

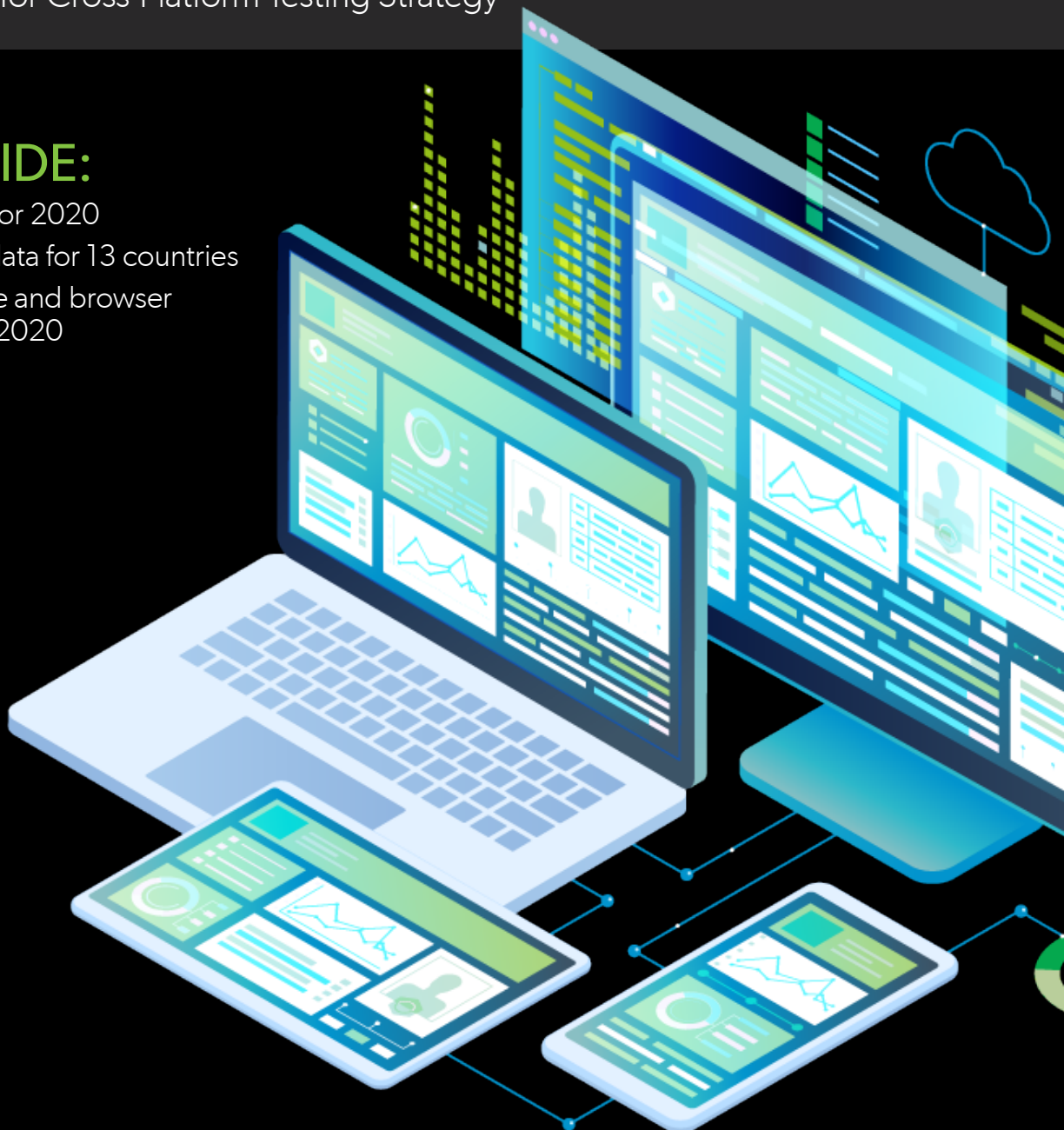
# MOBILE & WEB TEST COVERAGE INDEX

FALL 2019

A Reference Guide for Cross-Platform Testing Strategy

## WHAT'S INSIDE:

- Top 5 testing trends for 2020
- Mobile & OS usage data for 13 countries
- Web testing coverage and browser release calendar for 2020



# CONTENTS

- 3 Why We Created the Index
- 3 How We Built the Index
- 4 How to Use the Index
- 5 Test Coverage Considerations
- 6 Insights for 2020

## INDEXES BY COUNTRY

- 11 Global Web Index

## NORTH AMERICA

- 12 U.S.
- 13 Canada

## EMEA

- 14 EU5
- 15 UK
- 16 Germany
- 17 Netherlands
- 18 Switzerland
- 19 Italy
- 20 Spain
- 21 France

## APAC

- 22 Australia
- 23 India
- 24 China

## CALENDARS

- 25 Mobile Market Calendar
- 26 Web Browser Calendar

## 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

+



IHS Markit

3rd party data

## 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 13 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 equals 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.

- Essential Coverage** – Top 10 "must test" devices based on usage
- Enhanced Coverage** – Top 25 devices, including legacy and trending devices and different screen sizes
- 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 25 and 26) showing what device models, OS versions, and browser/OS combinations to look out for this year.

## Note

Factors 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 assess 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 Annual 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 INSIGHTS FOR 2020

As we approach 2020, emerging trends are reshaping the digital landscape for both mobile and desktop web apps. And while these developments are exciting, DevOps teams will need to prepare for the opportunities and challenges they present. In this edition, we'll focus on the following five trends:

- 1 iOS and iPad separation.
- 2 Android foldable devices.
- 3 Continuous adoption of progressive web apps.
- 4 Maturing DevOps with continuous testing.
- 5 ML/AI in the DevOps pipeline.

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

# 1 iOS AND iPadOS SEPERATION

This year saw the emergence of iOS 13 and iPadOS 13. The new platforms are not only impacting the apps and browser functionality but also redefining the iPhone and iPad market from a [test coverage](#) perspective.

iPadOS is a new, separate platform with its own unique cadence of releases. iPadOS requires separate testing and tuning of schedules for iPad apps.

These changes will heavily impact the lab coverage and will require changing the overall platform support considerations. Teams will need to have a focused iOS 12 device matrix together with some legacy platforms like iOS 11 (and even older depending on their client's device usage and analytics), and of course a relevant lab for iOS and iPadOS 13.



# 2 ANDROID FOLDABLES

Up until recently, developing apps for regular smartphones and tablets was a complex task. But this grew exponentially more complex with the emergence of foldable smartphones this year — most notably from Samsung, LG, and Huawei.

To properly support these innovative products, developers and testers need to learn the new capabilities of these devices, make proper adjustments to the [applications](#), and perform extensive testing.

Foldable smartphones can support up to three apps that run in parallel in the foreground using the on-resume functionality. This is a new behavior for smartphones. Before this technology existed, devices put all background apps on pause mode while the one in the foreground was in use.

We recommend mobile app developers and testers ensure they have strong coverage for the various mobile OS and smartphone families that support all possible Android app continuity. That includes multi-window, multi-view, or multi-resume capabilities. Teams also need to make sure that the app performs well, displays correctly from a UI/UX perspective, and functions properly across these families.



# 3 CONTINUOUS ADOPTION OF PROGRESSIVE WEB APPS

Progressive web apps (PWA) are not new — in fact, they can be traced back to Macworld 2007. But recently they've made a strong resurgence. Google resurrected the idea of progressive web apps in 2015 as a way to enhance the web experience.

In 2018, Apple finally decided to support the technology (service workers) that makes progressive web apps possible. From that day forward, with Safari users part of the target market for PWAs, they became more than an Android-only tool.

And ever since, PWAs have revolutionized the digital landscape. It's not surprising given their benefits — they offer lower development and maintenance costs. And their streamlined codebase means you can maintain a single version for all platforms.

Many organizations are shifting their current responsive web apps to a PWA framework.

Throughout 2020, we'll continue to see increased adoption of progressive web apps. While it's clear that there are many advantages to using a PWA framework, the technology is still maturing. It is critical to familiarize yourself with their capabilities, their inherent cross-platform differences, and with the supported technologies that can help your organization make the shift to PWA.



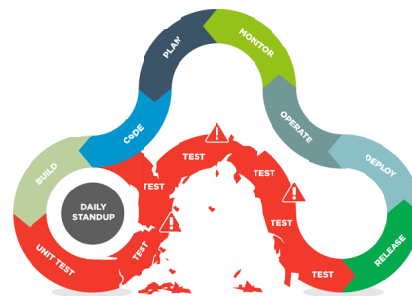
# 4 THE RISING IMPORTANCE OF CONTINUOUS TESTING TO MATURE DEVOPS

Now more than ever, continuous testing is critical for maturing DevOps. Despite tighter release schedules and more tests due to an increasingly fragmented market, teams still need feedback as quickly as possible. Continuous testing can provide that for them.

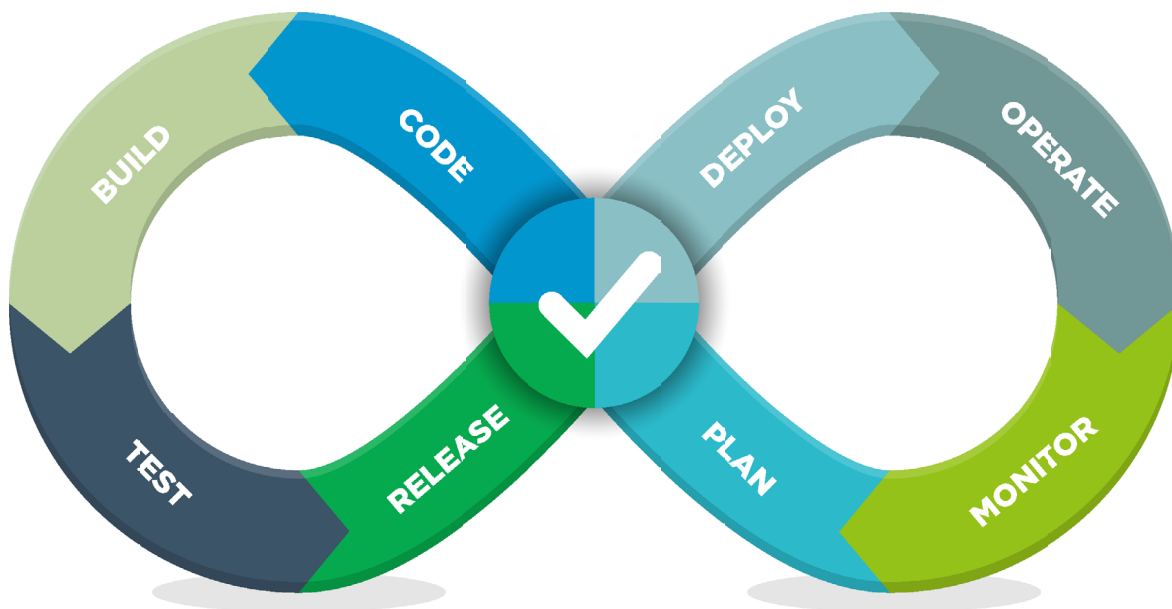
Continuous testing can provide instant feedback, which helps developers make better design decisions in the moment — giving managers all the data they need to properly assess a release. This in turn allows them to make smarter release decisions.

Continuous testing also allows teams to move from automated testing each night to multiple times a day in the CI/CD pipeline. This boost in frequency makes testing more accurate with minimized risk. This gives teams even more flexibility during the development cycle and cuts defects fixing time by 50%, allowing for more feature development time.

Testing can be unstable, labor intensive, cluttered, and slow.



Testing is often the bottleneck in DevOps and can hold back innovation.





# 5 ML/AI FOR OPTIMIZING ACTIVITIES IN THE DEVOPS PIPELINE

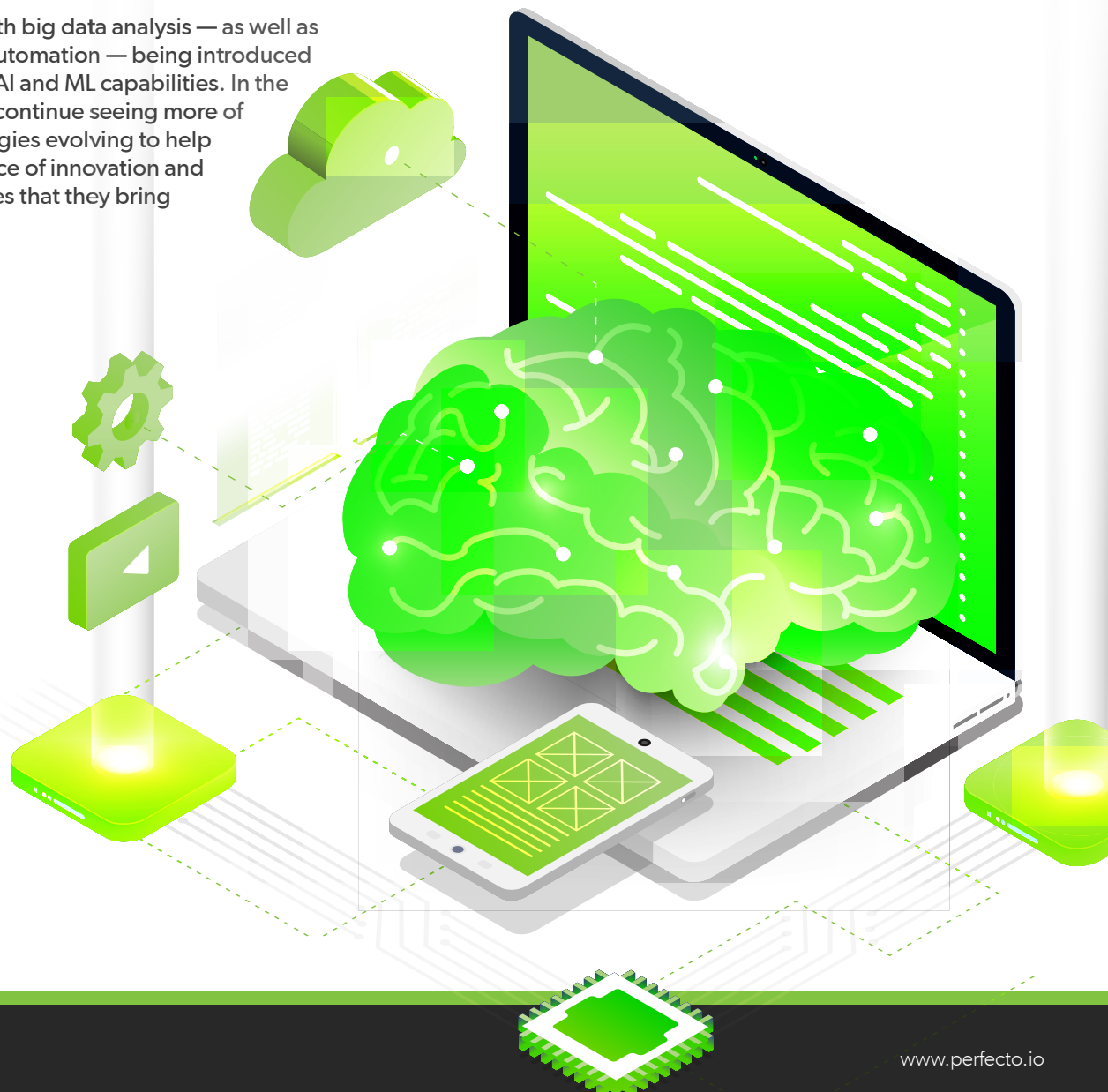
More and more segments and domains in the digital markets are starting to invest and leverage artificial intelligence (AI) and machine learning (ML) capabilities.

With the growing complexity of developing, testing, and navigating big data, combined with the need for faster response to market events, organizations are looking at smarter engines that use AI and ML. These technologies can help optimize some of the time and complex tasks that are slowing them down.

We've seen both big data analysis — as well as codeless test automation — being introduced recently using AI and ML capabilities. In the future, we will continue seeing more of these technologies evolving to help address the pace of innovation and the complexities that they bring to enterprises.

## Bottom Line

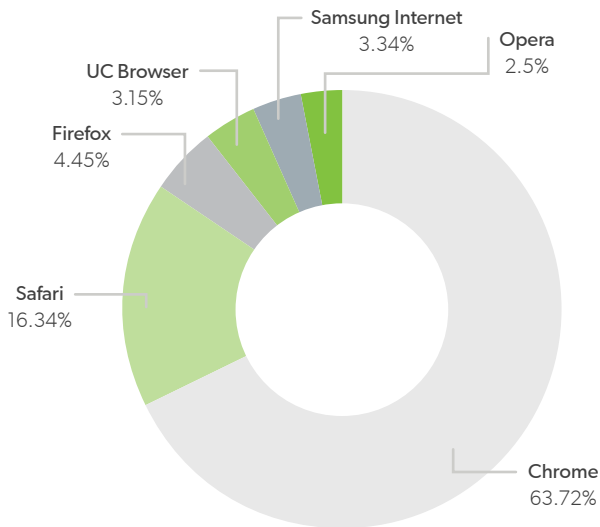
2020 is a pivotal time for app developers to make the necessary changes to their products to support emerging capabilities, as well as ensure great quality and user-experience to their customers. New platforms, evolving devices, and maturing processes will all play a part in altering the digital landscape in the coming year. Are you and your team positioned to keep up?



# GLOBAL WEB INDEX

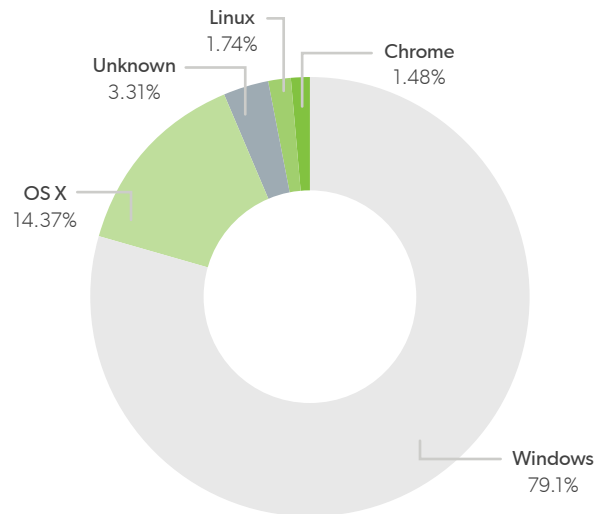
## Desktop Browser Popularity and Market Share

Browser Market Share Worldwide - Oct 2019



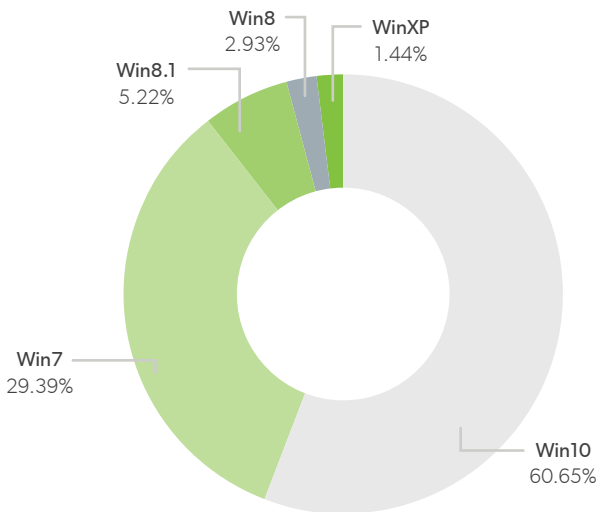
## Desktop OS Market Share and Popularity

Operating System Market Share Worldwide - Oct 2019



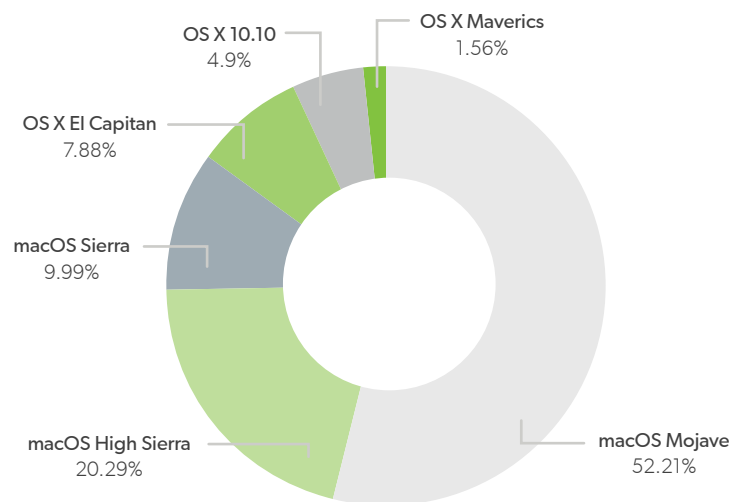
## Windows OS Families Market Share and Popularity Breakdown

Desktop Windows Version Market Share Worldwide - Oct 2019



## MacOS Families Market Share and Popularity Breakdown

Desktop macOS Version Market Share Worldwide - Oct 2019



Source: [gs.statcounter.com/browser-market-share](https://gs.statcounter.com/browser-market-share)

# MOBILE DEVICE INDEX: U.S.

	Device Model	Screen Family	Screen Size	Screen Resolution	PPI	Release Date	Recommended OS	Status
ESSENTIAL	Apple iPhone XR	L	6.1"	828 x 1792	326	October 2018	iOS Latest	Up
	Samsung Galaxy S9	L	5.8"	1440 x 2960	570	March 2018	Android 9.0	Up
	Apple iPhone 8 Plus	L	5.5"	1080 x 1920	401	September 2017	iOS Latest	Down
	Apple iPhone X	L	5.8"	1125 x 2436	458	November 2017	iOS Latest	Up
	Apple iPhone 7	N	4.7"	750 x 1334	326	September 2016	iOS Latest	Down
	Apple iPad Air 2	XL	9.7"	2048 x 1536	264	October 2014	iOS Latest	Up
	Apple iPhone XS Max	L	6.5"	1242 x 2688	458	September 2018	iOS Latest	Up
	Samsung Galaxy S8+	L	6.2"	1440 x 2960	529	April 2017	Android 8.0	Down
	Samsung Galaxy Note 9	L	6.4"	1440 x 2960	516	August 2018	Android 9.0	Up
	Google Pixel 3 (REF)	N	5.5"	1080 x 2160	443	November 2018	Android 10.0	"="
ENHANCED	Apple iPhone 7 Plus	L	5.5"	1080 x 1920	401	September 2016	iOS Latest	Down
	Apple iPhone 6S	N	4.7"	750 x 1334	326	September 2015	iOS Latest	Down
	Samsung Galaxy S8	L	5.8"	1440 x 2960	570	April 2017	Android 9.0	Down
	Apple iPad Pro 2017	XL	10.5"	1668 x 2224	265	July 2017	iOS Latest	Up
	Samsung Galaxy S10+	L	6.4"	1440 x 3040	522	February 2019	Android 9.0	Up
	Apple iPad Pro	XL	12.9"	2048 x 2732	264	November 2015	iOS Latest	Down
	Apple iPhone 8	N	4.7"	750 x 1334	326	September 2017	iOS Latest	Down
	Samsung Galaxy S10	L	6.1"	1440 x 3040	550	February 2019	Android 9.0	Up
	Apple iPhone XS	L	5.8"	1125 x 2436	458	September 2018	iOS Latest	Up
	Google Pixel 3 XL (REF)	L	6.3"	1440 x 2960	523	October 2018	Android 10.0	Up
	Apple iPhone 6	N	4.7"	750 x 1134	326	September 2014	iOS 12.4.1	Down
	Apple iPhone 11	L	6.1"	828 x 1792	326	September 2019	iOS Latest	New
	Apple iPad 9.7 (2018)	XL	9.7"	2048 x 1536	264	March 2018	iOS Latest	Up
	Samsung Galaxy S10 E	L	5.8"	1080 x 2280	438	February 2019	Android 9.0	Up
	Samsung Galaxy S7 Edge	L	5.5"	1440 x 2560	534	March 2016	Android 6.0.1	Up
	Apple iPad 2	XL	9.7"	1024 x 768	132	March 2011	iOS 9.3.5	Down
	Samsung Galaxy Note 10	L	6.3"	1080 x 2280	401	August 2019	Android 9	New
	Samsung Galaxy Note 10+	L	6.8"	1440 x 3040	498	August 2019	Android 9	New
	Apple iPhone 11 Pro Max	L	6.5"	1242 x 2688	458	September 2019	iOS Latest	New
	Apple iPad 10.2	XL	10.2"	1620 x 2160	264	September 2019	iOS Latest	New
Apple iPhone 11 Pro	L	5.8"	1125 x 2436	458	September 2019	iOS Latest	New	
Google Pixel 4	L	5.7"	1080 x 2280	444	October 2019	Android 10	New	

# MOBILE DEVICE INDEX: CANADA

	Device Model	Screen Family	Screen Size	Screen Resolution	PPI	Release Date	Recommended OS	Status
ESSENTIAL	Apple iPhone 8	N	4.7"	750 x 1334	326	September 2017	iOS Latest	Up
	Apple iPhone 7	N	4.7"	750 x 1334	326	September 2016	iOS Latest	Down
	Apple iPhone XR	L	6.1"	828 x 1792	326	October 2018	iOS Latest	Up
	Samsung Galaxy S8	L	5.8"	1440 x 2960	570	April 2017	Android 9.0	Up
	Apple iPhone 6S	N	4.7"	750 x 1334	326	September 2015	iOS Latest	Down
	Apple iPhone 8 Plus	S	5.5"	1080 x 1920	401	September 2017	iOS Latest	Down
	Samsung Galaxy Note 9	L	6.4"	1440 x 2960	516	August 2018	Android 9.0	Up
	Apple iPhone XS	L	5.8"	1125 x 2436	458	September 2018	iOS Latest	Up
	Apple iPad Air 2	XL	9.7"	2048 x 1536	264	October 2014	iOS Latest	Up
	Google Pixel 3 (REF)	N	5.5"	1080 x 2160	443	November 2018	Android 10.0	"="
ENHANCED	Apple iPhone 6	N	4.7"	750 x 1134	326	September 2014	iOS 12.4.1	Down
	Apple iPhone X	L	5.8"	1125 x 2436	458	November 2017	iOS Latest	Down
	Samsung Galaxy S7	N	5.1"	1440 x 2560	577	March 2016	Android 8.0	Down
	Apple iPad 9.7 (2018)	XL	9.7"	2048 x 1536	264	March 2018	iOS Latest	Up
	Apple iPhone SE	S	4.0"	640 x 1136	326	March 2016	iOS Latest	Down
	Apple iPad 2	XL	9.7"	1024 x 768	132	March 2011	iOS 9.3.5	Up
	Samsung Galaxy S9+	L	6.2"	1440 x 2960	529	March 2018	Android 9.0	Up
	Samsung Galaxy S9	L	5.8"	1440 x 2960	570	March 2018	Android 8.0	Up
	Apple iPad Mini 2	XL	7.9"	2048 x 1536	324	November 2013	iOS Latest	Up
	Samsung Galaxy Tab A	XL	10.5"	1220 x 1920	216	August 2018	Android 8.1	Up
	Apple iPhone XS Max	L	6.5"	1242 x 2688	458	September 2018	iOS Latest	Up
	Samsung Galaxy A8 (2018)	L	5.6"	1080 x 2220	441	January 2018	Android 7.1.1	Up
	Apple iPhone 11	L	6.1"	828 x 1792	326	September 2019	iOS Latest	New
	Samsung Galaxy S10	L	6.1"	1440 x 3040	550	February 2019	Android 9.0	Up
	Apple iPad Air 2019	XL	10.5"	1668 x 2224	265	March 2019	iOS Latest	New
	Samsung Galaxy S10+	L	6.4"	1440 x 3040	522	February 2019	Android 9.0	New
	Samsung Galaxy Note 10	L	6.3"	1080 x 2280	401	August 2019	Android 9	New
	Samsung Galaxy Note 10+	L	6.8"	1440 x 3040	498	August 2019	Android 9	New
EXTENDED	Apple iPhone 11 Pro Max	L	6.5"	1242 x 2688	458	September 2019	iOS Latest	New
	Apple iPad 10.2	XL	10.2"	1620 x 2160	264	September 2019	iOS Latest	New
	Apple iPhone 11 Pro	L	5.8"	1125 x 2436	458	September 2019	iOS Latest	New
	Huawei P20 Pro	L	6.1"	1080 x 2240	408	April 2018	Android 9.0	Up

# MOBILE DEVICE INDEX: EU5

	Device Model	Screen Family	Screen Size	Screen Resolution	PPI	Release Date	Recommended OS	Status
ESSENTIAL	Apple iPhone 7	N	4.7"	750 x 1334	326	September 2016	iOS Latest	"="
	Apple iPhone 6S	L	4.7"	750x1334	326	September 2015	iOS Latest	"="
	Apple iPhone 8	N	4.7"	750 x 1334	326	September 2017	iOS Latest	"="
	Samsung Galaxy S8	L	5.8"	1440 x 2960	570	April 2017	Android 8.0	"="
	Apple iPhone XR	L	6.1"	828 x 1792	326	October 2018	iOS Latest	Up
	Apple iPhone X	L	5.8"	1125 x 2436	458	November 2017	iOS Latest	Up
	Samsung Galaxy S9	L	5.8"	1440 x 2960	570	March 2018	Android 9.0	Up
	Apple iPad Air 2	XL	9.7"	2048 x 1536	264	October 2014	iOS Latest	Down
	Samsung Galaxy S8+	L	6.2"	1440 x 2960	529	April 2017	Android 9.0	Up
	Google Pixel 3 (REF)	N	5.5"	1080 x 2160	443	November 2018	Android 10.0	"="
ENHANCED	Apple iPhone 6	N	4.7"	750 x 1134	326	September 2014	iOS 12.4.1	Down
	Apple iPhone SE	S	4.0"	640 x 1136	326	March 2016	iOS Latest	Up
	Samsung Galaxy S7 Edge	L	5.5"	1440 x 2560	534	February 2016	Android 8.0	Down
	Apple iPhone 7 Plus	L	5.5"	1080 x 1920	401	September 2016	iOS Latest	Down
	Apple iPad 9.7 (2018)	XL	9.7"	2048 x 1536	264	March 2018	iOS Latest	Up
	Samsung Galaxy Tab A	XL	10.1"	1200 x 1920	224	May 2016	Android 8.1	Up
	Apple iPhone XS Max	L	6.5"	1242 x 2688	458	September 2018	iOS Latest	Up
	Samsung Galaxy Note 9	L	6.4"	1440 x 2960	516	August 2018	Android 9.0	Up
	Huawei P20 Pro	L	6.1"	1080 x 2240	408	April 2018	Android 8.1	Up
	Apple iPhone 11	L	6.1"	828 x 1792	326	September 2019	iOS Latest	New
	Samsung Galaxy S9+	L	6.2"	1440 x 2960	529	March 2018	Android 9.0	Up
	Apple iPad Mini 2	XL	7.9"	2048 x 1536	324	November 2013	iOS Latest	Up
	Samsung Galaxy J3	L	5.0"	720 x 1280	294	January 2016	Android 7.1.1	Up
	Apple iPhone XS	L	5.8"	1125 x 2436	458	September 2018	iOS Latest	Down
	Samsung Galaxy S10	L	6.1"	1440 x 3040	550	February 2019	Android 9.0	"="
EXTENDED	Samsung Galaxy S10+	L	6.4"	1440 x 3040	522	February 2019	Android 9.0	Up
	Huawei P Smart (2019)	L	6.21"	1080 x 2340	415	December 2018	Android 9.0	New
	Samsung Galaxy Note 10	L	6.3"	1080 x 2280	401	August 2019	Android 9	New
	Samsung Galaxy Note 10+	L	6.8"	1440 x 3040	498	August 2019	Android 9	New
	Apple iPhone 11 Pro Max	L	6.5"	1242 x 2688	458	September 2019	iOS Latest	New
	Apple iPad 10.2	XL	10.2"	1620 x 2160	264	September 2019	iOS Latest	New
Apple iPhone 11 Pro	L	5.8"	1125 x 2436	458	September 2019	iOS Latest	New	



# MOBILE DEVICE INDEX: UK

	Device Model	Screen Family	Screen Size	Screen Resolution	PPI	Release Date	Recommended OS	Status	
ESSENTIAL	Apple iPhone 7	N	4.7"	750 x 1334	326	September 2016	iOS Latest	"="	
	Apple iPhone 8	N	4.7"	750 x 1334	326	September 2017	iOS Latest	"="	
	Apple iPhone XR	L	6.1"	828 x 1792	326	October 2018	iOS Latest	Up	
	Samsung Galaxy S8+	L	6.2"	1440 x 2960	529	April 2017	Android 9.0	Up	
	Samsung Galaxy S9	L	5.8"	1440 x 2960	570	March 2018	Android 9.0	Up	
	Apple iPhone X	L	5.8"	1125 x 2436	458	November 2017	iOS Latest	Up	
	Apple iPhone 7 Plus	L	5.5"	1080 x 1920	401	September 2016	iOS Latest	Down	
	Samsung Galaxy S8	L	5.8"	1440 x 2960	570	April 2017	Android 9.0	Down	
	Apple iPhone 6S	N	4.7"	750 x 1334	326	September 2015	iOS Latest	Down	
	Google Pixel 3 (REF)	N	5.5"	1080 x 2160	443	November 2018	Android 10.0	"="	
ENHANCED	Apple iPhone SE	S	4.0"	640 x 1136	326	March 2016	iOS Latest	Down	
	Apple iPad Air 2	XL	9.7"	2048 x 1536	264	October 2014	iOS Latest	Up	
	Apple iPad 9.7 (2018)	XL	9.7"	2048 x 1536	264	March 2018	iOS Latest	Up	
	Apple iPhone 8 Plus	L	5.5"	1080 x 1920	401	September 2017	iOS Latest	Down	
	Apple iPhone 6	N	4.7"	750 x 1134	326	September 2014	iOS 12.4.1	Down	
	Samsung Galaxy S9+	L	6.2"	1440 x 2960	529	March 2018	Android 9.0	Up	
	Apple iPhone XS Max	L	6.5"	1242 x 2688	458	September 2018	iOS Latest	Up	
	Samsung Galaxy S7 Edge	L	5.5"	1440 x 2560	534	March 2016	Android 7.0	Down	
	Apple iPhone 11	L	6.1"	828 x 1792	326	September 2019	iOS Latest	New	
	Samsung Galaxy Note 9	L	6.4"	1440 x 2960	516	August 2018	Android 9.0	Up	
	Huawei P20 Pro	L	6.1"	1080 x 2240	408	April 2018	Android 8.1	Up	
	Samsung Galaxy Tab A	XL	10.1"	1200 x 1920	224	May 2016	Android 8.1	New	
	Apple iPhone XS	L	5.8"	1125 x 2436	458	September 2018	iOS Latest	Up	
	Apple iPad Mini 2	XL	7.9"	2048 x 1536	324	November 2013	iOS Latest	Up	
	Samsung Galaxy S10	L	6.1"	1440 x 3040	550	February 2019	Android 9.0	Up	
	EXTENDED	Samsung Galaxy S10 E	L	5.8"	1080 x 2280	438	February 2019	Android 9.0	Up
		Samsung Galaxy S10+	L	6.4"	1440 x 3040	522	February 2019	Android 9.0	Up
Samsung Galaxy Note 10		L	6.3"	1080 x 2280	401	August 2019	Android 9	New	
Samsung Galaxy Note 10+		L	6.8"	1440 x 3040	498	August 2019	Android 9	New	
Apple iPhone 11 Pro Max		L	6.5"	1242 x 2688	458	September 2019	iOS Latest	New	
Apple iPad 10.2		XL	10.2"	1620 x 2160	264	September 2019	iOS Latest	New	
Apple iPhone 11 Pro		L	5.8"	1125 x 2436	458	September 2019	iOS Latest	New	

# MOBILE DEVICE INDEX: GERMANY

	Device Model	Screen Family	Screen Size	Screen Resolution	PPI	Release Date	Recommended OS	Status
ESSENTIAL	Apple iPhone 7	N	4.7"	750 x 1334	326	September 2016	iOS Latest	"="
	Apple iPhone 8	N	4.7"	750 x 1334	326	September 2017	iOS Latest	Up
	Apple iPhone X	L	5.8"	1125 x 2436	458	November 2017	iOS Latest	Up
	Samsung Galaxy S8	L	5.8"	1440 x 2960	570	April 2017	Android 9.0	Down
	Apple iPhone XR	L	6.1"	828 x 1792	326	October 2018	iOS Latest	Up
	Samsung Galaxy S7	N	5.1"	1440 x 2560	577	February 2016	Android 8.0	Down
	Samsung Galaxy S9	L	5.8"	1440 x 2960	570	March 2018	Android 9.0	Up
	Apple iPhone 6S	N	4.7"	750 x 1334	326	September 2015	iOS Latest	Down
	Apple iPad Air 2	XL	9.7"	2048 x 1536	264	October 2014	iOS Latest	Up
	Google Pixel 3 (REF)	N	5.5"	1080 x 2160	443	November 2018	Android 10.0	"="
ENHANCED	Apple iPhone 8 Plus	L	5.5"	1080 x 1920	401	September 2017	iOS Latest	Up
	Samsung Galaxy S9+	L	6.2"	1440 x 2960	529	March 2018	Android 8.0	Up
	Apple iPhone XS Max	L	6.5"	1242 x 2688	458	September 2018	iOS Latest	Up
	Samsung Galaxy Tab A	XL	10.1"	1200 x 1920	224	June 2016	Android 8.1	Up
	Apple iPhone 7 Plus	L	5.5"	1080 x 1920	401	September 2016	iOS Latest	Up
	Apple iPhone 6	N	4.7"	750 x 1134	326	September 2014	iOS 12.4.1	Down
	Apple iPhone SE	S	4.0"	640 x 1136	326	March 2016	iOS Latest	Up
	Apple iPhone 11	L	6.1"	828 x 1792	326	September 2019	iOS Latest	New
	Samsung Galaxy S7 Edge	L	5.5"	1440 x 2560	534	March 2016	Android 8.0	Down
	Apple iPad 9.7 (2018)	XL	9.7"	2048 x 1536	264	March 2018	iOS Latest	Up
	Samsung Galaxy A7 (2018)	L	6.0"	1080 x 2220	411	September 2018	Android 9.0	New
	Huawei P20 Pro	L	6.39"	1440 x 3120	538	November 2018	Android 9.0	New
	Samsung Galaxy S10	L	6.1"	1440 x 3040	550	February 2019	Android 9.0	Up
	Samsung Galaxy Note 9	L	6.4"	1440 x 2960	516	August 2018	Android 9.0	Up
	Apple iPhone XS	L	5.8"	1125 x 2436	458	September 2018	iOS Latest	Up
EXTENDED	Samsung Galaxy S10 E	L	5.8"	1080 x 2280	438	February 2019	Android 9.0	Up
	Samsung Galaxy S10+	L	6.4"	1440 x 3040	522	February 2019	Android 9.0	Up
	Samsung Galaxy Note 10	L	6.3"	1080 x 2280	401	August 2019	Android 9	New
	Samsung Galaxy Note 10+	L	6.8"	1440 x 3040	498	August 2019	Android 9	New
	Apple iPhone 11 Pro Max	L	6.5"	1242 x 2688	458	September 2019	iOS Latest	New
	Apple iPad 10.2	XL	10.2"	1620 x 2160	264	September 2019	iOS Latest	New
	Apple iPhone 11 Pro	L	5.8"	1125 x 2436	458	September 2019	iOS Latest	New

# MOBILE DEVICE INDEX: NETHERLANDS

	Device Model	Screen Family	Screen Size	Screen Resolution	PPI	Release Date	Recommended OS	Status
ESSENTIAL	Samsung Galaxy S8	L	5.8"	1440 x 2960	570	April 2017	Android 9.0	Up
	Samsung Galaxy S9	L	5.8"	1440 x 2960	570	March 2018	Android 9.0	Up
	Apple iPhone 7	N	4.7"	750 x 1334	326	September 2016	iOS Latest	Down
	Apple iPad Air 2	XL	9.7"	2048 x 1536	264	October 2014	iOS Latest	Down
	Samsung Galaxy A5	L	5.2"	1080 x 1920	424	January 2017	Android 7.0	Up
	Apple iPhone X	L	5.8"	1125 x 2436	458	November 2017	iOS Latest	Up
	Samsung Galaxy S7	N	5.1"	1440 x 2560	577	February 2016	Android 8.0	Down
	Apple iPhone 8	N	4.7"	750 x 1334	326	September 2017	iOS Latest	Down
	Apple iPhone 6S	N	4.7"	750 x 1334	326	September 2015	iOS Latest	Down
	Google Pixel 3 (REF)	N	5.5"	1080 x 2160	443	November 2018	Android 10.0	"="
ENHANCED	Apple iPad 9.7 (2018)	XL	9.7"	2048 x 1536	264	March 2018	iOS Latest	Up
	Apple iPad Air	XL	9.7"	2048 x 1536	264	October 2013	iOS Latest	Down
	Samsung Galaxy S9+	L	6.2"	1440 x 2960	529	March 2018	Android 8.0	Up
	Apple iPhone 11	L	6.1"	828 x 1792	326	September 2019	iOS Latest	New
	Samsung Galaxy S7 Edge	L	5.5"	1440 x 2560	534	February 2016	Android 8.0	Up
	Apple iPhone 8 Plus	L	5.5"	1080 x 1920	401	September 2017	iOS Latest	Down
	Apple iPhone XS Max	L	6.5"	1242 x 2688	458	September 2018	iOS Latest	Up
	Apple iPhone XR	L	6.1"	828 x 1792	326	October 2018	iOS Latest	Down
	Samsung Galaxy S10+	L	6.4"	1440 x 3040	522	February 2019	Android 9.0	Up
	Apple iPhone XS	L	5.8"	1125 x 2436	458	September 2018	iOS Latest	Up
	Samsung Galaxy Note 9	L	6.4"	1440 x 2960	516	August 2018	Android 9.0	Up
	Apple iPhone 7 Plus	L	5.5"	1080 x 1920	401	September 2016	iOS Latest	Down
	Samsung Galaxy S8+	L	6.2"	1440 x 2960	529	April 2017	Android 9.0	Down
	Samsung Galaxy S10 E	L	5.8"	1080 x 2280	438	February 2019	Android 9.0	Up
	Samsung Galaxy A50	L	6.4"	1080 x 2340	403	February 2019	Android 9.0	New
EXTENDED	Samsung Galaxy Tab A	XL	10.1"	1200 x 1920	224	June 2016	Android 7.0	Down
	Samsung Galaxy S10	L	6.1"	1440 x 3040	550	February 2019	Android 9.0	New
	Samsung Galaxy A8 (2018)	L	5.6"	1080 x 2220	441	January 2018	Android 9.0	Up
	Apple iPhone 6	N	4.7"	750 x 1134	326	September 2014	iOS 12.4.1	Down
	Samsung Galaxy Note 10+	L	6.8"	1440 x 3040	498	August 2019	Android 9	New
	Apple iPhone 11 Pro Max	L	6.5"	1242 x 2688	458	September 2019	iOS Latest	New
	Apple iPhone 11 Pro	L	5.8"	1125 x 2436	458	September 2019	iOS Latest	New

# MOBILE DEVICE INDEX: SWITZERLAND

	Device Model	Screen Family	Screen Size	Screen Resolution	PPI	Release Date	Recommended OS	Status	
ESSENTIAL	Apple iPhone X	L	5.8"	1125 x 2436	458	November 2017	iOS Latest	Up	
	Apple iPhone 7	N	4.7"	750 x 1334	326	September 2016	iOS Latest	Down	
	Apple iPhone 8	N	4.7"	750 x 1334	326	September 2017	iOS Latest	Down	
	Samsung Galaxy S8	L	5.8"	1440 x 2960	570	April 2017	Android 9.0	Down	
	Apple iPhone XR	L	6.1"	828 x 1792	326	October 2018	iOS Latest	Up	
	Apple iPhone 6S	N	4.7"	750 x 1334	326	September 2015	iOS Latest	Down	
	Apple iPhone XS	L	5.8"	1125 x 2436	458	September 2018	iOS Latest	Up	
	Samsung Galaxy S9	L	5.8"	1440 x 2960	570	March 2018	Android 9.0	Up	
	Apple iPhone XS Max	L	6.5"	1242 x 2688	458	September 2018	iOS Latest	Up	
	Google Pixel 3 (REF)	N	5.5"	1080 x 2160	443	November 2018	Android 10.0	"="	
ENHANCED	Apple iPad Air 2	XL	9.7"	2048 x 1536	264	October 2014	iOS Latest	"="	
	Samsung Galaxy S7	N	5.1"	1440 x 2560	577	February 2016	Android 8.0	Down	
	Apple iPhone 7 Plus	L	5.5"	1080 x 1920	401	September 2016	iOS Latest	Down	
	Apple iPhone 6	N	4.7"	750 x 1334	326	September 2014	iOS 12.4.1	Down	
	Samsung Galaxy S9+	L	6.2"	1440 x 2960	529	March 2018	Android 9.0	Up	
	Samsung Galaxy S8+	L	6.2"	1440 x 2960	529	April 2017	Android 8.0	Up	
	Apple iPhone SE	S	4.0"	640 x 1136	326	March 2016	iOS Latest	Down	
	Samsung Galaxy S10	L	6.1"	1440 x 3040	550	February 2019	Android 9.0	Up	
	Apple iPhone 8 Plus	L	5.5"	1080 x 1920	401	September 2017	iOS Latest	Down	
	Huawei Mate 20 Pro	L	6.39"	1440 x 3120	538	November 2018	Android 9.0	Up	
	Apple iPad 9.7 (2018)	XL	9.7"	2048 x 1536	264	March 2018	iOS Latest	Up	
	Apple iPhone 11	L	6.1"	828 x 1792	326	September 2019	iOS Latest	New	
	Huawei P20 Pro	L	6.1"	1080 x 2240	408	April 2018	Android 8.1	Up	
	Samsung Galaxy Note 9	L	6.4"	1440 x 2960	516	August 2018	Android 9.0	Up	
	Apple iPad Pro	XL	12.9"	2048 x 2732	264	November 2015	iOS Latest	Up	
	EXTENDED	Samsung Galaxy S10+	L	6.4"	1440 x 3040	522	February 2019	Android 9.0	Up
		Samsung Galaxy S10 E	L	5.8"	1080 x 2280	438	February 2019	Android 9.0	Up
Huawei P20 Lite		L	5.84"	1080 x 2280	432	March 2018	Android 9.0	Up	
Samsung Galaxy Note 10+		L	6.8"	1440 x 3040	498	August 2019	Android 9	New	
Apple iPhone 11 Pro Max		L	6.5"	1242 x 2688	458	September 2019	iOS Latest	New	
Apple iPad 10.2		XL	10.2"	1620 x 2160	264	September 2019	iOS Latest	New	
Apple iPhone 11 Pro		L	5.8"	1125 x 2436	458	September 2019	iOS Latest	New	

# MOBILE DEVICE INDEX: ITALY

	Device Model	Screen Family	Screen Size	Screen Resolution	PPI	Release Date	Recommended OS	Status
ESSENTIAL	Apple iPhone 7	N	4.7"	750 x 1334	326	September 2016	iOS Latest	"="
	Apple iPhone 6S	N	4.7"	750 x 1334	326	September 2015	iOS Latest	"="
	Apple iPhone X	L	5.8"	1125 x 2436	458	November 2017	iOS Latest	"="
	Apple iPhone 8	N	4.7"	750 x 1334	326	September 2017	iOS Latest	Up
	Samsung Galaxy S8	L	5.8"	1440 x 2960	570	April 2017	Android 9.0	Down
	Apple iPhone 6	N	4.7"	750 x 1334	326	September 2014	iOS 12.4.1	Up
	Apple iPhone XR	L	6.1"	828 x 1792	326	October 2018	iOS Latest	Up
	Huawei P20 Lite	L	5.84"	1080 x 2280	432	March 2018	Android 9.0	Up
	Huawei P8 Lite (2017)	L	5.2"	1080 x 1920	424	January 2017	Android 6.0	Up
	Google Pixel 3 (REF)	N	5.5"	1080 x 2160	443	November 2018	Android 10.0	"="
ENHANCED	Huawei P9 Lite	L	5.2"	1080 x 1920	424	April 2016	Android 7.0	Up
	Samsung Galaxy S9+	L	6.2"	1440 x 2960	529	March 2018	Android 8.0	Up
	Apple iPad 9.7 (2018)	XL	9.7"	2048 x 1536	264	March 2018	iOS Latest	Up
	Samsung Galaxy S7 Edge	L	5.5"	1440 x 2560	534	February 2016	Android 8.0	Down
	Samsung J5 Duos 2017	L	5.2"	720 x 1280	282	June 2017	Android 9.0	New
	Apple iPhone XS	L	5.8"	1125 x 2436	458	September 2018	iOS Latest	Up
	Samsung Galaxy S8+	L	6.2"	1440 x 2960	529	April 2017	Android 9.0	Up
	Apple iPhone XS Max	L	6.5"	1242 x 2688	458	September 2018	iOS Latest	Up
	Apple iPhone 8 Plus	L	5.5"	1080 x 1920	401	September 2017	iOS Latest	Up
	Samsung Galaxy Note 9	L	6.4"	1440 x 2960	516	August 2018	Android 8.1	Up
	Samsung Galaxy S9	L	5.8"	1440 x 2960	570	March 2018	Android 9.0	Up
	Apple iPhone 11	L	6.1"	828 x 1792	326	September 2019	iOS Latest	New
	Huawei P Smart (2019)	L	6.21"	1080 x 2340	415	December 2018	Android 9.0	New
	Samsung Galaxy A8 (2018)	L	5.6"	1080 x 2220	441	January 2018	Android 7.1.1	Up
	Xiaomi Redmi Note 7	L	6.3"	1080 x 2340	409	January 2019	Android 9.0	New
EXTENDED	Samsung Galaxy S10	L	6.1"	1440 x 3040	550	February 2019	Android 9.0	Up
	Apple iPhone SE	S	4.0"	640 x 1136	326	March 2016	iOS Latest	Down
	Samsung Galaxy S10+	L	6.4"	1440 x 3040	522	February 2019	Android 9.0	Up
	Samsung Galaxy S10 E	L	5.8"	1080 x 2280	438	February 2019	Android 9.0	Up
	Samsung Galaxy Note 10+	L	6.8"	1440 x 3040	498	August 2019	Android 9	New
	Apple iPhone 11 Pro Max	L	6.5"	1242 x 2688	458	September 2019	iOS Latest	New
Apple iPhone 11 Pro	L	5.8"	1125 x 2436	458	September 2019	iOS Latest	New	



# MOBILE DEVICE INDEX: SPAIN

	Device Model	Screen Family	Screen Size	Screen Resolution	PPI	Release Date	Recommended OS	Status
ESSENTIAL	Apple iPhone 7	N	4.7"	750 x 1334	326	September 2016	iOS Latest	"="
	Apple iPhone X	L	5.8"	1125 x 2436	458	November 2017	iOS Latest	"="
	Apple iPhone XR	L	6.1"	828 x 1792	326	October 2018	iOS Latest	Up
	Apple iPhone 8	N	4.7"	750 x 1334	326	September 2017	iOS Latest	Up
	Huawei P20 Lite	L	5.84"	1080 x 2280	432	March 2018	Android 9.0	Up
	Apple iPhone 8 Plus	L	5.5"	1080 x 1920	401	September 2017	iOS Latest	Up
	Samsung Galaxy S8	L	5.8"	1440 x 2960	570	April 2017	Android 9.0	Up
	Huawei P8 Lite (2017)	L	5.2"	1080 x 1920	424	January 2017	Android 8.0	Up
	Apple iPhone XS Max	L	6.5"	1242 x 2688	458	September 2018	iOS Latest	Up
	Google Pixel 3 (REF)	N	5.5"	1080 x 2160	443	November 2018	Android 10.0	"="
ENHANCED	Apple iPhone 6	N	4.7"	750 x 1334	326	September 2014	iOS 12.4.1	Up
	Huawei P Smart (2019)	L	6.21"	1080 x 2340	415	December 2018	Android 9.0	New
	Huawei P9 Lite	L	5.2"	1080 x 1920	424	April 2016	Android 7.0	Up
	Huawei P8 Lite	N	5.0"	720 x 1280	294	May 2015	Android 6.0	Up
	Samsung Galaxy S7 Edge	L	5.5"	1440 x 2560	534	February 2016	Android 8.0	Down
	Xiaomi Redmi Note 7	L	6.3"	1080 x 2340	409	January 2019	Android 9.0	New
	Samsung Galaxy S9+	L	6.2"	1440 x 2960	529	March 2018	Android 9.0	Up
	Samsung Galaxy S8+	L	6.2"	1440 x 2960	529	April 2017	Android 7.0	Up
	Xiaomi Redmi Note 4	L	5.5"	1080 x 1920	401	January 2017	Android 7.0	New
	Samsung Galaxy S9	L	5.8"	1440 x 2960	570	March 2018	Android 9.0	New
	Apple iPhone SE	S	4.0"	640 x 1136	326	March 2016	iOS Latest	Down
	Huawei Mate 20 Lite	L	6.3"	1080 x 2340	409	August 2018	Android 9.0	Up
	Samsung Galaxy Note 9	L	6.4"	1440 x 2960	516	August 2018	Android 9.0	Up
	Apple iPhone 11	L	6.1"	828 x 1792	326	September 2019	iOS Latest	New
	Huawei Mate 20 Pro	L	6.39"	1440 x 3120	538	November 2018	Android 9.0	Up
	Samsung Galaxy S10	L	6.1"	1440 x 3040	550	February 2019	Android 9.0	Up
	EXTENDED	Apple iPhone XS	L	5.8"	1125 x 2436	458	September 2018	iOS Latest
Xiaomi Mi A2		L	5.99"	1080 x 2160	403	July 2018	Android 9.0	Up
Samsung Galaxy S10+		L	6.4"	1440 x 3040	522	February 2019	Android 9.0	Up
Samsung Galaxy S10 E		L	5.8"	1080 x 2280	438	February 2019	Android 9.0	Up
Samsung Galaxy Note 10+		L	6.8"	1440 x 3040	498	August 2019	Android 9	New
Apple iPhone 11 Pro Max		L	6.5"	1242 x 2688	458	September 2019	iOS Latest	New

# MOBILE DEVICE INDEX: FRANCE

	Device Model	Screen Family	Screen Size	Screen Resolution	PPI	Release Date	Recommended OS	Status
ESSENTIAL	Apple iPhone 7	N	4.7"	750 x 1334	326	September 2016	iOS Latest	"="
	Apple iPhone 6S	N	4.7"	750x1334	326	September 2015	iOS Latest	Up
	Samsung Galaxy S8	L	5.8"	1440 x 2960	570	April 2017	Android 9.0	Down
	Apple iPhone 8	N	4.7"	750 x 1334	326	September 2017	iOS Latest	Up
	Apple iPhone XR	L	6.1"	828 x 1792	326	October 2018	iOS Latest	Up
	Apple iPhone X	L	5.8"	1125 x 2436	458	November 2017	iOS Latest	Up
	Apple iPad Air 2	XL	9.7"	2048 x 1536	264	October 2014	iOS Latest	Up
	Apple iPhone 6	N	4.7"	750 x 1334	326	September 2014	iOS 12.4.1	Up
	Samsung Galaxy S9+	L	6.2"	1440 x 2960	529	March 2018	Android 9.0	Up
	Google Pixel 3 (REF)	N	5.5"	1080 x 2160	443	November 2018	Android 10.0	"="
ENHANCED	Huawei P20 Lite	L	5.84"	1080 x 2280	432	March 2018	Android 9.0	Up
	Apple iPad 9.7 (2018)	XL	9.7"	2048 x 1536	264	March 2018	iOS Latest	Up
	Apple iPhone XS Max	L	6.5"	1242 x 2688	458	September 2018	iOS Latest	Up
	Samsung Galaxy S7	N	5.1"	1440 x 2560	577	February 2016	Android 8.0	Down
	Huawei P8 Lite (2017)	L	5.2"	1080 x 1920	424	January 2017	Android 7.0	Down
	Apple iPhone SE	S	4.0"	640 x 1136	326	March 2016	iOS Latest	Down
	Samsung Galaxy S8+	L	6.2"	1440 x 2960	529	April 2017	Android 9.0	Up
	Samsung Galaxy Tab A	XL	10.1"	1200 x 1920	224	June 2016	Android 7.0	Up
	Samsung Galaxy A5	L	5.2"	1080 x 1920	424	December 2016	Android 7.0	Up
	Apple iPad Air 2	XL	9.7"	2048 x 1536	264	October 2014	iOS Latest	Down
	Apple iPhone XS	L	5.8"	1125 x 2436	458	September 2018	iOS Latest	Up
	Samsung Galaxy S7 Edge	L	5.5"	1440 x 2560	534	February 2016	Android 7.0	Down
	Samsung Galaxy Note 9	L	6.4"	1440 x 2960	516	August 2018	Android 8.1	Up
	Apple iPhone 8 Plus	L	5.5"	1080 x 1920	401	September 2017	iOS Latest	Down
	Apple iPhone 7 Plus	L	5.5"	1080 x 1920	401	September 2016	iOS Latest	Down
EXTENDED	Samsung Galaxy A8 (2018)	L	5.6"	1080 x 2220	441	January 2018	Android 7.1.1	Up
	Apple iPhone 11	L	6.1"	828 x 1792	326	September 2019	iOS Latest	New
	Samsung Galaxy S10	L	6.1"	1440 x 3040	550	February 2019	Android 9.0	Up
	Huawei P20	L	5.8"	1080 x 2240	429	April 2018	Android 9.0	New
	Samsung Galaxy S10+	L	6.4"	1440 x 3040	522	February 2019	Android 9.0	Up
	Samsung Galaxy Note 10+	L	6.8"	1440 x 3040	498	August 2019	Android 9	New
Apple iPhone 11 Pro Max	L	6.5"	1242 x 2688	458	September 2019	iOS Latest	New	

# MOBILE DEVICE INDEX: AUSTRALIA

	Device Model	Screen Family	Screen Size	Screen Resolution	PPI	Release Date	Recommended OS	Status
ESSENTIAL	Apple iPhone XR	L	6.1"	828 x 1792	326	October 2018	iOS Latest	Up
	Apple iPhone 8 Plus	L	5.5"	1080 x 1920	401	September 2017	iOS Latest	Up
	Apple iPhone 8	N	4.7"	750 x 1334	326	September 2017	iOS Latest	Up
	Apple iPhone 7	N	4.7"	750 x 1334	326	September 2016	iOS Latest	Down
	Apple iPhone X	L	5.8"	1125 x 2436	458	November 2017	iOS Latest	Up
	Samsung Galaxy S9	L	5.8"	1440 x 2960	570	March 2018	Android 9.0	Up
	Apple iPhone XS Max	L	6.5"	1242 x 2688	458	September 2018	iOS Latest	Up
	Apple iPhone 6S	N	4.7"	750 x 1334	326	September 2015	iOS Latest	Down
	Apple iPhone XS	L	5.8"	1125 x 2436	458	September 2018	iOS Latest	Up
	Google Pixel 3 (REF)	N	5.5"	1080 x 2160	443	November 2018	Android 10.0	"="
ENHANCED	Apple iPhone 7 Plus	L	5.5"	1080 x 1920	401	September 2016	iOS Latest	Down
	Samsung Galaxy S7	N	5.1"	1440 x 2560	577	February 2016	Android 7.0	Down
	Samsung Galaxy S8	L	5.8"	1440 x 2960	570	April 2017	Android 9.0	Down
	Apple iPad 9.7 (2018)	XL	9.7"	2048 x 1536	264	March 2018	iOS Latest	Up
	Apple iPhone 6	N	4.7"	750 x 1334	326	September 2014	iOS 12.4.1	Down
	Samsung Galaxy S8+	L	6.2"	1440 x 2960	529	April 2017	Android 9.0	Up
	Samsung Galaxy S9+	L	6.2"	1440 x 2960	529	March 2018	Android 9.0	Up
	Apple iPad Air 2	XL	9.7"	2048 x 1536	264	October 2014	iOS Latest	Down
	Apple iPhone 11	L	6.1"	828 x 1792	326	September 2019	iOS Latest	New
	Apple iPhone 6S Plus	L	5.5"	1080 x 1920	401	September 2014	iOS Latest	Down
	Apple iPhone SE	S	4.0"	640 x 1136	326	March 2016	iOS Latest	Up
	Samsung Galaxy Note 9	L	6.4"	1440 x 2960	516	August 2018	Android 9.0	Up
	Samsung Galaxy S7 Edge	L	5.5"	1440 x 2560	534	February 2016	Android 8.0	Down
	Samsung Galaxy S10	L	6.1"	1440 x 3040	550	February 2019	Android 9.0	Up
	Samsung Galaxy S5	N	5.1"	1080 x 1920	432	April 2014	Android 6.0	Down
EXTENDED	Apple iPad Pro	XL	10.5"	1668 x 2224	265	June 2017	iOS Latest	Up
	Samsung Galaxy S10+	L	6.4"	1440 x 3040	522	February 2019	Android 9.0	Down
	Samsung Galaxy S10 E	L	5.8"	1080 x 2280	438	February 2019	Android 9.0	Down
	Samsung Galaxy Note 10+	L	6.8"	1440 x 3040	498	August 2019	Android 9	New
	Apple iPhone 11 Pro Max	L	6.5"	1242 x 2688	458	September 2019	iOS Latest	New
	Apple iPad 10.2	XL	10.2"	1620 x 2160	264	September 2019	iOS Latest	New
	Apple iPhone 11 Pro	L	5.8"	1125 x 2436	458	September 2019	iOS Latest	New

# MOBILE DEVICE INDEX: INDIA

	Device Model	Screen Family	Screen Size	Screen Resolution	PPI	Release Date	Recommended OS	Status
ESSENTIAL	Samsung Galaxy S10+	L	6.4"	1440 x 3040	522	February 2019	Android 9.0	Up
	Xiaomi Redmi Note 7 Pro	L	6.3"	1080 x 2340	409	March 2019	Android 10.0	Up
	Samsung Galaxy S10	L	6.1"	1440 x 3040	550	February 2019	Android 9.0	Up
	Samsung Galaxy M10	L	6.22"	750 x 1520	270	January 2019	Android 9.0	Up
	Vivo Z1 Pro	L	6.53"	1080 x 2340	395	July 2019	Android 9.0	New
	Xiaomi Redmi 6A	L	5.45"	720 x 1440	295	June 2018	Android 9.0	Up
	Honor View 20	L	6.4"	1080 x 2310	398	December 2018	Android 9.0	Up
	Huawei Mate P30 Pro	L	6.47"	1080 x 2340	398	March 2019	Android 9.0	New
	Xiaomi Redmi Note 5 Pro	L	5.99"	1080 x 2160	403	February 2018	Android 9.0	Down
	Apple iPhone XR	L	6.1"	828 x 1792	326	October 2018	iOS Latest	Up
ENHANCED	LG G7 Plus ThinQ	L	6.1"	1440 x 3120	564	May 2018	Android 9.0	New
	Apple iPhone 11 Pro Max	L	6.5"	1242 x 2688	458	September 2019	iOS Latest	New
	OnePlus 6T	L	6.41"	1080 x 2340	402	November 2018	Android 9.0	New
	Google Pixel 3 (REF)	N	5.5"	1080 x 2160	443	November 2018	Android 10.0	"="
	Asus Rog Phone 2	L	6.59"	1080 x 2340	391	September 2019	Android 9.0	New
	Xiaomi Mi A2 (Mi 6X)	L	5.99"	1080 x 2160	403	July 2018	Android 9.0	Up
	Xiaomi Redmi 7A	L	5.45"	720 x 1440	295	June 2019	Android 9.0	New
	Samsung Galaxy S9	L	5.8"	1440 x 2960	570	March 2018	Android 9.0	Up
	Google Pixel 3 XL (REF)	L	6.3"	1440 x 2960	523	October 2018	Android 10.0	Up
	Nokia 6.1 Plus (X6)	L	5.8"	1080 x 2280	432	August 2018	Android 9.0	Up
	Apple iPhone 7	N	4.7"	750 x 1334	326	September 2016	iOS Latest	Up
	Samsung Galaxy Note 10+	L	6.8"	1440 x 3040	498	August 2019	Android 9	New
	Samsung Galaxy Note 9	L	6.4"	1440 x 2960	516	August 2018	Android 9.0	Up
	OnePlus 7T	L	6.55"	1080 x 2400	402	October 2019	Android 10.0	New
	Samsung Galaxy S7 Edge	L	5.5"	1440 x 2560	534	February 2016	Android 7.0	Down
EXTENDED	Xiaomi Redmi 6 Pro	L	6.26"	1080 x 2280	403	October 2018	Android 9.0	New
	Apple iPhone 8 Plus	L	5.5"	1080 x 1920	401	September 2017	iOS Latest	Up
	Realme 3	L	6.22"	720 x 1520	270	March 2019	Android 9.0	Up
	Oppo F11 Pro	L	6.53"	1080 x 2340	397	March 2019	Android 9.0	Up
	Realme 5 Pro	L	6.3"	1080 x 2340	409	December 2018	Android 9.0	Up
	Apple iPhone 11	L	6.1"	828 x 1792	326	September 2019	iOS Latest	New
	OnePlus 7T Pro	L	6.67"	1440 x 3120	516	October 2019	Android 10.0	New

# MOBILE DEVICE INDEX: CHINA

	Device Model	Screen Family	Screen Size	Screen Resolution	PPI	Release Date	Recommended OS	Status	
ESSENTIAL	Vivo S1	L	6.38"	1080 x 2340	404	July 2019	Android 9.0	New	
	Oppo Reno 10x Zoom	L	6.6"	1080 x 2340	387	June 2019	Android 9.0	New	
	Honor View 20	L	6.4"	1080 x 2310	398	December 2018	Android 9.0	Up	
	Huawei Mate P30 Pro	L	6.47"	1080 x 2340	398	March 2019	Android 9.0	New	
	Vivo X27	L	6.39"	1080 x 2340	400	March 2019	Android 9.0	Up	
	Xiaomi Mi 8 Pro	L	6.21"	1080 x 2248	402	September 2018	Android 8.1	Up	
	Apple iPhone X	L	5.8"	1125 x 2436	458	November 2017	iOS Latest	Up	
	Xiaomi Pocophone F1	L	6.18"	1080 x 2246	403	August 2018	Android 9.0	New	
	Huawei P20 Pro	L	6.1"	1080 x 2240	408	May 2018	Android 8.1	Up	
	Meizu 15	L	5.46"	1080 x 1920	403	April 2018	Android 7.1.2	Up	
ENHANCED	OnePlus 7T	L	6.55"	1080 x 2400	402	October 2019	Android 10.0	New	
	Apple iPhone 7	N	4.7"	750 x 1334	326	September 2016	iOS Latest	Down	
	OnePlus 6T	L	6.41"	1080 x 2340	402	November 2018	Android 9.0	Up	
	Oppo R15 Pro	L	6.28"	1080 x 2280	401	April 2018	Android 8.1	Up	
	Realme X	L	6.53"	1080 x 2340	394	July 2019	Android 9.0	New	
	Meizu 16s	L	6.2"	1080 x 2232	400	April 2019	Android 9.0	New	
	Vivo Nex 3	L	6.89"	1080 x 2256	363	September 2019	Android 9.0	New	
	Meizu 16 Plus	L	6.5"	1080 x 2160	374	August 2018	Android 8.0	New	
	Apple iPhone XR	L	6.1"	828 x 1792	326	October 2018	iOS Latest	Up	
	Xiaomi Mi A2 Lite	L	5.84"	1080 x 2280	432	July 2018	Android 9.0	Up	
	Huawei Mate 10	L	5.9"	1440 x 2560	499	November 2017	Android 8.0	New	
	Samsung Galaxy S8	L	5.8"	1440 x 2960	570	April 2017	Android 8.0	Up	
	Xiaomi Mi 9 SE	L	5.97"	1080 x 2340	432	March 2019	Android 9.0	New	
	Xiaomi Redmi Note 7	L	6.3"	1080 x 2340	409	January 2019	Android 9.0	New	
	Samsung Galaxy S9	L	5.8"	1440 x 2960	570	March 2018	Android 9.0	Up	
	EXTENDED	Apple iPhone XR	L	6.1"	828 x 1792	326	October 2018	iOS Latest	Up
		Samsung Galaxy S10+	L	6.4"	1440 x 3040	522	February 2019	Android 9.0	Up
OnePlus 7T Pro		L	6.67"	1440 x 3120	516	October 2019	Android 10.0	New	
Xiaomi Redmi K20		L	6.39"	1080 x 2340	403	June 2019	Android 9.0	New	
ZTE Axon 10 Pro		L	6.47"	1080 x 2340	398	May 2019	Android 9.0	New	
Honor Magic 2		L	6.39"	1080 x 2340	403	November 2018	Android 9.0	Up	
Apple iPhone 11		L	6.1"	828 x 1792	326	September 2019	iOS Latest	New	





# MOBILE MARKET CALENDAR 19-20

## Devices

September	October	November	December	January '20	February '20	March '20
iPhone 11	Pixel 4	Moto G8 Play	Samsung Galaxy A91	Huawei P Smart	Samsung S11	LG G9 ThinQ
iPhone Pro	Pixel 4 XL	ZTE Blade 20			Samsung S11+	LG V60
iPhone 11 Pro Max	Xiaomi Redmi 8	Huawei Enjoy 10			Sony Xperia 2	Xiaomi Mi10
iPad 10.2"	OnePlus 7T				Huawei P40	Nokia 10
Vivo V17 Pro	OnePlus 7T Pro				Nokia 9.1	
Samsung Galaxy Fold						
Nokia 7.2						
Xiaomi Redmi Note 8 Pro						
Samsung Galaxy A70s						

## OS

September	October	November	December	January '20	February '20	March '20
iOS 13.1 Release	iOS 13.1.3					
Android 10.0	Mac OS Catalina					



# BROWSER CALENDAR 19-20

	September	October	November	December	January '20	February '20	March '20
Chrome	77	78		79	80	81	82
Firefox	69	70	71		72	73	74
Safari		13.0.2					



# 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](http://www.perfecto.io), join our [community](#), or follow us on Twitter at [@PerfectoMobile](#).

Want to learn about creating top notch digital experiences? Visit our blog and get more content just like this: [blog.perfecto.io](http://blog.perfecto.io)

## Related Resources

[How AI Will Change Test Automation in 2019 & Beyond](#)

[Test Automation Strategy for Beginners](#)

[Selecting the Best Open Source Automated Testing Tool for You](#)

[5 Key DevOps and Software Testing Predictions for 2019](#)

[Why DevOps Teams Need Cloud-Based Solutions](#)

[The Top 3 Roadblocks to Sustainable Continuous Testing](#)

## Let's Connect

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

Let's Talk

