Acropolium

How Much Does It Cost to Build a SAAS App: **Breakdown**



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Authors

Welcome to Acropolium's 2024 e-book on SaaS development, where our expert team provides an overview of all things SaaS. In this paper, we're breaking down the factors shaping the price of SaaS applications and share success stories of businesses who embarked on a SaaS journey with us.



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Key Takeaways

- SaaS development costs depend on <u>project requirements</u> and range from \$60,000 to \$150,000+, varying based on project complexity.
- The price is affected by the factors such as the features implemented, API integrations, platforms supported, deadlines, and team location.
- The key cost components of building a SaaS app include UI/UX design, front-end and back-end development, infrastructure, and ongoing expenses like maintenance, support, and upgrades.

Due to the significant increase in the demand for remote cooperation, SaaS services, known for their scalability and flexibility, lead the software market. And with the rising adoption of cloud solutions, businesses are willing to invest in cloud-based applications, aiming for greater security and accessibility.

Therefore, the creation of a SaaS app is likely to be a great solution to stay competitive in the digitized business environment.

But how to find out the cost of building a SaaS platform?

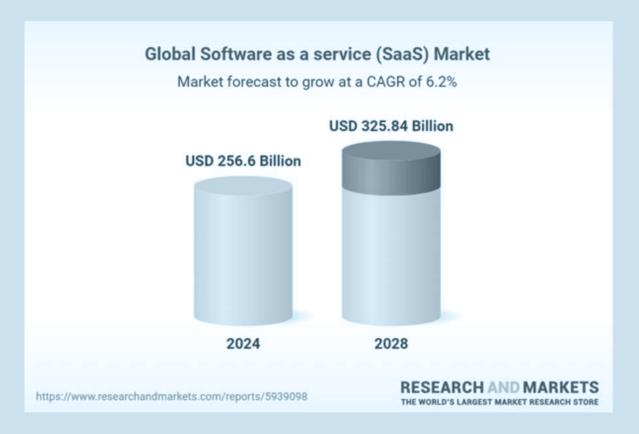
To help you find the answer, Acropolium will share the insights from our two-decade experience in creating high-functional SaaS products.

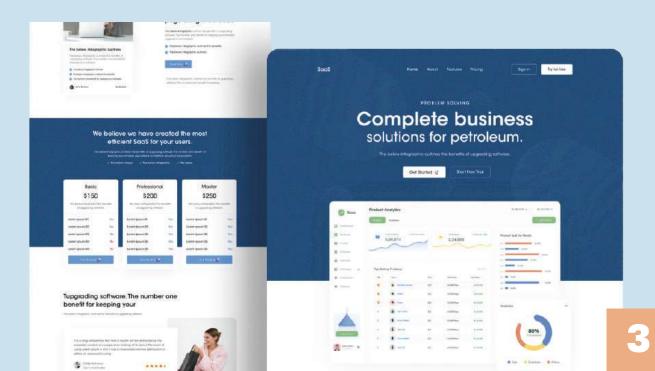
In this e-book, we will provide a development cost estimation and list the key factors affecting the price. Also, you will see the effectiveness of such solutions with our operational command, biotech, international trade, and accounting case studies.

Software as a service (SaaS) Global Market Overview

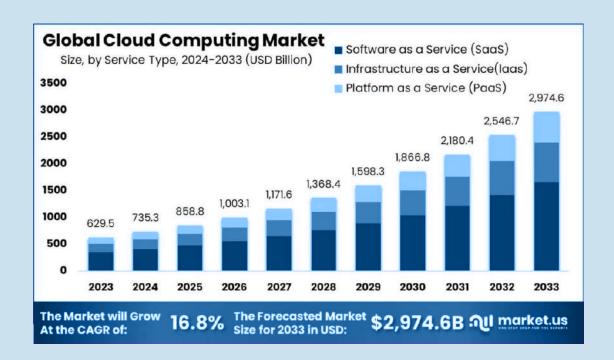
You may wonder if SaaS cost is worth it, so let's overview some statistics. The software as a service market is projected to <u>expand to \$325.84</u> billion by 2028, with a compound annual growth rate (CAGR) of 6.2%.

But which businesses invest in such solutions the most?



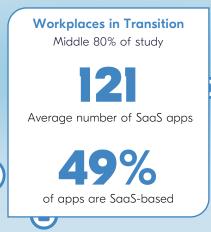


Businesses in diverse sectors are increasingly turning to cloud computing to streamline operations, boost collaboration, and cut down on IT infrastructure expenses. Moreover, in 2023, the SaaS segment led the market, capturing a significant revenue share of 55.8%.



According to the <u>State of SaaS 2023</u> survey, most workflows are going to be SaaS-based, with task automation holding the highest priority. Moreover, IT professionals have expanded the portfolio of SaaS apps under their management and support by 57%.







What Factors Impact the Price of Creating a SaaS Product

You weighed all the pros and cons and decided to create a Software-as-a-service application. And now you want to find out how much it costs to build SaaS platform and how long the development takes.

Of course, there is no simple answer.

The price may vary between \$60,000 and \$150,000 or beyond.



Oleksii Glib

To study the topic in more detail, let's find out which aspects are the most influential.

- Scope of your SaaS app
- The Features
- API Integration
- Selection of the Platform
- Making Tech Decisions
- Setting Deadlines
- Additional Spendings

The cost of building the SaaS product depends on dozens of factors with a more or less notable impact.

The essential functions fulfill the purpose of your product. Every new feature you want to add impacts SaaS app development cost. Therefore, add the basics first.

Scope of your SaaS product

Here is the first thing to decide. Will your SaaS app be a platform or a tool? These two types of Software-as-a-service differ in their essence, functions, and target audience.

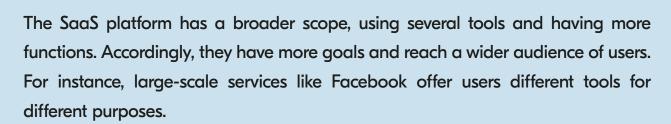
It influences the cost of developing a SaaS application and the required time. To decide wisely, make sure you see the difference between a tool and a platform.

The SaaS tool has a more limited scope and is set to manage several key functions.

In other words, the tool solves a particular problem and has everything necessary. Yet, you can't use it for multiple purposes.

Buffer is the most famous example of a SaaS tool, created to manage social networking accounts.

Dmytro Tymoshchenko



If you haven't built a clear vision of launching your app yet, try the SaaS tool first. SaaS software development, in this case, costs relatively low, not taking so long to produce. Besides, you will have a chance to consider expanding the features in the future.

We have prepared some additional information about SaaS application complexity and development costs:

SaaS Complexity	Average Price (Approx.)
Basic SaaS	\$25,000 - \$60,000
Average SaaS	\$60,000 - \$150,000
Complex SaaS	\$150,000 - \$500,000

SaaS App Features



The features your SaaS app needs depend on the aim of your service. If it's a simple tool that focuses on one area, including only the basics at the beginning of the project will suffice. But more complex platforms with expanded scope may need some extra functions.

Here is a list of a few key features that almost any SaaS app has to contain.



User Management and Permission

Custom management features for SaaS apps include signup for registration, login, logout, and editable user profiles. Also, the user needs to reset and change the forgotten password.

For permission management, include options to add and remove users. Role-based access is essential to control the abilities of multiple users.

Also, consider multi-tenancy. The more users and roles a SaaS product needs to support, the more complex the user management and permission features become. Additionally, some solutions require multiple permissions and access control levels, such as read-only, edit, and admin options. All of that can increase the complexity of SaaS and its development price.

Analytical Tools

Did you know that a third of all SaaS purchases are solutions with Al features?

This is not surprising, especially in terms of quality analytics.

Most users need access to data analytics, metrics, charts, and graphs. If your audience is in the business intelligence field, a dashboard is a must-have feature for your app. For instance, your app needs to supply users with reports, track real-time changes, and provide notifications.

Including analytical tools in a SaaS product impacts itsprice in several ways:

- Developing analytical tools requires technical expertise in data collection, analysis, and visualization.
- Extensive data collection and analysis, used in marketing or finance, need more advanced tools, which can be more expensive to develop and maintain.
- The quality and accuracy of analytical tools delivered by AI/ML technologies become one more budget item.

Remember that data quality significantly influences your SaaS product's user experience and market appeal. If you want to bet on this feature, you will have to invest enough.

Pavlo Zheldak



Security

You should know that data security and compliance platforms account for half of the top ten purchases made by SaaS companies while developing their custom solutions.

Audit trail and security functions may be needed to prevent unwanted activity and control the environment in your app. Security is a core component as long as SaaS applications usually provide data, services, and cloud storage for many users. Your app should be trustworthy.

SaaS products that handle sensitive data, such as financial or healthcare information, require more advanced and comprehensive security measures, which can be more expensive to develop and maintain.

Communication

The need to use communication tools depends on the purpose of your app. Users often like to chat, receive notifications, or even have voice or video calls. Storage of documents and sharing them are other features a SaaS app may include.

You may also add messages or emails sent inside the system. In this regard, using integrations with some email service providers would be a good option.



Billing and Account Management

This feature is necessary to display payment history and collect information on successful and unsuccessful charges. Not to deal with this data independently, you can use an external hosting service.

Account management is another tool that helps you control the number of upgraded and downgraded subscriptions, deleted accounts, billing failures, and other things worth noting.

Businesses must ensure that their billing and account management features comply with relevant regulations, such as Payment Card Industry Data Security Standard (PCI DSS) or Federal Financial Institutions Examination Council (FFIEC).



API Integration

API (Application Programming Interface) is software that makes app interactions possible. The data travels to the Internet server and returns to provide the required information. In contrast, your back-end system enables the app to process the data on its own.

So the choice is between using API integration and building back-end functionality from scratch. Any Software-as-a-service needs certain back-end functions to work with the data. For instance, most SaaS businesses choose to use APIs to integrate their payment system with massive services such as PayPaI or Braintree. Marketing automation or data analytics are also popular ready-made choices for such platforms.

Choosing APIs will help you cut some costs, although you will have to pay some fees for the maintenance. It also allows skipping some stages of app development. What is more, by using API integration, you are much more likely to scale your business.

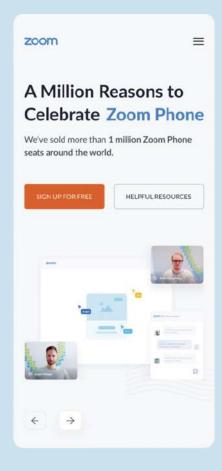
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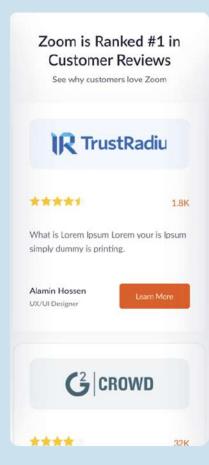


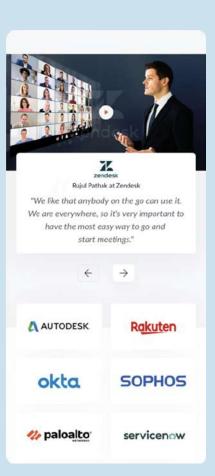
Platforms

Like any other app, SaaS can be developed for different platforms. Choosing between web and mobile, consider your app's goal and target audience. For instance, B2B companies prefer using a PC platform, as it is more typical for their employees to work on the big screen.

Although the mobile and web app content is the same, the UX differs considerably. Making your application on two platforms at once may sound attractive. Still, it will also increase the cost. Try to start with a project for a single platform and think about expanding after a while.





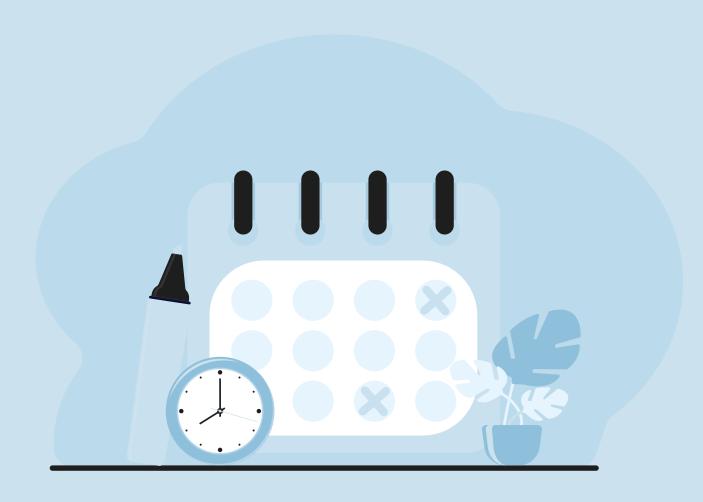


Deadlines

The approximate timeline of SaaS app development is about 3—9 months or even longer.

Same as for the price, the timeline depends on complexity, features to be included, and the stages you should go through before launching your app. Building an MVP or a POC to see if the project is viable should also be considered. Creating a demo version of your app usually takes less time and doesn't require a large budget.

Setting time limits is crucial to any business. However, assess your project objectively. Clarify possible time frames with your development agency.



Estimating the Cost of Developing a SaaS Product

How to price software as a service? There are a few key stages that take time and require investment. So let's analyze each of them. Note that expenses also vary due to your project's complexity and the location of the development team you choose to work with.

You will have to undergo the following stages to build SaaS product:

- Validation and planning (40−250 hours)
- Creating MVP or POC (350 hours or more)
- ▶ UI/UX design (120–250 hours)
- Front-end development (400–600 hours)
- > Back-end development (up to 800 hours) could be reduced by BaaS
- > Project management and post-release maintenance

Validation and Planning

If you have a clear idea about your product, the next steps are to get feedback from potential customers, define product goals, and prepare a good plan. Obviously, it's challenging to develop a budget for SaaS app development. So if you look for investment for your startup, you may need to start by creating an MVP (Minimum Viable Product). This type of app includes only basic features. At this stage, you will understand if it has a future. It's important to find out if you are moving in the right direction.

To build a basic MVP of your SaaS app, you will spend \$25,000— \$60,000 for a non-complex project with standard features.

Prices of Building the UX for a SaaS Product

UI/UX design is a core stage of your SaaS product development since it defines how the interface will look and what user experience it will suggest to the customers. UX can be considered one of the most important parts of development. It is meant to create all conditions for the users and meet all their needs.

Testing is also a critical stage, giving you information about whether the User Experience of your product suits the audience. Test your app at each stage of development and use the feedback you've got after launching your MVP to make UX even more user-friendly.

In the US, the approximate price of UX design is \$40—\$59 per hour. The average time to design a non-complex SaaS app is about three weeks.

Cost of UX design for a SaaS app:

Implemented	Approximate timeline	Hourly	Average
feature		rate Range	cost
UX design	3 weeks	\$40-\$59	\$4,800-\$7,080

Sources: https://www.glassdoor.com

https://ua.talent.com/en/

Cost of Building the Front-end for a SaaS Product

First, select the right tech stack for your SaaS mobile app. These are technologies used for front-end, back-end, and mobile development. To make your choice wisely, keep in mind all the core features of your app. Some frameworks are better for the purposes your app may have.

Front-end development price is also difficult to estimate because of the factors you need to consider.

Working with an in-house team will be more costly than with outsourced ones. Hiring a freelancer will be the most economical option. But you need to think about the quality of work and convenient communication first.

The average price of the front-end developer's work will be somewhere between \$36 and \$60 per hour. All stages of front-end development take about 10-12 weeks.

Front-end development cost for a SaaS app:

Implemented feature	Approximate time	Hourly rate range	Average cost
Creating documents and uploading files	1–3 weeks		\$1,440—\$7,200
Search	1–2 weeks		\$1,440—\$4,800
Preview and download	2–4 weeks		\$2,880—\$9,600
Sharing, access tool, export	1–2 weeks		\$1,440—\$4,800
Total	10-12 weeks	\$36-\$60 per/h	\$14,400—\$28,800

Sources: https://www.glassdoor.com https://ua.talent.com/en/

Costs of Building the Back-end for a SaaS Platform

We've already said that the complex back-end of a SaaS app requires creating it from scratch using progressive backend frameworks. Note that it is much more expensive, but you should use it only in exceptional cases. A much more typical and cheaper way is to provide a back-end via APIs. Considering that the back-end creates the necessary data structure and security, it cannot be skipped.

The average back-end development price is between \$40 and \$65 per hour or more, depending on the complexity of the functions. The approximate time it will take to deal with all stages might be more than 20 weeks. You should choose whether to hire backend developers for your team or outsource them from a reliable vendor.

Implemented feature	Approximate time	Hourly rate range	Average cost
File management	10—12 weeks		\$16,000—\$31,200
Push notifications	2–3 weeks		\$3,200—\$7,800
Search	4–6 weeks		\$6,400—\$15,600
Previews	2–4 weeks		\$3,200—\$10,400
Export	2–3 weeks		\$3,200—\$7,800
Total	20–28 weeks (or more)	\$40—\$65 per/h	\$32,000—\$72,800

Sources: https://www.glassdoor.com https://ua.talent.com/en/

You can reduce the bill drastically by using backend as a service, and choose one of the best BaaS providers.



Post-release Expenses

If you have successfully developed and launched your SaaS app, your journey is not over yet. To calculate the cost to build SaaS app, you need to go even further. Any SaaS product is set to work for a broad target audience.

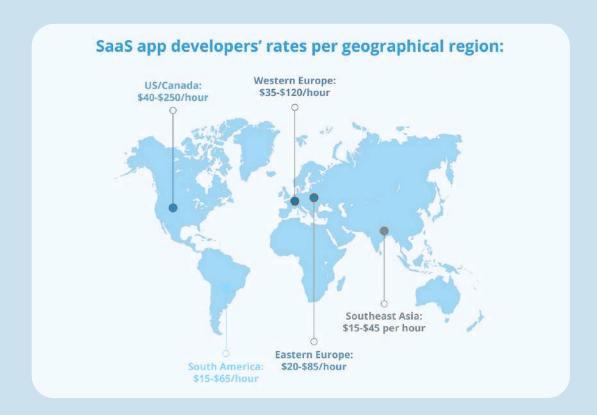
So it requires constant updates, fixing bugs, improvements, and adding new features to stay relevant and satisfy users' needs. Continue working with your engineering team to get professional support and maintenance of your SaaS app.

Hiring an experienced project manager and a good team for the further development of your project is critical. Your product doesn't exist just to survive. It has to evolve to help people and be competitive in the market. It means that promotional campaigns and marketing will require investments as well.

Some of the additional SaaS app development costs will be related to legal licensing, subscription, and more, depending on your product's nature.



SaaS App Development Regions



The type and location of your development team also greatly impact the price of building a SaaS product.

First, choose the kind of specialists you will work with. You may entrust your project to a freelancer or a developing agency. Independent contractors typically have a lower hourly rate. But working with a development team has several major benefits:

- You will hand your project to a group of skilled professionals with relevant expertise. You won't have to look for each specialist separately.
- Development shops constantly communicate with their clients and report on all stages of production.
- > You will have clearer agreements and timelines to ensure your project will not be frozen.

If you want to hire SaaS developers, here comes another decision. Will it be an in-house or off-shore agency? The prices differ significantly.

The cost of SaaS application development in the USA or Canada is the highest. Shops from Western and Eastern Europe (for example, <u>Ukraine</u>) offer the middle range of prices. The cheapest options are to find an outsourcing agency based in Southeast Asia or South America.

Oleksii Glib

The main advantage of in-house app development is that American and Canadian companies offer constant communication and the ability to check the development progress by visiting the office. However, nowadays, even in-house companies often work remotely. The fact that North-American cost to build SaaS app is twice or three times more than European, it is worth considering the option of outsourcing.

Remember that higher prices don't often guarantee better quality.

The pricing flexibility is due to the difference in economic conditions, market features, and general cost of living. The potential problems of picking an outsourced agency are communication issues and time zone differences. But if you are open to cooperating with off-shore companies, they can offer good quality and a reasonable price.

Here are the average price ranges for SaaS software development in various regions*.

Region of SaaS app development	Hourly rate range
North America (the US, Canada)	\$52—\$72
Western Europe (France, Germany, United Kingdom, Sweden)	\$42—\$62
Eastern Europe (Ukraine, Poland, Hungary, Czech Republic)	\$27—\$49
South America (Argentina, Brazil, Chile, Colombia)	\$15—\$35
Asia (Philippines, India, Vietnam)	\$14—\$25
Australia	\$33—\$50

https://www.glassdoor.com https://ua.talent.com/en/



Why Choose Acropolium as a SaaS Development Vendor

The <u>Acropolium</u> team has been delivering solutions for different kinds of complex software for 20+ years. We've faced an impressive amount of different cases and challenges concerning various SaaS products throughout this time.

Here are the core areas where our team has delivered SaaS solutions:

- Validation and planning (40−250 hours)
- Creating MVP or POC (350 hours or more)
- ► UI/UX design (120–250 hours)
- > Front-end development (400–600 hours)
- Back-end development (up to 800 hours) could be reduced by BaaS
- > Project management and post-release maintenance

If you want to launch a successful app, these five examples will help you explore the market and gain real insights from the development process.



Operational Command Software Development



This challenging case related to the risk management field was to build a SaaS platform with a core function to ensure social security during public events.

The goal of Ruatti Systems was to provide a unified platform for social services (such as firefighters, medical workers, and police) via the communication server. This extensive project included operational command software developed for desktop and mobile platforms.

Except for creating a unified space for information delivery, we also needed to provide constant surveillance of certain places. Our internal solution to reach this goal was building the basement core to make software scalable and reliable.

The architectural approach used AWS cloud services to store and process the data. We also created a subsystem to get and deliver information from digital communication devices, GPS, and IoT. Finally, we found a way to create a unified information space within a specific framework.

These are the goals we managed to reach in building a complex SaaS system:

- Enabled information exchange between social security services in case of any emergency. Creating MVP or POC (350 hours or more)
- Developed a situational center to register, analyze, process, store, and analyze big amounts of data. Front-end development (400–600 hours)
- Created a communication channel for social security services to prevent crimes and coordinate public order.
- Provided constant surveillance of specific places for their protection and controlled access to certain areas.
- Supplied with tools for real-time inspection and collecting evidence.
- > Enabled duty units management.

Biotech Enterprise SaaS Development for Remote Device Management and Quality Control System



This healthcare-related case was to build a SaaS product with a solution to control devices remotely and provide a quality control system. The main goal of this project was to create CMMS, reduce the costs spent on the human force, and improve communication between clients and vendors.

To make it all work, our team was looking for both web and mobile solutions. We set up a development system and the company's SaaS architecture. We launched a flexible platform that was set to solve the issue of asset suitability and maintenance. Also, we improved cloud-based storage and enabled remote control over medical devices. Our dedicated team created an SSO and mobile app to help the company observe all these processes.

The positive outcome of this project development was:

- ▶ 65% of sales increase.
- A convenient dashboard with wide functional and administrative panels has increased loyalty.
- Heavy load capacity has increased.

International Trade Digitalization & Paper Work Automation



The client turned to us to digitize international trade and automate document flow. For this project, it was important to enable verification of country-specific shipping requirements, as well as store order information and create templates. We developed a SaaS web application from scratch, extending the solution with customs declaration submission via API. Now users can enter data, create standardized documents, view subscription plans and national regulations and receive tech support from the administrator.

Advanced trade platform helped:

- Automate the submission of declarations by 100%
- **▶** Cover 8+ countries
- Reduce personnel costs by 60%
- Attract 37% more corporate clients

Accounting Software Solution as a SaaS Platform for Financial Business



Another exciting project was the development of reliable and secure software for accounting automation. Its difficulty was that our team only had five months to build a multi-tenant platform with many features.

Today, users can set up templates, send invoices, and pay for them in various ways, including credit cards and Stripe.

Also, the SaaS solution allows clients to monitor different operation categories and generate visually understandable reports, controlling income and expenses.

Among the project's achievements, we can highlight the following:

- > A multi-functional, multi-tenant MVP product in 5 months
- User settings in 5 clicks
- ➤ The conversion from the free demo version to the paid plan reaches 30%

SaaS Fleet Management Software for a Logistics Company



We had a fantastic <u>cooperation with a logistics provider</u> that wanted to get the most out of their fleet with the power of SaaS. Initially, the client couldn't fully monitor the vehicle performance, nor did they have real-time route optimization capabilities.

Manual route planning would cause delays in deliveries, while the non-optimized vehicle maintenance strategy resulted in disruptions on the go. Thus, our SaaS development team introduced real-time GPS tracking for vehicle monitoring and effective route planning within fleet management software.

By using advanced algorithms, we implemented analytical features for historical data and current traffic conditions to ensure proactive route optimization. Our dedicated team also set up automated maintenance alerts for upcoming service needs to reduce the likelihood of unforeseen breakdowns.

Additionally, we suggested that the client invest in the integration of fuel sensors and monitoring tools to enhance fuel efficiency. Finally, we adjusted automated reporting through customizable reports and dashboards within the SaaS app so the client could assess their performance with a data-driven approach. As a result, the client has experienced significant operational improvements:

- Delivery time reduced by 31%.
- Fuel consumption decreased by 14%.
- Customer satisfaction scores increased by 28%.
- > Enhanced driver behavior and safety.



Final Calculations

After learning the factors that change the pricing and opportunities to <u>reduce costs</u>, it's time to make some final calculations. So how much does it cost to develop a SaaS application?

Let's say we build SaaS MVP, and you have chosen an IT outsourcing agency from Eastern Europe with an average hourly rate of \$27-49. Usually, it takes from 3 to 6 months to create a platform, and the team may consist of 3-5 specialists. In this case, you'll spend from \$58000 to \$353000+, depending on the level of complexity and customization, as well as team expertise.

<u>Building a SaaS app</u> can be complex and costly, requiring careful planning, budgeting, and execution. However, with the right approach and a reliable development partner like Acropolium, you can minimize risks and expenses and achieve a successful outcome.

Our subscription-based service covers all common business needs at a monthly fee, providing cost-effective, advanced solutions. Contact the Acropolium team to learn more about our options and bring your SaaS idea to life.

If you want to take the next step and move from calculations to actions, we at Acropolium are ready to join you. Our dedicated development team has fundamental expertise and successfully delivers various SaaS solutions. Get in touch with us, and let's discuss your idea!

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