Sierra College Wireless Network Troubleshooting Tips

The following is a list of troubleshooting tips you can try if you're experiencing difficulties either connecting to or remaining connected to the Sierra College wireless network.

The beginning of this document outlines troubleshooting tips to establish a connection to the Sierra College wireless network. In most cases, establishing a connection is all that is needed to then gain access to the internet. In some cases, you may be able to connect to the wireless network, but still be unable to gain access to the internet. In those cases, it may be helpful to clear the cached setting on your web browser or even reset your web browser to the default settings.

Steps to clear your web browser cache and/or reset your web browser to the default settings are listed at the end of this document.

How do I get access to the service?

Faculty and Staff accounts are activated by default. You will connect to the “Sierra” wireless network using the same logon name and password as is used for the MySierra portal sign-on.

Students should be directed to the Campus Life (http://www.sierracollege.edu/StudentServices/campusLifeASSC/idcard.html) office at the Rocklin campus located in room J-7 of the Campus Center, or by calling 916.660.7380. After purchasing their ASSC membership card, students will access the “Sierra” wireless network as well, but are allowed internet access only.

Sierra College visitors will connect to the “Guest” wireless network which does not require any passwords in order to connect. Once connected, the visitor simply needs to launch the web browser of their choice on their wireless device. Upon launching their browser, the visitor will be redirected to a Guest Registration page where they need to input their information, the information of their Sierra College “sponsor”, and agree to the Terms and Restrictions of our wireless network. Upon agreement, their sponsor will receive an e-mail which the sponsor much acknowledge in order for the visitor to gain final access to our wireless network. Guest network users are allowed internet access only - they are not allowed access to Sierra College internal resources.

Technical Information

Connections to the Sierra_Guest and Sierra_Public wireless network use the WPA2-PSK authentication method. WPA2-PSK is sometimes also referred to as WPA2 “Personal” authentication method. Also, the only encryption algorithm that is allowed is AES - neither the TKIP nor TKIP/AES “mixed mode” encryption algorithms are allowed.

Connections to the Sierra_Secure wireless network use WPA2-Enterprise and 802.1x authentication.

Troubleshooting Steps

Troubleshooting network connectivity using the Sierra College wireless network falls into two fundamental categories -

1. Can you establish a connection to the wireless network “AP” (i.e., “Access Point”)? Once you’ve successfully established a connection to the wireless network then we want to see if you...
2. Can you connect to the Internet?

Let's start with Step 1 - can you establish a connection to the wireless network “AP” (i.e., “Access Point”)?

My device “hears” several wireless networks - which one should I connect to?

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If you are a:

**Student (using your personal device)**
1. Have you contacted Campus Life (http://www.sierracollege.edu/StudentServices/campusLifeASSC/idcard.html) office at the Rocklin campus located in room J-7 of the Campus Center, or by calling 916.660.7380 and are you authorized to connect to the Sierra network?
2. Select the Sierra network.
3. When you open your browser, read and accept the “Policy Rules.”
4. Login to Aruba Wireless using your MySierra username and password.

**Employee (using your personal device)**
1. Select the Sierra network.
2. When you open your browser, read and accept the “Policy Rules.”
3. Login to Aruba Wireless using your MySierra username and password.

**Employee (using a device owned by Sierra College)**
1. Bring the device to the Sierra College I.I.T. Department.
2. When the I.I.T. Department returns the device, you will connect to the Sierra network.

**Guest (using your personal device)**
1. Connect to the Guest wireless network.
2. Launch an internet web “browser” on your mobile device.
3. Complete the required form fields, agree to the Terms and Conditions, and click Submit. Your sponsor will receive an e-mail which they must approve. Once they have received the system generated e-mail and have approved your access request, the LogIn button on your wireless device will become enabled.
4. Click LogIn and you should now be able to access the internet as you normally would.

**Android device troubleshooting**

These Wi-Fi troubleshooting tips are listed in order of the simplest to the most complicated.

**Power off**
The first thing you should try is to power off your Android phone, remove the battery, leave the battery out for about 30 seconds, replace the battery, and power the phone back on.

**Power-cycle wireless**
Try turning off wireless and then turning it back on by following these steps:
1. Tap the Menu button on your handset.
2. Tap Settings.
3. Tap Wireless and Network from within the Settings menu.
4. Tap Wi-Fi settings from the Wireless and Network menu.
5. In the new screen, uncheck Wi-Fi to turn it off
6. After Wi-Fi is turned off, tap the entry again to turn it back on.

**Forget the network**
If the previous method does not work, you might need to have your Android device forget the network and then re-add it. Here’s the catch: Your Android device cannot forget a wireless network that is within range, so you will need to get out of range of the network and then do the following:

1. Long press the listed network you want to forget.
2. Tap Forget Network.
3. Get back within range and wait for the network to automatically show up.
4. Enter the network password to join.
5. Your Android phone should have a new address and be working as you would expect.

Check the wireless password

Wireless passwords (hopefully) change from time to time, but when they do, your phone can’t automatically update. In order to manually change your wireless password, follow these steps:

1. Be out of range of the network in question.
2. Long press the wireless network you need to configure.
3. Tap Change Network Settings.
4. Enter the new password in the resulting screen.
5. Check the Show Password box. (I always like to check the Show Password box to make sure I am entering the correct password in my mobile device.)
6. Tap Save when you know the password is correct.

This screen will also indicate the type of security used on your network. Make sure that matches what you believe to be the correct type of security; if it does not, you might need to have Android forget this network and re-add it.

Advanced Wi-Fi settings

If none of the previous solutions worked, you might have to dig a little deeper into the Wi-Fi settings on your Android phone. To get to the Advanced Settings window, follow these steps:

1. Tap the Menu button on your handset.
2. Tap Settings.
3. Tap Wireless and Networks.
4. Tap Wi-Fi settings.
5. Tap the Menu button again.
6. Tap Advanced.
7. Tap the Proxy setting and make sure your Android device is not set up for a Proxy.

Most likely the Proxy and Port settings will not be set, but it’s always good to check if you’re having frequent issues with Wi-Fi. Note: Sierra College does not use a proxy server, so this does not apply.

Wi-Fi sleep policy

If you are having persistent Wi-Fi issues, you can set the Wi-Fi sleep policy to Never and see if your issues stop. With this policy set to Never, it will drain your battery faster, but it will also keep your Wi-Fi connected on a more consistent basis.
Apple iOS\(^1\) device (iPhone, iPad, MacBook, etc.) troubleshooting

Basic Troubleshooting
1. Verify that you are in range of your Wi-Fi "access point"
2. Tap Settings > Wi-Fi and turn Wi-Fi off and then on again.
3. Restart your iOS device. Hold the On/Off button until "slide to power off" appears. Slide to power off your device. When it is off, press the On/Off button to turn it back on.

If you are still experiencing a Wi-Fi issue after trying the above, you might try some of the suggestions below.

Additional Steps
1. Tap on the Settings app. When the Settings app loads, you will be at the General Settings category.
2. Tap on the Wi-Fi settings category.
3. You should now tap on the Wi-Fi profile that you wish to delete. You will now be at the Wi-Fi network settings screen for the connected network.
4. Tap on the Forget this Network button.

Manually adding the Sierra_Public connection
1. Click on the Apple icon at the top left corner.
2. Select System Preferences from the drop-down list.
3. Click on the Network icon in the System Preferences windows.
4. Select Airport (or Wi-Fi) in the ‘Show’ field and click the Configure (or Advanced) button. You will then see a list of networks below that you have already connected to.
5. If you have connected to ‘Sierra_Public’ before, it will appear in your preferred networks list. Select it and click the ‘-‘ (minus) button to remove it.
6. Click the ‘+’ button to add it again.
7. Use the following information:
   • Network Name: Sierra/Public
   • Wireless Security: WPA2-PSK
   • AES encryption (neither TKIP nor TKIP/AES “mixed” mode are allowed)
   • User Name: YOUR MySierra ID
   • Password: YOUR MySierra password
8. Make sure ‘Sierra/Public’ is at the top of your preferred networks list by clicking on Sierra/Public and dragging it to the top of the list
9. Click Apply Now
10. Close the Network window

If your device doesn’t seem to “hear” the wireless network you’re trying to connect to
1. Check to see if the network is available by tapping Settings > Wi-Fi and choose from the available networks listed there. Note: It may take a few seconds for the Wi-Fi network name to appear.
2. Reset network settings by tapping Settings > General > Reset > Reset Network Settings. Note: This will reset all network settings, including passwords, VPN, and APN settings.

\(^{1}\) http://support.apple.com/kb/ts1398
If you are unable to access the Internet while connected to a Wi-Fi network
1. Verify that you are selecting the correct network if you are in a location with multiple Wi-Fi networks.
2. Verify that the Wi-Fi network settings are correct. You can view and configure Wi-Fi settings using the following steps:
   • Tap Settings > Wi-Fi
   • Locate the Wi-Fi network you are currently using and tap

If you’ve verified that your settings are correct and the issue persists, try the following:
1. Tap “Forget this Network” to reset settings for this Wi-Fi network, including the password. Then try connecting to the network again. Note: This can be useful if you identify a network issue and want to prevent the device from automatically using this network in the future.
2. Reset network settings by tapping Settings > General > Reset > Reset Network Settings. Note: This will reset all network settings, including passwords, VPN, and APN settings.
3. From the Settings screen, press the section on the left side of the screen for Safari. In the Safari settings, make sure the following sections are configured as such:
   • Auto Fill should be turned completely Off
   • JavaScript should be turned On
   • Block Popups should be turned Off
   • Accept Cookies should be set to Always
5. Go back to the Wi-Fi section of Settings.
6. Try to reconnect to the Sierra_Public network
7. Proceed with log in.

Microsoft Windows device (phone, tablet or laptop) troubleshooting

NOTE: Support for Windows XP ended April 8, 2014. There will be no more security updates or technical support for the Windows XP operating system. Consequently, Microsoft Windows XP has limited support for WPA2 encryption, which is the only allowed encryption method to access the Sierra College wireless network. If your device is using the Microsoft Windows XP operating system, we recommend you confirm the ability of your wireless adapter to support the WPA2 technology before attempting to connect to the wireless network.

If you have a laptop with a wireless network adapter, you can see a list of available wireless networks and then connect to one of those networks. The wireless networks will only appear if:

1. Your PC or device has a wireless network adapter installed
2. Is the adapter turned on (is there a button or key that enables/disables your wireless network adapter)?

Some laptops, most notably IBM or Dell (but may include other manufacturers), have either a physical switch located at the front of the laptop or perhaps on the side of the laptop that actually powers the wireless adapter on and off. As you start your troubleshooting efforts, confirm that your laptop does or does not have such a switch and if so, that it’s in the powered on position.

Additionally, some laptops (IBM, Dell, etc.) have a very specific keystroke combination that must be depressed at the same time (for example, Function + F5, etc.) to enable / disable your wireless adapter.

These features mentioned above are unique to laptops that run the Microsoft Windows operating system; they are not found on Apple devices. Consult the documentation for your make / model of laptop to
confirm / deny that your laptop has these types of features.

3. The wireless access point signal is in range of your device.

**Use an automated troubleshooter in Windows 7**

An automated troubleshooter is a tool that can find and automatically fix some problems with your computer. These troubleshooters aren't designed to fix every problem, but they're a useful tool to try because they can often save you time and effort.

Different Windows operating systems use troubleshooters in different ways. For example, Windows 7 & 8 use troubleshooters from within the Windows “Action Center”. Windows Vista and Windows XP use troubleshooters that can be downloaded from the Microsoft Download Center and then run on your computer. To use an automated troubleshooter, click the link for the troubleshooter for your Windows operating system.

Run the Network troubleshooter first and then test your Internet connection. To open the Network troubleshooter:

1. Right-click the network icon or in the notification area of your taskbar (the bottom right area on your monitor), and then click Troubleshoot problems.

You can also run specific troubleshooters to focus on a particular network or connectivity problem. For example, if you are unable to connect to the Internet or access a particular website, there might be a problem with your Internet connection. Try using the Internet Connections troubleshooter to fix the problem. Follow the steps below.

To open other troubleshooters:

1. Click the Start button, type “troubleshooting” in the search box, and then click Troubleshooting.
2. Click Network and Internet, and then click the troubleshooter you want to run.

**I can connect to the wireless network...but I can’t browse to any web sites**

Once your device *visibly* shows that you’re successfully connected to the Sierra College wireless network (either the Sierra_Guest or Sierra_Public), you will be presented with a “splash page” and be prompted to supply both a Username and Password before being allowed to browse *any* web sites. Your Username and Password should have been provided to you.

At this point, if you’re unable to browse to any web sites at all, there are a few other troubleshooting items to check -

1. Do you have *any* third-party “security” software (i.e., antivirus “suite” software, firewall, DNS, TOR, etc.) installed on your device that may be hampering your ability to access the internet? If so, can you temporarily disable it to see if it may be the source of your problem(s)?
2. Clear web browser cache.
3. Reset your web browser to its defaults.

**Clear Web Browser Cookies (Internet Explorer)**

Open Internet Explorer and go to Tools > Internet Options > General > Delete. Place a checkmark in the Cookies option and click Delete.

**Clear Web Browser Cookies (Firefox)**

Open Firefox and go to Options > Privacy. Look for the History area, and select the drop-down box and
choose Use custom settings for history. Click the Show cookies.

**Clear Web Browser Cookies (Safari)**

Open Internet Explorer and go to Tools > Internet Options > General > Delete. Place a checkmark in the Cookies option and click Delete.

**Clear Web Browser Cookies (Google Chrome)**

Open Internet Explorer and go to Tools > Internet Options > General > Delete. Place a checkmark in the Cookies option and click Delete.

**Clear Web Browser Cache (Internet Explorer)**

1. Click Start, click Control Panel, click Network and Internet, and then click Internet Options.
2. Click the General tab, and then click Delete under Browsing history.
3. Click Delete all, click Yes to confirm that you want to delete this information, and then click OK.
4. This may take anywhere from a few seconds to several minutes, depending on how much “cache” your PC/laptop has stored.
5. Test to see if network connectivity is now functioning normally.

**Additional Steps (Microsoft Windows only)**

Clear your DNS resolver cache. Clearing the DNS cache forces DNS to query a DNS server rather than using information stored in the cache. You might want to clear the DNS cache if you are moving and changing websites, or if you are receiving repeated errors when you know the web address you are typing is correct.

1. Open the Command Prompt window by clicking the Start button, clicking All Programs, clicking Accessories, and then clicking Command Prompt.
2. At the command prompt, type `ipconfig /flushdns`
3. Test to see if network connectivity is now functioning normally.

**Reset Web Browser to Default Settings**

**Internet Explorer**

1. Close all Internet Explorer and Explorer windows that are currently open.
2. Start Internet Explorer.
3. Note If you are running Windows 8.1 or Windows 8, start Internet Explorer from the desktop.
   Changing your settings will affect both Internet Explorer and Internet Explorer that you start from the desktop.
4. On the Tools menu, tap or click Internet options. If you don’t see the Tools menu, press Alt.
5. In the Internet Options window, tap or click the Advanced tab.
6. Tap or click Reset. If you’re using Windows Internet Explorer 6, click Restore Default.
7. In the Reset Internet Explorer Settings dialog box, tap or click Reset.
8. Note: Select the Delete personal settings check box if you also want to remove browsing history, search providers, Accelerators, home pages, Tracking Protection, and ActiveX Filtering data.
9. When Internet Explorer finishes applying the default settings, tap or click Close, and then tap or

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2 https://support.microsoft.com/kb/923737

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click OK.
10. Exit and then start Internet Explorer.

Firefox³
1. At the top of the Firefox window, click the Firefox button, go over to the Help sub-menu and select Troubleshooting Information. Alternatively, type `about:support` in your address bar and hit return.
2. Click the Reset Firefox button.
3. To continue, click Reset Firefox in the confirmation window that opens.
4. Firefox will close and be reset. When it’s done, a window will list the information that was imported. Click Finish and Firefox will open.

Safari⁴
1. Choose Safari > Reset Safari.
2. Place a checkmark in all available boxes
3. Click Reset.

Google Chrome⁵
1. Click the Chrome menu on the browser toolbar.
2. Select Settings.
3. Click Show advanced settings and find the “Reset browser settings” section.
4. Click Reset browser settings.
5. In the dialog that appears, click Reset.

⁴ http://support.apple.com/kb/ph11914
⁵ https://support.google.com/chrome/answer/3296214?hl=en