**AirDrop**

How does AirDrop work? Interestingly, it requires that you enable both Wi-Fi and Bluetooth on your device. This is because Apple is using an approach similar to that enabled by [Bluetooth 3.0 + HS](http://en.wikipedia.org/wiki/Bluetooth#Bluetooth_v3.0_.2B_HS). This technology allows two devices to use Bluetooth to establish a secure, direct connection, and then hands off the actual data transfer to Wi-Fi for faster performance. Given that all iOS devices that support AirDrop include [Bluetooth 4.0LE](http://en.wikipedia.org/wiki/Bluetooth#Bluetooth_v4.0), it’s likely that Apple is using Bluetooth 4.0’s low-power mode for discovery, and then Wi-Fi for actual data transmission.

In other words, when you tap AirDrop in a share sheet, your iOS device does a quick check for other devices broadcasting, over Bluetooth, their availability for AirDrop connections; iOS displays any such devices in the share sheet. Tap one, and that device and yours initiate a direct Bluetooth connection. Assuming the recipient agrees to the connection, the two devices then switch to Wi-Fi for the actual transmission of the shared data.

You can not use AirDrop on iOS to share with OS X.

**What is the AirDrop?**

AirDrop is Apple's proprietary wireless technology that enables you to share various types of files between compatible devices. It is available on certain iOS devices (7 or higher) and Mac OS X 10.7+ (Lion). However, you can't currently share files between these two operating systems -- i.e. files can't be shared between a Mac OS X computer and an iOS device (or vice-versa).

**How Does it Work?**

Rather than using an Internet connection for moving files around, users locally share the data using two wireless technologies -- Bluetooth and Wi-Fi. In fact, this is one of the main advantages of using AirDrop in that it negates the need to use any Internet connection or remote [cloud storage](http://mp3.about.com/od/glossary/g/Cloud-Storage-Definition-What-Is-Cloud-Storage.htm) service at all. In the past you would have needed to install a third-party app and use the Internet to either upload your files to a [remote storage service](http://mp3.about.com/od/musiclibrarymaintenance/tp/free_streaming_music_storage.htm) (like Dropbox for example) or used a Bittorrent-based client to transfer your files to a remote computer.

However, by using AirDrop you can setup a wireless local network to distribute files securely between compatible hardware. It's quite flexible too in how files can be shared. You can either setup an AirDrop network to share publicly (i.e. everyone) or just your contacts.

**What iOS Devices is AirDrop Available on?**

Currently AirDrop is available on the following devices running iOS 7 or higher:

* iPhone 5 or later
* iPod touch 5
* iPad 4
* iPad mini

**What Types of Digital Media Files Can I Share Using AirDrop?**

As well as sharing non-media file types such as content from apps, Web URLs, locations, etc., AirDrop also allows you to share a few different digital media types. This includes: photos, videos, and digital music. The advantage of using AirDrop for sharing media files is that it is already activated by default and there's no setup required to start sharing with others.

UIActivityItemSource: Is used to create the custome activity item source. Data transmission is done through the NSData. The NSCoding protocol is required because the objects need to be serialized into NSData before transmission.

Sender encode the object and at receiver side decoed that received object.