

On the Security of Cloud Storage Services Addendum

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During the time between the end of the observation period (January 2012) and the printing of the study, some cloud storage providers implemented some changes regarding their services. This addendum points out these changes and their impacts on the results of the study.

CloudMe

Page 64 - Sharing files with non-subscribers, protected by obfuscated URLs. The possibility to create obfuscated URLs seems to exist no longer.

Pages 64 and 65 - Registration and Login. During registration, the password has to be at least five characters long.

Page 65 - Sharing. Folders can be shared with other users of the CloudMe service, however the invited users can't access the resource.

Page 65 - Sharing files with non-subscribers, protected by obfuscated URLs. The possibility to create obfuscated URLs seems to exist no longer.

CrashPlan

Page 73 - Registration and Login. CrashPlan does not enable information gathering regarding already registered email addresses.

Dropbox

Pages 78 and 81 - Sharing. Dropbox has completely modified the sharing of files or folders with other persons. There are two ways to share files with other persons:

1. Users can grant other persons read-only access to files or folders using the "Get Link" feature. This feature creates an URL to the file or the folder. The user can pass this URL to other persons (subscribers and non-subscribers) e. g. via email.

Links to folders look like `https://www.dropbox.com/sh/n`, with *n* being an obfuscated string. Links to files include their original filename

(e. g. <https://www.dropbox.com/s/n/example.jpg>, again with n being an obfuscated string).

The link to a file does not change if the content of the file changes. The obfuscated part of a file URL differs for files in the same folder. So it is not possible to guess valid links to other files in the same folder if the link to one file in this folder is known. The shared files seem to be excluded from search machine indexing.

2. Users can grant other persons (subscribers and non-subscribers) read/write access to folders using the "Share folder" feature. When this feature is used for the first time, Dropbox requires to confirm the email address. For this, Dropbox sends an email to the email address stated during registration. This email contains a confirmation link which must be visited by the user. If the email address has been verified, the user can share folders with other persons by entering their user name or email address.

Mozy

Page 84 - Copy. Users may use the web restore function to copy files. Using web restore, users can access and download their files from any place. However, this feature does not fully meet the requirements in Section 2.1.1 of the study.

Page 86 - Registration and Login. Mozy's login process is hardened against brute-force password attacks. After three incorrect login attempts, a CAPTCHA has to be solved.

Page 86 - Encryption. Users can restore their data using Mozy's web interface. Mozy enhanced the restore function. Users can browse through the stored files and they can select the files to be restored. Single files can be restored by simply download them. File selections are packed into a self extracting zip archive which may be downloaded by the user. Alternatively, users can use the Mozy Restore Manager, a separate tool provided by Mozy to restore files. File- and pathnames are still stored unencrypted since otherwise browsing the file would not work.

TeamDrive

Page 89 - Availability. TeamDrive offers a TeamDrive App for iPhone/iPad.