

Wireless Networking  
Instructions and  
Printing Information

Windows Vista

Windows XP

Mac OS X

*Indiana University Law Library*

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# Wireless Networking: IU Secure

This is a walkthrough designed to help law students at IUB using a laptop or notebook computer connect to the wireless network **IU Secure**, which uses WPA2 Enterprise (WiFi Protected Access) for authentication. To connect, you need an IUB computer account with access to domain ADS.

This quick-reference guide contains excerpts from the **UITS Knowledge Base** which is available at <http://kb.iu.edu/> and is intended as an overview. If more detailed information is required, please visit the appropriate Knowledge Base articles or visit a computer consultant for assistance.

*There is a computer consultant specifically for law students located in Law Library room 208.*

*Outside the law school, other technology resources available to students include the walk-in support center at the Information Commons, located at the Wells Library at 10th St. & Jordan Avenue, or the main computing support call center, which can be reached by phone at 855-6789.*

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**Please follow the instructions provided for your operating system: Windows Vista, Windows XP, Mac OS X 10.5 (Leopard), or Mac OS X 10.4 (Tiger)/10.3 (Panther).**

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## **Using Windows Vista, how do I connect to the IU Secure wireless network?** UITS Knowledge Base article: <http://kb.iu.edu/data/awzp.html>

The first time you connect to IU Secure, you will need to manually configure Windows Vista for the IU Secure wireless network:

1. From the Start menu, open the **Control Panel**.
2. Click **Network and Internet**; under **Network and Sharing Center**, click **Connect to a network**.
3. Double-click **IU Secure**.

When prompted, click **Enter/select additional logon information**. Supply your **IU username** and **passphrase** and type in the desired logon domain, which is **ADS**. Click **OK**.

4. After you enter the information on the small login window, you may see the previous screen again. Click on **Enter/select additional logon information** once again.
  5. A window called **Validate Server Certificate** may appear. Verify that the Root Certificate Authority it offers is "Thawte Premium Server CA", and then click **OK**.
  6. On the **Connect to the Internet** window, click **Next** and then **Close**.
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## Using Mac OS X 10.5 (Leopard), how do I connect to the IU Secure wireless network? UITS Knowledge Base article: <http://kb.iu.edu/data/awxo.html>

### Basic instructions

1. From the AirPort menu, select **IU Secure**.
2. When prompted, enter your **IU Network ID** (which is the same as your **IU username**).
3. When prompted to verify the certificate, click **Show Certificate** and verify that:
  - o The certificate is signed by **Thawte Premium Server CA**.
  - o The certificate name is **net-auth-1.noc.iu.edu**.
4. Check the box next to **Always trust "net-auth-1.noc.edu"** and click **Continue**.

**Note:** a window may appear asking for your Mac login credentials to grant permission for this server certificate to be remembered. Sometimes this small window appears *behind* other open windows, while the usual spinning 'wait' icon is displayed, which means that it may not be immediately obvious that you must type something to continue. If it seems to be taking a long time to approve the certificate, trying nudging one or more windows aside to see whether another window is waiting for your permission so that it may continue.

5. You should now be connected to the **IU Secure** SSID; if you are prompted for your credentials again, enter your **IU Network ID**.
6. From the AirPort menu, select **Open Network Preferences...**
7. Click **Advanced...**, and click the **802.1X** tab in the resulting window.
8. From the menu next to "Domain:", choose **User**.
9. In the list on the left, click **WPA: IU Secure**.
10. In the list next to "Authentication:", uncheck the boxes next to **TLS** and **EAP-FAST**. The only box that should be checked is the one marked **PEAP**.
11. Remove the stored password from the "Password:" field. Click **OK**, and then close the Network window.

### Extended instructions

The extended instructions should be used only if you cannot successfully connect to the IU Secure SSID with Airport using the basic instructions, or if you want to configure your Mac while outside the IU Secure service area. *Please refer to the UITS Knowledge Base article <http://kb.iu.edu/data/awxo.html#extended> or visit a computer consultant for assistance.*

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## Using Mac OS X 10.3 (Panther) or 10.4 (Tiger), how do I connect to the IU Secure wireless network?

UIITS Knowledge Base article: <http://kb.iu.edu/data/awxr.html>

- From the AirPort menu, select **Open Internet Connect...**
- With the **Internet Connect** window open, from the **File** menu, choose **New 802.1X Connection**.
- In the resulting window, click the **802.1X** button (the orange padlock).
- From the menu next to "Configuration:", select **Edit Configurations...**
- In the **Configuration** window, in the "Description:" field, enter **WPA: IU Secure**.
- In the "User Name:" field, enter your IU Network ID username.
- In the "Wireless Network:" field, enter **IU Secure**.
- In the list to the right of "Authentication:", uncheck the boxes next to **TTLS** and **EAP-FAST**, leaving only **PEAP** checked.

**Note:** Do not configure PEAP with an outer identity.

- Click **OK** twice to exit the **Configuration** and **Internet Connect** windows.
- From the AirPort menu, select **IU Secure**.
- When you first connect to the IU Secure SSID, you will be prompted to accept the server's certificate. Click **Show Certificate**, and verify that:
  - The certificate is signed by **Thawte Premium Server CA**.
  - The certificate name is **net-auth-1.noc.iu.edu**.
- Check the box next to **Always trust these certificates**, and click **Continue**.
- You should now be connected to the IU Secure SSID; if you are prompted for your credentials again, enter your IU Network ID.

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## Using Windows XP, how do I connect to the IU Secure wireless network? UITS Knowledge Base article: <http://kb.iu.edu/data/awxq.html>

If you are running Windows XP, you will need to configure your operating system to work with WPA2 before connecting to **IU Secure**.

### Automatic configuration

To configure Windows XP automatically, you can use the IU Wireless Configuration Wizard, available for download at <http://iuware.iu.edu/list.aspx?id=132>. Select the appropriate utility based on which service packs are installed on your computer. If you are not certain which version you should download, please read the UITS Knowledge Base article *Determining which service packs are installed in Windows* available at <http://kb.iu.edu/data/acsn.html>.

- IU Wireless Configuration Wizard for Windows XP Service Pack 3 <http://iuware.iu.edu/title.aspx?id=793>
- IU Wireless Configuration Wizard for Windows XP Service Pack 2 <http://iuware.iu.edu/title.aspx?id=792>

*Please note that if you don't already have some form of network connectivity on the system you are configuring, you may need to download the appropriate wizard on a different computer and save the downloaded file to a flash drive or other portable media, then install it on your system.*

### Manual configuration

*Note: this information is taken from KB article <http://kb.iu.edu/data/awxq.html#manual>*

To configure Windows XP manually, you must have one of the following installed:

Windows XP Service Pack 3(SP3) (more info at: <http://kb.iu.edu/data/awxx.html>)

or

Windows XP Wireless LAN API Hotfix (via Microsoft's Help and Support site) at: <http://www.microsoft.com/downloads/details.aspx?FamilyId=52A43BAB-DC4E-413F-AC71-158EFD1ADA50&displaylang=en>

Once you have installed either XP SP3 or XP SP2 with the LAN API Hotfix, do the following:

1. From the **start** menu, click either **Control Panel**, or **Settings** and then **Control Panel**.

2. Double-click the **Network Connections** icon. If instead you see **Network and Internet Connections**, click the link in the upper left labeled **Switch to Classic View** to see the correct **Network Connections** icon.

*XP Manual Configuration of Wireless Networking, continued.*

3. Right-click the **Wireless Network Connection** icon and select **Properties**.
4. Click the **wireless Networks** tab, and then click **Add...**
5. On the **Association** tab, enter these settings:
  - o In the "Network name (SSID):" field, enter **IU Secure**.
  - o From the "Network Authentication:" drop-down menu, select **WPA2**.
  - o From the "Data encryption:" drop-down list, select **AES**.
6. Select the **Authentication** tab, and then enter these settings:
  - o From the "EAP type:" drop-down list, select **Protected EAP (PEAP)**.
  - o Uncheck **Authenticate as computer when computer information is available**.
  - o Verify that the **Authenticate as guest when user or computer information is unavailable** box is **not** selected.
7. Under the "EAP type:" drop-down menu, click **Properties**. In the resulting **Protected EAP** dialog box, configure the following:
  - o Verify that **validate server certificate** is selected.
  - o Select the **Connect to these servers:** box, and then enter **net-auth-1.noc.iu.edu** in the text box.
  - o In the "Trusted Root Certification Authorities" list, check the **Thawte Premium Server CA** box.
  - o Select **Do not prompt user to authorize new servers or trusted certification authorities**.

8. Verify that **Secured password (EAP-MSCHAP v2)** is selected for the authentication method, and then click **Configure...** .

*XP Manual Configuration of Wireless Networking, continued.*

9. In the **EAP MSCHAP v2 Properties** dialog box, uncheck **Automatically use my Windows logon name and password (and domain if any)**, and then click **OK**.
10. Click **OK** to close the **Protected EAP Properties** dialog box.
11. Click **OK** to close the **Wireless network properties** dialog box.
12. Click **OK** to close the **Wireless Network Connection Properties** dialog box.
13. Your system will attempt to connect to the IU Secure wireless network. You should see a notification balloon near the [system tray](#) displaying the message:  
  
"Click here to select a certificate or other credentials for connection to the network IU Secure"
14. Click the message balloon, and then enter your IU [Network ID](#) credentials in the authentication box. In the "Domain" field, enter **ADS** , and then click **OK**.

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# Printing Information: Allotments

All students at IUB get a university printing allotment; for graduate and professional students, this is 1000 pages per semester. There are many places on campus where this allotment can be used, including the Information Commons at the Wells Library and many of the campus Student Technology Centers (STCs). There are two printers in the law building through which you may use your university printing allotment. Both are part of the University Libraries printing system, and they are the printers in the library lobby marked `\\bl-uits-pillbox\Libraries-prt`. After sending a job to one of these printers, you must use a **Print Release Station** to release the job.

Law students also get a special yearly allotment of 1000 pages from the law school. These pages can only be used on printers that belong to the law school. There are two law school printers available for student printing: one located in the library lobby, marked `\\bl-uits-bowler\lw101prt` and another in room 208 of the Law Library, just outside the entrance to the computer lab, marked `\\bl-uits-bowler\lw208prt`. The law school allotment can only be used on these printers.

Please note that the special allotment for law is yearly and does *not* renew itself each semester.

## Monitoring Your Printing Allotments

Students are responsible for monitoring their own printing allotments to make sure they remain within the appropriate amounts. Please note that you will *not* receive any immediate indication that you have exceeded your allotment. The system will allow you to continue printing additional pages, but be aware that **pages in excess of your allotment will be billed to your bursar account**. This happens at the end of the relevant time period (end of each semester for university allotments, or in spring at the end of the academic year for the special law allotments).

To monitor your university printer allotment, please visit the following URL:

<https://stcweb.stc.indiana.edu/print/user/userquota.cfm>

To monitor your special law school allotment, please visit the following URL:

<https://stcweb.stc.indiana.edu/print/user/lawquota.cfm>

To view a Detailed Print Log of activity across all printers (i.e., both allotments):

<https://stcweb.stc.indiana.edu/print/user/printlog.cfm>

# Print Credits

If a student's printing account is charged inappropriately for reasons outside the student's control, such as an equipment problem with the printer (poor toner quality or printer out of order, among other possible reasons) then the student may request a print credit. This should always be done promptly, immediately if possible, or within a day or two of the incident if circumstances prevent an immediate request. For print credit requests occurring on the printers in Law 208 or in the law library lobby, please see the computer consultant in Law Library room 208. (For printer problems which occur elsewhere on campus, please ask the computer support provider for that location.)

If you accidentally send a job to the printer queue but have not yet released the job, you may still login to a **Print Release Station** and delete the unwanted job, or else you can simply not release the job and wait for it to expire. (Jobs that are not released are automatically deleted after a number of hours). Your account will **not** be charged for jobs which are deleted from the queue.

Please note that print credits are intended to compensate students whose allotments were charged for reasons beyond their control. Print credits are **not** normally issued to fix mistakes the user may make, such as accidentally printing all of a long job instead of a few pages, or printing too many copies, or forgetting to check settings for margins, page size, or two-sided printing options. Please make certain that all of your desired settings have been selected appropriately **before** you print.

# Print Allotments are Not Transferable

You are responsible for (and must pay for) any pages printed on your account. This makes it particularly important that you log off any shared or public computers, because failing to log off gives other users an opportunity to take advantage of your account credentials. ***Always log off!***

The Print Release Stations do provide an extra level of safety with regard to unauthorized printing, because another student would need to know your username and password to release the jobs. Do not share your username and password with others. You should not let anyone borrow your account.

If you *do* allow another student to print from your computer account, any pages used count against your print allotment. Printing account balances may not be transferred or shared among students.

Similarly, you may *not* transfer pages between your own accounts. This means that you cannot change which account the pages belong to, in other words, one cannot move pages from the university account to the law school account, nor vice versa. However, you *may* roll over a portion of your unused university account to the next semester; these pages must stay in the same account.

## Rollover and Bonus pages

At the beginning of each spring and summer semester, students who have unused pages on their university printer allotment from the previous semester may request to have a portion of the unused pages (300 pages maximum) rolled over and added to the next semester's allotment. This rollover is available only upon request (it does not happen automatically) and you must request it prior to a deadline which occurs a few weeks into the new semester, typically mid-February (spring) or mid-June (summer). See <http://kb.iu.edu/data/aouh.html#rollover> for more details.

Rollover is only available among semesters within the same academic year, so pages from the previous academic year may not be rolled over at the beginning of fall semester. Similarly, since the special law school allotment is available all year long, rollover does not apply to this account.

Associate instructors (AIs) and students working on dissertations may be eligible for bonus pages; <http://kb.iu.edu/data/aouh.html#bonus> for details. Dissertation bonus may only be claimed once.

## Color Printing

Color Printing has a fee per page and is billed to your bursar bill. It does not count toward your any of your print allotments. Color printing is only available at certain locations on campus. For a list of locations, output types, and costs for printing, see <http://kb.iu.edu/data/aouh.html#color>.

## Printing on Nonstandard Paper

Please use caution and consideration for other users and consideration for the equipment when using non-standard paper such as résumé paper in the high-speed printers. While you are welcome to print using such materials (assuming they are designed for use in laser printers), be sure that you make careful use of the Print Release Stations in order to make sure your special paper does not interfere with any other users' print jobs, and vice versa. *Please do not load special paper in any of the regular paper trays for the printer.* Instead, please use the tray 1 manual bypass for any special-paper jobs. If you are uncertain how to load the bypass tray, please ask for assistance.

**If you need to print a résumé or similar materials, please visit Career Services**, located on the ground floor of the law building, or visit one of the special I/O Printing Facilities on campus. *For a list of I/O Facilities and available output types, please see <http://kb.iu.edu/data/avki.html>.*

Note that labels and transparencies are **not** allowed, even in the special I/O labs, because they have the potential to cause serious damage. **Please do not use transparencies or labels in any printer.**

# Printing from your notebook/Wireless printing

If you are connected via **IU Secure** and have the appropriate printer driver installed, you may send print jobs from your notebook computer directly to the printers. If the printer queue you selected uses a **Print Release Station**, you will also have to login to the workstation to release the print job.

There are also printer locator utilities available for Windows XP (32-bit), Windows Vista (32-bit), or Mac OS X which can be found at **IUWare** <http://iuware.iu.edu/> under the category Printing. This installs a utility designed to make it easier to find campus printers available to students.

**(Important note:** Mac users must also be logged in using an account *whose shortname matches your IU Network login*. For some users, this will mean creating a secondary user account and making use of shared folders in order to access files created in your primary Mac user profile.)

32-bit Windows XP and Vista may work with the printer finder normally, but some 64-bit Vista users have reported problems using the printer locator (because the utility installs 32-bit printer drivers). Such users may need to manually download and install printer drivers from HP:

- [64-bit Windows drivers for HP 8150 printers \(Law School Printers\)](#)
- [64-bit Windows drivers for HP4515 printers \(University Printers\)](#)

**How do I obtain and use the IU printer locator utility?** <http://kb.iu.edu/data/ammz.html>

Alternatively, it is possible to set up connections to the printers manually:

## **Manual printer installation (XP/Vista):**

Click on **Start**, then click on **Printers** (or **Start**, then **Control Panel**, then **Printers**.)

Click on **Add a Printer**

Select **Network Printer**

(Note: Vista users should go ahead and click on the link that says '**The printer I want isn't listed**' rather than waiting for the system to browse the entire network for printers.)

Click on **Select a Shared Printer by Name** (Vista) or **Connect to this Printer** (XP), then type one of the following names:

<b>\\bl-uits-bowler.ads.iu.edu\lw101prt</b>	(law school printer in room 101, law library lobby)
<b>\\bl-uits-bowler.ads.iu.edu\lw208prt</b>	(law school printer in room 208, law computer cluster)
<b>\\bl-uits-pillbox.ads.iu.edu\Libraries-prt</b>	(law library lobby, as well as other IUB campus libraries)