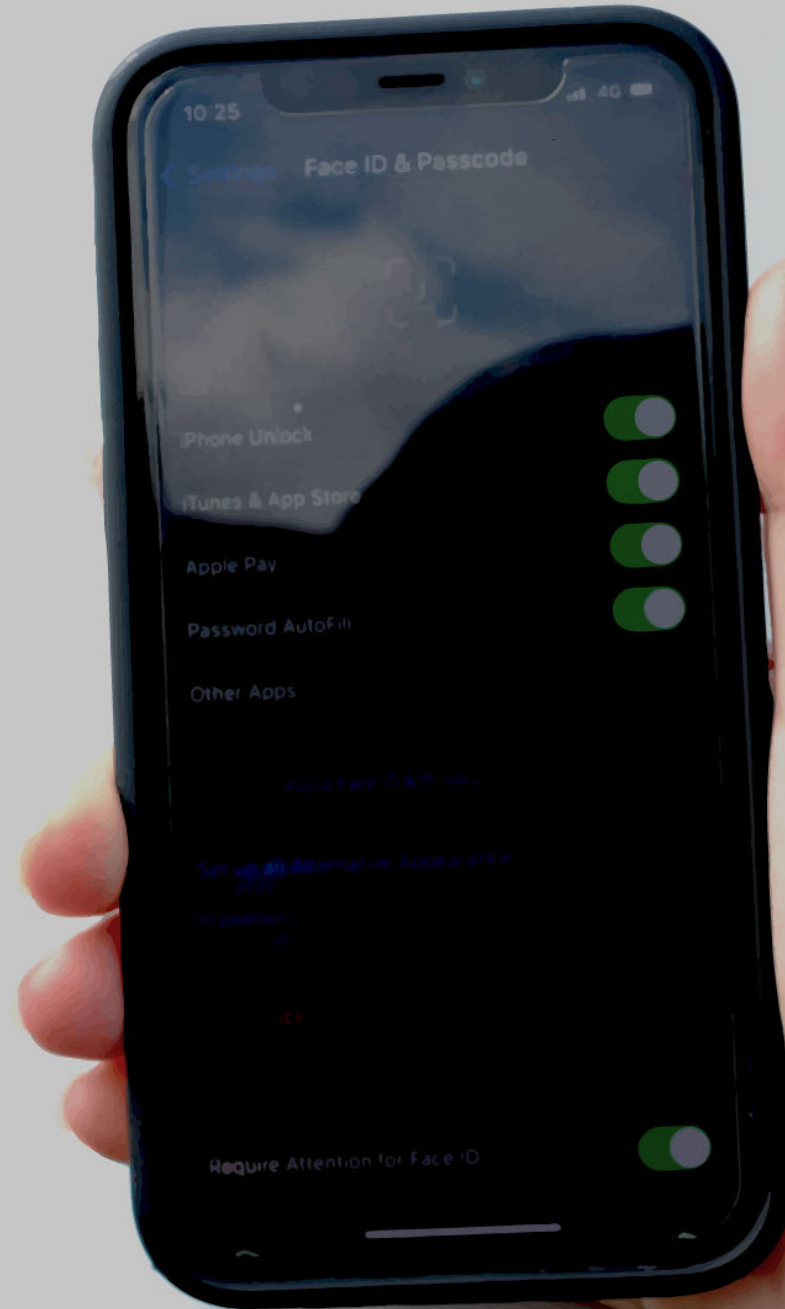


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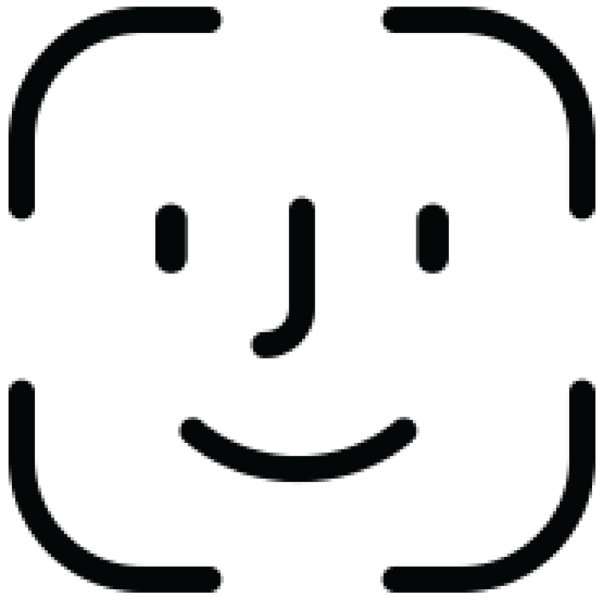
# Eye-Phone

When you recognize an old friend.



# Face ID and Apple's history with security

Mark Carlos



The iPhone was and will always be one of the most revolutionary phones to ever touch the market. Undoubtedly paving the way for all mobile phones to end up in almost every single person's pocket. Within the 10 years that Apple had first introduced the iPhone there was an obvious rise of people who had access to the internet as a whole as well as putting it on the move. Back then people were limited in their internet use by the cords of their home computer but as time went on, technologies were getting better and better every year, Literally. Not only did they improve accessibility to the internet but also had innovations in other areas of technology too. The days of passcodes are slowly falling behind as throughout the years the privacy of the contents of your phone was behind a simple 4 digit number code. Up until the 20th of September 2013, the release date of the iPhone 5s which also became the introduction of Touch ID. This was Apple's new way of improving the security of their upcoming iPhone line and it was big news to say the least. Although it was not all good. There

were initial doubts about whether or not it would actually improve the security of one's iPhone or was it just another unnecessary addition in order to continue the yearly release of a new model. As it was new technology at the time the interaction with skeptics was inevitable. Once again on the 3rd of November 2017, a completely brand new element replaces Touch ID completely. Face ID is the newest form of password for the Apple iPhone. Using completely brand new technologies that was unheard of being in such a small public piece of tech that is your phone. The TrueDepth Camera System is the new security that they offer with many little aspects that make up the whole concept of Face ID a reality. Utilizing technologies such as infrared cameras, flood illuminator, front camera, dot projector, proximity sensor, ambient light sensor, speaker, and microphone will make up the entirety of the TrueDepth CS at the very top of an iPhone screen. How it works is the infrared camera takes an image once the iPhone is turned on, the dot projector sends out over 30,000 IR(infrared) dots

and with the combined use of both the IR image and the dots that is pass through neural networks to create a mathematical image of the user's face and is compared to the original one taken when the user first sets up the Face ID feature on their phone and it it matches then the phone unlocks as well as being to unlock many other aspects of the phone such as Apple ID which allows access to external storage (iCloud) as well as things such as card payments. Even if aspects of your face were to change such as needing to wear glasses or growing a beard, Face ID will still continue to recognize its user.



**The chances of someone being able to randomly unlock your phone with Touch ID is 1 in 50,000.**

**With Face ID, it is now 1 in 1,000,000.**

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