



Date: May 4, 2020

To: All Uhills faculty

Subject: Network Performance Improvement Options for Faculty in University Hills

The Office of Information Technology (OIT) is aware that many of the faculty living in University Hills are experiencing internet performance issues that are negatively impacting their ability to work and teach remotely from their homes.

Below are some near-term self-service options. We also want you to be aware that OIT is evaluating other approaches for improving your network performance. They are, in order of time to resolution:

1. We are testing an AT&T cellular WiFi hotspot in UHills to compare the performance with the existing Cox service.
2. We are going to test a top-of-the-line cable modem to see if it improves performance.
3. We are working with our Cox and AT&T account teams to identify potential ways to improve performance.
 - a. We are evaluating Cox and AT&T business-grade network service offerings to see if those services might perform better than the residential-grade services you are currently using.
 - b. We are also in dialogue to get priority to decongest any parts of their existing residential network that are identified as congested.
4. We are evaluating what would be required to provide campus network infrastructure and service to UHills homes, and developing a budgetary cost estimate and an estimate of the duration of the project.
 - a. This is likely to be a multiyear, multi-million dollar capital project.
 - b. We will provide our evaluation and estimates to campus administration for their consideration.

Self-Service Options:

Broadband Internet

The highest performance Internet option is to use a broadband Internet service from a service provider such as Cox or AT&T. If you experience internet performance issues, take the following steps:

1. Test your network speed. Here are two test tools you may use:
 - a. <https://www.speedtest.net/>
 - b. <https://www.cox.com/residential/support/internet/speedtest.html>
2. Try using an Ethernet cable to connect directly to your router. Network performance is often significantly limited by using WiFi wireless networking. You may want to test and compare the speed when connected with a cable vs with WiFi.
3. If you suspect slow WiFi, try moving closer to your WiFi router.

4. Report network performance issues to your Internet service provider and ask about your options for improving the performance.
5. Call your Internet service provider to request upgrade options. Cox offers up to 1Gbps service. Even during a slow network performance event, a 1Gbps service should be faster than a 150Mbps service.
 - a. Many providers are offering discounted services or deferred payments due to Covid-19.
 - b. If cost is an issue, you may be able to work with your department to request temporary reimbursement from COVID-19 funds.
6. Cox and AT&T broadband Internet service provider information:

Cox: [Support](#) | [Available Plans](#)

AT&T: Support <https://www.att.com/support/topic/u-verse-high-speed-internet/>,
855.419.3048 | [Available Plans](#)

Mobile Device Wifi Hotspot

If you are unable to connect satisfactorily through your internet broadband service consider using your smartphone as a WiFi hotspot and increasing your data quota to unlimited.

1. Contact your mobile phone service provider to ask them to enable mobile hotspot functionality/tethering. There may be an extra charge, but some providers are providing this temporarily for free.
2. Request a temporary increase in your data usage quota to unlimited. Many providers are providing this temporarily for free.

Notes:

- This option will probably not provide better network performance than your broadband Internet service from Cox or AT&T.
- The network performance of this option is also dependent upon the strength of the cellular data signal inside your home, so your performance will be variable depending upon your location and which cellular provider you are using.

Mobile Wifi Hotspot

Consider contacting your mobile phone service provider to obtain a mobile WiFi hotspot device/service. The mobile devices cost about \$80, but are often included free with a minimum number of months of service. The monthly service costs about \$40/month, but may be less expensive if bundled with your existing mobile phone service plan.

Notes:

- This option will probably not provide better network performance than your broadband Internet service from Cox or AT&T, but may perform better than using your smartphone as a WiFi hotspot.
- The network performance of this option is also dependent upon the strength of the cellular data signal inside your home
- There is currently limited availability of the hotspot devices, but some providers may have more inventory available.

For Further Assistance From OIT:

If the self-service options do not resolve your issues, please request assistance from OIT by sending email to uhills-network-options@uci.edu. In your email, please include the following information:

1. Your name.
2. Your email address.
3. Your phone number.
4. Your home address
5. A description of your network setup:
 - a. Who is your service provider?
 - b. What type/level/speed Internet service are you paying for?
 - c. Are you connected via WiFi or directly connected to your router with an Ethernet cable?
6. A description of the network performance issues you are experiencing, when they occur and how it is impacting your work.
7. What you have done to try to troubleshoot and improve your network performance (i.e., which of the self-service options above did you try?)

OIT is committed to your success in this new world of remote teaching & learning.

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