Remote Desktop Connection Application Settings when connecting to CSU Computers over VPN

This document contains information and steps to help improve the performance of your Microsoft Remote Desktop Connections when connecting computers at CSU over VPN (Pulse Desktop). Various desktop display settings are identified for adjustment for possible connection improvements. Information is provided for Microsoft Windows 10 and Apple macOS operating systems.

Remote Desktop Optimization for Windows 10 computers

Using the built-in Remote Desktop App in Windows 10

Click on Show Options.

Then click on the Display tab.

Adjust the Display resolution to 1920 x 1080 or smaller, as it works for you. (The smaller the better for bandwidth issues.)

If you have multiple monitors, uncheck the Use all Monitors option. Using all monitors will increase the amount of information sent and potentially slow things down.
You can also turn down the Color Quality to help performance as well. If you change the color setting from 32 bit to 16 bit, it can help performance.

The difference between 16 and 32 bit is significant – 16 bit mode supports 65,000 colors and 32 bit supports 16.7 million colors. The data to support all these colors increases greatly which can affect your performance.

Now click on the Experience tab. From the drop-down, you can try selecting different speeds, with “Modem (56 kbps)” being the best setting for low-bandwidth.

Once you have made changes, click on Connect and test out your settings. You may need to adjust the resolution setting to get the image sized for your display.

**Using the Remote Desktop App from the Microsoft Store**

Open the Remote Desktop App. Where you already have the remote connection configured click on the ellipsis in the icon you want to adjust so it opens the menu.
Click on Edit to pop open the Edit menu.

Then click on Show more.

This will pop open the rest of the menu.
Scroll down to find the Display Settings.

The default is Choose for me.

Change the setting to 1920 x 1080 or smaller, as it works for you. (The smaller the better for bandwidth issues.)

You can also adjust the Settings on how remote desktop starts up.

Click on Setting in the top right corner. Turn off the Start Connection in Full Screen Mode.
Click on an empty spot in the Remote Desktop App to close the window.

Then connect to the computer you are configuring. This may start the app in a smaller window, especially if you have a monitor with higher resolution than the resolution that you have your connection set for. Check and make sure that the resolution you have picked to make sure it is proportioned to your monitor. You may need to adjust the resolution to get it to be the same shape as your monitor.

You can always click the ellipsis at the top of the Remote Desktop Connection and then set it for full screen.

Remember the higher the resolution that you pick will cause the amount of traffic going to and from the server to go up. A lower resolution will give better performance.
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Optimizing your Remote Desktop Connection on your Mac

1. On your Mac, launch Microsoft Remote Desktop from your Applications folder.
2. Mouse over your existing remote computer entry and click on the pencil to edit your connection. (If you do not have one yet, please follow the directions to add one here: https://projects.warnercnr.colostate.edu/help/ then ‘How to use Remote Desktop’ then the section on ‘Using the Remote Desktop app from ... the Apps Store (iOS/MacOS)’)
3. To work effectively over a slow internet connection, reduce certain options to just the basics:
   a. Click on the Display section.
   b. Change resolution to be 1920 x 1080 or lower. The lower you can go without it being too small to be enjoyable will make your experience faster.
   c. Leave ‘use all monitors’ unchecked.
   d. Uncheck ‘start session in full screen’.
   e. Check ‘fit session to window’.
   f. Change Color Quality to ‘medium (16 bit)’.
   g. Leave ‘optimize for retina displays’ unchecked.
   h. Leave ‘update the session resolution on resize’ unchecked.
   i. Click Save. This will optimize your remote desktop session to be low-bandwidth friendly.

*This may not resolve all remote desktop speed issues. If you are still experiencing speed issues, the culprit may be elsewhere.