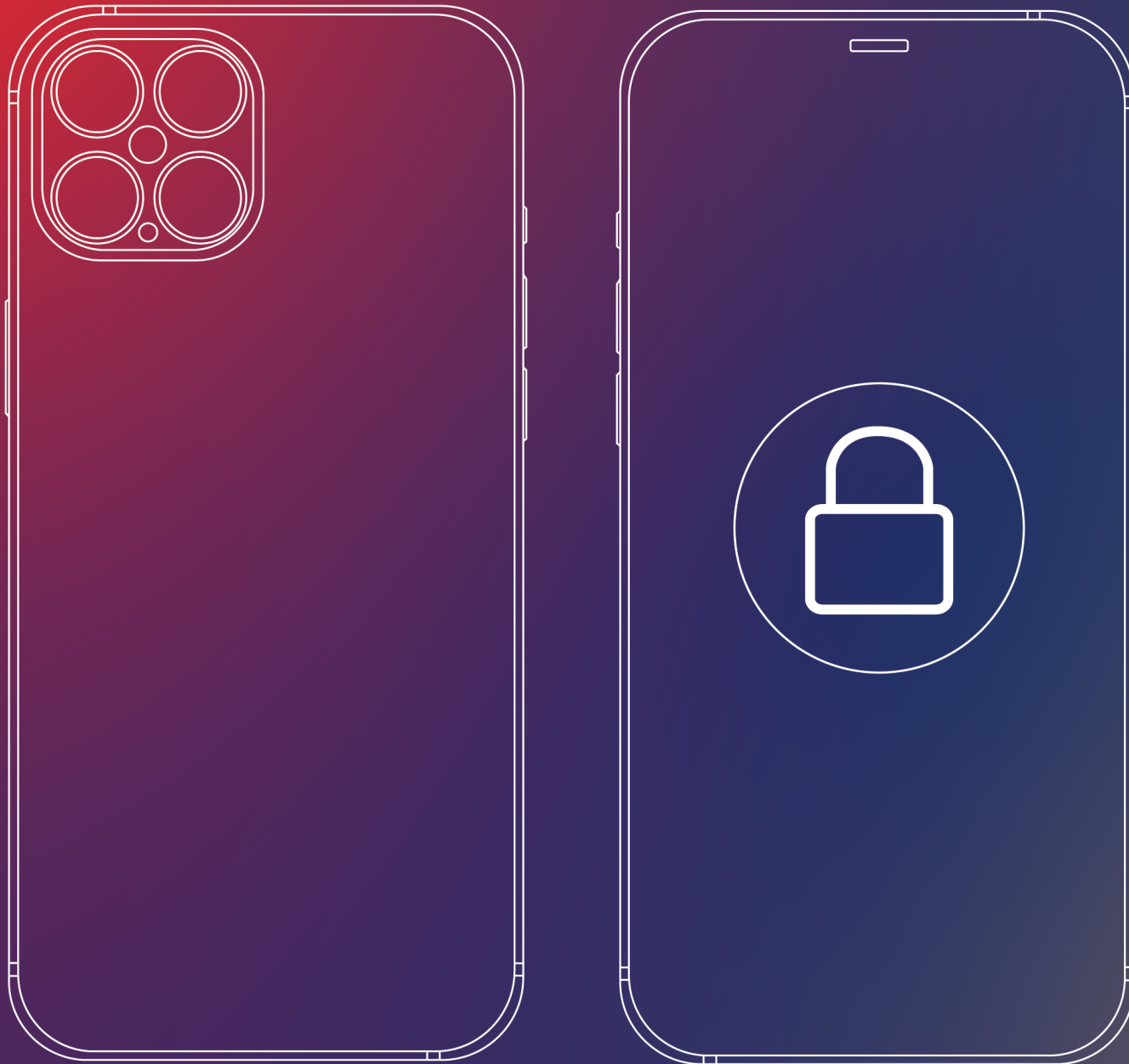


Apple and Privacy

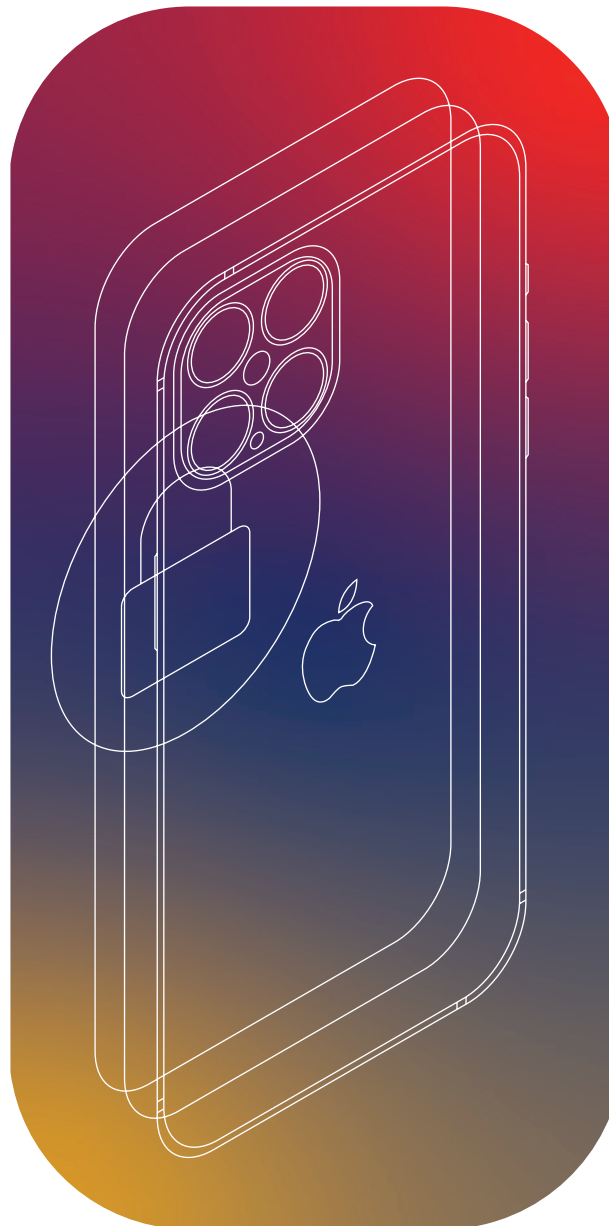
How much does Apple value your privacy,
and what measures do they take to secure
your data?



Apple and Privacy

Gabriel Buckland-Willis

The iconic brand Apple has been long known for their innovation, in particular the iPhone, which was first created back in 2007. This began a new age for communication technology, as the introduction of computers that could fit in your pocket and provide a medium for people to communicate, share and consume made the iPhone an essential item for almost everybody. Apple has arguably continuously maintained its dominance within the industry to this day, and they have recently just released their 13th generation of iPhone. However Apples primary competition, Android, which is an mobile phone operating system owned by google and is run on a number of different brands phones has been rising in popularity. The reason for this is that a large number of android brands such as Oppo, Samsung, Motorola, Microsoft, and Google itself, offer phones that are significantly cheaper than iPhones and offer a lot of the same flagship features of modern iPhones. This rising competition did pose a challenge to Apple, however it led to the brand developing a new method



of thinking that not only addressed a rising issue with the smartphone industry, but also directly targeted their competitors biggest flaw. This is when Apple began to market their products as being privacy centric and targeted Androids propensity towards tracking a lot of their users data.

But you might be asking, how much more data does Android phone collect compared to an Apple phone? Well In 2021 comparative study by Arstechnica the researchers found that Androids collect 20 times more Data than Apple phones. For example both Google and Apple phones send data back to these companies about every 4 to 5 minutes, Google phones send roughly 1 MB of data, while apple only sends about 52 KB of data, which is about 1/20th the amount that Google collects.

However Apple goes further into giving their users control and/or information on how their data is being used or stored. For example, as shown on Apples website under

"Privacy", they list a number of features that come standard on their most recent devices. The first feature listed is "Privacy Nutrition Labels" which is a feature whereby users can see what kind of data an app they want to download would be using/would ask access for. This also leads into "App Tracking Transparency" which is a feature that essentially lets a user know when an app is tracking them, and will often prompt them asking whether or not to allow an app to access certain types of data from that device. The last example that is significantly unique to Apple is the "App Privacy Report" which is an in depth section in the settings that will show a user how often apps they have on their device accessed certain tech or data on their phones. The list of privacy features go on, and in this regard Apple is very forward thinking in how they manage their users privacy.

Although this isn't to say that Apple isn't without its own privacy flaws. Both Google and Apple devices send IP address data back to their respective companies which

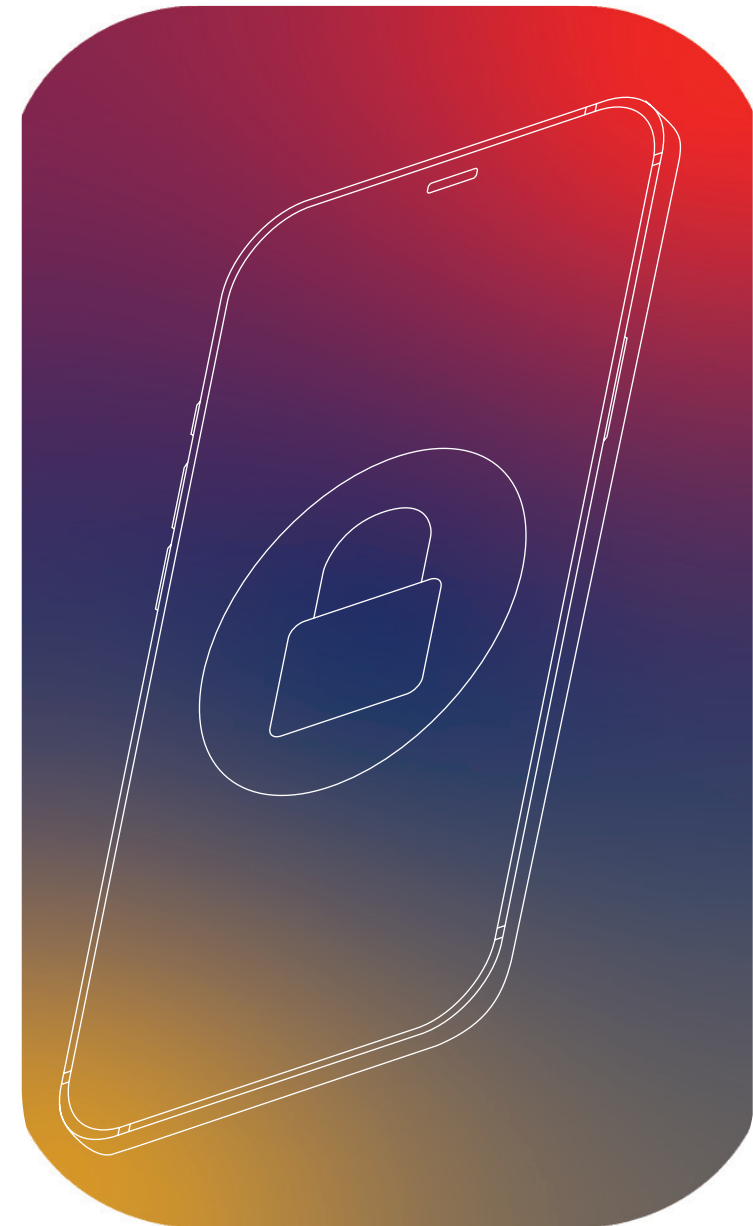
does reveal the rough location of the device. This means that Apple and Google are able to actively track the location of their users whenever they are connected to the network. Furthermore a user's data can be quite easily transferred between devices and online accounts because of the pre-installed apps on both Google and Apple devices. This makes it harder for the user to have complete control over where their data goes, and this also makes it easier for Apple and Google to collect a users data e.g. a log of their purchases and interests which Google and Apple are able to sell to advertisers and other companies that could stand to benefit. These, unfortunately, are aspects of data security that neither company's are yet willing to address because of the technical challenges they would face, and the cost of losing that that would pose to them.

However overall, Apple has been very proactive in being transparent with their users about how their data is being stored and used.

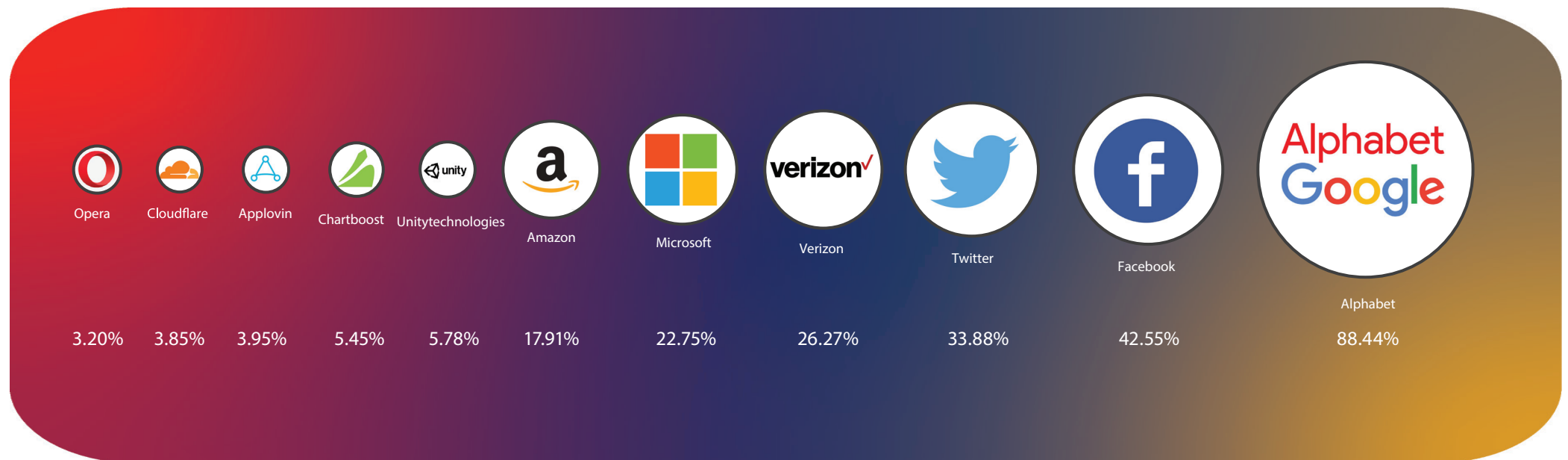
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Third Party Tracking of Data from Apps Ordered by Company:



Source: Binns.R, Lyngs.U, M. V. Kleek, Zhao.J, Libert.T, N. Shadbolt. (2018). *Third Party Tracking in the Mobile Ecosystem* [Statistics].[semanticscholar.org https://www.semanticscholar.org/paper/Third-Party-Tracking-in-the-Mobile-Ecosystem-Binns-Lyngs/40cf9ef2f6db11dbb1361825f65a7cc21eddf16e](https://www.semanticscholar.org/paper/Third-Party-Tracking-in-the-Mobile-Ecosystem-Binns-Lyngs/40cf9ef2f6db11dbb1361825f65a7cc21eddf16e)

Third Party Tracking of Data from Apps Ordered by Company:

52KB/5min

Apple

Google (Android)

1MB/5min