

LENA Hub technical FAQs

We have unique security configurations - firewall, proxy servers, etc. Will the LENA Hub work in our environment?

Yes. Please see the [Hub Requirements](#) article for specific network/firewall requirements.

Why is fast internet upload speed required?

Upload bandwidth is *the* crucial element for taking advantage of cloud processing, the benefits of which are less “busy time” for your computer and staff.

The LENA recorder data file is very large (500 MB). At less than 2 Mbps the upload is likely to fail, and it's certain to take at least half an hour per file if successful (vs. 6-10 minutes per batch of 3 on high-speed).

With slower internet speeds, other web-based tasks co-occurring at your site would also be severely limited during LENA file uploads.

How can I find my internet upload speed?

The best option is to use [LENA Online's built-in speed test](#) if you are already a LENA user.

If you don't yet have a LENA Online account, your IT support staff may have a favorite tool, such as <https://testmy.net/upload>. Be sure to test your **upload** speed, which is the critical factor and may be very different from your download speed.

My internet is slow. Can I still use LENA?

Yes! Internet access is still a requirement, but there are options.

Please run [LENA Online's built-in speed test](#) on your Hub computer, and follow instructions to contact LENA Support with your results. We'll help identify the right solution.

What is cloud processing?

LENA's "cloud processing" service transfers your recorder contents to our secure servers, leaving your computer available for other uses.

We apply the automatic **L**anguage **E**nvironment **A**nalysis algorithms "in the cloud" to produce the word counts, turn counts, and other information about the recording that you'll see in LENA Online. The audio is automatically deleted from our server as soon as analysis completes. LENA does not listen to or keep your recording!

Cloud processing is recommended for almost every LENA use scenario.

What is local processing?

LENA Hub "local processing" means that the **L**anguage **E**nvironment **A**nalysis occurs on your computer's hard drive instead of in the cloud. Internet access is still required, but only the small processing results file is sent to the cloud.

Your feedback reports and other data are still available on LENA online. The main difference is that your LENA Hub computer will be actively working on your recorder data for a lot longer than with cloud processing.

Local processing is recommended only for sites with extremely low internet bandwidth or other specific program considerations.

Are there different requirements for local processing?

Local processing takes the burden off your internet, as your large recorder data files are not being transferred. Instead, the critical factors for successful and efficient local processing become:

- The quality and speed of your computer's **processor** - Our stated processor requirements are sufficient for local processing.
- **Disk space** - You may need more, or you may want to spread the load across a couple of computers, depending on how many recordings you'll transfer at a time. Each actively processing file requires about 5 GB available disk space, plus 0.5 GB for each additional file that is held/queued for processing. If you're going to be transferring more than 10 recorders at a sitting for local processing, drop us a line at support@lena.org to discuss your needs.

Why do the requirements call for so much RAM and processing power if the data are being converted in the cloud?

These specs are recommended for optimal performance and would allow you to switch to local processing if needed due to internet problems.

For cloud processing, you may achieve satisfactory performance with as low as a Core i3 and 4GB RAM, assuming you also have good high-speed internet.

How long will it take to process my data?

The time required to handle a set of files on the LENA Hub computer depends on several interrelated factors:

- **Internet speed/bandwidth** – A minimum of 2 Mbps upload speed is required for cloud processing.
- **Speed of your computer's processor**
- **Number of processing cores on your computer** (if processing locally)
- **Processing option** – LENA Hub's actions are quite different in each option, and so is the time required.
 - Cloud processing – LENA Hub will transfer a 16-hour file to the cloud for subsequent audio processing in 10-30 minutes. Variability depends primarily on internet upload speed.
 - Local processing – LENA Hub will audio process a 16-hour file in 2-3 hours, with variation depending primarily on processor speed and complexity of the audio. Only the results go to the cloud.

A few high-contrast examples of how the factors can interact follow:

Processing option	Upload speed	Available cores	Hub likely handles 12 files in...
Cloud	10 Mbps	Any	2-6 hours
Cloud	2 Mbps	Any	6+ hours

Processing option	Upload speed	Available cores	Hub likely handles 12 files in...
Local	Any	4+	8-12 hours
Local	Any	<4	24-36 hours

I also have LENA Pro. Can I install Hub on the same computer?

Yes, LENA Hub can be installed on the same computer as LENA Pro, with some cautions.

1. Install the applications in different folders.

- The default installation location for both is C:\Program Files (x86)\LENA, but putting both there could cause future updates or uninstalls to accidentally corrupt the software.
- *We recommend that you uninstall Pro and reinstall the Pro* to a custom folder, such as C:\Program Files (x86)\LENAPro\. That way you can install the Hub software in its default location, which will help with future Hub support, updates, and more. Pro isn't going to be updated...but Hub will!
- This app location change does not affect your Pro data location. If your data were previously stored in the default location, C:\ProgramData\LENA, then agree to the default data storage path on the reinstall, and your Pro will still be able to see and display your Pro date. As usual, we recommend that you back up your data ahead of the uninstall.
- Contact support@lena.org if you need more information.

2. Do not run (open) both LENA Pro and LENA Hub at the same time!

3. LENA Hub must be connected to the internet, which your Pro computer may or may not already have.