

Yimeng Tao

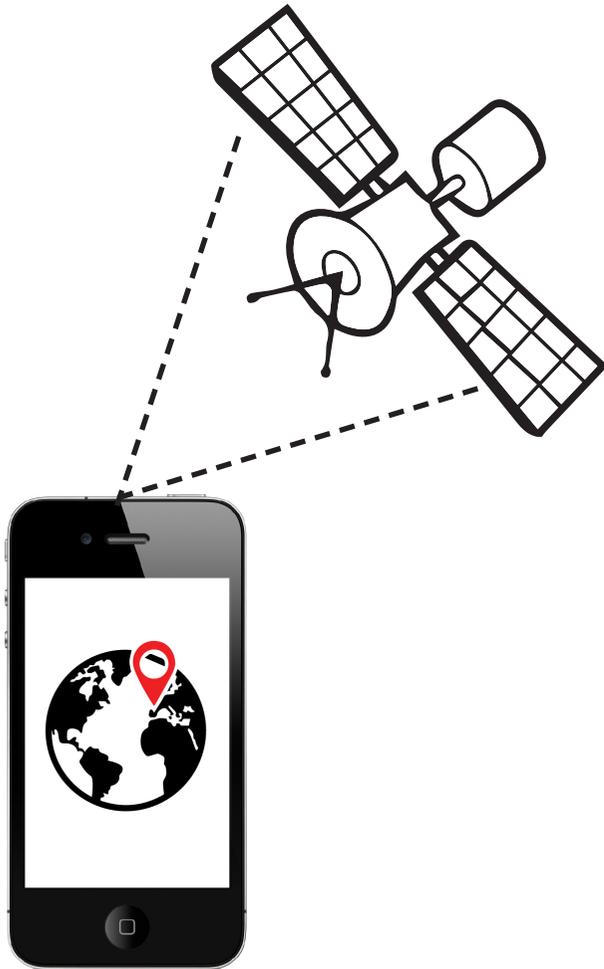
POSITION Yourself !

The future of GPS location technique will change how you use iPhone.



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Global positioning system (GPS) is an important tool for determining accurate locations from signals sent by a network of satellites. The satellites transmit a high-frequency signal that contains information packets with precise time at which is transmitted. When you get the signal and use a system of trilateration to determine the position, then calculate the distance between each satellite. When you move, the distance to satellites will change, it results in a small difference in the time course to update the location.

Having your iPhone know where you are is one of the most useful aspects. On your iPhone, it includes a GPS chip working in conjunction with cell phone towers and Wi-Fi networks to quickly calculate your location. The GPS chip will be automatically set up so that you can turn it off or enable it selectively on the iPhone.

One of the possibilities of using GPS location on your iPhone is that it can produce precise, accurate and reliable positional data. When you turn on your GPS function on the iPhone, it can work out where you are in the world, down to an accuracy around 5 meters. GPS location is an amazingly smart system as it works perfectly for applications like satellite

navigation. But for iPhone, it wouldn't work as expected. Mainly displays in two aspects:

- GPS is hugely battery-intensive to be on all the time when you navigate your phone, it brings kind of inconvenience. It is also limited by weather and location, clouds or slightly-too-high buildings can foil it, and it almost wouldn't work indoors.
- Another limitation of GPS is that its signal has trouble penetrating buildings, bushes and deep canyons, including urban skyscraper canyons, which is where cell towers and Wi-Fi signals give the iPhone an advantage over stand-alone GPS units.

The present solution to the problem is to get a complementary technology combined together with GPS location, which is an alternative system: Wi-Fi location. Your iPhone would cross use a couple of vast databases to normally determine where you are on earth within 5 seconds.

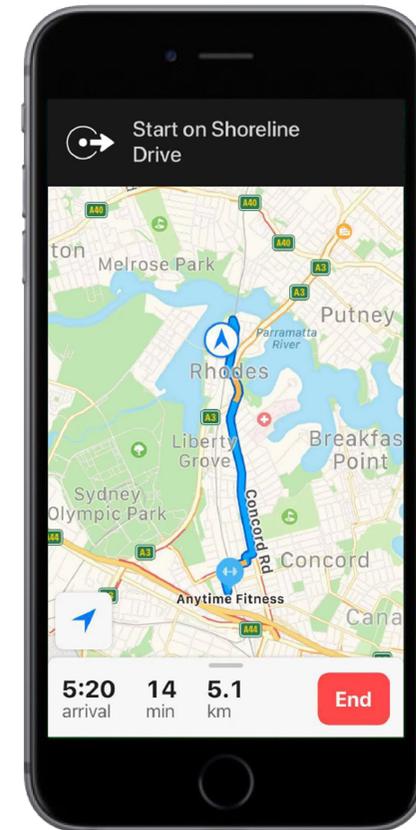
However, due to its accuracy, another possibility to develop GPS location tech and make it more mature, experts have concentrated on combing Wi-Fi location and GPS location together to make up each other's weaknesses. A far more accurate location grid will be built up, which allows iPhone

to be tracked to an accuracy of around one metre. This updated method is good enough for more purposes such as shops tracking customers or finding items in store, or looking at the path they take around the store and to know what products they pause over, then provide that info to retailers.

Furthermore, one more extended possibility also reflects in making shopping routes, rather than basically guiding routes when needed. Imagine if being able to plan the most efficient shopping route both inside and outside the shop, it will bring much more convenience in life.

It is easy to keep your iPhone from being tracked up or guiding routes for you. You launch the Settings app from the Home screen, then tap on Privacy - Location Services at the top - System Services - Significant Locations - Enter your passcode, use Touch ID, or Face ID, to authenticate access, finally tap the Significant Location On/Off Switch. If you want to guide routes, just simply open up its default map using GPS to locate where you are or where you would like to go. You can also download Google Map App then repeat these actions.

In summary, GPS location technology is ready to work out your location anytime that vastly improve our iPhone in the future. The current generation of iPhone like iPhone 6 series, iPhone 7 series, or even iPhone X are constantly optimized, trying to break down their limitations and join forces with other information technologies. The ending result? Ready to be more dependent on your iPhone, even if you lose your iPhone one day, don't worry you will exactly find out where it is.



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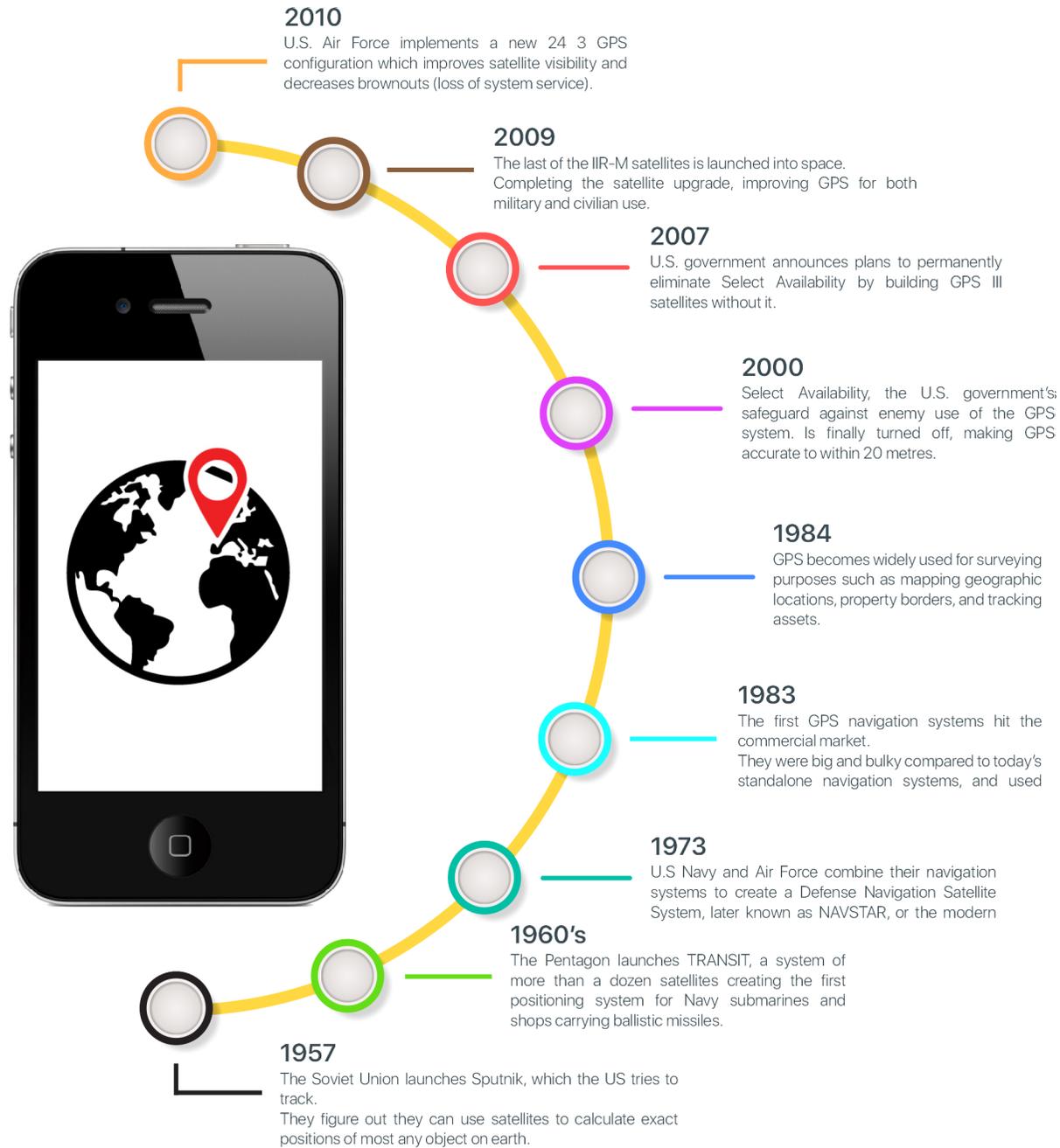
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History of GPS

From 1957 to 2010



How concerned are you about the accuracy of the data you use for navigation on iPhone?

