

12 Things To Consider When Choosing An Indoor Mapping Provider



Tips on Choosing an Indoor Mapping Solution

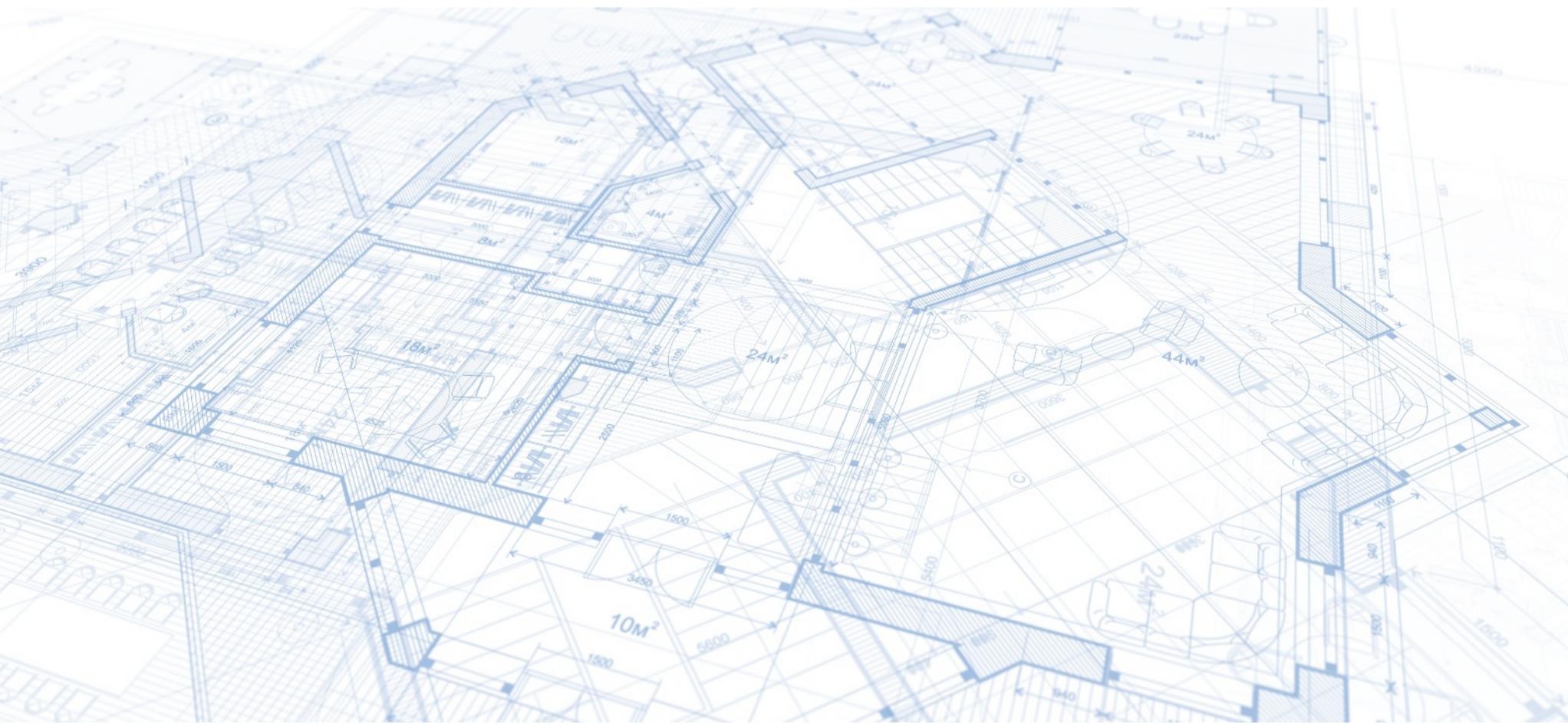
When you're navigating the outdoors, there's no better way to determine your position than through GPS technology. Outdoor mapping solutions are used by everyone from seafaring ships to passenger planes to even individuals traveling on foot.

But GPS can't penetrate buildings, so what do you do if you need to map an indoor space instead?

The indoor mapping industry is fairly young and unfamiliar to most consumers. There are a few major players vying for dominance, but new mapping platforms are popping up quite regularly as more and more businesses realize the benefit of indoor maps. Between the ever-changing mapping landscape and general unfamiliarity with the industry, it can be difficult choosing [an indoor mapping solution like Mappedin](#) for your business.

We created this guide to help you make more informed decisions about who to trust with your indoor mapping needs. You'll learn about the 12 things you need to consider when evaluating an indoor mapping service provider, from expertise to systems compatibility and integration to cost.

Let's get started.



Indoor Mapping vs. Indoor Positioning

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First of all, let's understand the difference between the two. Although indoor mapping and indoor positioning are related concepts, there are differences between them.

Indoor positioning refers to the technology used to accurately determine one's position within a certain indoor area, in the same way that GPS can show you where you are on an outdoor map.

Meanwhile, indoor mapping is used to create indoor maps of a specific environment. Mapping providers use on-site scanning technology like SLAM, which stands for simultaneous localization and mapping, or floor plan digitization to build an accurate representation of the indoor area. SLAM has been a revolutionary scanning technology that helps to find locations of objects or sensors with reference to its surroundings while mapping the layout of the environment. These technologies allow providers to create an accurate representation of the indoor space.

Indoor mapping helps you visualize what an indoor space looks like while indoor positioning helps you accurately place yourself within a particular indoor map.

If we compare it to outdoor mapping, GPS is the outdoor positioning technology. Outdoor mapping platforms like Google Maps or Waze all employ GPS to show you where you are positioned on any given map in real-time.

NASA's GPS technology dominates outdoor mapping, beating out competitors like Russia's GLONASS tech and Europe's Galileo. In indoor positioning, however, there's no single dominant technology — indoor mapping providers use a combination of Wi-Fi, Li-Fi, Bluetooth smart beacons, and other technology simultaneously to accurately map customer locations .

All indoor positioning systems should be compatible with any indoor map, so which technologies you choose to work with really depend on your needs.

Provider Expertise & Reputation



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As we mentioned earlier, indoor mapping is a relatively new field, so every year of experience counts. Some of the more senior companies have been around for almost a decade. These are a safer bet because they've had more time to master the emerging technologies in indoor mapping.

When looking for an indoor mapping partner, you'll want to know how many clients the company has worked with in the past. To get a better understanding of the indoor mapping service provider, you can visit their website to review any case studies and testimonials from companies they worked with. It's also good to find out the number of square feet they have mapped to ensure that

you can trust the experience of your service provider.

Mappedin, for example, was founded in 2011 and has since mapped over 500 million square footage of space across 25 countries. That includes malls, retail boutiques, stadiums, and even entire city districts. We have plenty of experience mapping indoor space for a diverse set of clients.

Ultimately, provider experience can be a make or break. Not only do experienced companies have a better understanding of creating accurate maps at scale, they can also recommend other players in the indoor mapping space — from positioning technologies and digital signage hardware to advertising software.

Type Of Space You Own

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The type of venue that you are mapping is another major consideration. Some spaces require little interactivity, so a static indoor map will do. But activity-driven venues like malls, campuses, large complex retailers, or amusement parks could benefit from additional functionality such as:

	Directions to and from points of interest (POIs)
	User-editable location points
	Unique, location-specific events, promotions, and the like
	Interactive search and category listings

If there are certain areas that require security controls, this becomes even more important. Publicly-accessible areas like parking lots can be freely mapped without concern for security. But if you have a private space with limited access — say, a data centre or staff room — those areas should only be visible to people with the necessary access rights.

Additionally, certain spaces are more dynamic than others. For indoor spaces, like workplaces or schools where locations are constantly being updated, you may want to consider an enterprise-grade platform with context-sensitivity and real-time map updates.

The mapping platform that you choose determines what kind of data you can or cannot map. Make sure that your solutions provider allows for extensive customization and tailoring based on the type of space or building you want to map.

Accommodate Different User Needs

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You can't determine the right mapping platform if you don't understand what the user needs and use cases will be.

You need to ask yourself, who are the target users for your indoor maps? Is it customers, staff, or administrators? Or all of the above?

If your building is a commercial area with many public POIs, you'll want a detailed indoor mapping platform with high precision and interactivity. This allows customers to explore your establishment and discover new brands. You may also want unique map views for employees and managers which are

inaccessible to the public. A good indoor map serves all types of users.

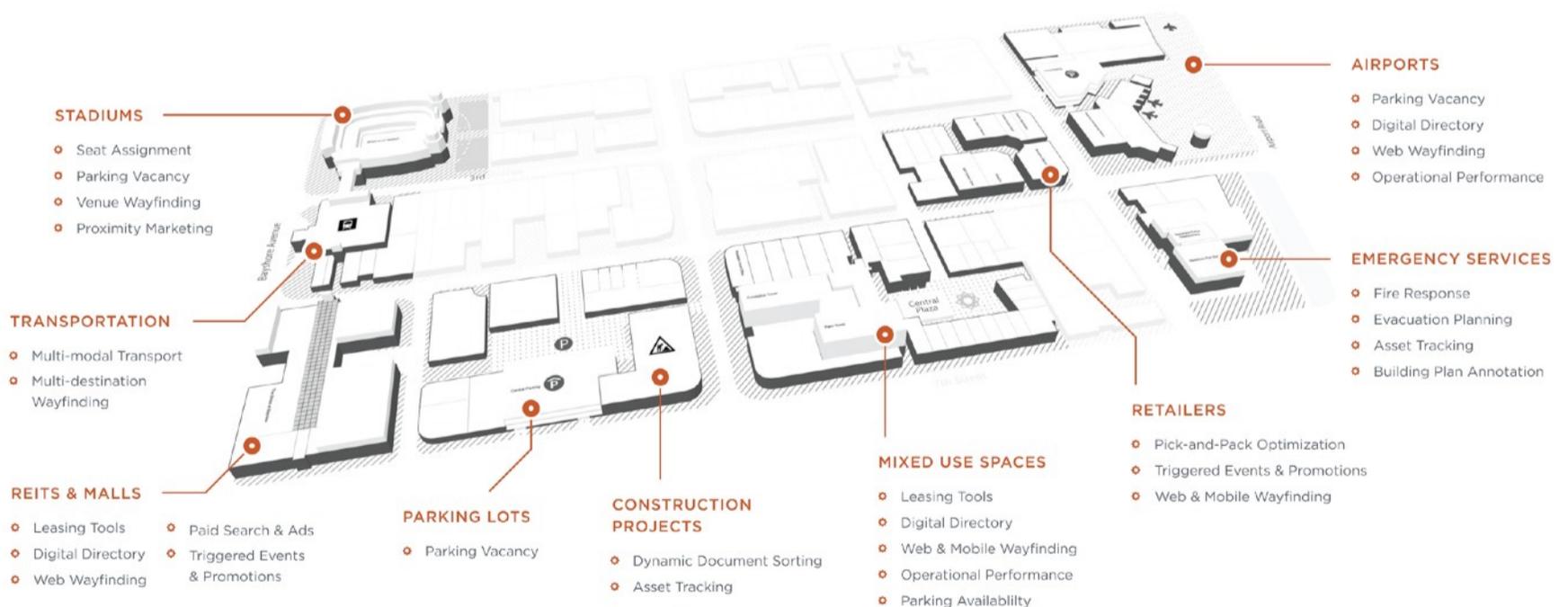
Understanding user needs is essential to implementing features and adding information that they actually find valuable. It's helpful to think about how you can provide more actionable data for your users. For example, outdoor street navigation apps provide drivers with real-time traffic data, allowing them to plan their routes better and avoid high-traffic areas. Indoors, maps can also be used to display real-time foot traffic and user movement.

Integration With Other Systems

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Chances are, your organization already uses specific systems and APIs. Indoor mapping is, after all, just one part of a larger system. It's important to choose an indoor mapping vendor whose architecture is compatible with yours; otherwise, you'll spend more time and money converting your systems.

System integration matters in some verticals more than others. Take the healthcare industry, for example, which uses different patient management systems. By integrating mapping platform data into these systems, hospitals can help their staff navigate the site in real-time. You may even be able to alert them of emergencies or scheduled rotations in specific areas using the same dynamic map.



Connecting Other Apps & IoT Devices

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Supporting mobile apps and Internet of Things (IoT) devices is an important feature of many indoor mapping applications. There are plenty of use cases for an IoT-based indoor mapping solution, such as building security and maintenance.

For example, smart electricity meters can be mapped, allowing you to see how much power each hotspot consumes. IoT devices can also be used to provide real-time traffic data, diagnose equipment problems, alert maintenance staff of issues, gather smart data, and even map how spaces are being used. IoT security devices like smart cameras and biometric locks can also be integrated into digital maps indoors, helping with access control.

Another consideration is mobile app compatibility. If you already have a mobile app for your location (or if you want to allow users to access your indoor maps on their mobile phones), you'll have to choose a provider whose mapping platform can interface with other apps that your customers might be using.

This allows you to offer enriched customer experiences. If there are augmented reality (AR) mobile apps that you can integrate with your indoor maps, it could allow customers to virtually explore your building.

Search for a provider that offers Software Development Kits (SDKs) and Application Programming Interfaces (APIs) for both mobile and desktop to allow communication between applications.



Seamless Navigation

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Although your major concern is how to map indoor environments, a good indoor mapping solution allows users to easily transition from outdoor navigation to indoor navigation. Instead of switching apps, you can unify indoor and outdoor maps, making it more convenient for users to explore your space while enhancing the [customer experience \(like we detail here\)](#).

This is particularly useful for establishments that have both indoor and outdoor locations. If you have one building that's connected to others by shared outdoor spaces, this becomes even more vital. You can connect multiple buildings on your map for easier navigation, this is especially useful for places like university campuses.

Ability To Customize Indoor Maps

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There is no such thing as a one-size-fits-all mapping solution. When you create indoor maps, everything is tailored for your specific venue and potential use cases.

Plus, the data that your maps are based on may change in the future — vendors come in and out, buildings get added to the site, and facilities may change locations.

This is why your mapping platform has to be flexible and highly customizable, in order to support whatever changes or features you might need in the future. You want to ensure that your indoor mapping tools allow you to adapt your location information over time, as well as allowing you to make updated changes.

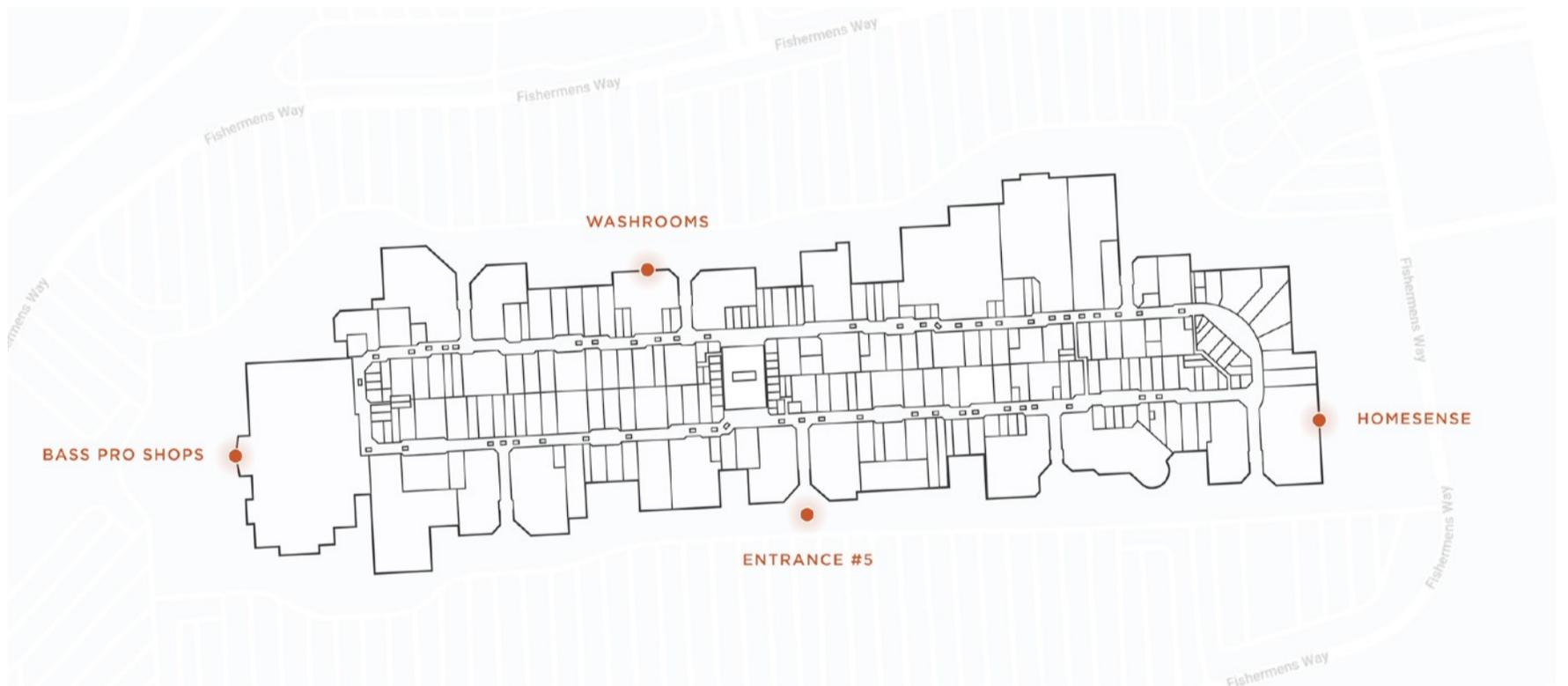
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Scalability & Future-Proofing

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It should be easy to add an additional room, building, place of interest, and other types of information on your map. Your maps solution should also support multiple platforms such as desktop and mobile across multiple operating systems while offering seamless transitions between them all. Ensure that your service provider is able to help you with these extra changes or provide support in the future.

Strong Developer Support

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There are two main kinds of indoor mapping solutions: do-it-for-you services where the provider handles everything or developer-based solutions that allow you to create custom maps on your own. If you choose the latter, you'll want your provider to have well-documented and flexible SDKs/APIs so that your in-house developers have all of the information they need for building a map.

It's not necessary, but it's a bonus if there's a robust developer community that's ready to help whenever you have questions or problems. **Developer support from your service provider can reduce the learning curve and adaptation time** as much as possible, ensuring speedy setup of your maps.

Ongoing Map Maintenance

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Indoor mapping is not a one-time project — it's an ongoing effort where you have to work closely with your provider to maintain, update, and grow your maps. Building construction, changing location information, and renovations are just some of the major elements you might need to map in the future.

On top of that, your indoor mapping system should be constantly updating to comply with newer standards and technologies. Depending on the services and partnerships offered by your service provider, you want to ensure maintenance is included or can be added as an extra service. At the end of the day, this will make it easier should you encounter any technical issues or minor and major issues with the indoor mapping system.

Service Costing

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Finally, you want to have full transparency and understanding on the charges. The costs of indoor mapping vary depending on your requirements and needs. Every provider will charge differently based on the size of the space to be mapped as well as the complexity of the design. Bigger

spaces obviously require a bigger budget, as well as indoor maps with plenty of features (e.g. wayfinding, notification alerts, etc.).

Data accuracy is another major factor in costing. If you want to offer real-time position tracking for your users, expect to spend more than if you requested static maps.

Additional features like third-party integration, IoT device support, and more all come at an additional cost. Prioritize the features that customers actually want to use to effectively manage your budget.

Factor in one-time costs like installation fees, subscription fees, and hardware upgrades. Clarify with your provider if their quote covers maintenance.



Mappedin: A Trusted Choice

At the end of the day, choice is what matters most in indoor mapping. You should have the choice to integrate with APIs and IoT devices, scale up, and add new features as you go.

What you need is a maps platform with robust data analytics, excellent integration, endless customization, and scalability. Mappedin gives you the power of choice through pre-built applications as well as powerful SDKs, sample application libraries, and flexible features.

We have everything you need to create indoor maps that are detailed, accurate, interactive, and most of all, valuable to your customers. They can be integrated with any system, mobile app, or API that you might need.

Whether you want to improve the customer journey, reduce operating expenses, or gather insights about how people use your space, Mappedin is a great choice.