Wireless computer access at K-State

Information Technology Services provides wireless access across campus for both the K-State community and for campus visitors.

Instructions for connecting to KSU Wireless

- Windows XP configuration
- Windows Vista configuration
- Windows 7 configuration
- Macintosh OS 10.5x/6 configuration
- Android configuration
- iPhone, iPad, or iPod Touch configuration
- HP Touch Pad configuration
- Chromebook configuration
- Ubuntu configuration

Who can use K-State’s wireless network?

1. **K-State faculty/staff and students** should use “KSU Wireless”.

2. **Residents** in K-State residence halls and Jardine Apartments should use “KSU Housing”.

3. **Campus visitors** should use “KSU Guest”.

What’s needed to connect to KSU Wireless?

- A computer with wireless network card
- A valid K-State eID/password

How do I get help?

Contact your departmental IT support staff or the K-State IT Help Desk (785-532-7722, helpdesk@k-state.edu).
Windows XP configuration: KSU Wireless

These instructions assume you are using the Windows management of the wireless network adapter.

1. Click the Start button in the bottom left corner of the desktop. (If you’re using the classic Windows start menu, click Settings.) Click Network Connections. Right-click Wireless Connections and select View Available Wireless Networks from the menu.

   OR: An alternative approach is to right-click the wireless networking icon in the bottom right corner of the Windows desktop.

   ![Wireless Networking Icon](image)

   Select View Available Wireless Networks from the menu.

2. The Wireless Network Connection window will appear.
3. Click **Change the order of preferred networks** in the left-hand menu. The following window will appear.

![Wireless Network Connection Properties](image1)

4. Click the **Wireless Networks** tab at the top of the window. The following window will appear.

![Wireless Network Connection Properties](image2)

5. Checkmark the **Use Windows to configure my wireless network settings** box (it should be the default).

   - If **KSU Wireless** is present in the list of Preferred Networks, double-click it so you can configure the connection.
   - If **KSU Wireless** is not in the list of Preferred Networks, click **Add** to create a connection.
6. Click the **Properties** button. The following window will appear.

![Image of Wireless Network Connection Properties window]

7. On the **KSU Wireless properties** window, enter the information below. (The network name is case-sensitive. All your settings should exactly match those listed below.)

- Network name (SSID) = **KSU Wireless**
- Network Authentication = **WPA2**
- Data encryption = **AES**

*Do not click OK yet!* Click the **Authentication** tab at the top of the window. The following window will appear.

![Image of Authentication tab in Wireless properties window]
8. On the Authentication tab, make the following changes:

- EAP type = Protected EAP (PEAP)
- Uncheck Authenticate as computer when computer information is available

*Do not click OK yet!* Click Properties to continue. The following window will appear.

9. On the Protected EAP Properties window, make the following changes:

- Checkmark Validate server certificate
- Uncheck Connect to these servers *(leave this field blank)*
- In the Trusted Root Certification Authorities section:
  - Checkmark Thawte Premium Server CA
  - Checkmark Thawte Server CA
- Select Authentication Method = Secured password (EAP-MSCHAP v2)

10. To the right of Select Authentication Method, click the Configure button.

When the following window appears, uncheck the box for Automatically use my Windows logon name and password (and domain if any).

11. Click OK until you exit the wireless configuration windows.
12. A balloon will appear in the bottom right corner of the desktop.

13. Click the balloon window titled Wireless Network Connection for KSU Wireless. The following window will appear.

14. Enter the following information:
   - User name = your K-State elID
   - Password = your K-State elID password
   - Logon domain = USERS

15. Click OK. You should be automatically connected to the wireless network. When you change your K-State elID password, you have to re-enter your elID/password.
Windows Vista configuration: KSU Wireless

1. Click the **Start** button in the bottom left corner of the desktop.

2. Select the **Network** option. The following window will appear.

3. Select **Network and Sharing Center**. The following window will appear.
4. If KSU Wireless appears on this window as a current network connection, remove it before proceeding further.

From the Network and Sharing Center, select Set up a connection or network in the left-hand menu. The following window will appear.

5. From the Set up a connection or network menu, select Manually connect to a wireless network. The following window will appear.

6. On the Manually connect to a wireless network window, enter the following information. (The network name is case-sensitive. All your settings should exactly match those listed below.)

   - Network name = **KSU Wireless**
   - Security type = **WPA2-Enterprise**
   - Encryption type = **AES** (this should be the default option)
   - Security Key/Passphrase = *(leave this field blank)*
   - Checkmark the Start this connection automatically box (it should be the default option).
7. Click **Next** to continue. The following window will appear.

8. From the *Manually connect to a wireless network* menu, select **Change connection settings** to enter additional configuration options. The following window will appear.
9. Click the **Security** tab at the top of the window. Click the **Settings** button in the middle of the window. The following window will appear.

![Protected EAP Properties window]

10. On the **Protected EAP Properties** window, select the following settings:

   - Checkmark the **Validate server certificate** box
   - Under **Trusted Root Certification Authorities**:
     - Checkmark **Thawte Premium Server CA**
     - Checkmark **Thawte Server CA**
   - **Select Authentication Method** = **Secured password (EAP-MSCHAP v2)**
   - Checkmark the **Enable Fast Reconnect** box (it’s checked by default)

11. To the right of **Select Authentication Method**, click the **Configure** button.

12. On the **EAP MSCHAPv2 Properties** window, uncheck the **Automatically use my Windows logon name and password** box and click **OK**.

![EAP MSCHAPv2 Properties window]
13. On the *Protected EAP Properties* window, click **OK**.

14. On the *KSU Wireless Network properties* window, click **OK**.

15. On the *Manually connect to a wireless network* window, click **OK**.

16. Any remaining windows (such as the *Network and Sharing Center* or *Network* windows) may also be closed.

17. Click the **Start** button in the toolbar.

18. Select the **Connect To** option. The following window will appear.
19. On the *Connect to a network* window, select the **KSU Wireless** network and click **Connect**.

20. Click **Enter/select additional log on information**. This will bring up the *Enter Credentials* window.

21. Enter the following information:

- User name = *your K-State eID*
- Password = *your K-State eID password*
- Logon domain = **USERS**
22. Click **OK**. The *Successfully connected* window will appear.

23. Click **Close**. You should be automatically connected to the wireless network. When you change your K-State eID password, you have to re-enter your eID/password.
Windows 7 configuration: KSU Wireless

1. Click the **Start** button in the bottom left corner of the desktop.

2. Select the **Control Panel** option.

3. The next window will display in one of these views: **Category**, **Large icons**, or **Small icons**.

   For **Category view** (as shown above) on the **Control Panel** window, find **Network and Internet** and select **View network status and tasks**.
Or for Small icons view (as shown above) or Large icons view on the Control Panel window, select Network and Sharing Center. The Network and Sharing Center window will appear.

4. On the Network and Sharing Center window, select Set up a new connection or network. The following window will appear.
5. From the *Choose a connection option* menu, select **Manually connect to a wireless network** and click **Next**. The following window will appear.

![Manually connect to a wireless network window](image)

6. In the *Manually connect to a wireless network* window, enter the following information. (The network name is case-sensitive. All your settings should exactly match those listed below.)

- Network name = **KSU Wireless**
- Security type = **WPA2-Enterprise**
- Encryption type = **AES** *(this should be the default option)*
- Security Key = *(leave this field blank)*
- Checkmark **Start this connection automatically** *(it should be the default)*.

7. Click **Next**. The following window will appear.

![Successfully added KSU Wireless](image)
8. On the *Manually connect to a wireless network* window, select *Change connection settings* to enter additional configuration options. The following window will appear.

9. Click the **Security** tab at the top of the window. Click **Settings**. The following window will appear.

10. On the *Protected EAP Properties* window, select the following settings:

   - Under *Trusted Root Certification Authorities*, checkmark **Thawte Premium Server CA**
   - Select *Authentication Method* = **Secured password (EAP-MSCHAP v2)**
   - Checkmark **Enable Fast Reconnect** (checked by default).
11. Click **Configure**. The following window will appear.

![Protected EAP Properties window](https://example.com/protected_eap_properties.png)

12. On the *EAP MSCHAPv2 Properties* window, **uncheck** *Automatically use my Windows logon name and password* and click **OK**.

13. On the *Protected EAP Properties* window, click **OK**.

14. On the *KSU Wireless Network properties* window, click **OK**.

15. On the *Manually connect to a wireless network* window, click **Close**.

16. Any remaining windows (such as the *Network and Sharing Center* or *Network* windows) may also be closed.

17. Click the **Start** button at bottom left in the toolbar.
18. Select the **Control Panel** option.

19. The next window will display in *Category*, *Large icons*, or *Small icons* view.

   For the *Category view* (as shown above) on the *Control Panel* window, under **Network and Internet**, select **View network status and tasks**.

   Or for *Small icons view* (as shown above) or *Large icons view*, on the *All Control Panel Items* window, select **Network and Sharing Center**. The following window will appear.
20. In the *Network and Sharing Center* window, select **Connect to a network**.

21. Select the **KSU Wireless** network and click **Connect**.

22. Your computer should now connect to KSU Wireless.
23. On the *Windows Security Network Authentication* window, enter the following information:

- User name = *your K-State eID*
- Password = *your K-State eID password*

24. Click **OK**. You should be automatically connected to the wireless network. When you change your K-State eID password, you have to re-enter your eID/password.
Macintosh OS 10.5x/6 configuration: KSU Wireless

1. Make sure your operating system is up-to-date. To do this, from the Apple menu in the upper left corner, run Software Update.

2. Click the AirPort icon on your toolbar and check the status of your AirPort Connection. AirPort should be ON.

3. Click on KSU Wireless. The following window will appear.

4. Enter the following information:
   
   - User Name = your K-State eID
   - Password = your K-State eID password

5. Click the AirPort icon on your toolbar and verify KSU Wireless is check marked. Click Open Network Preferences.
6. On the *Network preferences* window, click the **padlock icon** to unlock the Preference pane and enter your computer's administrative password in order to make changes.

7. Click **OK**.

8. On the *Network Preferences* windows, click **Advanced**.
9. The AirPort Preferred Networks panel will appear. Drag **KSU Wireless** to the top of the Preferred Networks list.

![AirPort Preferred Networks panel](image)

10. Click the **802.1X** tab. Look in the window on the left-hand side. If you see *User Profiles* with a triangle next to it, click the triangle to expand the list.

11. Under *User Profiles*, click on **WPA: KSU Wireless**.

![User Profiles expanded](image)

- **Authentication** = **PEAP** *(make sure PEAP is the only one checkmarked)*
12. Click **OK** and click **Apply**.

13. In the 802.1X Authentication window, enter your K-State eID and password and

![802.1X Authentication](image)

14. Enter the following information:

   1. User Name = *your K-State eID*
   2. Password = *your K-State eID password*

15. Click **OK**.

16. You may be presented with a Verify Certification window. If so, ensure radius2.ksu.edu is the certificate.

![Verify Certificate](image)

17. Click **Continue**.
Android configuration: KSU Wireless

1. Tap Menu and select Settings
2. Select Wireless & networks
3. Tap on Wi-Fi
4. Select Wi-Fi settings
5. Select KSU Wireless and enter the following information:

   - EAP Method = PEAP
   - Phase 2 Authentication = MSCHAPV2
   - CA Certificate = Leave this field blank
   - Client Certificate = Leave this field blank
   - Identity = your K-State eID
   - Anonymous Identity = Leave this field blank.
   - Wireless Password = your K-State eID password

6. Tap Save or Connect

Allow a few moments for your device to obtain a valid IP address. Once you are connected successfully, your device will show you are Connected.
iPhone, iPad, or iPod Touch configuration: KSU Wireless

1. Connect to KSU Wireless
2. Username = your K-State eID
3. Password = your K-State eID password
4. Click Accept to accept certificate
HP Touch Pad Configuration: KSU Wireless

1. Launch Wi-Fi application.

2. A list of available networks is displayed.
   
   - Tap + Join network
   - Enter the following information
     - Network name = **KSU Wireless**
     - Security = **Enterprise**
   - Tap **Connect**

3. Enter the following information:
   
   - User name = your **K-State eID**
   - Password = your **K-State eID password**
   - Tap **Sign In**
1. Open the settings menu via the icon and select About Chrome OS.

2. Select **Check for updates** on the first page that opens. Chrome OS versions earlier than 15.0.874.83 may not work on the university wireless network; install updates if available.
3. Select **Internet** from the left menu. If **KSU Wireless** show in the **Remembered networks** section, click to highlight, then select **Forget this network**.

4. Under **Wireless networks**, click **Other Wi-Fi Network**. Click **Advanced**.
5. Enter the following information: Fill in the pop-up window with the information you see below. Enter **KSU Housing** (for campus residents) or **KSU Wireless** (general faculty/staff/students) for the SSID. The **Identity** and **Password** will be your **eID username** and **eID password**.

![Join Wi-Fi network](image)

- **SSID** = **KSU Wireless**
- **EAP method** = **PEAP**
- **Phase 2 authentication** = **Automatic**
- **Server CA certificate** = **Do not check**
- **Identity** = **your K-State eID**
- **Password** = **your K-State eID password**

6. Click **Connect**.
Ubuntu configuration: KSU Wireless

- 8.10 Intrepid Ibex
- 9.04 Jaunty Jackalope
- 9.10 Karmic Koala
- 10.04 Lucid Lynx
- 10.10 Maverick Meerkat
- 11.04 Natty Narwhal

1. In the toolbar on the upper right-hand side of the window, right-click the networking icon and select Edit Connections…
   (Alternate method: System > Preferences > Network Connections)

2. The Editing Wireless connection 1 window will appear. Verify these settings:
   - Connection name = (doesn’t matter; “Wireless connection [x]” by default)
   - Checkmark Connect automatically
3. Under the **Wireless** tab, make the following changes:

- **SSID** = *KSU Wireless*
- **Mode** = *Infrastructure*
- **BSSID** = *(leave this field blank)*
- **MAC address** = *(leave this field blank)*
- **MTU** = *automatic*

4. Under the **Wireless Security** tab, make the following changes:

- **Security** = *WPA & WPA2 Enterprise*
- **Authentication** = *Protected EAP (PEAP)*
- **Anonymous Identity** = *(leave this field blank)*
- **CA Certificate** = *Thawte_Premium_Server_CA.pem*
  
  If clicking on the CA Certificate field doesn’t open the correct directory, the path is /etc/ssl/certs/Thawte_Premium_Server_CA.pem
- **PEAP Version** = *Automatic*
- **Inner Authentication** = *MSCHAPv2*
- **User Name** = *your K-State eID*
- **Password** = *your K-State eID password*

5. Under the **IPv4 Settings** tab, no settings need to be changed.

6. Click **Apply** to connect to KSU Wireless.

Note: Ubuntu does not contain any Thawte Certificates. Download the Thawte Root Certificates from [https://www.thawte.com/roots/index.html](https://www.thawte.com/roots/index.html)

- Download **thawte-roots.zip** and extract in your **home** directory.
- The filepath of your Thawte Certificates will be */yourusername/Thawte*
Troubleshooting KSU Wireless issues

Issue 1: WPA2 isn’t in the Network Authentication list when you’re configuring the connection to KSU Wireless in Windows XP or Vista.

1. Disable other wireless management utilities (Windows XP only).

KSU Wireless can support only the Windows management of the wireless card, so any wireless configuration utilities that came with the card have to be disabled.

Many wireless connection utilities display an icon in the bottom right corner of the Windows desktop. The icons for these utilities often look like an antenna or a signal strength indicator.

Many of the utilities can be opened by right-clicking on the icon. Some of them will allow you to disable the utility or let Windows manage wireless connections from the resulting menu.

Follow these online instructions to open the Dell utility:
http://support.dell.com/support/edocs/network/p70008/EN/utility.htm

Uncheck Let this tool manage your wireless networks, and click OK to save your change.

2. Make sure that your computer meets the minimum system requirements. Update Windows XP to XP SP3.

3. Make sure your network adapter is WPA2-Enterprise certified.

   a. Determine which wireless network adapter your computer is using.

   - **For Windows XP**: Follow Steps 3-5 of the [XP configuration instructions](http://support.dell.com/support/edocs/network/p70008/EN/utility.htm) above. The wireless adapter is at the top of the *Wireless Network Connection Properties* window.
   - **For Windows Vista**: Start > Control Panel > System and Maintenance > System > Device Manager > Network Adapters
b. Verify that the adapter is WPA2-Enterprise certified by the Wi-Fi Alliance.

1) Click one of the links below that matches the network adapter used by your computer.
   - Internal wireless network adapters
   - External wireless network adapters
2) Find your wireless adapter in the list.
3) Click **View Wi-Fi Certifications** for the adapter (on the right side of the list). The adapter must be WPA2-Enterprise certified to work with the KSU Wireless network.

4. **If your adapter is WPA2-Enterprise certified, update the driver (for XP and Vista).** Go to the website of the laptop’s manufacturer and install the most current driver for the network adapter.

5. **If your adapter is not WPA2-Enterprise certified,** you may need to purchase a USB wireless adapter that is WPA2-Enterprise certified. *Before buying one, make sure that your computer meets all system requirements.* Note that Windows 98 cannot support WPA2.

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**Issue 2: Cannot connect to the KSU Wireless network**

1. Have you carefully followed the wireless configuration instructions for your operating system?

   Double-check your settings and try to reconnect to the KSU Wireless network.

2. When you look at your computer’s list of available wireless networks, what is the current strength of the KSU Wireless signal?

   Any wireless network can become slow to respond if:
   - Many devices are connecting in the same location
   - The devices are using a lot of network resources
   - The wireless signal is weak because you’re too far away

   Try connecting again in a few minutes. If you’re on the edge of a wireless zone, move toward the middle to see if the signal gets stronger, and try again.