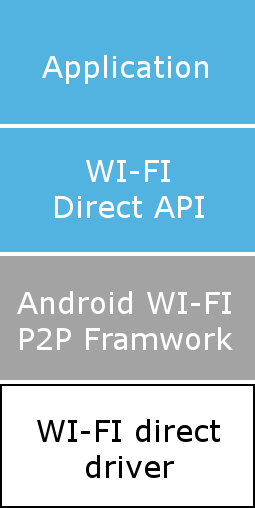
# Android API Description

Since Android 4.0, devices with appropriate hardware are allowed to connect directly to each other over WI-FI P2P without an access point between them. Android P2P framework complies with the WI-FI Alliance’s WI-FI Direct certification program. With the usage of this API you are able to discover and connect to other devices when they support WI-FI P2P. According to documentations the advantage of WI-FI P2P beside Bluetooth or similar connection types is a fast connection across distances much longer than others. This allows applications a fast exchange of data between multiple users, which could be useful for applications such as multiplayer games, photosharing applications and in general, all applications which are relying on a fast connection between a long distance.

The main parts of the Androids WI-FI P2P APIs offer following methods and features.

* Methods for discovering, requesting and connecting to peers.
* Listeners which allows your application to get notified about the results of important WI-FI P2P methods, like discover, request, connect.
* Intents which notifies your application of specific events detected by the WI-FI P2P framework.

The picture below describes a typical Android WI-FI P2P architecture.



**Android Application and API**

**WI-FI direct package**

**Available since Android 4.0. Preinstalled with the WI-FI P2P packages and drivers.**

**Chip vender**

Figure 1: Android WI-FI P2P architecture

## Implementation