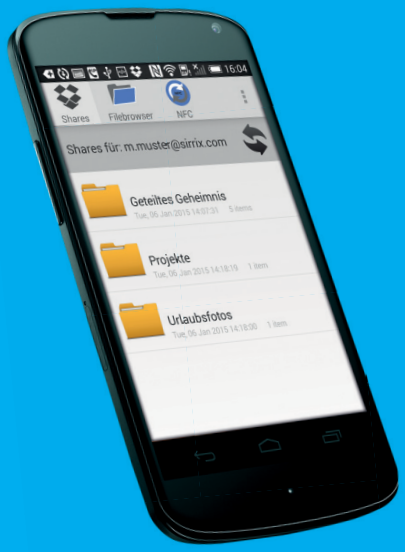
- Supported operating systems: Windows 7/8, Android (iOS, Mac OS X in planning)

### Security

- Protects confidentiality and integrity of managed files
- Allows secure shared access to files

### Convenience

- Management of users and their devices
- Support for cloud storage services (e.g. Dropbox, Microsoft OneDrive, Google Drive)
- Support for file server shares (Windows, Samba, NAS, etc.)
- Integration into directory service (LDAP, Active Directory)

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