

# Build vs. Buy

## THE CLASSIC DILEMMA

The decision to build custom software or buy off-the-shelf solutions is one of the most debated topics in the software industry. It's a choice that can shape the trajectory of a business's operations, scalability, and competitive edge.

# Build vs. Buy - The Classic Dilemma

The decision to build custom software or buy off-the-shelf solutions is one of the most debated topics in the software industry. It's a choice that can shape the trajectory of a business's operations, scalability, and competitive edge. Both options have distinct advantages and drawbacks, and understanding these can help organizations make informed decisions based on their unique needs.

When businesses opt to build custom software, they gain the ability to tailor the solution to their specific requirements. This approach ensures that the software aligns perfectly with unique business processes, offering a competitive edge by addressing gaps that generic solutions cannot fill. Moreover, building software provides full control over its development roadmap, enabling organizations to add features as needed and maintain control over updates and integrations.

## Build

---

However, building software comes with significant challenges. The upfront costs are high, requiring substantial investment in money, time, and resources. The development process can be lengthy, delaying implementation and the realization of benefits. There is also a risk of failure if the project is poorly managed, leading to wasted resources. But perhaps most importantly, it demands skilled developers and IT staff who understand the technology required in relation to



the business's needs — finding or training such talent can be difficult and expensive.

Lastly, once deployed, custom software requires ongoing maintenance, including updates and bug fixes, which can divert focus from core business activities.

## Buy

---

On the other hand, buying off-the-shelf software offers a quick and cost-effective solution for organizations seeking immediate deployment. Ready-made solutions such as Nok Nok require less implementation time and have a lower initial investment, making them more affordable and easier to budget. These options often boast proven reliability, sometimes with certifications, and are supported by successful implementations and vendor services, including regular updates and customer support. Subscription license models further enhance budgeting plans by providing predictable costs over time.

Yet, buying software can have its limitations. Solutions may not fully meet an organization's specific needs, often requiring customizations or add-ons to bridge gaps. Additionally, pre-built software can sometimes include unnecessary features that add limited value but still contribute to overall expenses.

## Blending the Approach

---

In some cases, a hybrid approach — combining off-the-shelf systems with custom-built components — can strike a balance between cost-effectiveness and tailored functionality. By carefully evaluating priorities and resources, organizations can make strategic decisions that align technology investments with their overarching goals.

Consider this analogy: when building a house, there are many elements to consider, and many can and should be customized to meet the owner's needs. However, the framing, wiring, and plumbing (the inner workings) are always built substantially the same, regardless of what the final build looks like.

Similarly, that's what Nok Nok offers. Organizations can build whatever they need, enhance and maintain their brand / competitive edge, but the final authentication solution will always need to be able to prove "who's there". It's how every transaction should start. It's not easy to do right, and really easy to do wrong. Bad actors are always trying to get in, so it's important to evolve and anticipate vulnerabilities. It takes significant expertise to manage the complexities of a secure solution while maintaining a positive end-user experience. And that is what Nok Nok delivers.

# Partner with Nok Nok

---

Our experience here at Nok Nok has clearly shown us that blending custom-built software with our platform — using our SDKs and APIs for secure authentication — offers a strategic middle ground that balances innovation with efficiency. By focusing on the core product while outsourcing complex components, such as passkeys, organizations can create a solution that's both tailored to their needs and accelerates time to market by leveraging Nok Nok's proven solution.



For example, we have many customers who have built a customer-facing app from scratch. This allows our customers to design unique features that set them apart. Then they integrate authentication via our SDKs, saving months of development time and significantly reducing security risks. This hybrid approach allows their development team to focus on what matters most — their app's value proposition — while relying on Nok Nok solutions to deliver critical functions such as authentication.

Cost efficiency is another key benefit. Developing FIDO-based authentication in-house is time-consuming and requires ongoing maintenance, whereas leveraging Nok Nok's SDKs minimizes upfront investment and ensures compliance with evolving industry and security standards. Organizations can avoid reinventing the wheel and free up resources to refine their app's core functionality.

Security and user experience also improve with this model. Nok Nok specializes in authentication, with a focus on FIDO-based encryption, threat detection, and compliance. As a result, our expertise is something organizations can't internally replicate. By integrating our SDKs and APIs, organizations gain enterprise-grade security without the overhead, while maintaining control over the user journey's look and feel. This creates a seamless experience where authentication feels native to an app, even though it's powered by a trusted third-party provider.

Nok Nok modernizes authentication security by enabling development teams to replace outdated methods through a modern approach, such as FIDO passkeys, which leverage industry-approved and proven cryptographic technology. Plus, the platform not only enables regulatory compliance but also reduces security costs by eliminating password management.

Built with rigorous quality standards, Nok Nok delivers reliability and performance, as demonstrated by achieving FedRAMP High and DoD IL5 assessments (with partner Uberether), and is currently pending SOC 2 Type II certification. Additionally, the Nok Nok platform is certified to meet all FIDO standards, offering organizations a robust and scalable solution for secure, passwordless authentication. These certifications and capabilities come from years of experience, development, and commitment that would not be feasible when building a homegrown product.

The result is that blending “build” and “buy” strategies fosters agility. Organizations can launch their solutions faster, reduce technical debt, and stay adaptable—building differentiation where it counts and incorporating efficiencies where it doesn’t. This blended approach balances innovation with pragmatism, ensuring technology serves the business rather than the other way around.





## Trusted Authentication Platform

---

As organizations seek to improve security and user experience, passkey technology offers a modern alternative to traditional passwords. This section explores how Nok Nok's innovative approach to passkey implementation enables organizations to deploy secure, passwordless authentication with ease. Discover how advanced features, seamless integration, and adaptive policies can help your organization achieve robust, scalable, and user-friendly authentication.

### Paskey implementation

---

- Nok Nok's innovative approach to supporting passkeys simplifies the deployment of secure, passwordless authentication while enhancing user experience. With full support for all the FIDO protocols, Nok Nok allows businesses to integrate advanced authentication capabilities into their apps without the need to build complex systems from scratch. By leveraging Nok Nok's SDKs and APIs, organizations can reduce development costs and accelerate time-to-market while enabling compliance with privacy regulations.
- Nok Nok's adaptive orchestration engine dynamically adjusts authentication flows based on contextual data, further streamlining the user experience. With an adaptive internet-scalable solution, organizations can efficiently deploy FIDO authentication across platforms, ensuring robust security and a frictionless experience for millions of users.



## Navigating Key and Device Complexities

---

- Nok Nok's platform seamlessly integrates device-bound and synced passkeys, offering businesses enhanced security and flexibility. Device-bound keys provide robust protection by staying locked to a single device, reducing risks such as phishing and cloud-based attacks. Meanwhile, synced passkeys ensure convenience by enabling authentication across multiple devices.
- With expertise in managing the complexity of device-bound and synced passkeys, the Nok Nok platform exceeds regulatory compliance and reduces password management and account recovery costs, helping organizations modernize their authentication processes securely. The result means Nok Nok enhances business security, day-to-day management, and user convenience, leading to reduced fraud, lower operational costs, and improved user experience across multiple devices and platforms.
- The Nok Nok approach addresses critical limitations in cross-device authentication, such as the inability of default passkey providers to sync credentials across platforms such as Windows, Android, and iOS. By implementing out-of-band authentication, Nok Nok enables seamless credential creation across devices — for example, allowing users to sign up on a PC and create passkeys on their mobile devices for native app access. The result is ideal for organizations with mobile-first strategies or complex multi-device ecosystems, thus accelerating authentication modernization.

## Future Proof Approach

---

- Nok Nok's Intelligent Credential Detection enhances authentication by proactively setting user expectations and tailoring the experience in real-time. By providing insights into user credentials and compatible devices, it empowers relying parties to deliver seamless and adaptive authentication journeys. The platform enhances traditional orchestration engines through dynamic capabilities based on granular authentication characteristics, providing an added layer of intelligence to existing systems that optimize security and user convenience simultaneously.



- Nok Nok's Granular Adaptive Policies eliminate the need for hard-coded algorithms, offering unparalleled flexibility to customize the authentication experience based on each user's unique device environment. This dynamic approach modernizes authentication through a seamless, secure, and tailored user journey, adapting effortlessly to diverse user contexts and business requirements.
- Nok Nok's Intelligent Passwordless Authentication delivers flexible, configurable capabilities to enhance security and user experience. By assessing key security characteristics—such as key protection, key binding, user verification status, passkey provider, and FIPS certification—the platform adapts authentication journeys in real-time. These checks enable flexible responses, including granting access, triggering step-up authentication, or denying access, ensuring a seamless and secure process tailored to individual risk profiles.
- Nok Nok's APIs and SDKs simplify the integration of passwordless authentication into web and mobile applications, enabling developers to leverage FIDO-certified authenticators across diverse devices, including IoT devices. These tools abstract complexity across platforms and devices, reduce development time, streamline implementation, and enhance security without the overhead of developing and maintaining the capabilities in-house.
- Nok Nok Quick Authentication revolutionizes the passkey process by reducing network calls, significantly accelerating authentication speed. This patented innovation delivers near-zero authentication latency, improving user experience and reducing server load.



## Streamlined Deployment

---

- Nok Nok's highly optimized Authentication Server ensures seamless, low latency customer authentication, treating authentication as a mission-critical service. Built on over a decade of insights from large-scale deployments with leading global brands, the platform supports containerized environments like AWS, Azure, and GCP, maximizing scalability and reliability for all sizes of enterprises, with zero downtime.
- Nok Nok's adaptive authentication rules engine makes it easy to set up and modify authentication rules for registration and authentication use cases without having to make code changes to apps or services. Organizations can configure authentication policies that adapt to contextual data, such as existing credentials, geolocation, device health, networks, and authenticator characteristics, to ensure that the user authenticating is who they claim to be, based on what is known about them.

## Conclusion

---

Ultimately, the choice between building and buying hinges on several factors: the complexity of business needs, budget constraints, time sensitivity, availability of IT resources, and long-term scalability goals. For businesses with custom requirements and internal processes or those seeking competitive differentiation through technology, blending the two approaches may be the right choice. The hybrid approach — combining off-the-shelf systems with custom-built components — strikes a balance between cost-effectiveness and tailored functionality. By carefully evaluating priorities and resources, organizations can make strategic decisions that align technology investments with their overarching goals.



Developing a comprehensive and modern FIDO-based authentication solution across platforms can be resource-intensive and complex. Most organizations don't recognize the complexity and effort required until they are far into the process. Nok Nok simplifies the development process with a proven solution that offers an abstraction layer, scalable authentication server infrastructure, and FIDO client integration. This approach reduces development costs and simplifies budgeting, ensures compliance with evolving standards, and provides seamless support for diverse use cases. The result enables organizations to deliver secure, modern authentication without the significant challenges of building from scratch.



#### **ABOUT NOK NOK**

Nok Nok lets you create safer, faster user experiences with key-based passwordless authentication based on FIDO and other standards that enable compliance with global user and data privacy regulations. Nok Nok is a leader in passwordless customer authentication and is trusted by the biggest banks, telcos and fintechs including BBVA, Intuit, Motorola Solutions Inc., NTT DOCOMO, Standard Bank, T-Mobile, and Verizon. For more information, visit [www.noknok.com](http://www.noknok.com).