



Quickly sync and upload files with Dropbox

In two European cities, Dropbox* uploaded, downloaded, and synced files and folders faster than three business options from top competitors

With both employees and customers scattered across the globe, today's businesses need responsive, effective tools to enable collaboration around the world. On any given day, a project manager in Phoenix might work with colleagues in London and Tokyo, deliver files to a client in Boston, and connect with contractors in Sydney. Quick, seamless exchanges of files can help keep those interactions moving smoothly and ultimately boost productivity.

We traveled to London, United Kingdom, and Berlin, Germany, to test the speed of four popular cloud storage services from Dropbox, Google, Box, and Microsoft on a range of tasks. We installed the apps locally on two matching Windows 11 Pro

laptops and two matching macOS laptops. We also confirmed that all four service plans were using File Provider on macOS.

To measure the services' performance, we timed how long it took each service to transfer files and folders to and from the cloud and sync files between matching devices. We used a range of file and folder sizes to get a more comprehensive picture of performance. In 145 of the 168 comparisons we did, Dropbox was faster than the competition. This report takes a closer look at six areas where Dropbox could help your team boost the speed of collaboration.



Upload a folder of 10K files in 93% less time

vs. Microsoft solution we tested**



Sync a 50KB file across devices in 77% less time

vs. Box solution we tested**



Upload a folder of 400 zero-byte files in 73% less time

vs. Google solution we tested***



Sync a 25MB file across devices in 78% less time

vs. Box solution we tested****

IN LONDON AND BERLIN

*PT tested using the Dropbox Advanced plan, Microsoft OneDrive for business (Plan 1), Box Business, and Google Workspace™ Business Plus. Further details of which offerings we tested appear on page 2.

**On a 13-inch Apple® MacBook Pro® 2022 laptop (or laptop set) running macOS 13.5.1 in London

***On a Dell™ XPS 13 9315 running Windows 11 Pro in London

****On a 13-inch Apple MacBook Pro 2022 laptop set running macOS 13.5.1 in Berlin

How we tested

To provide a look at how each cloud storage service performed in major European cities, a team of PT engineers traveled to London, United Kingdom, and Berlin, Germany. There, our team conducted comparisons of the four service plans on matching sets of two device and operating system combinations:

- **PC:** Two Dell XPS 13 9315 laptops running Windows 11 Pro
- **Mac:** Two 13-inch Apple MacBook Pro 2022 laptops running macOS 13.5.1 (Ventura) using File Provider

We used the following plans of service when testing:

- **Dropbox Advanced**
- **Google Workspace Business Plus**
- **Box Business**
- **Microsoft OneDrive for business (Plan 1)**

For easier reading, we also refer to these plans of service as Dropbox, Google Drive, Box, and Microsoft OneDrive throughout the report.

84 individual comparisons in each city of Dropbox vs. competitors



Device-to-cloud and cloud-to-device tests*

Upload and download a 100MB folder of 400 miscellaneous files distributed across 40 sub-folders

Upload and download a folder of 400 zero-byte files distributed across 40 sub-folders

Upload and download a 25MB file

Upload and download a 250MB file

*8 PC + 8 Mac tests = 16 tests x 3 competitors = 48 comparisons per city x two cities = 96 total comparisons



Device-to-cloud only tests**

Edit a 50KB local file and upload changes

Edit a 25MB local file and upload changes

Upload a local folder containing 10,000 1KB files

**3 PC + 3 Mac tests = 6 tests x 3 competitors = 18 comparisons per city x two cities = 36 total comparisons



Device-to-cloud-to-second-device tests***

Synchronize a 50KB file

Synchronize a 25MB file

Synchronize an edited 25MB file

***3 PC + 3 Mac tests = 6 tests x 3 competitors = 18 comparisons per city x two cities = 36 total comparisons

In each city, we ran each test three times on both a Mac and a PC (or laptop set for syncing tests), and then recorded the median as the result for the individual comparisons. We found that Dropbox won in 145 out of the 168 one-on-one comparisons with Google Drive, Box, and Microsoft OneDrive. In the following pages, we compare the results of each competitor in several key tests: uploading a 25MB file, a 250MB file, a folder of 400 zero-byte files, and a folder with 10,000 1KB files; and syncing a 50KB file and a 25MB file. To see the results of all individual comparisons, view the [science behind the report](#).

Note: The graphs in this report use different y-axis scales to keep a consistent size. Please be mindful of each graph's data range as you compare.

Get time back with faster upload speeds with Dropbox

People working in all industries deal with uploading files every day, whether to share with clients, collaborate with teammates, or simply store their work until it's time to pick it up again. In both London and Berlin, we found that transferring a curated selection of files, folders, and directories to the cloud required less waiting with Dropbox than it did with Google Drive, Box, or Microsoft OneDrive.

Spend less time uploading a 25MB file

In a diverse business landscape, employees deal with files of all shapes and sizes. Some office workers may primarily handle Word or Excel documents that take up barely any space, while creators and engineers might be more used to working with very large files. To represent a file size many people might work with, we chose to upload a 25MB file. For reference, 25MB is the maximum size of outgoing Gmail™ message attachments.¹

Regardless of location or which operating system we used, uploading the file took less time with Dropbox than with any of its three competitors. In both locations, Dropbox required fewer than 13 seconds to upload a 25MB file on both devices-under-test. Google Drive, on the other hand, took nearly 20 seconds and Box over 18 on both devices in both locations—with both taking twice the amount of time of Dropbox on the Windows Pro device in Berlin.

Time to upload a 25MB file

Seconds | Lower is better

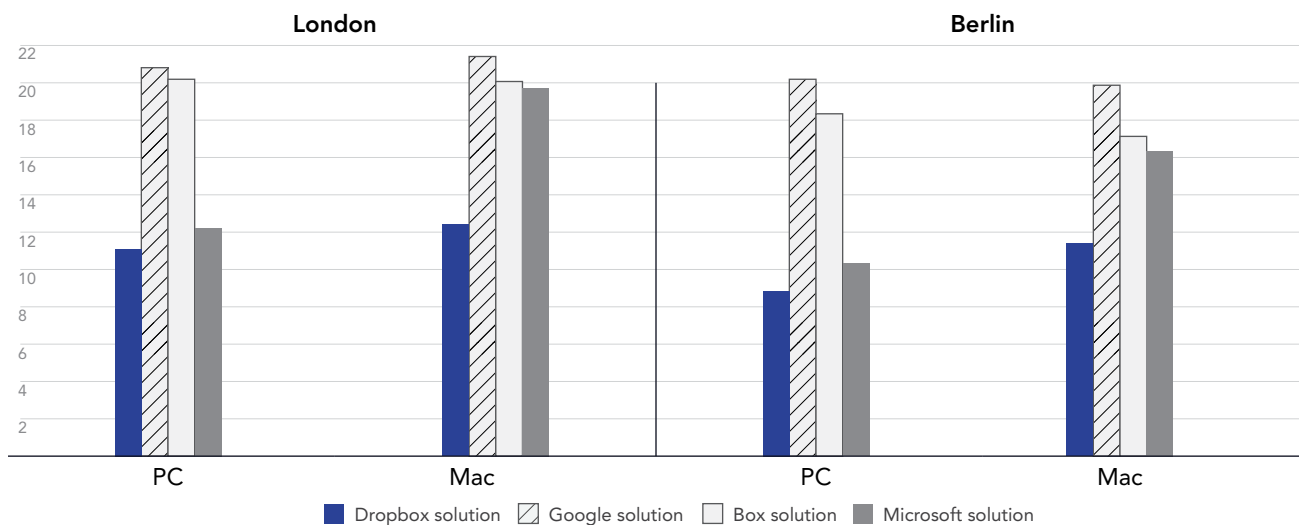


Figure 1: Median 25MB file upload times for Dropbox Advanced, Google Workspace Business Plus, Box Business, and OneDrive for business (Plan1) in London, United Kingdom and Berlin, Germany. Lower is better. Source: Principled Technologies.



Spend less time uploading a 250MB file

Data analysis, business performance reporting, and social media analytics are indispensable tools for businesses of all sizes. For success, teams must collect pertinent data in one place before they analyze it. To represent a text, image, or video file these teams might exchange, we uploaded a 250MB file. A three-minute 4K video with a 10 Megabits per second (Mbps) bitrate is approximately 250 MB, for reference.²

In our tests uploading a 250MB file, Dropbox was faster on both operating systems in both locations. Testing on the PC in Berlin, Dropbox took less than a minute to upload the file, 9 seconds faster than the slowest competitor in that scenario (Google Drive). In London, Dropbox maintained an advantage of between 4 and 9 seconds on the PC and Mac devices we tested, taking ten percent less time to upload the file than Box on the Mac or Google Drive on the PC.

Time to upload a 250MB file

Seconds | Lower is better

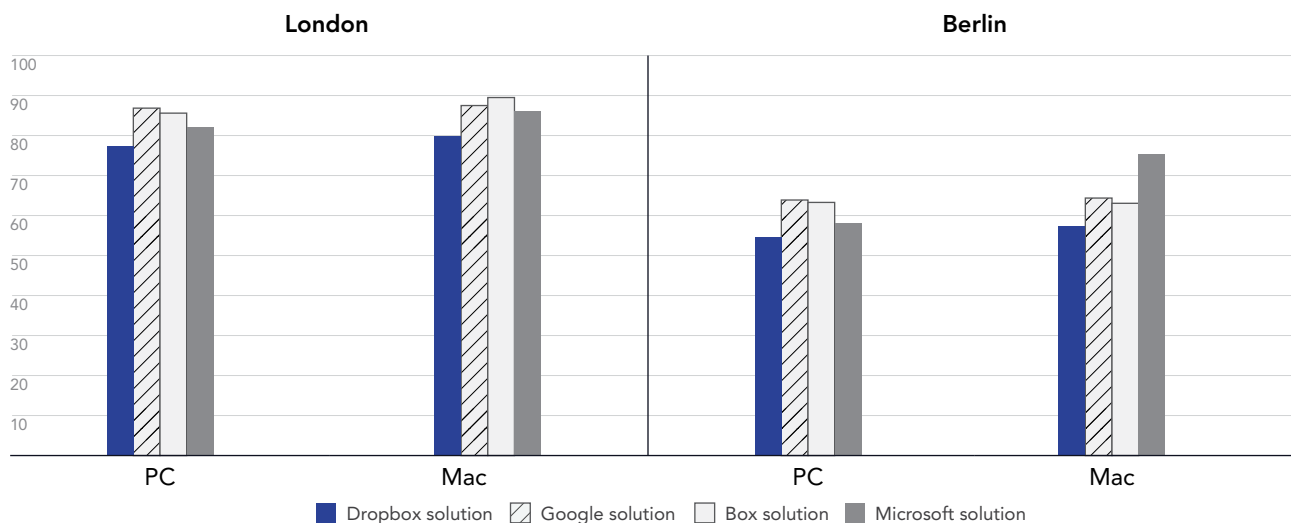


Figure 2: Median 250MB file upload times for Dropbox Advanced, Google Workspace Business Plus, Box Business, and OneDrive for business (Plan1) in London, United Kingdom and Berlin, Germany. Lower is better. Source: Principled Technologies.

Spend less time uploading a folder of 400 zero-byte files

In this digital-first world, there are more data sources than ever before. This makes data management a problem—in part because the more data we stockpile, the harder that data can be to find, sort through, and glean important insights from. One way to maximize the value of data is to use metadata. With useful metadata in place even before you start creating actual resources, your teams can use those tags as a roadmap in the future.

Regardless of location or which operating system we used, uploading a folder of 400 zero-byte files distributed across 40 sub-folders with structure, a filename, and other metadata through Dropbox took less time than the same process with Google Drive, Box, or Microsoft OneDrive. On the Windows 11 Pro device, in both London and Berlin, Dropbox finished the task around 30 seconds faster than Google Drive and around a minute-and-a-half faster than Box. On the macOS device, Dropbox still came out ahead in both cities, but the margin between it and Google Drive was much closer.



Time to upload a folder of 400 zero-byte files

Seconds | Lower is better

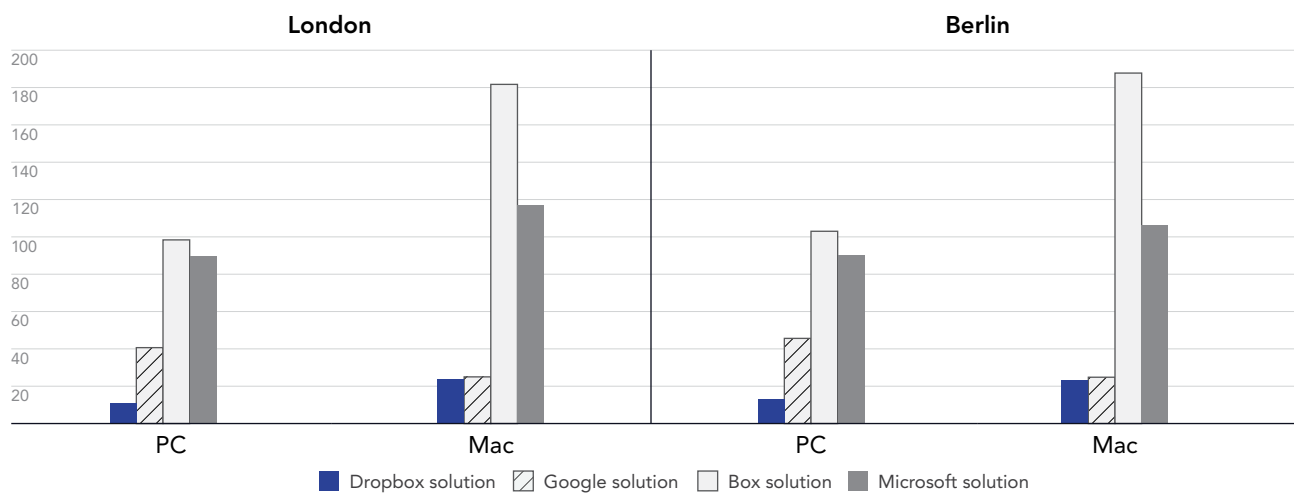


Figure 3: Median times to upload a folder of 400 zero-byte files for Dropbox Advanced, Google Workspace Business Plus, Box Business, and OneDrive for business (Plan1) in London, United Kingdom and Berlin, Germany. Lower is better. Source: Principled Technologies.

Move faster in a work-from-anywhere world with Dropbox

The ability to quickly sync files between machines can help ease collaboration between teammates, especially when timelines are tight and multiple people are contributing edits to documents. In our testing, Dropbox handled the end-to-end synchronization of two different size files faster than Google Drive, Box, and Microsoft OneDrive.



Sync files faster

For this series of tests, we timed how long it took each cloud service to sync files from one device to another. To do this, we uploaded a file from one laptop and stopped the timer as soon as we could see that file on the second laptop. We did this test with files of two different sizes: 50KB and 25MB.

On both the Windows 11 Pro and macOS devices, Dropbox synced 50KB and 25MB files faster than the Google Drive, Box, and Microsoft OneDrive options we tested. Most notably, in our London testing, Dropbox required less than 6 seconds to sync the 50KB file on the macOS device compared to almost 25 seconds on the same device with Box.

Time to sync a 50KB file

Seconds | Lower is better

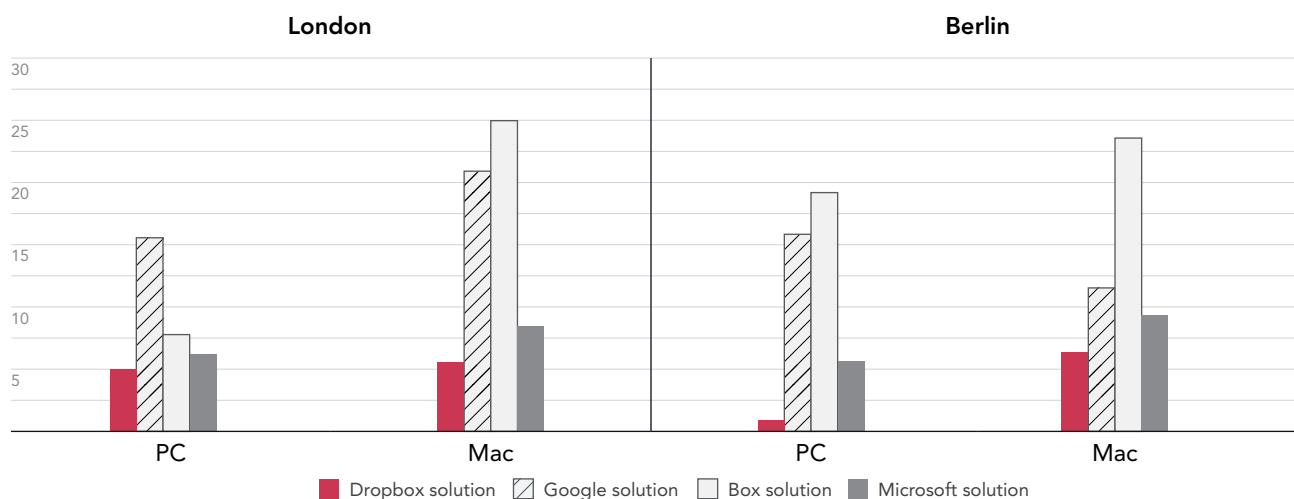


Figure 4: Median time to sync a 50KB file for Dropbox Advanced, Google Workspace Business Plus, Box Business, and OneDrive for business (Plan1) in London, United Kingdom and Berlin, Germany. Lower is better. Source: Principled Technologies.



Time to sync a 25MB file

Seconds | Lower is better

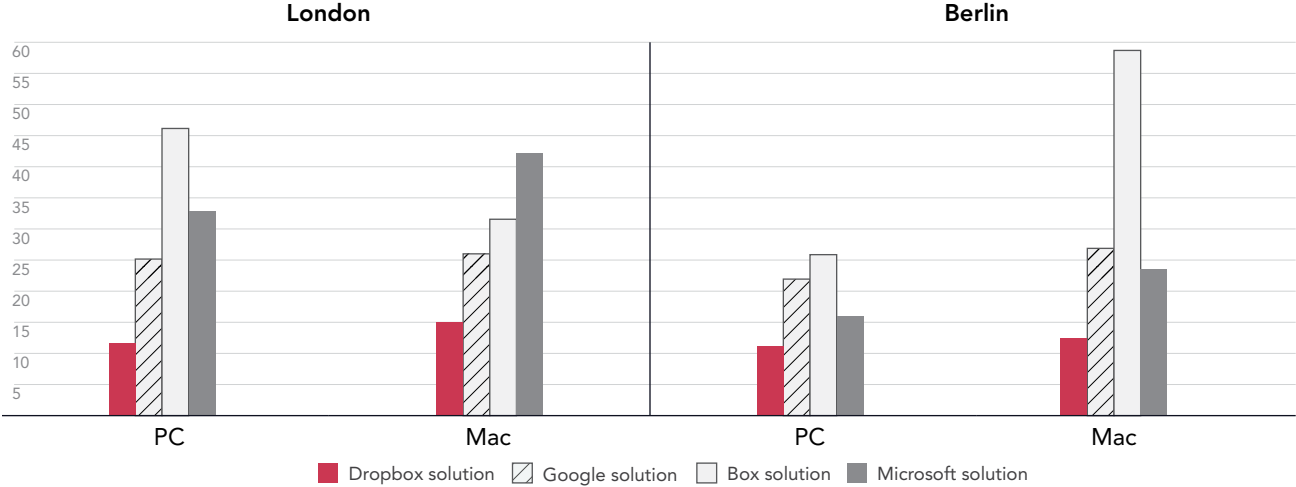


Figure 5: Median time to sync a 25MB file for Dropbox Advanced, Google Workspace Business Plus, Box Business, and OneDrive for business (Plan1) in London, United Kingdom and Berlin, Germany. Lower is better. Source: Principled Technologies.



Upload folders faster

Creatives, sales personnel, faculty departments, HR teams, and hospital support units handle large quantities of files that may contain very little actual data. To represent a file type many departments might access, we chose to upload a local folder containing 10,000 1KB files, which could represent a very short email, half a page of unformatted text, an icon, or a small image button.³

For this comparison, we timed how long it took each cloud service to upload a local folder containing 10,000 1KB files and show the file as synced. In Berlin and London, Dropbox was between 54 and 93 percent faster than everything else we tested. In fact, uploading this folder on Microsoft OneDrive on the macOS device took between 11 times (in Berlin) and 15 times (in London) as long as the same task on Dropbox.

Time to upload a folder with 10,000 1KB files

Minutes | Lower is better

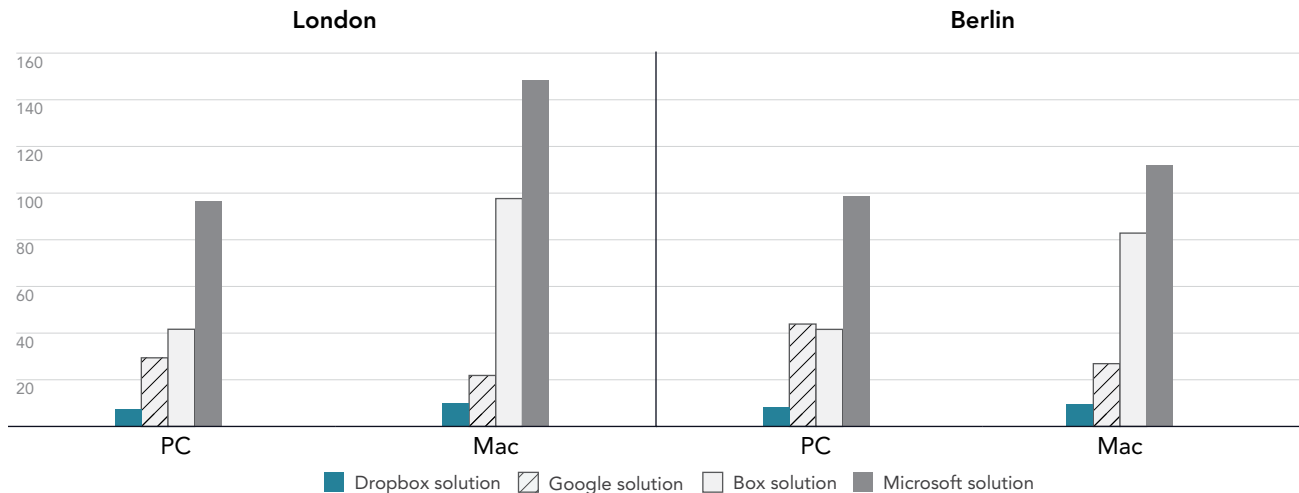


Figure 6: Median time to upload a local folder containing 10,000 1KB files for Dropbox Advanced, Google Workspace Business Plus, Box Business, and OneDrive for business (Plan1) in London, United Kingdom and Berlin, Germany. Lower is better.

Source: Principled Technologies.



Conclusion

Providing your users with speedy access to valuable content helps maximize efficiency and minimize time waste—especially when speed matters. Plus, partnering with a capable and reliable cloud storage provider has the added benefits of not having to invest in company-issued devices with extensive storage or in-house servers and hardware to store all that data.

The Principled Technologies team found Dropbox beat Google Drive, Box, and Microsoft OneDrive in 145 of the 168 tests we conducted in London and Berlin. Our results highlight the advantages of using Dropbox on laptops running Windows 11 Pro and macOS 13.5.1 (Ventura) operating systems. This flexibility and speed can help keep interactions moving smoothly and ultimately boost productivity.

1. GreenNet, "Understanding files sizes," accessed August 29, 2023, <https://www.greennet.org.uk/support/understanding-file-sizes>.
2. Circle HD, "How to Accurately Calculate Video File Size (Plus: Bonus Glossary)," accessed September 5, 2023, <https://www.circlehd.com/blog/how-to-calculate-video-file-size>.
3. GreenNet, "Understanding files sizes," accessed August 29, 2023, <https://www.greennet.org.uk/support/understanding-file-sizes>.

Read the science behind this report at <https://facts.pt/nDYprF6> ►



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This project was commissioned by Dropbox.