Nearshore Product Development Done Right:



Best Practices to Build Better Products Faster

November 2022 GUIDE



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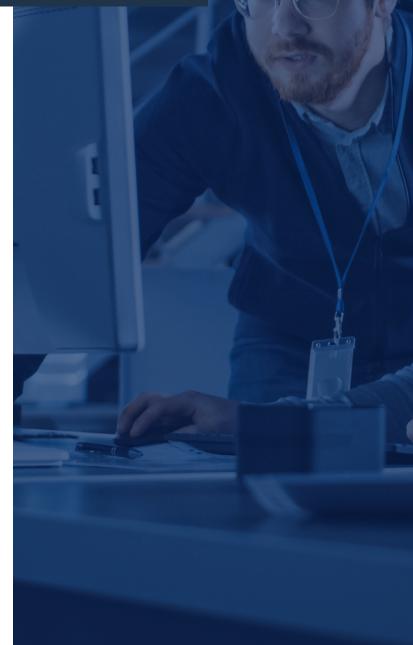
Introduction

The success of modern product development is reliant on mixing the right technologies, people, and processes. The demand for digital products is only expected to increase as the technology industry and consumer needs evolve. According to <u>Statista</u>, as of Q2 2022, there were 3.5 million digital products on the Google Play store and 2.2 million on the Apple App store. How can businesses innovate quickly and compete in this fast-moving, highly-saturated market?

Manpower Group's 2022 report shows that 75% of companies have reported talent shortages and difficulty hiring, the highest rate in 16 years. According to the report, IT and Data are the most sought-after roles by employers globally. As the talent shortage crisis continues to grow and economic pressures mount, businesses need to make crucial decisions regarding their operational and strategic agility to stay competitive. This talent scarcity and recent economic uncertainty have led many companies, especially large enterprises, to explore tech talent abroad to ensure efficient delivery of the product roadmap while maximizing IT budgets and increasing flexibility.

To thrive in this highly-competitive market and reduce risks associated with investing in product development, scaling startups and well-established global enterprises alike need technology partners that can architect technical solutions, execute on product roadmaps, and scale their engineering operations. This means implementing the right mix of technologies to develop applications quickly, securely, and at scale while driving insights from data to optimize products for the future.

This guide examines the current product development landscape and dives into the best practices leading product development companies like Wizeline use to build consistently innovative products that offer a seamless customer experience. In addition, we explore the nearshore opportunity and demonstrate some benefits organizations can tap into by working with a nearshore partner to optimize resources.



Product Development Landscape Overview

Product development refers to the complete process of taking a new or updated product to market. This includes identifying market needs, researching the competitive landscape, conceptualizing a solution, building the product roadmap, building a minimum viable product, launching the product, and collecting feedback.

Product Development by the Numbers

The global product design and development services market size was estimated at USD 8.6 billion in 2021 and is expected to reach USD 9.4 billion in 2022. (<u>Grandview Research</u>)

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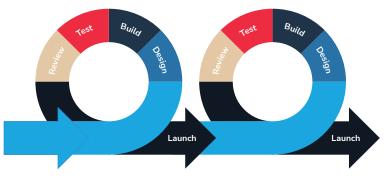
30,000 products are released into the market each year. (<u>Havard</u> Business School)

Agile Product Development vs. Waterfall Product Development

In agile product development, teams take an iterative approach to project management, breaking down projects into smaller, more manageable tasks to enable continuous feedback and rapid improvement.

Compared to traditional project management approaches like waterfall, agile prioritizes speed, flexibility, cross-team collaboration, and frequent feedback. Teams continuously evaluate requirements, progress, and results, so they can respond to change quickly.

The 5-Step Agile Product Development Process







Product Development Best Practices

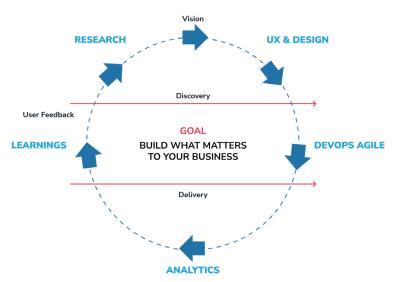
The world of product development has evolved in recent times. As technology matures, delivery cycles have shortened significantly over the past two decades, enabling businesses to launch products to market faster and more frequently. To stay competitive, companies need to adopt certain product development practices. Come with us as we explore the best practices enabling organizations to deliver better products to customers faster and stay competitive.

Agile Development

Without agile, there would be no modern application development. Seriously — it's that important. <u>85.9% of 101,592</u> <u>surveyed developers</u> use agile processes in some form, and 98% of companies surveyed also found agile adoption helpful. In today's world, everything is ever-changing, from customer expectations to the technologies that integrate to unlock the next great product. With <u>agile development practices</u>, teams, processes, and products become better because of the iterative approach, emphasis on collaboration, and commitment to continuous improvement.

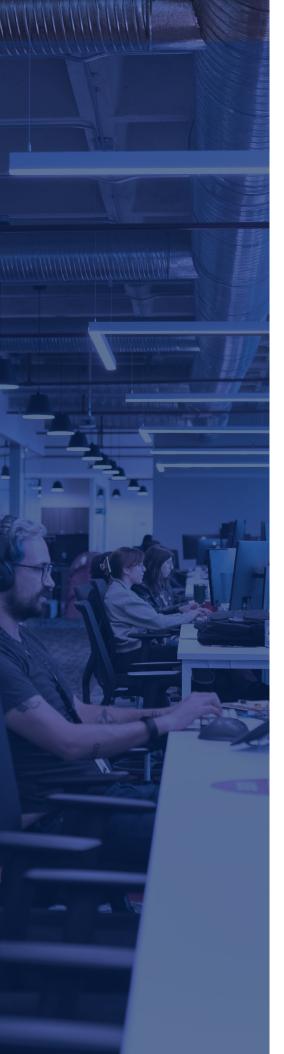
But agile isn't just a developer's helpful tool – it's making companies more money. A recent study found that <u>60% of</u> <u>companies</u> experienced profit growth after adopting agile.

Businesses looking to innovate quickly should seek service vendors that act as agile advisors. At Wizeline, we influence the maturity of clients' agile practices by acting as advocates and assisting in adopting the methodology. All our projects adhere to agile methods, utilizing scrum as the base in the vast majority. We use industry standards to measure the success and maturity of our agile adoption in areas such as on-time delivery (via burndown charts), product quality (via testing trends), sprint velocity, and estimation accuracy.



Continuous improvement and implementation of agile ceremonies (planning, standups, grooming, demos/retrospectives) increase time-to-value for our clients. Through agile, we create an environment of trust and collaboration with open and direct feedback that directly translates to product transformation and maturity.



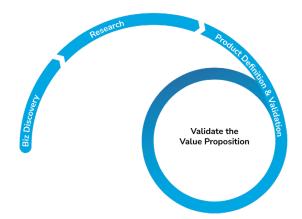


Foundations

While having the right team of engineers, designers, architects, and testers is undoubtedly critical to development success, it almost doesn't matter if you're not building the right product. That's why staying true to a proven, research-driven product development process is so important.



At Wizeline, the product development life cycle starts with <u>Foundations</u> — our proprietary design thinking framework. In strong collaboration with our clients, we take a holistic approach to research, organizing, analyzing, and identifying critical areas of opportunity to better define, prioritize and activate strategic and tactical plans. This allows us to design, build, test, iterate and deploy products and services using DevOps best practices with a strong focus on continuously measuring critical customer experience and business success factors.



Some of the key activities for this phase of product development — Foundations — include:

- Alignment on business goals and value proposition
- Planning and facilitation of user research methods
- Tactical insights for product improvement through data analysis, ideation, and definition
- Concept validation and product strategy
- Technical design and feasibility assessment



DevOps, SRE & Automation

Only speed and quality can get businesses ahead of competitors in today's competitive world. The faster your product enters the market, the better it is for your company's growth. This is why organizations worldwide always look for ways to accelerate their product development lifecycle. However, achieving speed without sacrificing quality is often a challenge that most companies face. This is where DevOps comes into the picture. Wikipedia defines DevOps as a group of practices that combines software development (Dev) and IT operations (Ops) to shorten the product development life cycle while delivering updates, features, and fixes in alignment with business goals continuously.

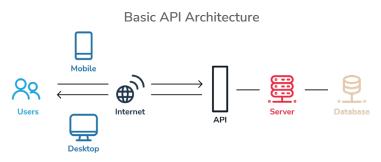
More simply, DevOps is about monitoring all phases of the product development lifecycle, from conceptualization to design, development, integration, deployment, testing, and release, to achieve faster product delivery.

Wizeline follows DevOps methodologies as part of the day-today software development process, enabling our engineers to deliver quality updates at high frequency. At Wizeline, we have defined strategies for DevOps practices: security (DevSecOps), Infrastructure as Code, continuous integration and delivery (CI/ CD), source code and version control, container and serverless services, monitoring and logging, Platform as a Service (PaaS), organizational change, and continuous testing. The practices are taught to all engineers when joining Wizeline, and embedded Site Reliability Engineer (SRE) team members act as mentors. The primary measure of effectiveness is deploying working software into a production or production-like environment for customer acceptance. By leveraging the public cloud providers, and modern tools like Infrastructure as Code (Terraform), orchestrators (Kubernetes), and SaaS solutions for CI, security, and monitoring, the team can be set up for success in the first day or week of starting a new project.

Our DevOps Transformation methodology uses value stream mapping to define key metrics that will help the team improve software development performance. After the definition of those metrics and the mechanisms to track them, most teams build their dashboards using open-source components or business analysis tools and publish their dashboards to other areas in the company. Some tools our team uses for value stream mapping are Mural, Lucidchart, and Whimsical.

Architecture, APIs & Microservices

Product architecture represents the relationship between a product's functions and elements, which is essential because these are crucial components of product development. This means it's important to identify the team activities and roles that building the product architecture will demand early in the product development process. Well-defined product architecture is a practical step in ensuring that operations go according to plan, ultimately saving time and ensuring the sustainability of a product.



Wizeline regularly contributes to the design of infrastructure and software design architectures on both green-field and modernization projects. We believe that a feature does not provide value until it is in production, and embrace this in our daily activities. We take client cloud and technology preferences, team compositions, and business needs (requirements, constraints, timelines) into consideration when providing recommendations on serverless and microservices solutions. In addition to creating performant systems, we also implement distributed tracing so that our applications are maintainable and debuggable and allow for proactive measures through collected metrics and alarms.

We also provide expertise in designing RESTful APIs in accordance with the Richardson Maturity Model and GraphQL and gRPC. We create thoughtful solutions allowing <u>product</u> <u>evolution</u> and reusability while maintaining backward compatibility.



Continuous Testing

Continuous testing (CT) in DevOps is a type of software testing that involves testing at every stage of the development life cycle. Continuous testing aims to evaluate the software's quality across the life cycle, providing critical feedback earlier and enabling higher-quality and faster deliveries.

The continuous testing market is estimated to reach <u>USD 2.41</u> <u>billion by 2023</u> from USD 1.15 billion in 2018. This represents a yearly growth of around 16%, demonstrating the growing need for the timely delivery of high-quality software.

At Wizeline, <u>our approach</u> to quality is the prevention of failures by implementing <u>Shift Left</u> as a core strategy. We use CT as part of the continuous improvement/continuous delivery (CI/CD) process, implement test-driven development (TDD), and have the entire team responsible for quality. We are a tool-agnostic practice, allowing us to utilize the right tool for the need, from open source to proprietary solutions. Our <u>quality assurance engineers</u> are highly skilled, with a vast majority <u>ISTQB Certified</u>, active in communities, and having strong <u>stakeholder communication</u> skills. Our engineers become evangelists and advisers of Shift Left by propagating best practices.



Al & Data

The global AI market is growing rapidly. By 2024, the AI market is expected to be worth half a trillion USD. Today, artificial intelligence and big data analytics have already rooted themselves in all kinds of business processes. Companies using AI for product development processes have reported higher returns on investments, better efficiency in their processes, and more effective utilization of resources.

For startups and enterprises racing to get new products launched, AI and machine learning (ML) are making solid contributions to accelerating new product development. Here are some examples of ways you can leverage <u>AI & data technologies</u> in product development to achieve maximum results:

- Text mining can be applied to autocomplete code blocks and enforce coding standards.
- In quality assurance, AI is used to increase coverage, detect duplicate tests, and see complex combinations of scenarios.
- Leveraging machine learning and data mining, businesses can use predictive analysis to understand likely future outcomes.
- Using robotic process automation, it is possible to improve DevOps by defining leaner processes and automating a subset of them.

• Front-end developers and UX designers can benefit from AI tools to segment customers, define proto personas and simulate customer journeys to optimize customer experience

• Al-powered project management tools help track projects from end to end, track progress, and automatically remind team members



Cloud Native

Companies must change how they design, build, and use applications to succeed in fast-paced, software-driven markets. <u>Cloud-native</u> application development is a modern approach to building and running software applications that exploits the flexibility, scalability, and resilience of cloud computing. Cloudnative app development typically includes marrying several technologies like microservices, cloud platforms, containers, and Kubernetes with DevOps and agile methodology to develop better products faster.

At Wizeline, our <u>Digital Core practice</u> is centered around cloudnative solutions. We help our customers transform and mature their software development capabilities to design and build next-generation cloud-native apps and platforms. DevOps transformation, cloud migration, application modernization & replatforming, <u>developer portals</u>, and test automation are the top services within our Digital Core practice.

Outside this practice, most of our services are cloud-native. All our teams collaborate with modern application development teams, ensuring your business goals are met faster.

Collaborative Work Management

An effective collaborative environment opens the doors to creating a product that offers real value quickly and efficiently and helps maintain a strong team. Essentially, this practice can significantly enhance the group and enable them to create highly successful products.

It's essential to collaborate with partners who already have a working knowledge of the leading collaboration tools, including Jira, GitHub, Slack, Figma, Invision, Mural, Miro, Google Drive, Confluence, and Zoom. Most of these tools are already used by businesses worldwide, making for a shorter or non-existent learning curve and improved collaboration.

At Wizeline, we also support customer-preferred communications tools to accommodate their teams. For our teams, moving from project to project is streamlined, and onboarding new customers is more straightforward since most tools remain the same and processes are readily embraced via knowledge transfer sessions.





Metrics Tied to Business Results

Despite tech's ubiquity in our lives, most companies today didn't start as technology companies. As such, leading enterprises across all industries have partnered with technology services firms to build the right solutions to power their businesses and improve customer experience.

To this end, we are dedicated to delivering technology that drives business value, whether it's increased revenue, improved efficiency, enhanced customer satisfaction, or something else that's important to you. In fact, according to <u>The Forrester WaveTM</u>: <u>Modern Application Development (MAD) Services, Q3 2022</u> report, "The true success of MAD services comes from business value delivered and client teams' ability to maintain and improve the solution on their own, long after providers' guidance ends."

Here's how we measure the success of the product development services delivered by Wizeline:

- Recording continuous reduction in events, bugs, and issues created after the deployment to production. This is achieved with a good release or change management process and DevOps best practices.
- Enabling data collection in the application through dashboards and other tools to measure business value. This helps to understand the business response once the application is deployed compared to how it was before the deployment.

• Analyzing customer experience by establishing continuous feedback loops through meetings, emails, survey forms, etc. We also share a formal customer satisfaction survey with clients regularly.

• Establishing a modern application development dashboard, which varies for each client depending on their business priorities but generally focuses on DevOps metrics to help improve both efficiency and user experience.

Leveraging Tech Partnerships & Readymade Solutions

Multi-disciplinary teams — not individuals — are required to build competitive digital products. It's essential to take a similar team-based approach to partnerships.

At Wizeline, we rely on our extensive partner ecosystem to keep our technology teams up to speed on the latest trends and deliver cutting-edge technology solutions for our clients. Our strong partnerships with over ten technology providers such as AWS, Google Cloud, Microsoft Azure, Sitecore, and others expose our customers to an exhaustive list of benefits, including:

- Improved customer experience: A more integrated, seamless experience, plus quick and effective issue resolution.
- Faster implementation time: Lessening the burden on IT teams and enabling our organization to deliver new solutions faster.
- Improved accuracy and efficiency: Real-time integrations between customers' platforms and our proven solutions, improving time-to-market and estimation accuracy.
- Reliable, proven solutions: Customers receive an optimized solution for their organization. We work with partners to ensure delivery of the best possible customer experience & security.



Bringing Great Products to Life with the Right Nearshore Partner

Utilizing product development best practices means nothing if you don't have the right team to build the products. Companies of all sizes across many industries have come face to face with problems surrounding the talent shortage crisis. According to a Korn Ferry study called Global Talent Crunch, the current talent shortage could create <u>85 million unfilled</u> jobs and close to \$8.5 trillion in unrealized revenues if unaddressed by 2030. Working with a nearshore partner can mitigate these challenges.

When it comes to hiring the right team and expanding your company, proximity matters. Nearshore collaboration allows companies to focus on their core business needs while simultaneously saving time and money. You need a nearshore partner that can provide more affordable services without sacrificing the quality of work, optimize your business's cost structure, and decrease the time it takes to tackle new challenges or unresolved priorities.

Considering hiring outside talent or shifting away from your current team structure? Here are some key benefits of working with a nearshore provider:

Consulting Mindset

Think of nearshore partners through the same lens as a consulting agency. Instead of an employee/employer relationship, collaborating with a nearshore company is centered on a mutually beneficial partnership, which can help businesses uncover opportunities and address previously unmet needs. When demand reaches a certain peak, you will need more resources. Rather than redistribute in-house resources to processes and operations they are unfamiliar with, you can partner with a nearshore company housed with industry experts to provide the necessary support and power for your company to reach its goals.



Resource Optimization

Product development can take a lot of effort, money, and time. Partnering with a nearshore company allows you to scale up and down on a per-project basis, on demand. Whether you need to support an individual project or an entire development portfolio, a nearshore company can provide the necessary personnel pieces that allow you to create a balanced workload while saving money and increasing productivity.

Address Skills Gaps

You want to work with a nearshore company whose employees are passionate, confident, and motivated to excel every step of the way. Some companies strictly go out and hire skilled people for each project. However, a vendor with strategic talent acquisition embedded in their overall business plan can make more of an impact.

At Wizeline, our adaptive teams provide the right combination of solutions, capabilities, and methodologies to deliver results while partnering with our customers' teams to foster innovation through continuous learning.

Cross-Functional, Diverse Teams

Companies need to hire people from all walks of life to get a broader perspective. <u>Diverse companies</u> are 70% more likely to capture new markets and have a 35% performance advantage over their homogeneous counterparts. Diversity is a huge benefit of nearshoring. As a company that operates globally, you need a nearshore partner with diverse teams that allows them to see what problems their clients face and then provide solutions based on the different views they are privy to — views that may differ from your in-house team.

Skill/functional diversity is also essential, as multi-disciplinary teams of engineers, testers, architects, designers, and writers are required to build competitive digital products. In-house teams can only provide so much, which makes sense because we hire and train for what we need. However, when those needs eventually change or grow, your in-house team can no longer sufficiently meet them.

Continuous Learning Culture

You need a partner that places a high value on education. Talent development should drive tangible business results; therefore, upskilling and reskilling your teams should be top priorities. The World Economic Forum's Future of Jobs Report indicates that <u>50% of all employees</u> will need to reskill by 2025. Keeping your teams up to date on the ever-changing, in-demand, and specialized skills required to keep up with the latest technological advancements is key to your company's success.

Education never ends at Wizeline; we believe in fostering innovation through education. With <u>Wizeline Academy's</u> programs for the community and Wizeliners and our <u>Digital Skills</u> <u>Accelerator program</u> for customers, we prioritize learning and development for all parties in our ecosystem. With the valuable tech skills we teach, we can unlock the potential of all students, equipping them with skills to solve the challenges of tomorrow. As your nearshore partner, we help you become an <u>adaptive</u> organization.

Access New Technologies

Improving business processes is a goal across all companies. However, in many cases today, businesses cannot accomplish this without also implementing new technology. Once the technology behind current processes changes, businesses will either need to train new or existing staff on utilizing the latest technology or outsource projects to companies that thrive on staying up to date on new technology.

Ensuring your staff can access the new technology, become familiar with it, and effectively use it can be time-consuming. Partnering with a nearshore company gives you continuous access to new technologies while allowing you to experiment and see what works before making a full investment.





Cultural Compatibility

Culture dictates a diverse mix of practices around hierarchy, meeting culture, responsibility, and more. However, when you work with a company that is in tune with your culture and knowledge about common business trends. You need a remote team that understands your culture to avoid associated challenges.

Furthermore, miscommunication due to language barriers can prevent the implementation of new processes, limit necessary feedback on ongoing projects, and negatively impact productivity metrics. You need a vendor that will provide highlyskilled professionals with high proficiency in English to avoid misunderstandings.

Cost Efficiency

When you need to begin new product development and time is of the essence, and your current staff doesn't have the required skillset, hiring a full-time employee may seem like the obvious choice. However, that notion comes at a cost. The SBA says the rule of thumb is that a new employee costs 1.25 to 1.4 times the salary. In addition to salary costs, hiring new people to join your in-house team will add labor costs, such as equipment costs and health and benefits packages.

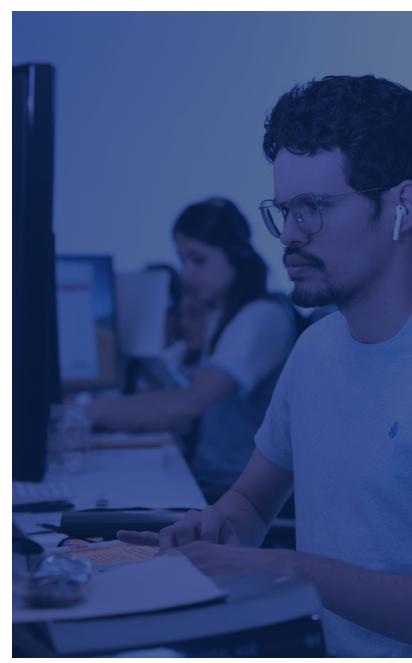
Outsourcing product development personnel has advantages over hiring a full-time employee because you avoid onboarding costs, payroll taxes, health insurance, and other benefits. However, <u>outsourced development rates vary</u>, and the hourly pay can range in the hundreds of dollars in Western countries like the US, Canada, Norway, and Belgium. This practice doesn't leave room to maximize your budget.

Working with a nearshore partner with teams in places like Mexico, Colombia, Spain, and Vietnam can dramatically decrease development costs because there are no costs associated with in-house recruitment or the higher hourly rate that some outsourcing partnerships demand. Furthermore, having an extended team nearby means more timely communication, reducing overall development costs.

Time Zone Similarity

10- to 14-hour time zone differences are tough to overcome. Working across different time zones can lead to slower feedback and decreased productivity. However, when companies can utilize remote teams in nearby countries, it opens the door to working in very close time zones allowing for quick and effective communication.

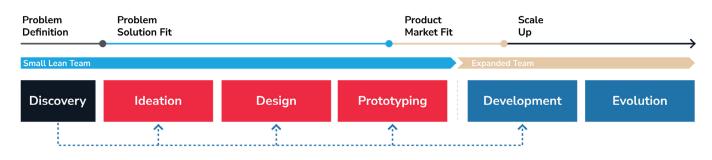
Decreased time zone differences allow companies and clients to blend teams and collaborate more conveniently. Whether via conference calls, email, video conferencing, or instant messaging, a time zone difference of fewer than four hours allows for little to no delays in response.





The Wizeline Way: Building Better Products Faster with Nearshore Talent

By following the best practices highlighted in the first half of this paper and working with a nearshore partner, you can unlock faster, more agile, and more innovative product development for your organization. The right partner should provide you with the benefits of collaborating with a nearshore company and implementing best practices to architect technical solutions and scale business operations. Wizeline has a proven track record of providing both sets of advantages.



Wizeline's strength is nearshore collaboration and agile product development. By blending our onshore, nearshore, and offshore talent into a centralized delivery model, we offer a flexible framework to meet the continuously shifting demands of your business, leverage time zone proximity, and align resources based on cost and quality.



And if you're running a global business, you don't have to focus on just one nearshore location. Wizeline has seven delivery locations and five business hubs across the US, Mexico, Canada, Colombia, Vietnam, Spain, and Australia to align with North American, APAC, and EMEA engineering and product teams.





Start the Conversation Today

Learn more about how we work with you to optimize costs and improve productivity while managing the introduction of new technologies to transform your business <u>here</u> or contact us at <u>consulting@wizeline.com</u> to get started.

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