Native, web or hybrid app?

Your website can be your mobile app. Understand the differences between hybrid, native, and web apps to make the right choice for your business.
Native, web or hybrid app – which is right for you?

Our perspectives from building 2000+ mobile apps over the last 11 years.

An app, broadly speaking, is a piece of software that allows a user to do “something”. That something could be ordering a new pair of sneakers, analyzing data, writing an article, listening to a song.

Anything.

This is very broad, so let's narrow things down. On mobile, there are three main types:

- **Web apps** which run in a browser
- **Native apps** that run on iOS and Android device
- **Hybrid apps** which are a blend of web and native technologies

Which is right for your business?

At MobiLoud, we specialize in converting websites, ecommerce stores and web apps into high end mobile apps.

So after building over 2000 apps over the past 5 years, we’ve got a few opinions on mobile app technology, the different options on the market, and the crucial considerations for businesses.

We've seen every use case, business requirement, and edge case out there. We've also seen years of results from our clients - from small startups to global multi billion dollar brands.

Read on and we’ll cover everything you need to know.

**Web vs Native vs Hybrid apps**
A web app runs on a web server and is accessed through a browser. They’re built with web technologies like HTML, CSS, JavaScript, and a massive ecosystem of frameworks and tools.

The line between a website and a web app can be somewhat blurred, but generally a web app has some deeper functionality beyond a static site.

Web apps provide interactive and dynamic user experiences, while websites present fixed content. These days, all sophisticated web tools and platforms are web apps. Most ecommerce stores, social media sites, business tools, even media sites can be classed as web apps today.

Take amazon.com for example.

It has a massive range of features and interactive functionality, far beyond content display.

Even small ecommerce stores these days have user authentication, product search and filtering, advanced cart features, payment processing - and even sophisticated product recommendation algorithms.

In short - they’re web apps!

At MobiLoud, we create native iOS and Androids apps from our clients' web apps. So we can attest to the amazing development of the web in recent years. In fact, if you have a web app, you can go and preview exactly what your native apps would look like right now.

Now in 2024, the range of possibilities is impressive.

Over the past decade the adoption of new web standards like HTML5 and CSS3, frameworks like React and Vue, and new paradigms like WebAssembly have empowered web developers to create better and better experiences.

Mobile browsers and design have improved rapidly, and ecommerce and other web based industries have exploded.

**Progressive Web Apps** have even given web apps some of the same features as mobile apps, but as we’ll see later - they’re not a substitute.

Web apps are typically easier, faster, and cheaper to build too - partially because hiring web developers is easier and less expensive.

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Are Web Apps Good Enough?

As we’ve seen, web apps are great, and you can build *almost* anything on the web these days. Web apps are simpler to build, easier to maintain and update, and are universally accessible across devices through the browser.

But, they’re not a substitute for mobile apps.

The key reason - the web is a fundamentally different channel to the App Stores.

Web and mobile apps are not equivalent substitutes, but are rather complementary and mutually supporting.

Not only is the experience very different, but they tap into different habits and audiences. There will always be a segment of customers who want and expect a mobile app.

Let’s take a deeper look at how they are different.

**Better Mobile UX**

With a web app they input the URL into their browser, log in (maybe), and interact with the app in the browser. It’s competing for their attention with dozens (hundreds) of other tabs, and the experience isn’t optimal.

Modern mobile browsers are good, but they fundamentally evolved from janky and borderline unusable browsers of the early mobile web days. They were a desktop thing that was “bolted” on to the new internet capable mobile devices.

Though much better on modern phones, the browser is not native to smartphones.

*Apps, however, are.*

That’s why the experience on them tends to be smoother, more engaging, and more sticky.

Users are also accustomed to heading to the App Store on iOS or the Google Play Store to look for apps that solve their specific problems. They’re then used to seeing the icon appearing on their home screen and tapping it to enter an immersive experience.

They’re highly visible, giving businesses a more permanent brand presence on the customer’s home screen, and easy to access with one tap.
Another key point in favor of mobile apps is **push notifications**.

They are one of the most direct and effective ways to reach customers - and one of the most common reasons why our clients want apps in the first place.

Once someone has your app installed on their home screen, you can connect with them directly through push. Web push notifications just **don’t compare**.

**Aren’t PWAs Like Native Apps?**

Progressive Web Apps (PWAs) were an important evolution of the web. They leverage modern web tech like service workers, a web app manifest, and responsive design to create an experience that is closer to a mobile app.

For example, PWAs can:

- Be “installed” on the device home screen (shortcut added)
- Send push notifications
- Have an “App like” navigation and UX
- Offer some offline functionality

PWAs are indeed great and you should consider building one. We wrote about them in depth here.

They aren’t a substitute for mobile apps though, more like a better type of modern web app. You won’t get the exact same functionality from them. For a start, it’s not common for a user to install them on the homescreen - which you need in order to send push notifications on iOS.

**Web Apps are For Desktop, Mobile Apps are for Smartphones**

Web apps are great for desktop, and good for some mobile use. But they just are not the same. Think about the massive mobile app hits over the past decade - Uber, TikTok, DoorDash, Twitter, Messenger.

Would any of these have become so big if you had to use them through a web browser? 

*Probably not,* right.

Using the Twitter or Facebook web app on Desktop is fine, just like using Google Drive or your email on a desktop browser. When you take out your phone though, you’ll almost definitely use the dedicated app!
So our advice: build great web apps as V1 of your product. It will be (relatively) easy to build and distribute, and will work great for building an initial user base and for desktop users.

The web apps can always form the core of your experience. A way to get organic traffic, and build the initial connection onboarding new users.

Then build mobile apps to deepen loyalty and engagement with your core customers. MobiLoud makes this very easy.

All you need to do is build for the web, then you can easily and efficiently translate that into iOS and Android apps through our service. We convert your web app (or site) into native iOS and Android apps in just days - keeping all the functionality you already built for the web.

More on that later. For now, just note that this has been a very successful approach for many large brands.

Facebook, Quora, Instagram, Trello, Basecamp, Uber, and Slack are just a few of the successful tech businesses that reused some or all of their web apps as native apps. Next let's move on to the original mobile app type - native.

Native Mobile Apps

Native apps are native to the iOS or Android operating systems. The “classic” way to build native apps is with the native languages of the platform - Swift or Objective-C for iOS apps, and Kotlin or Java for Android.

Native apps are often seen as the “gold standard” of mobile apps, because for many use cases they give you the widest range of possibilities and the highest level of performance.

Native apps are able to tap into all the features of the device itself, have offline functionality, and if they’re built well are fast, performant and have a great UX. So, sounds good, right?

Native development is indeed powerful, and can really give you the cutting edge in performance and capabilities.

To put it bluntly though, it's (probably) not worth it.
That’s because of the two major downsides - the classic **time and money**.

Native app developers are highly skilled and sought after, and building apps for iOS and Android is a complex project with a lot of moving parts. Asking how much it costs is a bit like the old “how long is a piece of string” - meaning *it depends.* 0

But we can offer a minimum baseline: **it costs several hundred thousand dollars and takes at least six months.**

Why is native development so expensive?

The key reason - it’s very technically skilled, involved, and laborious. There are relatively few skilled native app developers and they’re in high demand.

You need at least two of them as well, one for Android and one for iOS.

This is an **absolute** bare minimum. Realistically, for anything remotely sophisticated you'd also need UX designers, graphic designers, QA testers, and PMs. If you need to integrate the apps with any existing assets or databases you’ll also need specialist backend developers too.

You need to hire all these specialists or contract a top agency, and manage a long project with many moving parts.

Realistically, as a small to medium sized business without tens of millions lying around, you probably aren’t going to do all this.

Don’t worry though.

The good news is that this is **not necessary for you.**

All you need is a great web experience, and with MobiLoud you can *convert* that into a great native app experience without any of the usual pain and expense.

If your web app is already optimized for the mobile web, it is ready to be converted into native iOS and Android apps!

**Why you probably don’t need a native app**

Gone are the days when native was the only viable route to amazing mobile apps.

There are only two types of app that really need to be built this way:
1. Computationally demanding apps, where tiny performance optimizations are crucial, like graphics-intensive games or animations
2. Apps that need to interact with the device hardware in a novel, innovative, or especially deep manner
So unless you need to build cutting edge gaming apps, or apps that use special hardware features like the various sensors, high-precision geolocation, biometrics, or something of that manner - you do not need to build apps natively.

For most web-first businesses from common categories - ecommerce, educational, productivity, news, or finance - native will be overkill.

It will not necessarily give the user a better experience compared to more efficient development methods.

We’re going to now go one step up the efficiency ladder and look at another type of native app.

Cross-platform development – a simpler way to build native apps

When native apps first became a “thing”, true native development was the only real route. This has changed in recent years though.

In recent years, cross-platform app development has become very popular. There’s one key reason why.

Remember when we said that you needed at least two developers for native development?

Well, that’s because you need two completely different codebases. That’s two different codebases for different specialists to write, test, and maintain over time. A real challenge and expense.

Cross platform development solves this by allowing teams to build apps for iOS and Android with one framework like React Native, Flutter, or Kotlin.

How does cross platform app development work?

Cross platform frameworks lets you write code once, then deploy it on both platforms.
These frameworks all work differently on a low level, but on a high level they act as a sort of “universal translator” that adapts a single codebase into a form that the different operating systems understand.

You start off by writing the codebase of the app in a single, high-level language that the cross-platform framework understands - like JavaScript for React Native or Dart for Flutter.

The framework then takes this code and works a little magic.

With some like Flutter the code is compiled into native iOS and Android code. It can then run easily on the device. With others, like React Native, the code is bridged to native code in a process more like real time, on-the-fly translation.

This is somewhat similar to the compiled vs interpreted distinction in traditional programming languages.

Though each cross-platform framework has its strengths and tradeoffs, functionally, both achieve the same result - allowing you to run apps on (very) different platforms from one codebase.

Is cross-platform the answer?

Cross platform development works very well. It is used by loads of large tech companies, for example:

- The Shopify, Pinterest, Discord, and Coinbase apps are built with React Native
- The BMW, Google Pay, and AliBaba apps are built with Flutter
- The Memrise, McDonalds, Forbes, and Meetup apps use Kotlin Multiplatform

The core advantage is that you can work from a single codebase, sharing and reusing logic across multiple platforms.

This means that you can build the apps, fix bugs, and release new features and updates more efficiently.

Overall, this can reduce development time and costs. Compared to classical native development, you can expect to save 30-50% of development time and effort.

Although the frameworks do simplify things compared to classical native development, and can get you to market faster within a (slightly) more reasonable budget - there are downsides.

The first tradeoff is performance.
While cross-platform frameworks have come on *tremendously*, they can still lag behind true native apps in performance terms – especially for apps relying on intensive graphics or deep device integration. It can *sometimes* be harder to achieve a “native look and feel”, although this gets better all the time.

Overall, cross-platform can be a great option for those with the resources. But it’s still a *massive* project to develop them, that is only a *bit* easier than native from the perspective of a small-to-medium sized business.

You still need to contract or hire *highly* skilled and specialized developers, and it will still be a serious project to manage.

Though you’ve made things easier, you’ll still need to spend $100k+ and *months of effort* to get the apps released.

For most businesses, this means the apps will struggle to pay for themselves, and the risk is huge.

As we’ve said earlier also, you probably do not need them.

A lot of our clients are ecommerce brands, elearning startups, or media companies. If that’s you too, you do not need the capabilities of a native or cross-platform app for these use cases.

It is simply overkill, will be a nightmare to develop and connect with your existing stack, and will never get you the ideal result anyway for several reasons we’ll cover shortly.

That’s why we’re going to move up the efficiency scale, reducing the risk for you and introducing the next app development method – **Hybrid**.

**Hybrid apps**

A hybrid app is a *hybrid* of native and web.

They’re *built using web technologies* like HTML, CSS and Javascript. They then use the device’s *browser engine* to render and execute the web code locally, displaying it to the user in a native container called a *webview*.
Even though hybrid apps are built with web languages, they can interface well with the device features thanks to platforms like Ionic and Cordova that play a crucial role.

**Cordova** provides the webview infrastructure, and a set of APIs for accessing device-native features like the camera, GPS, and file system through plugins. Ionic is built on top of Cordova, and adds a layer of UI tools for developing quality user interfaces.

There are significant advantages to building hybrid apps compared to native. For a start, they’re much easier to build and maintain.

Because the web-based codebase is wrapped in native containers like Cordova or Capacitor for both iOS and Android, the same code can run on each platform. This allows code reuse and simplifies maintenance, like the cross-platform native apps we covered earlier.

It’s also easier to find developers who can do the work. There are far more developers skilled in web development compared to the rarer and more specialized native devs.

Your existing team might even be up to the challenge, especially when it comes to maintenance. Hybrid apps are also downloaded from the App Store or Google Play, and from a user’s perspective can function exactly like a high end native app (if they’re built well).

Typically, hybrid apps will cost less than half the price, and take half the time to build, compared to native. **3 months and $30,000** is a good ballpark to start off with, but it could be significantly more.

**The downsides of hybrid**

So hybrid apps are faster and cheaper to build - and easier to maintain without specialist skills.

They still take a lot of work and expertise though, especially if you want them to work well and actually please your users with a great UX.

Other potential downsides are performance and features.

While hybrid apps can be fast and performant, well built native apps have the edge here. So for a trading app or something that relies on cutting edge performance - you probably want to go native.
Hybrid apps can also interface with the device's features, but not always as perfectly as native. So if your app relies heavily on the accelerometer, compass, or similar features (like a fitness app), then hybrid may not be completely optimal. Now let's look at MobiLoud apps - a special type of hybrid app.

“Wrapper” apps and MobiLoud

A standard hybrid app is just a normal “app” built with web rather than native technology. It doesn’t mean you can easily recreate an existing web app in iOS and Android form. For that MobiLoud “wrapper” apps are the best.

We built MobiLoud over 7 years ago as the most effective way for businesses to convert their websites and web apps into native apps.

MobiLoud is extremely affordable and fast compared to native development. It’s much less fiddly and more efficient than trying to build hybrid apps yourself.

How does MobiLoud work?

MobiLoud apps are a special type of hybrid app that uses webviews to “wrap” your existing website, online store, or web app. On top, we layer on the native elements and components needed to give the apps a rich functionality and great user experience including unlimited push notifications.

Why MobiLoud?

The key advantage for you, apart from saving huge amounts of money and time relative to other options - is that you can reuse everything from your existing web app or site.

It would be ridiculously hard to recreate the functionality you built for the web in app form, whether you used native code, cross-platform frameworks, or hybrid methods. In many cases, it would be so impractical for a normal business as to be functionally impossible. Thankfully, it's completely unnecessary too.
MobiLoud gives you the ultimate code reuse, reusing everything you already built for the web. Every part of your tech stack, every plugin and custom feature, everything will work in your MobiLoud iOS and Android apps straight out of the box.

There’s no rebuilding, and no compromising on features. Who is MobiLoud for?
Of course, MobiLoud is not appropriate if you want to build a cutting edge gaming app from scratch or if you don’t already have a web based business. It’s perfect for a few use cases - especially businesses that already have an ecommerce store, a web app, or a content brand on the web. If that’s you - you can simply use MobiLoud to convert what you’ve already built into high end apps for iOS and Android.

The apps are built by our team, with many years of experience and thousands of successful apps under their belt, on our own platform. The apps will be easy for you to incorporate into your existing workflows, and you’ll add very little work for yourself or your team members - and definitely won’t need to hire anyone.

That’s because of two main reasons:

1. The apps sync completely with your website or web app, and update automatically with any changes on the web. For example if you have an ecommerce store, the apps will sync your entire product catalog and update with any new products you add.
2. Our team handle all necessary updates and maintenance, forever, as part of our full service

The apps practically run themselves.
This makes it low risk, and dramatically more likely that you’ll see ROI compared to other routes.

If MobiLoud is right for you, you’ll get apps just as good as $100k+ native ones for a fraction of the cost, ready to launch in just weeks.

The model is proven and has worked amazingly for our 2000+ customers, like David Cost, VP of Ecommerce and Marketing at multinational retailer Rainbow Shops.

They’d tried different hybrid and wrapper approaches before finding MobiLoud and realizing that:

“The expense isn’t that big, and operationally, there’s not that much we have to do for the app. It’s a no-brainer, especially when you add push notifications on top.”
Or Svend Hansen, Product Owner at Bestseller who echoed:

"Through history we’ve tried doing what MobiLoud does. But we wanted a solution that could enable push notifications, and MobiLoud has a way of doing that with Onesignal. We couldn’t find another company that could offer the same features at the same price point, same time to market, and make it as easy as MobiLoud could."

You get more of a feel of what our customers think by checking out our reviews, case studies, and app examples.

**Good luck with your apps**

By now, you should have a good idea of which is the best route for you.

We’ve seen that native development, while the “gold standard” of mobile apps, is prohibitively expensive, impractical, and likely unnecessary.

While hybrid apps make things a bit easier, they have the same flaws on a smaller scale.

With MobiLoud - so long as you already have a web presence - **you get all the benefits of native apps while dramatically reducing the financial investment, management overhead, and risk.**

We handle everything for you from the initial app design, to publishing on the App Store and Google Play, all the way to ongoing updates and maintenance. The process starts with a no-pressure chat with one of our app experts. They’ll explain everything in depth, and answer all your questions.

Let’s get you on the App Store and Google Play - the smart way.

**Book a call today.**