MOBILE & WEB TEST COVERAGE INDEX

FALL 2020

A Reference Guide for Cross-Platform Testing Strategy

WHAT'S INSIDE:

- The rise of foldable smartphones.
- New styles of mobile apps, including APKs and App Clips.
- Progressive web apps (PWAs).

Perfecto
by Perforce

CONTENTS

WHY WE CREATED THE INDEX

Our customers often ask us a simple question:

On what devices and browsers should I be testing my mobile and web applications?

As the leader in continuous testing for mobile and web apps, Perfecto is uniquely positioned to give the most accurate answer.

In this guide, we've merged our exclusive insights with current market data to provide a benchmark of devices, web browsers, and user conditions to test on — including location changes and apps in the background — to help you test smarter.

This is the culmination of what we've learned from our most-valued customers. We're excited to pass these insights on to you.

Mobile Device Coverage

Data from testing on 4,000+ devices

+

Market share data (400,000 users)

Our own research and analysis

+

Perfecto data & extensive global market research

HOW WE BUILT THE INDEX

No single data source tells the full story, so for these indexes we've combined exclusive Perfecto data and mobile market usage data across a variety of countries into our own analysis.

The indexes offer up-to-date benchmarks that list the top smartphones, tablets, and operating systems based on usage. These are the device/OS combinations on which you should develop and test your mobile, web, and responsive web apps.

For desktop browsers, we include one index that can be applied to all the countries in the report.

HOW TO USE THE INDEX

Each country featured in the report has its own digital coverage profile. It includes testing recommendations for mobile devices and operating system versions to help create a holistic view of what's required for digital quality testing.

To identify your optimal test coverage, you'll first need to determine your device coverage goal.

Devices that Matter to You

Our list of 32 devices per index for each country is narrowed down from hundreds of possible options to give you the maximum coverage possible.

Each index is divided into three groups — Essential, Enhanced, and Extended.

Each group includes the previous group's devices. If our testing covers all 32 devices across the three groups, you'll have the most complete recommended test coverage with the least risk.

Select your target country and then refer to the corresponding device list. Make note of the "recommended OS version" column to see the recommended testing mix of devices and platforms.

We include an up/down arrow or equal sign to indicate usage changes since last quarter. Devices that are new to the index or are reference devices running the latest OS are marked accordingly.

10 Essential Coverage – Top 10 "must test" devices based on usage

15 Enhanced Coverage – Top 25 devices, including legacy and trending devices and different screen sizes

7 Extended Coverage – Top 32 devices, includes niche, legacy, and brand new devices to represent the "long tail"

Testing Web Browsers

In our standalone Web Test Coverage Index (pg. 11), we list the browser/OS combinations — categorized by latest, previous, and newest beta — that organizations in every country should test on to achieve desired market coverage. Given that browser versions update quickly and often automatically without users knowing, it is important to ensure that browser quality aligns with a variety of OS versions.

Finally, we've included updated mobile market and web calendars (pgs 23 and 24) showing what device models, OS versions, and browser/OS combinations to look out for this year.

Note

The Test Coverage Index is an objective reflection of selected markets based on mobile device usage of specific operating system versions. Some of the device and operating system combinations that are recommended in this report may no longer be available from OEMs or wireless network providers due to today's ever-changing market dynamics.

TEST COVERAGE CONSIDERATIONS

For Mobile Test Automation Execution

If we break down the pipeline into testing types and triggers, it would look as follows (Fig 1.)

To asses size, capacity, and the right platform coverage, teams need to calculate their test lab size based on unique inputs.

As indicated in this report, there are a few mobile coverage buckets ranging from Essential, through Enhanced, and Extended (top 10, 25, and 32 mobile platforms permutations). Teams ought to decide based on analytics and risk-based decisions which bucket they believe is the right one for their first step.

Next, they need to bundle in their test data parameters like the number of tests, the test duration, and the required execution time. These inputs will provide the actual time a full cycle or subset may take based on the lab configuration. Assuming it is outside the boundaries of the testing cycle time, more parallelization and platforms may be required.

As an example, Figure 2 took 150 regression tests each running for three minutes against one platform. Once multiplying each test against the test coverage bucket, we receive the overall number of hours such a cycle will take.

To include the cycle in the time window, we need to run more in parallel. Cost avoidance in this example assumes an average $100K annual salary and 2080 working hours a year. Each organization can include their own averages to get their outputs as close as possible.

As identified below, by using parallel test execution against the right platforms with the right test cases with high value, teams can get back a lot of time in return, reduce costs, and expedite quality feedback and visibility.

Figure 1
Platform Coverage

	Unit Testing P1		Build Acceptance Test P1 + P2	Acceptance Test Regression & Non-Functional	Production P3
Test Platform	1 iOS (device/simulator) 2 Android (device/emulator) 2 Desktop Browsers		Essential (Top 10) Mobile & Web Platforms	Enhanced/Extended Coverage (Top 25-32 Platforms)	2 iOS 2 Android 2-4 Browsers
Trigger	Per-commit	Post-commit	Scheduled Daily	Scheduled Nightly	Scheduled Hourly
Environment	Dev Workstation		Continuous Integration Server		Production

Figure 2
Sizing Example

Coverage Bucket	Number of Unique Tests (Regression Suite)	Avg. Time Per Test	Execution Window	Test Execution Time (Serial)	Parallel Test Execution Requirement	Cost Avoidance (Business Tester Anual Salary Input)
Essential Top 10	150	3 minutes	8 hours	4500 minutes (75 hours)	9	67 hours saved ($3,500 per cycle)
Enhanced Top 25	150	3 minutes	8 hours	11,250 minutes (187.5 hours)	23	180 hours saved ($8,640 per cycle)
Extended Top 32	150	3 minutes	8 hours	14,400 minutes (240 hours)	30	232 hours saved ($11,136 per cycle)

KEY DIGITAL COVERAGE INSIGHTS FOR Q4 2020

As this challenging year comes to a close, we must examine the emerging trends that are reshaping the digital landscapefor both mobile and desktop web apps. And, while these developments are exciting, DevOps teams will need to prepare for the opportunities and challenges that these developments present.

In this edition, we'll focus on the following three trends:

1. The rise of foldable smartphones.
2. New styles of mobile apps, including APKs and App Clips.
3. Progressive web apps (PWAs).

Keep reading to see how these three trends are already disrupting and changing the way apps are being developed and consumed.

1 THE RISE OF FOLDABLE SMARTPHONES

While smartphones and tablets are still flooding the market in 2020, the mobile landscape is maturing as there has been a rise of form factor mobile devices under the new category of foldable smartphones.

Starting with Android 11, the OS fully supports features like split view and multi-resume, which allows application developers to keep up with new devices.

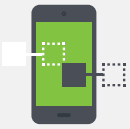
In light of the growing popularity of these devices that are being deployed to market by Samsung, Google, LG, Huawei, and others, app development teams must be strategic around how to test and what to enable in their Android apps.

Things like app continuouty, resources management, UI, layout across devices, and much more are advised by Google.

It is clear that this new wave of smartphones is unavoidable, and it is now in the hands of app developers and testers to make the required adjustments to ensure that apps can effectively perform on these platforms.

Apps, OS, & device compatibility considerations: Multi-window functionality, main/cover operation.

Memory and battery consumption: Folable consumes much more resources.



UI & layout testing across screen sizes, orientation, landscape/portrait, and more.

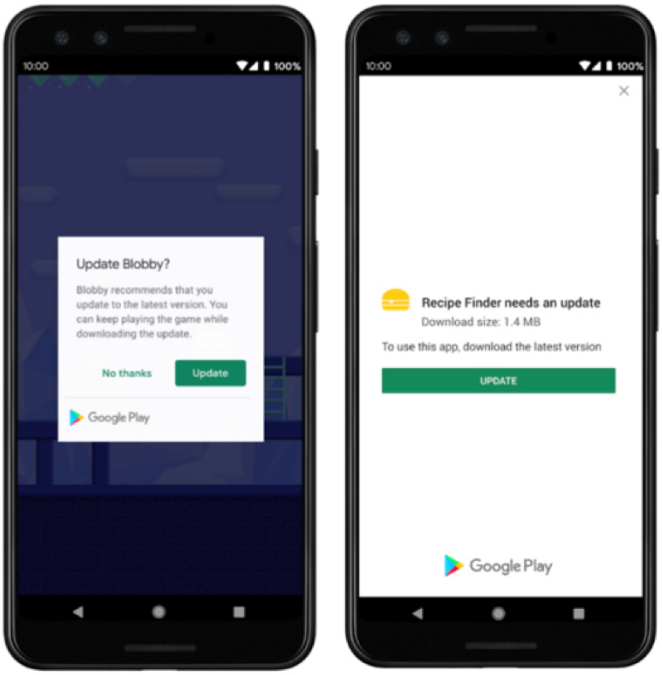
Foldable device support includes changes to onResume and onPause to support multi-resume and notify your app when it has focus.

2 NEW STYLES OF MOBILE APPS: APKS AND APP CLIPS

Transitioning from foldable smartphones revolutionizing the mobile landscape, the market is also undergoing a transformation around the application types that can be developed and consumed by the end users.

APKs

Starting June 2021, Google made it clear that all Android applications will need to support the new APKs format. This new app type extension is all about the optimization of the end user experience. Through Android package bundles, app developers can deliver specific users in specific geographies a specific app subset that matches their needs and their device capabilities. This not only saves storage and enhances performance, but also gathers relevant app feedback from the various users globally.



Flexible update flow

Immediate update flow

Among the key benefits of switching to APKs earlier than the mandated deadline include the following:

- Application binary sizes.
- Overall resource consumption like CPU, battery, and network by unused features of the app.
- The ability to gradually expose as well as enable/disable specific modules and features based on customers' countries, requirements, and other considerations.

From an implication perspective, developers and test engineers ought to consider the following adopting such technology:

- The release scope and what's supported in the build to be tested.
- Which devices and geograpghies are added to the supported list.
- Which features and modules are added or deprecated inside the APK bundle.

It is also recommended you review Google's checklist for validating APKs functionality.

App Clips

From an Apple standpoint, App Clips are a similar concept to APKs, but in a different consumption model. App Clips are a subset of the entire app that the user can download from the App Store that can be installed on the device through a link or via NFC. The main purpose and benefit behind such apps is the simplicity, speed, and time to value from the end user perspective, and the context aware nature of these limited apps.

Apple does a great job in defining the various use cases and values from an App Clip.

Similar to Android APKs, Apple App Clips are a great opportunity for developers to start exploring and seeing how their benefits can be made apparent to their customers. Since such application subsets are consumed differently across various devices and through different channels like the abovementioned ones, testing must also be expanded to cover all options, as well as the role of environment conditions and sensors in the installation and functionality of the apps.

App Clip Codes
The best way for your users to discover your App Clip. It's visually beautiful and distinct, so when someone sees one, they'll know there's an App Clip waiting for them. Each App Clip code encodes a URL and incorporates an NFC tag, so the code can be tapped on or scanned by the camera. Tools for creating these new codes will be available later this year.

NFC Tags
Users can tap their iPhone on NFC tags that you place at specific locations to launch an App Clip, even from the lock screen.

QR Codes
Place QR codes at specific locations to let users launch an App Clip by scanning the code with the Barcode reader or the Camera app.

Safari App Banner
When your webpage is configured with a Smart App Banner for App Clips, users can just tap to open it from there.

Links in Messages
When you enable sharing within your App Clip, users can send it via iMessage, and the person who receives it can open it right from Messages.

Place Cards in Maps
When your App Clip is associated with a specific location, you can register your App Clip to appear on a place card in Maps so users can open it from there.

Recently Used App Clips
App Clips don't clutter the Home Screen, but recently used App Clips can be found and launched from the Recents category of the new App Library.

3 PROGRESSIVE WEB APPS (PWAS)

While the other trends were wholly dedicated to mobile, this trend is a combination of web and mobile innovation, and aimed toward the same goal of an enhanced and optimized user experience.

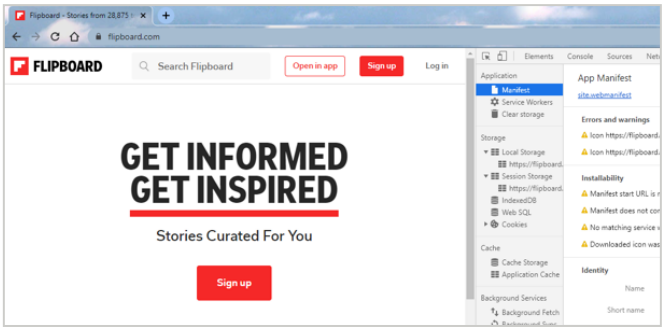
PWAs are the next generation of responsive web apps that are embedded inside mobile-specific abilities, such as push notifications, offline caching for degraded to no network connectivity, sensor integration for web apps (including camera and mic), and more. The majority of organizations are already exploring or have already shifted to this new technology and have started to see benefits.

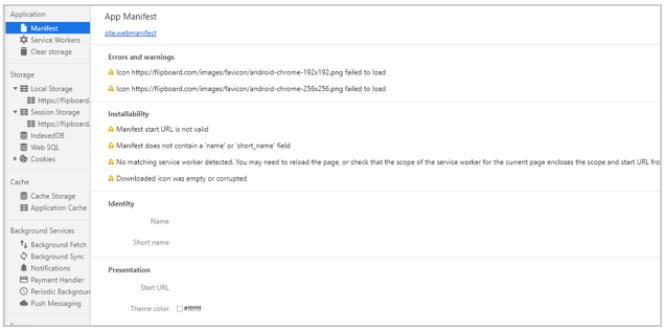
Adopting PWAs as the main digital path has some key benefits for business, which include:

- Single code base for both web and mobile platforms, which in most cases, is written in JavaScript.
- Easy maintenance and deployment of changes to production, which means that there's no need to go through mobile app stores.
- Works across all platforms with and without network connectivity.
- Enriches web app functionality through key mobile-specific features.
- Supported by all major desktop browser vendors today, including Google Chrome, Safari, Microsoft Edge, and Mozilla Firefox.

To make the leap to PWAs, both app developers and testers need to follow a new strategy that consists of building a website manifest file and a service-worker that manages the PWA capabilities.

It's also important to understand that PWAs across mobile devices and OS versions might not work the same way. Hence, testing across the various families is key. To learn more on PWAs and how to support them, please start by reading this blog.





Bottom Line

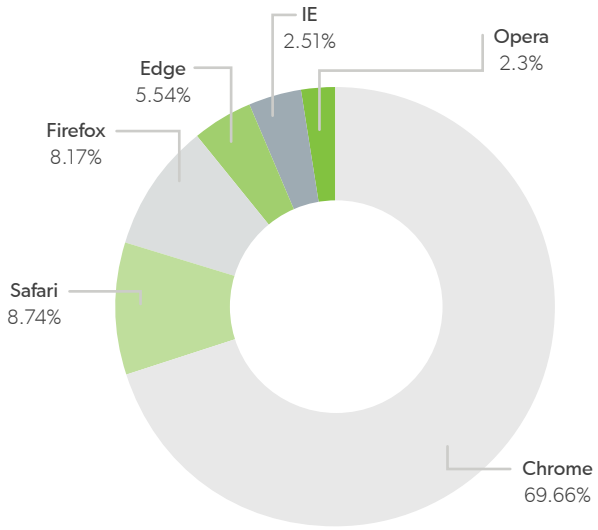
As 2020 comes to an end, we clearly see a new wave of digital transformation in many forms. All of the above changes are coming on top of existing technologies that are expected to continue working perfectly, but with better optimization and end user experience.

This is the right time to start exploring these innovative techniques — and start making decisions on how to adopt and benefit from them in 2021.

GLOBAL WEB INDEX

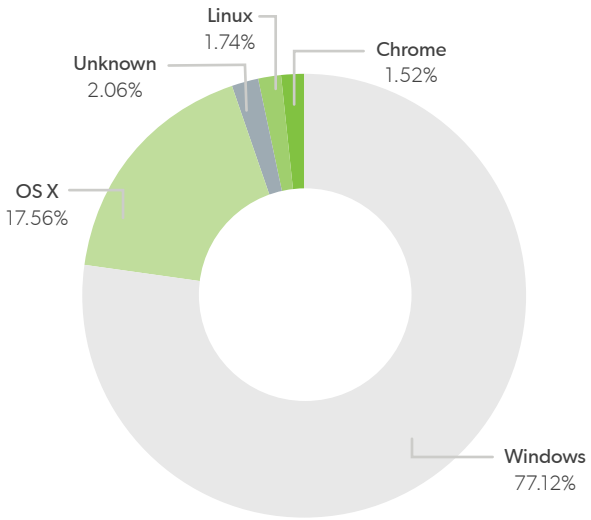
Desktop Browser Popularity and Market Share

Browser Market Share Worldwide - Sep 2020



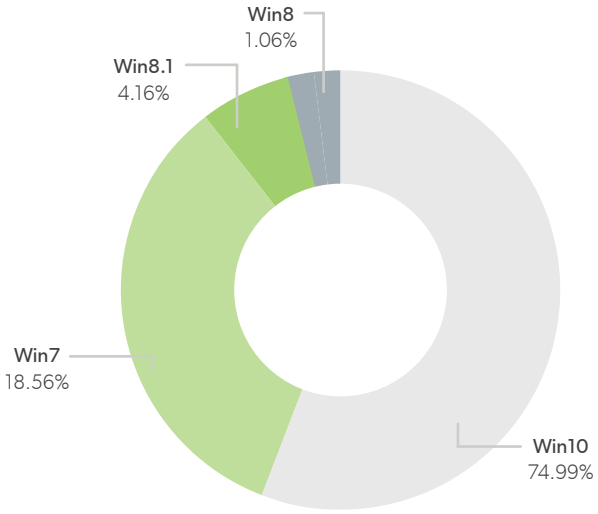
Desktop OS Market Share and Popularity

Operating System Market Share Worldwide - Sep 2020



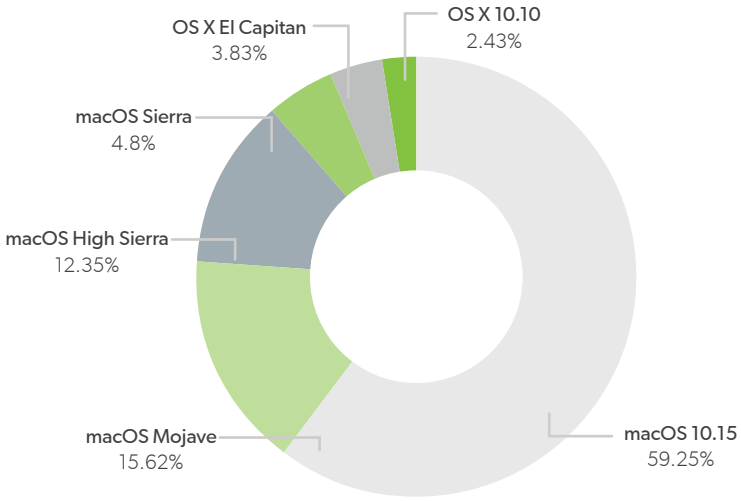
Windows OS Families Market Share and Popularity Breakdown

Desktop Windows Version Market Share Worldwide - Sep 2020



MacOS Families Market Share and Popularity Breakdown

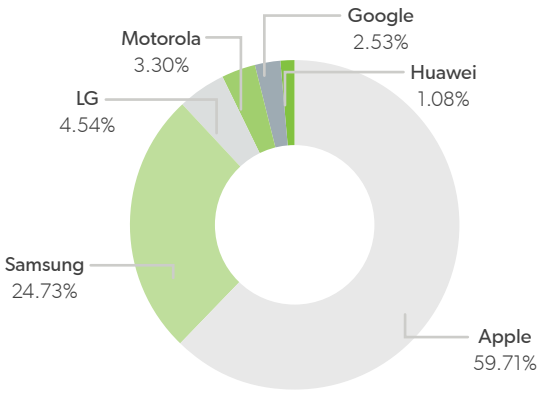
Desktop macOS Version Market Share Worldwide - Sep 2020



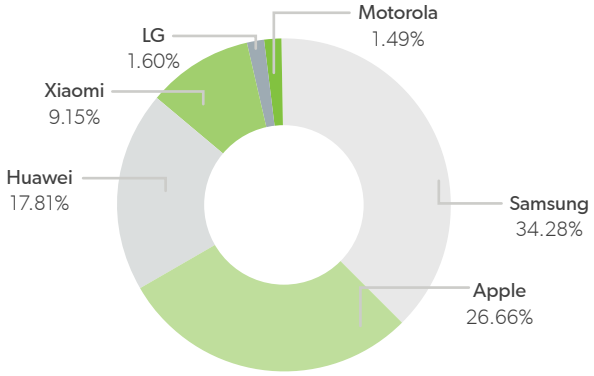
Source: gs.statcounter.com/browser-market-share

MOBILE MARKET SHARE BY COUNTRY

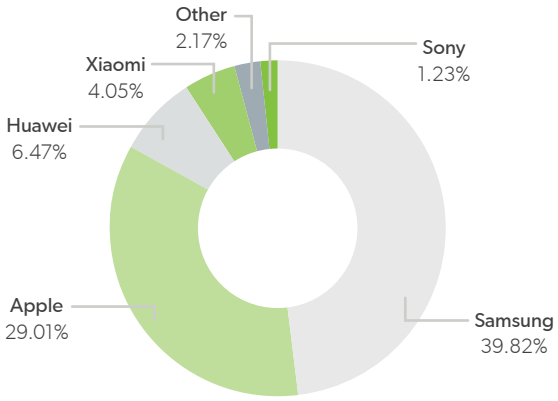
United States



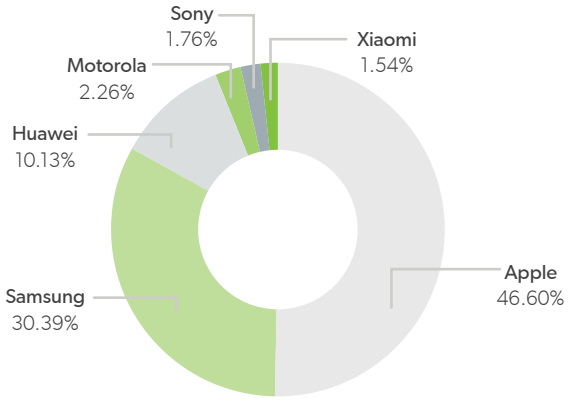
Europe



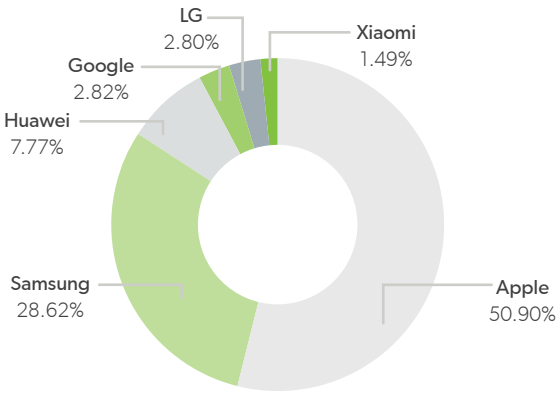
Germany



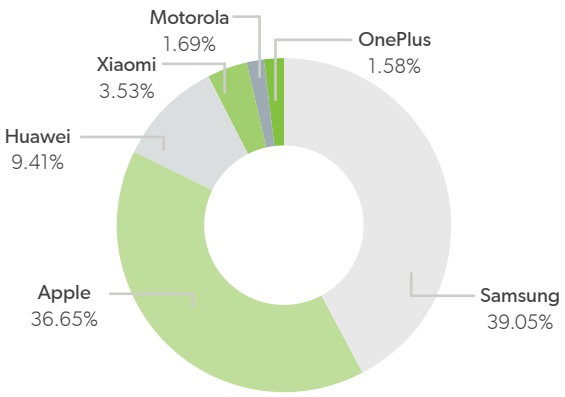
UK



Canada

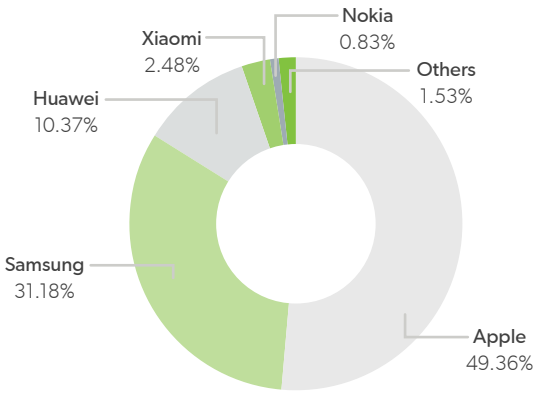


Netherlands

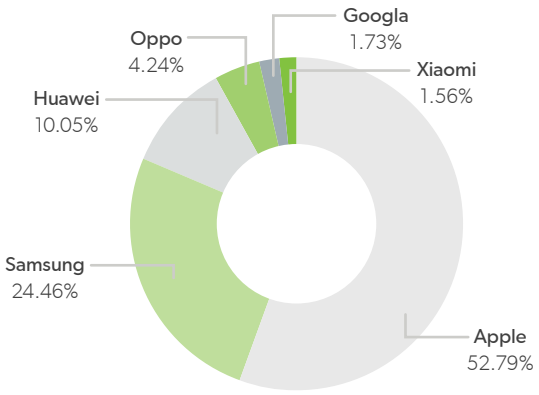


MOBILE MARKET SHARE BY COUNTRY

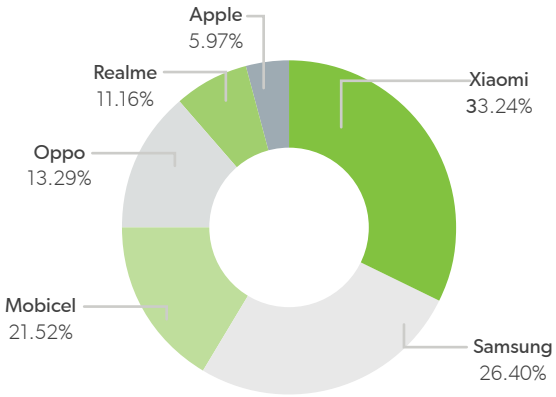
Switzerland



Australia



India



MOBILE DEVICE INDEX: US

	Device Model	Screen Family	Screen Size	Screen Resolution	PPI	Release Date	Recommended OS	Stock OS/ Custom OS	Status
ESSENTIAL	Apple iPhone 11	L	6.1''	828 x 1792	326	September 2019	iOS Latest	NA	Up
	Samsung Galaxy S10+	L	6.4''	1440 x 3040	522	February 2019	Android 10	One UI 2	Up
	Apple iPhone 11 Pro	L	5.8''	1125 x 2436	458	September 2019	iOS Latest	NA	Up
	Apple iPhone 8 Plus	L	5.5''	1080 x 1920	401	September 2017	iOS Latest	NA	Down
	Apple iPhone X	L	5.8''	1125 x 2436	458	November 2017	iOS Latest	NA	Down
	Samsung Galaxy S20	L	6.2''	1440 x 3200	563	March 2020	Android 10	One UI 2	Up
	Apple iPhone 11 Pro Max	L	6.5''	1242 x 2688	458	September 2019	iOS Latest	NA	Up
	Samsung Galaxy S9	L	5.8''	1440 x 2960	570	March 2018	Android 9	One UI 2	Down
	Apple iPhone XR	L	6.1''	828 x 1792	326	October 2018	iOS Latest	NA	Down
	Google Pixel 5 (REF)	N	5.7''	1080 x 2280	444	October 2019	Android 11	Stock	"="
ENHANCED	Apple iPad 10.2	XL	10.2''	1620 x 2160	264	September 2019	iPadOS Latest	NA	Up
	Apple iPhone XS Max	L	6.5''	1242 x 2688	458	September 2018	iOS Latest	NA	Up
	Apple iPad Mini (2019)	XL	7.9''	1536 x 2048	324	March 2019	iPadOS Latest	NA	Up
	Samsung Galaxy S8+	L	6.2''	1440 x 2960	529	April 2017	Android 8	One UI	Down
	Samsung Galaxy S20 Ultra	L	6.9''	1440 x 3200	511	March 2020	Android 10	One UI 2	Up
	Samsung Galaxy Note 20 Ultra 5G	L	6.9''	1440 x 3088	496	August 2020	Android 10	One UI 2.5	New
	Apple iPhone 7	N	4.7''	750 x 1334	326	September 2016	iOS Latest	NA	Down
	Samsung Galaxy S10	L	6.1''	1440 x 3040	550	February 2019	Android 10	One UI 2	Up
	Samsung Galaxy A7 15G UW	L	6.7''	1080 x 2400	393	July 2020	Android 10	One UI 2.1	New
	Apple iPhone 6	N	4.7''	750 x 1134	326	September 2014	iOS 12.4.8	NA	Down
	Samsung Galaxy S8	L	5.8''	1440 x 2960	570	April 2017	Android 9.0	One UI	Down
	Samsung Galaxy Fold 2 5G	XL	7.6''	1768 x 2208	373	September 2020	Android 10	One UI 2.5	New
	Apple iPad Pro (2020)	XL	12.9''	2048 x 2732	265	March 2020	iPadOS Latest	NA	Up
	Samsung Galaxy Note 10+	L	6.8''	1440 x 3040	498	August 2019	Android 10	One UI 2	Up
	Apple iPhone SE (2020)	N	4.7''	750 x 1334	326	April 2020	iOS Latest	NA	New
EXTENDED	Apple iPhone XS	L	5.8''	1125 x 2436	458	September 2018	iOS Latest	NA	Up
	Samsung Galaxy S20 +	L	6.7''	1440 x 3200	522	March 2020	Android 10	One UI 2	Up
	Apple iPad Air 4 (2020)	XL	10.9''	1640 x 2360	264	October 2020	iPadOS Latest	NA	New
	Samsung Galaxy Note 20	L	6.7''	1080 x 2400	393	August 2020	Android 10	One UI 2.5	New
	Google Pixel 4A 5G	L	6.2''	1080 x 2340	413	November 2020	Android 11	Stock	New
	Apple iPhone 12 Pro Max	L	6.7''	1242 x 2688	442	November 2020	iOS Latest	NA	New
	Samsung Galaxy S20 FE 5G	L	6.5''	1080 x 2400	407	October 2020	Android 10	One UI 2.5	New

MOBILE DEVICE INDEX: CANADA

	Device Model	Screen Family	Screen Size	Screen Resolution	PPI	Release Date	Recommended OS	Stock OS/ Custom OS	Status
ESSENTIAL	Apple iPhone 11	L	6.1''	828 x 1792	326	September 2019	iOS Latest	NA	Up
	Samsung Galaxy S20 Ultra	L	6.9''	1440 x 3200	511	March 2020	Android 10	One UI 2	New
	Samsung Galaxy S10+	L	6.4''	1440 x 3040	522	February 2019	Android 10	One UI 2	Up
	Apple iPhone 11 Pro Max	L	6.5''	1242 x 2688	458	September 2019	iOS Latest	NA	Up
	Apple iPhone XS	L	5.8''	1125 x 2436	458	September 2018	iOS Latest	NA	Down
	Apple iPhone 8	N	4.7''	750 x 1334	326	September 2017	iOS Latest	NA	Down
	Samsung Galaxy Note 20 Ultra 5G	L	6.9''	1440 x 3088	496	August 2020	Android 10	One UI 2.5	New
	Apple iPhone 7	N	4.7''	750 x 1334	326	September 2016	iOS Latest	NA	Down
	Apple iPhone XR	L	6.1''	828 x 1792	326	October 2018	iOS Latest	NA	Down
	Google Pixel 5 (REF)	N	5.7''	1080 x 2280	444	October 2019	Android 11	Stock	"="
ENHANCED	Samsung Galaxy S8	L	5.8''	1440 x 2960	570	April 2017	Android 9	One UI	"="
	Apple iPhone 8 Plus	S	5.5''	1080 x 1920	401	September 2017	iOS Latest	NA	Down
	Samsung Galaxy S20+	L	6.7''	1440 x 3200	522	March 2020	Android 10	One UI 2	New
	Apple iPhone 6	N	4.7''	750 x 1134	326	September 2014	iOS 12.4.8	NA	Down
	Apple iPhone X	L	5.8''	1125 x 2436	458	November 2017	iOS Latest	NA	Down
	Apple iPad Air 4 (2020)	XL	10.9''	1640 x 2360	264	October 2020	iPadOS Latest	NA	New
	Samsung Galaxy Note 10+	L	6.8''	1440 x 3040	498	August 2019	Android 10	One UI 2	Up
	Samsung Galaxy S9+	L	6.2''	1440 x 2960	529	March 2018	Android 10	One UI 2	Up
	Samsung Galaxy S20 FE 5G	L	6.5''	1080 x 2400	407	October 2020	Android 10	One UI 2.5	New
	Apple iPad Mini (2019)	XL	7.9''	1536 x 2048	324	March 2019	iPadOS Latest	NA	Up
	Samsung Galaxy Tab A (2019)	XL	10.1''	1200 x 1920	224	April 2019	Android 9	One UI	New
	Apple iPhone XS Max	L	6.5''	1242 x 2688	458	September 2018	iOS Latest	NA	Up
	Apple iPad Pro (2020)	XL	12.9''	2048 x 2732	265	March 2020	iPadOS Latest	NA	Up
	Huawei P30 Pro	L	6.47''	1080 x 2340	398	March 2019	Android 10	EMUI 10	New
	Samsung Galaxy S10	L	6.1''	1440 x 3040	550	February 2019	Android 9	One UI 2	Up
EXTENDED	Apple iPad Air 2019	XL	10.5''	1668 x 2224	265	March 2019	iPadOS Latest	NA	New
	Apple iPhone SE (2020)	N	4.7''	750 x 1334	326	April 2020	iOS Latest	NA	New
	Apple iPad 10.2 (2020)	XL	10.2''	1620 x 2160	264	September 2020	iPadOS Latest	NA	New
	Apple iPhone 11 Pro	L	5.8''	1125 x 2436	458	September 2019	iOS Latest	NA	Up
	Huawei Mate 20 Pro	L	6.39''	1440 x 3120	538	November 2018	Android 9	EMUI 9.1	"="
	Apple iPhone 12 Pro Max	L	6.7''	1242 x 2688	442	November 2020	iOS Latest	NA	New
	Google Pixel 4A 5G	L	6.2''	1080 x 2340	413	November 2020	Android 11	Stock	New

MOBILE DEVICE INDEX: EU5

	Device Model	Screen Family	Screen Size	Screen Resolution	PPI	Release Date	Recommended OS	Stock OS/ Custom OS	Status
ESSENTIAL	Samsung Galaxy S10+	L	6.4''	1440 x 3040	522	February 2019	Android 10	One UI 2	Up
	Samsung Galaxy S20 Ultra	L	6.9''	1440 x 3200	511	March 2020	Android 10	One UI 2	Up
	Apple iPhone 11 Pro	L	5.8''	1125 x 2436	458	September 2019	iOS Latest	NA	Up
	Huawei P30 Pro	L	6.47''	1080 x 2340	398	March 2019	Android 10	EMUI 10	Up
	Xiaomi Mi Mix 3	L	6.39''	1080 x 2340	403	November 2018	Android 10	MIUI 11	New
	Apple iPhone 11	L	6.1''	828 x 1792	326	September 2019	iOS Latest	NA	Up
	Apple iPhone 8	N	4.7''	750 x 1334	326	September 2017	iOS Latest	NA	Down
	Apple iPhone X	L	5.8''	1125 x 2436	458	November 2017	iOS Latest	NA	Down
	Samsung Galaxy S9+	L	6.2''	1440 x 2960	529	March 2018	Android 10	One UI 2	Up
	Google Pixel 5 (REF)	N	5.7''	1080 x 2280	444	October 2019	Android 11	Stock	"="
ENHANCED	Apple iPhone 8 Plus	L	5.5''	1080 x 1920	401	September 2017	iOS Latest	NA	Up
	Xiaomi Mi10T Pro 5G	L	6.67''	1080 x 2400	395	October 2020	Android 10	MIUI 12	New
	Huawei P30 Lite	L	6.15''	1080 x 2312	415	April 2019	Android 10	EMUI 10	New
	Samsung Galaxy S20 FE 5G	L	6.5''	1080 x 2400	407	October 2020	Android 10	One UI 2.5	New
	Huawei P30 Pro	L	6.47''	1080 x 2340	398	March 2019	Android 10	EMUI 10	New
	Huawei Mate 20 Pro	L	6.39''	1440 x 3120	538	November 2018	Android 9	EMUI 9.1	Up
	Huawei P40 Lite 5G	L	6.5''	1080 x 2400	405	May 2020	Android 10	EMUI 10.1	New
	Samsung Galaxy Fold 2 5G	XL	7.6''	1768 x 2208	373	September 2020	Android 10	One UI 2.5	New
	Apple iPad 10.2	XL	10.2''	1620 x 2160	264	September 2019	iPadOS Latest	NA	Up
	Samsung Galaxy S20 +	L	6.7''	1440 x 3200	522	March 2020	Android 10	One UI 2	New
	Apple iPhone 6	N	4.7''	750 x 1134	326	September 2014	iOS 12.4.8	NA	Down
	Samsung Galaxy S10 E	L	5.8''	1080 x 2280	438	February 2019	Android 9	One UI 2	Up
	Apple iPad Pro (2020)	XL	12.9''	2048 x 2732	265	March 2020	iPadOS Latest	NA	Up
	Samsung Galaxy Note 20 Ultra 5G	L	6.9''	1440 x 3088	496	August 2020	Android 10	One UI 2.5	New
	Samsung Galaxy Note 10+	L	6.8''	1440 x 3040	498	August 2019	Android 9	One UI 2	New
EXTENDED	Apple iPhone 11 Pro Max	L	6.5''	1242 x 2688	458	September 2019	iOS Latest	NA	Up
	Samsung Galaxy Tab S5e	XL	10.5''	1600 x 2560	288	April 2019	Android 9	One UI	New
	Samsung Galaxy Z Flip	L	6.7''	1080 x 2636	425	February 2020	Android 10	One UI 2	New
	Apple iPad Mini (2019)	XL	7.9''	1536 x 2048	324	March 2019	iPadOS Latest	NA	Up
	Samsung Galaxy S10	L	6.1''	1440 x 3040	550	February 2019	Android 10	One UI 2	Up
	Samsung Galaxy S7 Edge	L	5.5''	1440 x 2560	534	March 2016	Android 8	TouchWiz UI	Down
	Apple iPhone 12 Pro Max	L	6.7''	1242 x 2688	442	November 2020	iOS Latest	NA	New

MOBILE DEVICE INDEX: UK

	Device Model	Screen Family	Screen Size	Screen Resolution	PPI	Release Date	Recommended OS	Stock OS/ Custom OS	Status
ESSENTIAL	Apple iPhone 11	L	6.1''	828 x 1792	326	September 2019	iOS Latest	NA	Up
	Apple iPhone 8	N	4.7''	750 x 1334	326	September 2017	iOS Latest	NA	"="
	Samsung Galaxy S9+	L	6.2''	1440 x 2960	529	March 2018	Android 10	One UI 2	Up
	Samsung Galaxy S20 Ultra	L	6.9''	1440 x 3200	511	March 2020	Android 10	One UI 2	Up
	Apple iPhone X	L	5.8''	1125 x 2436	458	November 2017	iOS Latest	NA	Down
	Apple iPhone 11 Pro Max	L	6.5''	1242 x 2688	458	September 2019	iOS Latest	NA	Up
	Samsung Galaxy S8+	L	6.2''	1440 x 2960	529	April 2017	Android 9	One UI	Down
	Apple iPhone 8 Plus	L	5.5''	1080 x 1920	401	September 2017	iOS Latest	NA	Down
	Samsung Galaxy S10+	L	6.4''	1440 x 3040	522	February 2019	Android 9	One UI 2	Up
	Google Pixel 5 (REF)	N	5.7''	1080 x 2280	444	October 2019	Android 11	Stock	"="
ENHANCED	Huawei P30 Pro	L	6.47''	1080 x 2340	398	March 2019	Android 10	EMUI 10	New
	Samsung Galaxy S9	L	5.8''	1440 x 2960	570	March 2018	Android 9	One UI 2	Up
	Huawei P40 Lite 5G	L	6.5''	1080 x 2400	405	May 2020	Android 10	EMUI 10.1	New
	Xiaomi Mi Mix 3	L	6.39''	1080 x 2340	403	November 2018	Android 10	MIUI 11	New
	Samsung Galaxy Note 20 Ultra 5G	L	6.9''	1440 x 3088	496	August 2020	Android 10	One UI 2.5	New
	Apple iPhone 11 Pro	L	5.8''	1125 x 2436	458	September 2019	iOS Latest	NA	Up
	Apple iPad Pro (2020)	XL	12.9''	2048 x 2732	265	March 2020	iPadOS Latest	NA	Up
	Apple iPad 10.2	XL	10.2''	1620 x 2160	264	September 2019	iPadOS Latest	NA	Up
	Samsung Galaxy S20+	L	6.7''	1440 x 3200	522	March 2020	Android 10	One UI 2	New
	Apple iPhone 6	N	4.7''	750 x 1134	326	September 2014	iOS 12.4.8	NA	Down
	Apple iPhone XS Max	L	6.5''	1242 x 2688	458	September 2018	iOS Latest	NA	Up
	Samsung Galaxy S7 Edge	L	5.5''	1440 x 2560	534	March 2016	Android 8	TouchWiz UI	Down
	Samsung Galaxy Note 10+	L	6.8''	1440 x 3040	498	August 2019	Android 10	One UI 2	New
	Apple iPhone XR	L	6.1''	828 x 1792	326	October 2018	iOS Latest	NA	Down
	Huawei P20 Pro	L	6.1''	1080 x 2240	408	April 2018	Android 10	EMUI 9.1	Up
EXTENDED	Samsung Galaxy Tab S5e	XL	10.5''	1600 x 2560	288	April 2019	Android 9	One UI	New
	Apple iPhone XS	L	5.8''	1125 x 2436	458	September 2018	iOS Latest	NA	Up
	Apple iPhone SE (2020)	N	4.7''	750 x 1334	326	April 2020	iOS Latest	NA	New
	Huawei Mate 20 Pro	L	6.39''	1440 x 3120	538	November 2018	Android 9	EMUI 9.1	Up
	Samsung Galaxy A51 5G	L	6.5''	1080 x 2400	405	April 2020	Android 10	One UI 2	New
	Samsung Galaxy Fold 2 5G	XL	7.6''	1768 x 2208	373	September 2020	Android 10	One UI 2.5	Up
	Apple iPhone 12 Pro Max	L	6.7''	1242 x 2688	442	November 2020	iOS Latest	NA	New

MOBILE DEVICE INDEX: GERMANY

	Device Model	Screen Family	Screen Size	Screen Resolution	PPI	Release Date	Recommended OS	Stock OS/ Custom OS	Status
ESSENTIAL	Samsung Galaxy S8	L	5.8''	1440 x 2960	570	April 2017	Android 9	One UI	Up
	Samsung Galaxy S9+	L	6.2''	1440 x 2960	529	March 2018	Android 10	One UI 2	Up
	Apple iPhone 11 Pro	L	5.8''	1125 x 2436	458	September 2019	iOS Latest	NA	Up
	Apple iPhone 8	N	4.7''	750 x 1334	326	September 2017	iOS Latest	NA	Down
	Samsung Galaxy Note 10+	L	6.8''	1440 x 3040	498	August 2019	Android 10	One UI 2	Up
	Apple iPhone 7 Plus	L	5.5''	1080 x 1920	401	September 2016	iOS Latest	NA	Down
	Apple iPhone X	L	5.8''	1125 x 2436	458	November 2017	iOS Latest	NA	Up
	Apple iPhone 11	L	6.1''	828 x 1792	326	September 2019	iOS Latest	NA	Up
	Samsung Galaxy S7	N	5.1''	1440 x 2560	577	February 2016	Android 8.0	TouchWiz UI	Down
	Google Pixel 5 (REF)	N	5.7''	1080 x 2280	444	October 2019	Android 11	Stock	"="
ENHANCED	Huawei P30 Pro	L	6.47''	1080 x 2340	398	March 2019	Android 10	EMUI 10	Up
	Xiaomi Mi 10 5G	L	6.57''	1080 x 2400	401	May 2020	Android 10	MiUI 11	Up
	Huawei P30 Lite	L	6.15''	1080 x 2312	415	April 2019	Android 10	EMUI 10	Down
	Samsung Galaxy S10+	L	6.4''	1440 x 3040	522	February 2019	Android 10	One UI 2	Up
	Apple iPhone 11 Pro Max	L	6.5''	1242 x 2688	458	September 2019	iOS Latest	NA	Up
	Samsung Galaxy S20 Ultra	L	6.9''	1440 x 3200	511	March 2020	Android 10	One UI 2	Up
	Samsung Galaxy Tab A (2019)	XL	10.1''	1200 x 1920	224	April 2019	Android 9	One UI	Down
	Samsung Galaxy A70	L	6.7''	1080 x 2400	393	April 2019	Android 10	One UI 2	Down
	Apple iPhone 6	N	4.7''	750 x 1134	326	September 2014	iOS 12.4.8	NA	Down
	Huawei P20 Pro	L	6.39''	1440 x 3120	538	November 2018	Android 9	EMUI 9.1	Up
	Huawei P40 Lite 5G	L	6.5''	1080 x 2400	405	May 2020	Android 10	EMUI 10.1	New
	Samsung Galaxy S20	L	6.2''	1440 x 3200	563	March 2020	Android 10	One UI 2	New
	Apple iPhone SE (2020)	N	4.7''	750 x 1334	326	April 2020	iOS Latest	NA	New
	Samsung Galaxy Z Flip	L	6.7''	1080 x 2636	425	February 2020	Android 10	One UI 2	Up
	Apple iPad Air 4 (2020)	XL	10.9''	1640 x 2360	264	October 2020	iPadOS Latest	NA	New
EXTENDED	Samsung Galaxy Note 20 Ultra 5G	L	6.9''	1440 x 3088	496	August 2020	Android 10	One UI 2.5	New
	Xiaomi Mi10T Pro 5G	L	6.67''	1080 x 2400	395	October 2020	Android 10	MIUI 12	New
	Apple iPad Pro (2020)	XL	12.9''	2048 x 2732	265	March 2020	iPadOS Latest	NA	Up
	Samsung Galaxy S20 FE 5G	L	6.5''	1080 x 2400	407	October 2020	Android 10	One UI 2.5	New
	Samsung Galaxy Fold 2 5G	XL	7.6''	1768 x 2208	373	September 2020	Android 10	One UI 2.5	Up
	Sony Xperia 5 II 5G	L	6.1''	1080 x 2520	449	September 2020	Android 10	Android 11	New
	Apple iPhone 12 Pro Max	L	6.7''	1242 x 2688	442	November 2020	iOS Latest	NA	New

MOBILE DEVICE INDEX: NETHERLANDS

	Device Model	Screen Family	Screen Size	Screen Resolution	PPI	Release Date	Recommended OS	Stock OS/ Custom OS	Status
ESSENTIAL	Samsung Galaxy S10	L	6.1''	1440 x 3040	550	February 2019	Android 10	One UI 2	Up
	Samsung Galaxy Note 10+	L	6.8''	1440 x 3040	498	August 2019	Android 10	One UI 2	Up
	Apple iPhone 11	L	6.1''	828 x 1792	326	September 2019	iOS Latest	NA	Up
	Samsung Galaxy S9	L	5.8''	1440 x 2960	570	March 2018	Android 9	One UI 2	Down
	Apple iPhone XR	L	6.1''	828 x 1792	326	October 2018	iOS Latest	NA	Up
	Samsung Galaxy S8	L	5.8''	1440 x 2960	570	April 2017	Android 9	One UI	Down
	Apple iPhone 11 Pro	L	5.8''	1125 x 2436	458	September 2019	iOS Latest	NA	New
	Samsung Galaxy S20 Ultra	L	6.9''	1440 x 3200	511	March 2020	Android 10	One UI 2	Up
	Google Pixel 5 (REF)	N	5.7''	1080 x 2280	444	October 2019	Android 11	Stock	"="
	Huawei P40 Lite 5G	L	6.5''	1080 x 2400	405	May 2020	Android 10	EMUI 10.1	New
ENHANCED	Apple iPhone 11 Pro Max	L	6.5''	1242 x 2688	458	September 2019	iOS Latest	NA	Up
	Sony Xperia 5 II 5G	L	6.1''	1080 x 2520	449	September 2020	Android 10	Android 11	New
	Samsung Galaxy Note 20 Ultra 5G	L	6.9''	1440 x 3088	496	August 2020	Android 10	One UI 2.5	New
	Samsung Galaxy A51	L	6.5''	1080 x 2400	403	April 2020	Android 10	One UI 2	Up
	Apple iPhone X	L	5.8''	1125 x 2436	458	November 2017	iOS Latest	NA	Up
	Samsung Galaxy S7	N	5.1''	1440 x 2560	577	February 2016	Android 8	TouchWiz UI	Down
	Apple iPad 10.2	XL	10.2''	1620 x 2160	264	September 2019	iPadOS Latest	NA	Up
	Apple iPhone 8 Plus	L	5.5''	1080 x 1920	401	September 2017	iOS Latest	NA	Down
	Samsung Galaxy Fold 2 5G	XL	7.6''	1768 x 2208	373	September 2020	Android 10	One UI 2.5	Up
	Apple iPhone 6	N	4.7''	750 x 1134	326	September 2014	iOS 12.4.8	NA	Down
	Samsung Galaxy S10+	L	6.4''	1440 x 3040	522	February 2019	Android 10	One UI 2	Up
	Apple iPad Pro (2020)	XL	12.9''	2048 x 2732	265	March 2020	iPadOS Latest	NA	Up
	Samsung Galaxy S20 +	L	6.7''	1440 x 3200	522	March 2020	Android 10	One UI 2	New
	Huawei P30 Pro	L	6.47''	1080 x 2340	398	March 2019	Android 10	EMUI 10	New
	Xiaomi Mi10T Pro 5G	L	6.67''	1080 x 2400	395	October 2020	Android 10	MIUI 12	New
EXTENDED	Huawei P30 Lite	L	6.15''	1080 x 2312	415	April 2019	Android 10	EMUI 10	New
	Samsung Galaxy A71	L	6.7''	1080 x 2400	393	January 2020	Android 10	One UI 2	New
	Samsung Galaxy S20	L	6.2''	1440 x 3200	563	March 2020	Android 10	One UI 2	New
	Xiaomi Mi Note 10	L	6.47''	1080 x 2340	398	November 2019	Android 9	MIUI 11	New
	Oppo A91	L	6.4''	1080 x 2400	408	December 2019	Android 9	ColorOS 6.1	Up
	OnePlus Nord	L	6.44'	1080 x 2400	408	August 2020	Android 10	Oxygen OX 10.5.4	New
	Apple iPhone 12 Pro Max	L	6.7''	1242 x 2688	442	November 2020	iOS Latest	NA	New

MOBILE DEVICE INDEX: SWITZERLAND

	Device Model	Screen Family	Screen Size	Screen Resolution	PPI	Release Date	Recommended OS	Stock OS/ Custom OS	Status
ESSENTIAL	Apple iPhone 11	L	6.1''	828 x 1792	326	September 2019	iOS Latest	NA	Up
	Samsung Galaxy S8	L	5.8''	1440 x 2960	570	April 2017	Android 9	One UI	Up
	Samsung Galaxy S10	L	6.1''	1440 x 3040	550	February 2019	Android 10	One UI 2	Up
	Apple iPhone 8 Plus	L	5.5''	1080 x 1920	401	September 2017	iOS Latest	NA	Down
	Samsung Galaxy S9+	L	6.2''	1440 x 2960	529	March 2018	Android 10	One UI 2	Up
	Huawei P30 Pro	L	6.47''	1080 x 2340	398	March 2019	Android 10	EMUI 10	Up
	Samsung Galaxy S20 Ultra	L	6.9''	1440 x 3200	511	March 2020	Android 10	One UI 2	New
	Apple iPhone 11 Pro	L	5.8''	1125 x 2436	458	September 2019	iOS Latest	NA	Up
	Samsung Galaxy S10+	L	6.4''	1440 x 3040	522	February 2019	Android 10	One UI 2	Up
	Google Pixel 5 (REF)	N	5.7''	1080 x 2280	444	October 2019	Android 11	Stock	"="
ENHANCED	Apple iPhone 11	L	6.1''	828 x 1792	326	September 2019	iOS Latest	NA	New
	Samsung Galaxy S9	L	5.8''	1440 x 2960	570	March 2018	Android 9	One UI 2	Up
	Apple iPad 10.2	XL	10.2''	1620 x 2160	264	September 2019	iPadOS Latest	NA	Up
	Samsung Galaxy S7	N	5.1''	1440 x 2560	577	February 2016	Android 8	TouchWiz UI	Down
	Samsung Galaxy Note 20 Ultra 5G	L	6.9''	1440 x 3088	496	August 2020	Android 10	One UI 2.5	New
	Samsung Galaxy A50	L	6.4''	1080 x 2340	403	February 2019	Android 9	One UI 2	Up
	Apple iPhone X	L	5.8''	1125 x 2436	458	November 2017	iOS Latest	NA	Up
	Apple iPhone 7	N	4.7''	750 x 1334	326	September 2016	iOS Latest	NA	Down
	Apple iPhone 6	N	4.7"	750 x 1334	326	September 2014	iOS 12.4.8	NA	Down
	Huawei P30 Lite	L	6.15''	1080 x 2312	415	April 2019	Android 10	EMUI 10	Up
	Apple iPhone 11 Pro Max	L	6.5''	1242 x 2688	458	September 2019	iOS Latest	NA	Up
	Samsung Galaxy Note 10+	L	6.8''	1440 x 3040	498	August 2019	Android 10	One UI 2	Up
	Huawei Mate 20 Pro	L	6.39''	1440 x 3120	538	November 2018	Android 9	EMUI 9.1	Up
	Apple iPad Pro	XL	12.9''	2048 x 2732	264	November 2015	iPadOS Latest	NA	Down
	Xiaomi Mi10T Pro 5G	L	6.67''	1080 x 2400	395	October 2020	Android 10	MIUI 12	New
EXTENDED	Samsung Galaxy A40	L	5.9''	1080 x 2340	437	April 2019	Android 9	NA	Up
	Huawei P Smart (2019)	L	6.21''	1080 x 2340	415	January 2019	Android 9	EMUI 9.1	New
	Samsung Galaxy S20+	L	6.7''	1440 x 3200	522	March 2020	Android 10	One UI 2	Up
	Huawei P20 Lite	L	5.84''	1080 x 2280	432	March 2018	Android 9	EMUI 9.0	Up
	Samsung Galaxy Fold 2 5G	XL	7.6''	1768 x 2208	373	September 2020	Android 10	One UI 2.5	Up
	Samsung Galaxy A40	L	5.9''	1080 x 2340	437	April 2019	Android 9	NA	Up
	Apple iPhone 12 Pro Max	L	6.7''	1242 x 2688	442	November 2020	iOS Latest	NA	New

MOBILE DEVICE INDEX: AUSTRALIA

	Device Model	Screen Family	Screen Size	Screen Resolution	PPI	Release Date	Recommended OS	Stock OS/ Custom OS	Status
ESSENTIAL	Apple iPhone 11	L	6.1''	828 x 1792	326	September 2019	iOS Latest	NA	Up
	Samsung Galaxy S10+	L	6.4''	1440 x 3040	522	February 2019	Android 10	One UI 2	Up
	Apple iPhone 8 Plus	L	5.5''	1080 x 1920	401	September 2017	iOS Latest	NA	"="
	Samsung Galaxy S9+	L	6.2''	1440 x 2960	529	March 2018	Android 10	One UI 2	Up
	Apple iPhone 11 Pro	L	5.8''	1125 x 2436	458	September 2019	iOS Latest	NA	Up
	Apple iPhone 11 Pro Max	L	6.5''	1242 x 2688	458	September 2019	iOS Latest	NA	Up
	Samsung Galaxy S20 Ultra	L	6.9''	1440 x 3200	511	March 2020	Android 10	One UI 2	New
	Apple iPhone XR	L	6.1''	828 x 1792	326	October 2018	iOS Latest	NA	Down
	Huawei P30 Pro	L	6.47''	1080 x 2340	398	March 2019	Android 10	EMUI 10	New
	Google Pixel 5 (REF)	N	5.7''	1080 x 2280	444	October 2019	Android 11	Stock	"="
ENHANCED	Samsung Galaxy Note 20 Ultra 5G	L	6.9''	1440 x 3088	496	August 2020	Android 10	One UI 2.5	New
	Apple iPhone 7	N	4.7''	750 x 1334	326	September 2016	iOS Latest	NA	Down
	Oppo A91	L	6.4''	1080 x 2400	408	December 2019	Android 9	ColorOS 6.1	Up
	Samsung Galaxy S9	L	5.8''	1440 x 2960	570	March 2018	Android 9	One UI 2	Up
	Samsung Galaxy S20	L	6.2''	1440 x 3200	563	March 2020	Android 10	One UI 2	New
	Samsung Galaxy Note 10+	L	6.8''	1440 x 3040	498	August 2019	Android 10	One UI 2	Up
	Apple iPhone XS Max	L	6.5''	1242 x 2688	458	September 2018	iOS Latest	NA	Up
	Apple iPad 10.2	XL	10.2''	1620 x 2160	264	September 2019	iPadOS Latest	NA	Up
	Samsung Galaxy S7	N	5.1''	1440 x 2560	577	February 2016	Android 8	TouchWiz UI	Down
	Apple iPhone SE (2020)	N	4.7''	750 x 1334	326	April 2020	iOS Latest	NA	New
	Apple iPhone 6	N	4.7"	750 x 1334	326	September 2014	iOS 12.4.8	NA	Down
	Apple iPad Pro (2020)	XL	12.9''	2048 x 2732	265	March 2020	iPadOS Latest	NA	Up
	Samsung Galaxy S8+	L	6.2''	1440 x 2960	529	April 2017	Android 9	One UI	Up
	Motorola Moto G8	L	6.4''	720 x 1560	268	March 2020	Android 10	NA	Up
	Apple iPad Mini (2019)	XL	7.9''	1536 x 2048	324	March 2019	iPadOS Latest	NA	Down
EXTENDED	Samsung Galaxy S20 +	L	6.7''	1440 x 3200	522	March 2020	Android 10	One UI 2	New
	Samsung Galaxy S20 FE 5G	L	6.5''	1080 x 2400	407	October 2020	Android 10	One UI 2.5	New
	Huawei Mate 20 Pro	L	6.39''	1440 x 3120	538	November 2018	Android 9	EMUI 9.1	Up
	Apple iPad Pro	XL	10.5''	1668 x 2224	265	June 2017	iPadOS Latest	NA	Up
	Oppo Find X2 Lite	L	6.4''	1080 x 2400	408	May 2020	Android 10	Color OS 7	New
	Samsung Galaxy Fold 2 5G	XL	7.6''	1768 x 2208	373	September 2020	Android 10	One UI 2.5	Up
	Apple iPhone 12 Pro Max	L	6.7''	1242 x 2688	442	November 2020	iOS Latest	NA	New

MOBILE DEVICE INDEX: INDIA

	Device Model	Screen Family	Screen Size	Screen Resolution	PPI	Release Date	Recommended OS	Stock OS/ Custom OS	Status
ESSENTIAL	Xiaomi Redmi Note 8	L	6.3''	1080 x 2340	409	October 2019	Android 10	MIUI 12	Up
	Samsung Galaxy A50s	L	6.4''	1080 x 2340	403	September 2019	Android 10	One UI 2	Down
	Apple iPhone 11	L	6.1''	828 x 1792	326	September 2019	iOS Latest	NA	Up
	Xiaomi Redmi Note 9 Pro	L	6.67''	1080 x 2400	395	March 2020	Android 10	MIUI 11	Up
	Samsung Galaxy S10+	L	6.4''	1440 x 3040	522	February 2019	Android 10	One UI 2	Up
	Xiaomi Redmi Note 7 Pro	L	6.3''	1080 x 2340	409	March 2019	Android 10	MIUI 11	Up
	Samsung Galaxy M10	L	6.22''	750 x 1520	270	January 2019	Android 9	One UI	Up
	Realme X2 Pro	L	6.5''	1080 x 2400	402	October 2019	Android 10	ColorOS 6.1	New
	Vivo S1 Pro	L	6.38''	1080 x 2340	404	November 2019	Android 9	Funtouch 9.2	Up
	Google Pixel 5 (REF)	N	5.7''	1080 x 2280	444	October 2019	Android 11	Stock	"="
ENHANCED	Apple iPhone 11 Pro	L	5.8''	1125 x 2436	458	September 2019	iOS Latest	NA	Up
	Xiaomi Poco X2	L	6.67''	1080 x 2400	395	February 2020	Android 10	MIUI 12	Up
	Vivo Y73S	L	6.44''	1080 x 2400	409	October 2020	Android 10	Funtouch 10.5	New
	Huawei Mate P30 Pro	L	6.47''	1080 x 2340	398	March 2019	Anrdoid 9	EMUI 10	New
	Samsung Galaxy M31	L	6.4''	1080 x 2340	411	March 2020	Android 10	One UI 2	Up
	Apple iPhone XR	L	6.1''	828 x 1792	326	October 2018	iOS Latest	NA	Up
	Xiaomi Redmi Note 8 Pro	L	6.53''	1080 x 2340	395	September 2019	Android 10	MIUI 11	New
	Apple iPhone 11 Pro Max	L	6.5''	1242 x 2688	458	September 2019	iOS Latest	NA	New
	OnePlus 7T Pro	L	6.67''	1440 x 3120	516	October 2019	Android 10	Oxygen OS 10.0.4	Up
	Apple iPhone 6	N	4.7"	750 x 1334	326	September 2014	iOS 12.4.8	NA	Down
	Oppo A53	L	6.5''	720 x 1600	270	August 2020	Android 10	ColorOS 7.2	New
	Xiaomi Redmi 8A	L	6.22''	720 x 1520	270	September 2019	Android 9	MIUI 11	New
	Samsung Galaxy S9	L	5.8''	1440 x 2960	570	March 2018	Android 9	One UI 2	Up
	Samsung Galaxy Note 20 Ultra 5G	L	6.9''	1440 x 3088	496	August 2020	Android 10	One UI 2.5	New
	Samsung Galaxy A20S	L	6.5''	720 x 1560	264	October 2019	Android 10	OneUI 2.0	Up
EXTENDED	Xiaomi Redmi 6 Pro	L	6.26''	1080 x 2280	403	October 2018	Android 10	MIUI 12	New
	Apple iPhone 8 Plus	L	5.5''	1080 x 1920	401	September 2017	iOS Latest	NA	Up
	Realme 6 Pro	L	6.6''	1080 x 2400	399	March 2020	Android 10	Realme UI 1.0	New
	Oppo F11 Pro	L	6.53''	1080 x 2340	397	March 2019	Android 9	ColorOS 6.0	Up
	Samsung Galaxy S20+	L	6.7''	1440 x 3200	522	March 2020	Android 10	One UI 2	New
	Realme C11	L	6.5''	720 x 1560	270	July 2020	Android 10	Realme UI 1.0	Up
	Oppo A5	L	6.5''	720 x 1600	270	October 2019	Android 9	ColorOS 6.1	Up

MOBILE MARKET CALENDAR 2020

Devices

June	July	August	September	October	November	December
Huawei P30 Pro (2020)		Samsung Note 20 Series	Microsoft Surface Duo	Google Pixel 5	iPhone 12 Pro	
Huawei Enjoy 20 Pro		Samsung Galaxy Flip Z 5G	Samsung Galaxy Tab Active 3	Google Pixel 4A 5G	iPhone 12 Pro Max	
		Huawei Enjoy Tablet 2	Samsung Galaxy Tab A7 10.4"	Xiaomi Mi 10T Lite	iPhone 12	
		LG Velvet 5G UW	Samsung Galaxy M51	Samsung Galaxy S20 FE	iPhone 12 Mini	
		OnePlus Nord	Samsung Galaxy Fold-25G	Apple iPad Air 4 (2020)	Samsung Galaxy A42 5G	
			Apple iPad 10.2 (2020)	Nokia 3.4		
			Huawei P Smart (2021)	Sony Xperia 5 II		
			Apple Watch Series 6	Lenovo Legion Duel		
			Huawei Enjoy 20 Plus 5G	Xiaomi Poco C3		
			Huawei Y9A	Oppo A73		
			Motorola Moto E7 Plus	Vivo V20		
			Motorola Razr 5G	Vivo X50e 5G		
			Motorola One 5G			
			Xiaomi Redmi 9i			

MOBILE MARKET CALENDAR 2020

OS

June	July	August	September	October	November	December
	iOS 12.4.8 GA	iOS 13.6.1	iOS 13.7	Android 11 GA		
			iOS 14			
			iOS 14.0.1			
			iOS 14.2 Beta 2			

BROWSER CALENDAR 2020

	Jun	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb
Chrome	83	84 Beta	84	85	86	87	88 Beta	88	89
Firefox	78	79	80	81	82	83	84	85	86
Safari				14					
Edge	84	85		86	87		88		89
Desktop OS	Mac OS Catalina 10.15.5		Mac OS Catalina 10.15.6	Mac OS Catalina 10.15.7	MacOS Big Sur (macOS 11)				

ABOUT PERFECTO

We enable exceptional digital experiences and help you strengthen every interaction with a quality-first approach for web and native apps through a cloud-based test environment called the Smart Testing Lab. The lab is comprised of real devices and real end-user conditions, giving you the truest test environment available.

More than 1,500 customers, including 50 percent of the Fortune 500 companies across banking, insurance, retail, telecommunications, and media rely on Perfecto to deliver optimal web and mobile app functionality and end-user experiences, ensuring their brand's reputation, establishing loyal customers, and continually attracting new users.

For more information about Perfecto, visit www.perfecto.io, join our community, or follow us on Twitter at @PerfectoMobile.

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The Buyer's Guide to Web & Mobile Test Automation Tools

Top 11 Challenges in Automated Testing & What to Do About Them

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What to Look for in Automation Testing Tools

Why DevOps Teams Need Cloud-Based Solutions

Let's Connect

We'd love to discuss how Perfecto can help you overcome your most difficult testing obstacles.

Let's Talk