

ENC Student Memo – Internet Access

Frequently Asked Questions for gamers, hackers and those general IT geeks who want to know more!

Please contact the ITS HelpDesk Assistant at x3727 for additional information. ENC reserves the right to change Internet Access policies at any time without prior notification.

Background: ENC has put a lot of effort into deploying tools and features that will allow us to provide a more PREDICTABLE and CONSISTENT Internet access experience for the entire Eastern Nazarene campus, including the Old Colony LEAD Campus.

The goal of our Internet Access policy is to provide the following user experience:

- 1) Make wired ResNET Internet access as close as possible to home broadband Internet access
What this means is that:
 - A. Service should be PREDICTABLE, STABLE, and CONSISTENT
 - B. Throughput service level, much like your ISP would quote, are now known and provided for each student dorm (see further in the FAQ for details)
 - C. We have taken precautions to limit/eliminate as much as possible ILLEGAL use of Internet bandwidth including illegal p2p file sharing
 - D. We have taken precautions to eliminate exposure of known vulnerable services or services that could impact ENC such as MS SQL (for the “slammer” worm)
 - E. Like your ISP at home, we will NOT attempt to deliberately block LEGAL connections for web sites that are deemed appropriate and most types of online game (pc, xbox360, ps3, etc).
 - F. Like your ISP at home, we will NOT attempt to block reasonable LEGAL streaming video and audio, pay music download sites or other LEGAL, appropriate service/media download related sites.

The Eastern Nazarene College INETUSE committee does reserve the right to amend and supersede the above statements.

The Eastern Nazarene College INETUSE committee will review and provide an answer as to whether any questioned site, service, or other Internet based activity is allowed or denied and may or may not provide a reason for such answer.

Sections :

- 1) General Internet Web Access
- 2) Wireless
- 3) Internet Email
- 4) Gaming
- 5) Streaming Media
- 6) VoIP
- 7) File and Service sharing/hosting

General Internet Web Access

Question : I've connected my laptop or workstation to the network jack in my dorm room and I am unable to connect to the Internet at all. No web pages display.

Suggestion: please verify you have a link light on your laptop where your LAN cable connects into the network jack. This may be amber /blinking and/or green solid LED. See ResNET FAQ for pictures.

Windows XP/Vista/7 also has a utility to verify :

Click on Start-run.

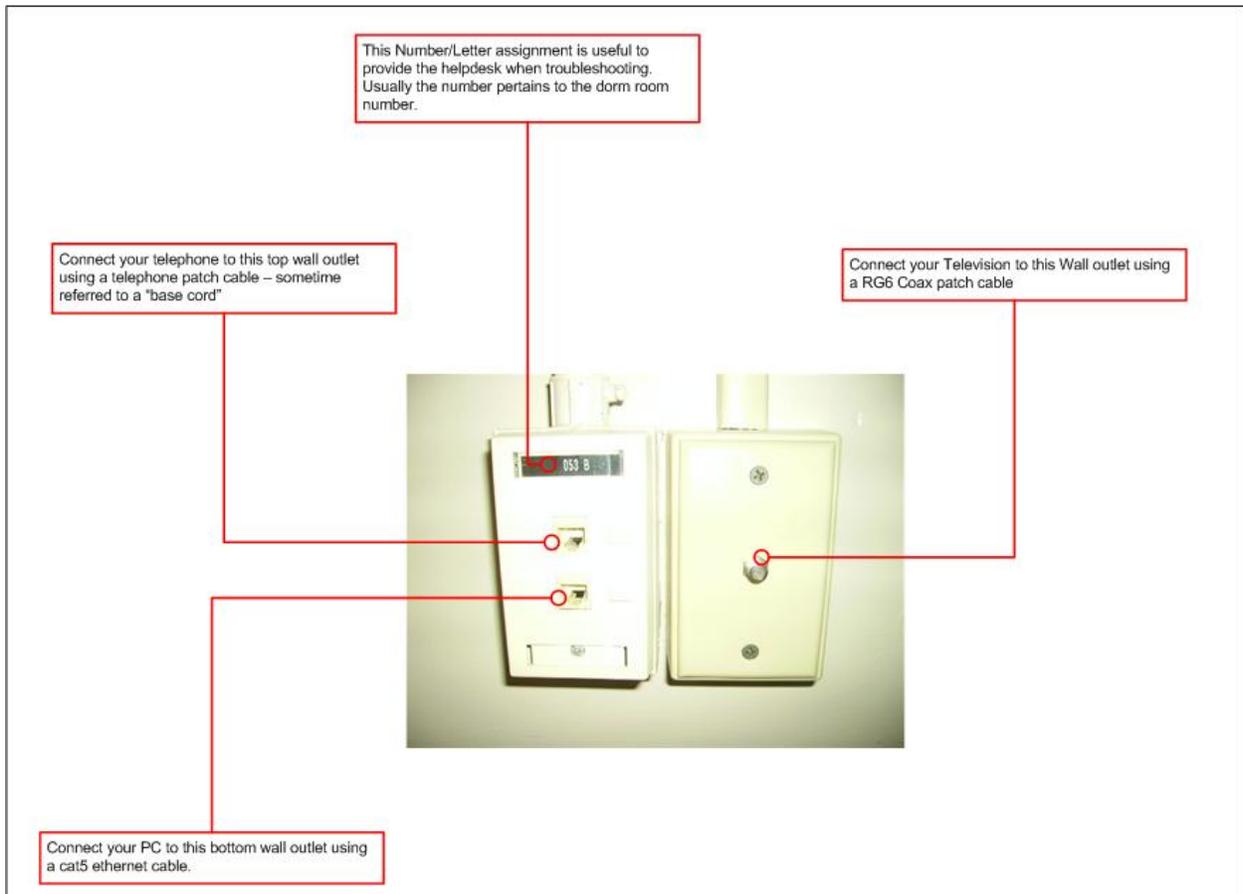
Type "cmd" (no quotes) and click ok

In the black window, type "ipconfig /all"

View this information.

You should have an "IP Address" of 172.16.x.x

If it shows "Media State : Media disconnected" for your "Local Area Connection", then there may be an issue with the network jack or cabling. Please note that **the PHONE jack LOOKS the same as the DATA jack**. The Data jack is generally on the Bottom of the wall plate as shown in the picture below:

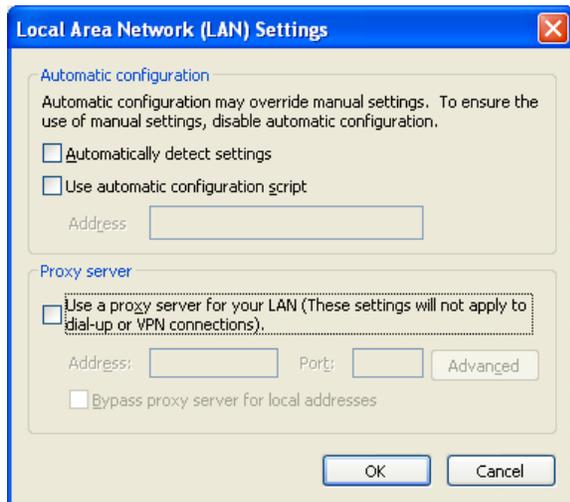


If you still believe there is an issue (no link, no ip address,) please note your dorm room and any data jack labeling you see. Then stop by the helpdesk to log a ticket and we'll get this corrected for you.

If you have a LED indication link and 172.16.x.x ip address.... Check your Internet Explorer proxy settings – we have eliminated the need for “hard-coded” proxy settings so if you were here previous years, perhaps this is still set on your laptop or workstation.

We do NOT use a web proxy server at ENC. You should have ALL proxy options unchecked.

For Internet Explorer, settings should look like as shown below :



Close and re-launch IE to try again.

If you have an IP address but it is NOT 172.16.x.x, then perhaps you either have a static ip address or your dorm data jack switchport is misconfigured. Stop by the helpdesk for further diagnosis.

Question: I'm able to get to some sites, but not certain ones. I get a message stating “This site has been blocked by Eastern Nazarene College”

Answer: We've made every effort possible to not block appropriate sites. However, it is quite possible some legit sites are blocked inadvertently.

Suggestion: As in previous years, if you believe this is an appropriate site blocked in error, please submit an email to inetuse@enc.edu with the details of the URL. You can click on the hyperlink in the block page where it says “Click here to request removal of this block” and it will start the email for you.

Question: What should I expect for data transfer rates? speed? bandwidth?

Answer: We've really put a lot of effort into deploying some new tools and features that will allow us to provide a more PREDICTABLE and CONSISTENT Internet access experience for our entire campus.

- a) We are working towards guaranteeing each student will have a **basic DSL broadband like bandwidth experience**. If you are using your dorm land at jack, **You should expect rates between 128kb/s and 1.5mb/s**, with the average being closer to the 1.5mb/s rate. Keep in mind that base home DSL broadband is typically a 384kb/s download with 128kb/s upload. **At most times, our service should match or be better than that baseline.**

If you are **outside of your Dorm room, please use “ENC Student”** Wireless for comparable access rights and download speeds matching your dorm room LAN data jack. **“ENC Guest” wireless has LESS access rights and LESS bandwidth** and should only be **used as a last resort**.

- b) Our “Guest” access is meant for just that – guests. As students, we want to provide you a higher level of service than the generic Guest access. This should help prevent guest access from overrunning our Internet pipe AND should encourage ENC Students to utilize their wired LAN dorm data jack and “ENC Student” secured RF access while out in study halls, lounges, student center, auditoriums and library.
- c) Your wired dorm and “ENC Student” RF will allow full access to utilize Outlook email client to connect to ENC email account. With “ENC Guest”, you can utilize OWA.

Question: Is there any way to tell what throughput my connection is capable of at this moment?

Answer : yes! Check out http://www.towerstream.com/index.asp?ref=speed_test
Choose Boston and run the test.

Note: you can do this test while connected to your dorm jack OR “ENC Student” to compare and contrast results. If the results are consistently BELOW 128 Kbps upload and/or download, please let us know. The highest you should expect to see would be right around 1.50 Mbps.

WIRELESS QUESTIONS

Question: Can I bring in my own wireless router from home?

Answer: Rogue or Unmanaged Access Points can clash channels and airspace with the ENC equipment. So, we’ve put in place mechanisms to attempt to determine unknown AP quantity and ultimately (long-term) their location so we can try to work around their operating channels (usually 1, 6 or 11 for most off the shelf small office/home office equipment). Some “rogues” may be legitimate residential APs (since homes are so close to the ENC campus). Others may reside right on campus and it is those that we can attempt to identify and **discourage the operation** of.

We’ve configured **dorm room switch ports to only allow a single MAC address** to be learned from each of the dorm room datajacks at any given time. So, if a rogue AP is plugged in that allows multiple RF users, only one would be able to work at a time. If the AP is a combo AP/nat router, this may work as the nat router would “hide” the clients it was services behind ONE single MAC (and IP address). However, we still would **discourage this practice**.

Question: Ok, but I brought in my home wireless because I could never connect to any ENC wireless service...either it was not in range or just did not work as expected...so what should I do?

Answer : We will definitely work with you to provide RF to your dorm room. We want to know where dead spots exist and coverage challenges reside. Our goal is 100% coverage of 802.11g throughput through the campus. We are just NOT there yet. **However, your WIRED LAN (Ethernet) dorm connection would be the best place for consistent bandwidth! We would STRONGLY recommend and encourage that you use that while in your dorm room.**

If the issue preventing you from using the wired LAN is lack of having a long enough CAT5 cable to connect from the data jack in your room to reach wherever you want in your room, please stop by the Mann Student Center book store to purchase a cable.

Question : But I have a LAN printer and a MACbook and a Vista Laptop and a ...

Answer : Ok – if you have all these LAN requirements, your best bet would be , like at home for broadband, to use a simple SOHO (small office, home office) nat router with a built in switch (you can get these at Best Buy). Simply connect the “WAN” port of your SOHO device (such as Linksys, netgear, belkin,etc) to the data jack on the wall. Connect your “LAN” ports of the SOHO device to all your devices (printer, laptop, etc). PLEASE note that you are still limited to the bandwidth assigned to that single ResNET data jack, so if you have multiple laptops or devices accessing the Internet, they are sharing the bandwidth of that data jack. Please note that ENC also **discourages the use of any wireless functionally of any SOHO router deployed**. Remember that others could potentially “latch on” to the RF signal built into your SOHO device and potentially **use up your allocated Internet bandwidth**. If that RF feature is built into the SOHO device, there typically is an option to disable it.

Question: My laptop now sees “ENC Student” now as an available network, but it is showing as secured...can I use it?

Answer : Yes! The Internet network access granted is much like wired ResNET. You need to supply your “NetID” credentials to be able to connect. We have a separate document to review the settings using XP, Vista and 7 wireless configuration utility. We also have OSX instructions. If you use a 3rd party utility, the same settings will most likely be located there. Stop by the helpdesk if you need your NetID credentials or assistance with the wireless setup.

INTERNET EMAIL

Question: Now that I can use the new ENC Exchange/Outlook email, I’d like to use my Outlook / Outlook express client to connect to ENC Exchange (for school email) as well as gmail or other email systems for personal email. Can I do this?

Answer: In most cases, yes. For example, you can configure outlook/express to connect to gmail using POP3-S and SMTP-S

<http://mail.google.com/support/bin/answer.py?hl=en&answer=86373>

However, if the Internet email requires traditional SMTP (TCP port 25) for sending email this may be an issue. The school external email relies heavily on SMTP/TCP 25 and thus we strictly allow sending to/from that port from ENC’s Exchange system only. The big reason is to avoid having our Internet IP Addresses blacklisted if the SMTP service port is abused.

GAMING

Question: Can I play online games?

Answer: We do allow online (legal) gaming (not gambling) sites as well as xbox, playstation, etc. However, we did not have the ability to test each and every scenario over the summer. Please email helpdesk@enc.edu with as much specific info you have about the game and requirements as possible. For example : Game <ABC> on Platform <XYZ>. (also include if the game works, but certain functionality does not work – perhaps audio or IM, etc)

Question: Should I be able to play online games between users in other parts of the dorm or campus ?

Answer: We have shrunk the size of the subnets and put IP ACLs on those subnets to prevent the spread of trouble if there is an infection or virus on any part of the campus. So, if the game is not completely hosted on the Internet...including the audio or IM portion of the game, it may cause some challenges. If the game requires “port forwarding” inbound to your workstation/laptop or gaming console to work, there is a good chance it will NOT work properly.

Xbox 360 games should work for **wired ResNET** users across the different dorms buildings. So, Halo 3 gamers in Shields should be able to join the same game of a user in Memorial.

For all gaming consoles it is **HIGHLY RECOMMENDED** that **wired ResNET** be used for a consistent gaming experience.

STREAMING MEDIA

Question: Streaming sites that I could access from home are blocked...what can I do ?

Answer: Inform the INETUSE committee (inetuse@enc.edu) of the site or URL. We’ll check into it. Streaming radio, or tv clips, you-tube, etc should generally be allowed and available. Your best performance/viewing of these sites would be via dorm wired ResNET and wireless “ENC Student” when outside of the dorm room.

VOIP

Question: Can I use skype or magicjack? It does not appear to work.

Answer: We do allow firewall friendly voip services...and typically skype and magicjack work well on firewalled broadband services. Your dorm-room data jack bandwidth should allow this to work nicely.

Keep in mind that voice AND video at the same time (a feature available with Skype) may be choppy during peak hours. Try just voice features first.

“ENC Student” Wireless may work if the signal is good or excellent...but your dorm LAN connection should be tested to make sure it works there first, then we can try to work on any RF issues with your skype or magicjack account.

On a side note, we actually encourage the use of low cost ways of communicating to your relatives and friends while away from college, beyond just email and IM. Skype is free!
Magicjack is available from Bestbuy.

If you have other VoIP applications you use, we would love to know about them so we can try them for ourselves and “certify” them for use on our network.

Question: I can use Skype/MagicJack, but web browsing is really slow at the same time and/or the call gets very choppy while browsing.

Answer: This could be because there is a high utilization and your bandwidth is closer to the 128kb/s range than the 1.5mb/s peak rate. Most voip calls use anywhere from 80-120kb/s, so this would leave very little available for use by your web browser at the same time IF there is high utilization by the entire campus.

If the symptoms persist more often than not, we can do some deeper diagnostics on your dorm room connection to see if there is some background activities or tasks that your laptop maybe doing without you knowing that uses up precious bandwidth (for example, MS updates, virus scan updates, other forgotten about apps that we can see with a network analyzer).

FILE AND SERVICE SHARING/HOSTING

Question: From home I am able to download torrents and upload (seed) files using Bittorrent/Kazza/WinMX/BearShare, etc. On campus I appear to be unable to do that...why?

Answer: As part of an effort to save bandwidth and help prevent ENC from being liable for illegal file sharing, we are aggressive in trying to block those services.

Question: From home I can host a local web, ftp, or file sharing site on my laptop/macbook for others on the Internet to see...now people cannot access it while I’m using resNET...why?

Answer: We have limited **inbound services** to your dormroom switchport and wireless connections to protect ENC from rogue Internet services that our internal network relies on...such as DNS, DHCP or other services...including web and ftp services. Your best bet is to post your personal web site online via some of the free sites that allow you to do this or use myspace/facebook.

Question: Where can I go for more info on policies, configurations, troubleshooting or if I just have more questions?

Answers: Check out <http://www.enc.edu/its/>
Or stop by our IT Helpdesk located on the ground floor of the Gardner building.