

Use CHORALE to remember generalized STEPS for making low-latency calls

Indented steps tend not to be routinely used.

CONNECT
CABLES



Network equipment

1. WiFi is shut **OFF** on **computer** running low-latency **audio**
2. **Computer** running low-latency **audio** -> **ETHERNET** cable directly -> **Main router**
3. WiFi is shut **OFF** on **computer** running low-latency **video**
4. **Computer** running low-latency **video** -> **ETHERNET** cable directly -> **Main router**



Audio equipment

5. **MIC** -> [USB audio interface/adapter] -> **Computer** running **audio**
6. **HEADPHONES** -> [USB audio interface/adapter] -> **Computer** running **audio**

HEADPHONES

7. **WEAR** your **HEADPHONES** (on your ears).

ON

48V

8. Turn **ON** hardware (computer, **RASPBERRY PI** computer, **48V PHANTOM POWER**, mixer, etc.)

REDUCE

[⌘] + [Q]

9. **REDUCE** burden on your computer processor: **QUIT** unnecessary applications.

APPLICATION



10. *Delete the previous version and shortcut(s) of the low-latency audio application.*
11. *Download an up-to-date version of the low-latency audio application.*
12. *Install the low-latency audio application.*
13. **OPEN** the low-latency audio **APPLICATION**. (This is probably already done if you turned on a Raspberry Pi computer).
14. *Grant permissions to run application, pass through firewall, etc.*
15. *Make a shortcut (desktop shortcut or permanent dock icon) for your low-latency application.*

LOG IN, LOOK
for settings,
and look for
LISTS of users,
groups, and/or
servers



16. If the application you are using is account-based, **LOG IN** to your account if needed.
17. *Look for settings (possibly in hidden menus).*
18. *Select audio input (ADC)/output (DAC) devices.*
19. *Set sample buffer as low as does not cause crackling (recent computing hardware should support 32 samples = 0.67 ms or 64 samples = 1.33 ms).*
20. *Set the (outbound) network buffer (128 samples = 2.67 ms if transmitting through fiber at a good hour of a good day or 256 samples = 5.33 ms if transmitting through mediocre network conditions, e.g. Comcast Xfinity).*
21. *Set default jitter buffer (if available) to manual with a duration of something like 2, 3, or 4 buffered packets or 11 ms.*
22. *Set playback channels to 2.*
23. *Set capture/send channels to 2 (mono mix) or 2 (stereo).*
24. *Set codec to OPUS 96 kbit/s.*
25. Look through **LISTS** of users, groups, and/or servers to find people with whom you'd like to connect.
26. **CONNECT**/call.

EXTERNAL
applications
and files



27. *Create a bookmark for an external video platform.*
28. *Create a bookmark for your ensemble's sheet music folder.*
29. Open **VIDEO** platform (e.g. VDO.Ninja if not all users can open native video in the low-latency audio application you are using).
30. Open **SHEET MUSIC** folder (e.g. Google Drive folder).