

# ISSInfo



## Wireless FAQ for Residential Students

Now that you are using your laptop in a densely populated residence hall, you are competing with neighbors for use of the access point that connects you to the Internet. Here are some tips to insure a better wireless experience.

### Access At Starbucks

#### **Why is it that I always have four bars and good access speeds at Starbucks?**

At Starbucks, you don't see individuals with printers, sub networks, and game consoles attached. Also, there is usually only one microwave for heating/warming food and limited or no cordless phones; consequently, interference is at a minimum.

### DSL At Home

#### **At home my family had a wireless network, DSL for Internet access, and everything was always fast. Why isn't it that way in the residence halls?**

At home, fewer individuals were vying for use of the wireless network. Interference was at a minimum with such things as cordless phones, Bluetooth devices, and other wireless devices.

#### **Why is it that when I used my laptop at home on a wireless network, I always got four bars and very fast Internet access?**

There was less competition for use of the access point and bandwidth in your home. Living in a residence hall where many individuals have wireless devices means more competition for the air waves used with WiFi devices such as game consoles, peer to peer networks, and printers.

### Wired or Wireless Connection

#### **What is the difference between connecting my computer with a wired connection or using wireless?**

Wired (Ethernet) connections are faster and more reliable than wireless. Also, with a wired Internet connection like those in the computer labs or a personal computer in the dorms, you are not competing with other wireless devices such as cordless phones or rogue wireless devices that may be draining the access point.

### Wireless Network Facts

#### **What do I need to know about wireless networks?**

- The wireless network's maximum data speed averages less than 1/10th the speed of the campus wired network. High bandwidth and latency-sensitive applications like large file transfers, Microsoft Window system updates, streaming media, and file sharing programs can impact user experience.
- Wireless systems have limited control over the RF (radio frequency) medium;

consequently, performance varies and may not meet the needs of critical and high-availability services.

- Be aware that microwaves, cordless telephones, and other RF devices that operate in the same frequencies as WiFi (2.4GHz and 5GHz) are known sources of wireless signal interference.

**Wireless  
Devices on  
Campus**

**What devices are supported on CLUwnet?**

We do not support wireless enabled peripheral devices such as MP3 players, printers or gaming consoles. Gaming consoles connecting to the wired network can be registered at [www.callutheran.edu/console](http://www.callutheran.edu/console). Wireless routers are strictly prohibited per the CLU computer use policy.

**Restricted  
Devices**

**What devices are restricted on the CLUwnet?**

Rogue devices such as routers to create peer-to-peer networks, wireless printers and wireless game consoles drain access points on the wireless network. To be a good net citizen and comply with the CLU computer use policy, you need to remove these devices from CLU's network.

CLU's computer use policy includes a statement on *REASONABLE USE OF SYSTEM RESOURCES*:

*Users should not consume unreasonable amounts of limited resources. Space and time on CLUwnet systems will be fairly distributed among users, and may fall under system-imposed quotas. Each dorm resident may connect only one personal computer using Mac OS 10.x, or Windows 2000/ME/XP workstation to CLUwnet. Sub-networks in residence halls are not permitted. ISS has responsibility for establishing all physical connections for CLUwnet connected pc's and will maintain an inventory of MAC (media access control) addresses. Unregistered MAC addresses will be disconnected from CLUwnet.*

**Cordless  
Telephone**

**What type of cordless telephone should I buy to reduce interference with the wireless network?**

Look for a phone that operates at GHz speed.

**Access  
Points**

**How many access points does CLU have for CLUwnet?**

CLU has 120 access points on the Thousand Oaks campus to support wireless networking. All academic buildings, residence halls, and most sport/athletics and food venues offer wireless access. This summer 50 new APs were installed and ISS conducted an assessment for signal strength. All areas served showed a minimum of three to four bars. Now that students are back in residence, signal strength may be low or not available. ISS will be conducting regular assessments and ferreting out rogue devices to ensure that there is no unreasonable use of system resources.

**Funding**

**What kind of funding does ISS get for the wireless internet system?  
Where the funding come from?**

There is no set budget for the wireless network. Budget is allocated for the support of the entire residence hall infrastructure, but ISS contributes additional funds to support the infrastructure as warranted. The residence hall network consists of network infrastructure,

which includes the wired and wireless networks, centralized servers, as well as Internet access, which is shared with the rest of the campus. ISS upgrades and adds equipment as needs increase, but also as technology advances warrant.

**Student Population**

**Do you think the amount of new freshman is stressing the system?**

Every academic year brings new challenges brought on by increased student load on the network and the use of new technologies that may help or hinder access. The size of this year's freshman class should not overwhelm the system.

**Does the system have capacity to support the entire student body?**

Whether the network can support the entire student body is relative. It depends on what kinds of activities students are engaged in online. It makes a big difference whether they are just surfing the web, chatting online, or engaged in heavy downloads of movies and music.

**Connection Strength**

**The wireless connection strength is never above "very low." Why is this? Why doesn't the wireless network reach certain parts of a room? Shouldn't the wireless network extend throughout all residence halls?**

Wireless coverage in the residence halls is different in the summer when we perform upgrades and maintenance, but most students aren't on campus, than during the academic year. For example, the wireless network is very susceptible to interference from microwave ovens and cordless phones. Additionally, more students are coming on campus with other wireless devices such as printers or even laptops that behave like access points, interfering with official CLU wireless coverage. We spend the first few weeks of the semester working on reducing the impact of such devices on the rest of the user community. Most students don't know that their devices are interfering with wireless coverage.

**Number of CLU Accounts**

**How many people including staff, students, faculty administrators, and alumni have CLU email accounts?**

**There are over 5,000 email accounts maintained by CLU.**

**CLU's Internet Provider**

**How does CLU connect to the Internet?**

CLU contracts with AT&T to provide Internet access to the CLU community. Our current contract is for 30 Mbps (partial T3 line) with a planned upgrade to 45 Mbps (full T3 line) by December 1, 2008. A T3 is 30 times faster than a T1. CLU moved from nine T1's (13.5 Mbps) to the partial T3 in 2004. CLU's original Internet connection in 1995 was a single T1 (1.5 Mbps)

If you have questions or need assistance, please call the Help Desk at (805) 493-3698 or send e-mail to [helpdesk@callutheran.edu](mailto:helpdesk@callutheran.edu)