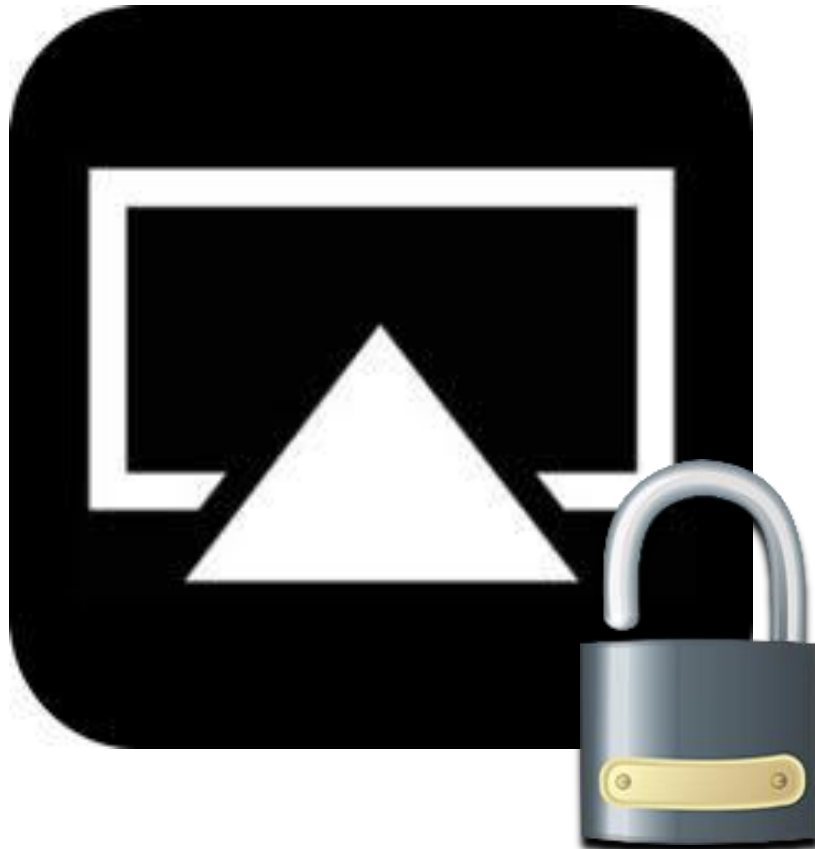


APPLE TV & AIRPLAY SECURITY

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What is Apple TV and AirPlay?

Apple TV is a small black device that allows home users to purchase multimedia content from Apple's iTunes Store to watch on their home televisions. The device also comes preloaded with apps like Netflix, Hulu Plus, and YouTube.

Although the device was originally intended for home use, our faculty and staff have found some educational and presentation uses with the device thanks to AirPlay Mirroring.

AirPlay Mirroring allows users to project their iPad's¹ screen onto the classroom projector or conference room television wirelessly.



¹ Currently, IET only supports the use of AirPlay Mirroring with the iPad and not the iPhone or MacBook.

What are the security risks?

AirPlay is very easy to use. (See: [Connecting iPad with the Apple TV Guide.](#)) Unfortunately, if no security is applied, AirPlay is also easy to exploit. In classrooms, institutionally owned iPads are on the same network as classroom Apple TVs and thus any student is capable of “taking over the screen” while the faculty member uses AirPlay.

Whereas we *do* want to create an environment where students can share their work with the class via the iPad if the instructor chooses, an unprotected Apple TV/AirPlay network could allow a student—in your classroom or outside of your classroom—to easily project whatever they want for all to see. We want *the right* students to project via AirPlay at the instructor’s discretion, but we do not want unauthorized students to take over classroom projectors.

Below are the two security options for Apple TVs that ensure that the right individuals are permitted to broadcast their iPads. You must choose either AirPlay Passwords or AirPlay Codes.

Secure Option 1: Airplay Passwords

Ideal Environments	Non-ideal Environments
Classrooms where the instructor alone will be using AirPlay	Situations where easily forgotten passwords will need to be shared widely with fellow instructors.
Classrooms where students will not need to project their iPads	Situations where students can guess easy passwords (derivatives of the AirPlay network name, instructors’ names, etc.)

Users can set an AirPlay password by using the Apple TV remote and choosing **Settings → AirPlay → Set Password**.

It is strongly advised to set a strong passcode with any combination of capital/lowercase letters, numbers, and symbols. If you are under the impression that this password may have been compromised, change the passcode immediately by using the Apple TV remote and choosing **Settings → AirPlay → Clear Password** and setting a different password.

Note: It is not recommended for users to temporarily disable their passwords for students to gain access. Even in this short time, the instructor is opening the gate for anyone to project.

Secure Option 2: Airplay Codes

Ideal Environments	Non-ideal Environments
Conference Rooms where easy in-room access to AirPlay is needed	Situations where the user wants to be the only one projecting
Classrooms where instructors want students in the room to share their screens	

AirPlay Codes is a new security feature that allows users to walk in, initiate a connection to AirPlay, enter an always randomized 4 digit code that appears on the Apple TV, and easily connect.

This feature is ideal in situations where visitors and guests can connect without having to know a secret passcode. It also ensures that the initiating user is in the room and responsible for what is being shared.

To set up Airplay Codes, go into **Settings → AirPlay → Onscreen Code**. Examples of what these onscreen codes look like are featured below.

One-Time Setup of AirPlay Codes



A Code Appears Once AirPlay Network is initiated



Appendix: Connecting iPad with the Apple TV Guide

Note: This guide was written and provided by the Walters State Instructional Design Team (IDT).


Setup the AppleTV

1. Turn on the AppleTV. You should see the AppleTV on the projector.
2. Use the AppleTV Remote to select Settings, Airplay from the menu. Click on Airplay.
3. Make sure Airplay is turned on. You should see 'ON' beside Airplay. If Airplay is set to 'OFF', you will need to click on Airplay with the Remote to turn it on.
4. Select to 'Clear the Password' then select to 'Set the Password'.
5. Enter a password that you will use to control access to the AppleTV. This will prevent a student from taking control of the AppleTV during your presentation.
6. Press the Menu button on the Remote to return to the main menu.
7. Select Settings, General
8. Note the Name associated with your AppleTV. You will need the name of the device when you connect your iPad.


To connect to the AppleTV with your iPad

1. On **your** iPad, go to Setting, WiFi and select MobileDeviceNet. If you cannot connect, IET may not have added your iPad to the network yet.
2. Press Home to return to the Home Screen.
3. Display the multitask status bar by either double clicking the home button or using the four finger upward swipe gesture.
4. Swipe the multitask status bar right until you see the iPod controls and this icon.



5. Tap the  icon to see the list of available AirPlay devices.
6. Tap the name of your AppleTV noted in "Setup the AppleTV, step 8" above.
7. Enter the password you entered in "Setup the AppleTV, step 5".
8. Display the multitask status bar again by either double clicking the home button or using the four finger upward swipe gesture.
9. Swipe the multitask status bar right until you see the iPod controls and this icon.



10. Tap the  icon to see the list of available AirPlay devices.

11. Tap on Name of your Apple TV and then slide the Mirroring slider to ON.



12. Your iPad screen should now be visible through the projector.
13. When you have finished using the AppleTV, slide the Mirroring slider to OFF.
14. Go to Setting, WiFi and select StaffAirNet to get your iPad back on the StaffAirNet.

Caution:

If you do not turn off Mirroring on your iPad, students will continue to see what is on your iPad screen even if you move to your office or another building.