

Raya Pietsch

At your fingertips

Is your fingerprint safer than
your credit card pin?



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As Apple continues to innovate and improve their products, the iPhone has begun to replace many of our other everyday items. One of their latest implementations on the iPhone 6 and later is **Apple Pay**, Apple's NFC payment system. Apple Pay allows users to make purchases in person, in the app store or online using safari. The system uses Apple's '**Touch ID**' technology to identify the user by fingerprint to confirm purchases. Whilst Apple Pay is revolutionising payment technology, many concerns have arisen about the technology in terms of privacy and security.

Touch ID allows an iPhone to be unlocked just by placing a finger on the home button. This is an ideal solution for those who desire protection for their content, however do not want the fuss of a strong password or pin.

As an extension of the already developed Touch ID, users in 15 countries can make purchases in person, online or in the app store through Apple Pay.

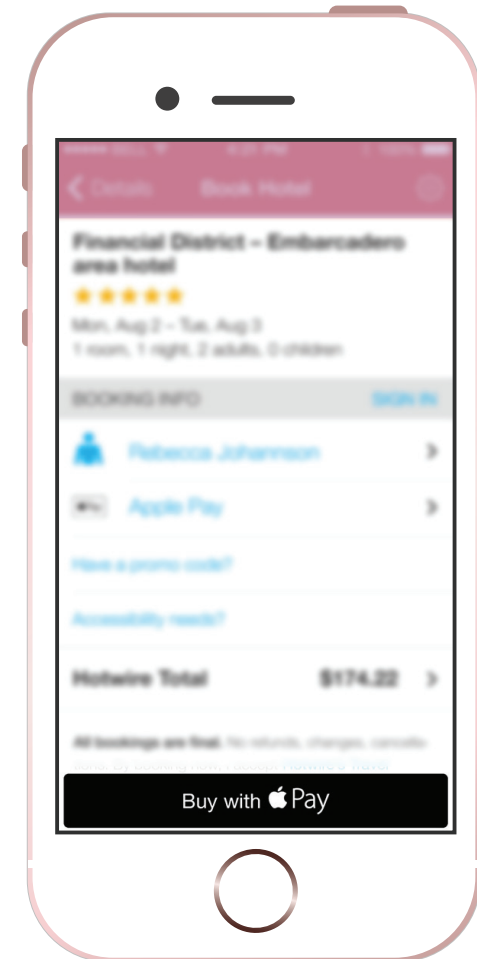
Users can store their credit cards on their phone by inputting their details into the 'Wallet' section of Apple's user settings.

A card cannot be added without verification from the user's bank or card issuer and additional information may be requested directly from the bank. Several cards may be uploaded to the same account this way.

In stores, Apple pay is accepted anywhere that accepts Visa payWave or displays the Apple Pay icon on their EFTPOS machines (the apple symbol followed by the word 'Pay'). To make a purchase, the iPhone is placed near the NFC reader on the machine and the user places their finger on the Touch ID sensor.

Within compatible applications and websites on Safari where a purchase is to be made, the user can click the Apple Pay icon, select their desired card and place their finger on the Touch ID sensor to complete the transaction. Apple is also able to store the users shipping and billing information for future convenience.

Despite the convenience that Apple Pay brings to iPhone users, many have voiced their concerns about if the service is secure and private enough. When a purchase is made through Apple Pay, Apple do not



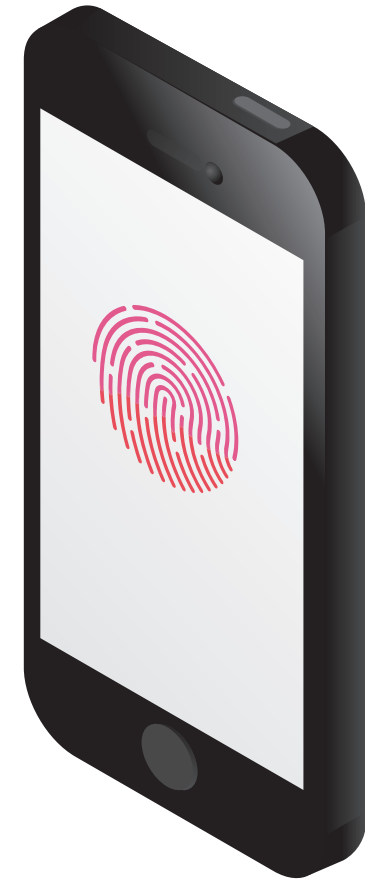
receive details of what you bought, but they do know the time, location and value of your transaction. Therefore, these transaction records may be shared with Apple's affiliate businesses, resulting in the high possibility that anonymous transactions can be easily re-identified.

Touch ID allows the user to store the fingerprints of others on their device. This is useful when the user wishes to give a friend or family member access to their phone, however it can prove very problematic when Apple Pay is considered. By storing the fingerprints of others, the user is giving them access to their credit cards and personal information on their device.

Apple's newest iPhone iteration, the iPhone X is moving away from Touch ID in favour of the new Face ID, which allows the user to unlock their phone using a 3D structure detecting sensor. However, the iPhone 8 which is to be released in conjunction with iPhone X will still feature Touch ID technology.

It is unclear of where Apple intends to go next with identification technology, however it is speculated that the new Face ID will continue to be utilised in future models. This is, as written on the wall across from Apple's Town Hall Theatre, is a quote from Steve Jobs reading "If you do something and it turns out pretty good, then you should go do something else wonderful, not dwell on it for too long. Just figure out what's next."

Apple Pay through Touch ID has revolutionised the world of card-less transactions. Whether Apple continues to provide this service through Touch ID or Face ID, it is an exciting aspect of the iPhone which users should watch as it continues to develop.

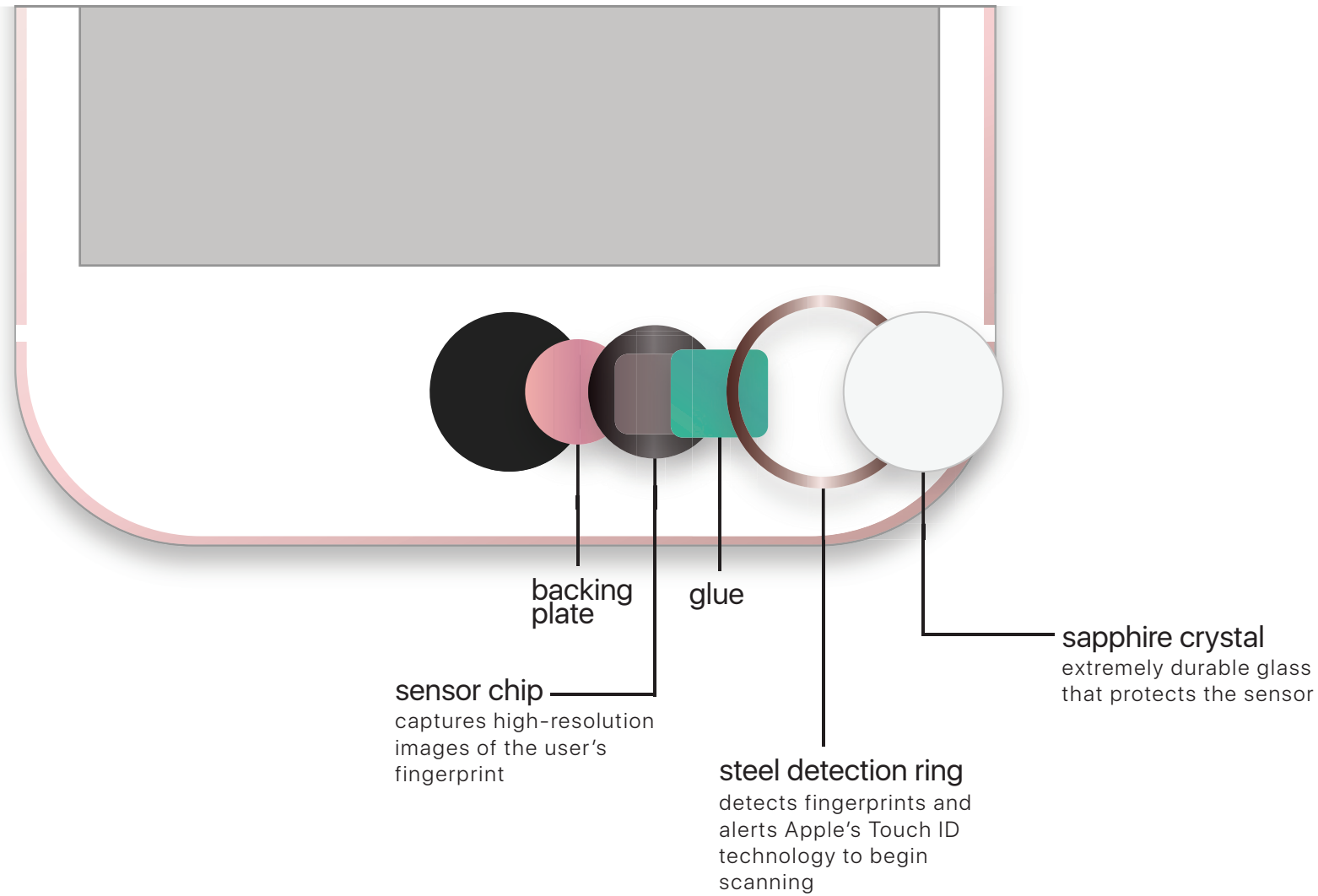


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Touch ID Components



Countries with Access to Apple Pay



*U.S, UK, China, Australia, Canada, Switzerland, France, Hong Kong, Russia, Singapore, Japan, New Zealand, Spain, Italy, Taiwan, and Ireland