



The Future of GPS Fleet Tracking:

Improve Your Margins with
Better Connectivity in 2023



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About EMnify



EMnify is a leading cellular IoT connectivity provider. Thousands of businesses use our IoT SIMs to connect millions of devices worldwide, including GPS fleet trackers. With a single SIM, fleet management providers can connect their trackers to more than 540 networks in over 195 countries. Our robust, intuitive platform empowers vendors to monitor, analyze, control, and automate their device connectivity, all while adding multi-layered IoT security. We hope this free resource helps you see the impact your connectivity solution has on your fleet management system's costs and service—and, ultimately, your margins.

As businesses of all sizes look for solutions to manage their fleets, providers face mounting pressure to offer the most affordable service. Whether you manufacture basic GPS trackers or one of the most advanced fleet management platforms, you and your competitors are constantly fighting to lower costs and increase margins.

In some ways, it may feel like you're in a race to the bottom, cutting corners where you can and absorbing lost margins to stay competitive. But what if you could simultaneously lower your operating costs and increase the value you provide your customers?

Some fleet management companies have already discovered the secret to pulling this off. By switching to a specialized connectivity provider with solutions built for IoT, they optimize costs, eliminate waste, and deliver a better customer experience.

More advanced connectivity doesn't have to be more expensive

And snagging the cheapest local data rates you can find won't get you the most cost-efficient solution. When it comes to fleet tracking, relying on traditional connectivity services means missing out on valuable cost-saving opportunities.

Today's cutting-edge connectivity will eventually become standard. But right now, your business

can secure a competitive advantage most fleet management providers have yet to realize. This ebook will walk you through nine benefits a better connectivity solution improves your margins and offer a host of other benefits:

- ✓ Saving initial and ongoing work with better APIs
- ✓ Reducing the time to resolve connectivity issues with expert IoT support
- ✓ Centralizing connectivity management and simplifying logistics with a single solution
- ✓ Eliminating the increased data costs caused by SIM card theft
- ✓ Improving cross-border connectivity and global deployment
- ✓ Using redundant coverage to optimize for signal strength and costs
- ✓ Deactivating SIMs after seasonal peaks in activity
- ✓ Creating a smoother remote troubleshooting experience
- ✓ Ending the practice of network steering toward a provider's "home network"

Let's start by looking at one of the main reasons fleet management providers partner with us for their connectivity needs: better APIs.

This is what the future of
GPS fleet tracking looks like.

Better integrations do more for less work

Right now, most GPS tracking manufacturers experience a frustrating gap between the data their connectivity provider has and the data they can integrate with the rest of their tech stack. Better APIs are eliminating this gap and reducing costs in a range of areas.

APIs give you greater control over the integrations between your connectivity provider and your other business applications. But they also require an upfront and ongoing investment in development time. You have to build and maintain the integration using whatever materials a provider gives you to work with.

Compare a few connectivity solutions (or use a few at once), and you'll notice a big difference in the time and effort it takes to integrate their tools with yours. Some providers give your dev team very little documentation, which leaves them torn between spending more time struggling on their own or more time waiting on the phone. And whenever there's a problem, your team experiences that friction all over again.

We don't leave your team to pick through sparse support articles or fight through queues to use our REST API. All our integration capabilities come with rich documentation and accessible support, making them easier to manage and saving your developers time. Some of our integrations don't even require you to create a single line of code—you can bring our data and functionality to your tech stack in minutes instead of weeks. But better APIs don't only result in less development time. They can simplify and even automate routine processes, saving time for your other teams as well. For example, EMnify's REST API enables you to automate the activation, configuration, and decommissioning of thousands of GPS trackers at once, so you can get your customers up and running faster and optimize key stages of the device lifecycle. You can also integrate cellular usage data into your billing system to automate invoicing, saving time for your customers and accountants every month.



You can also use our API to activate your devices' factory test mode. Each tracker gets enough data for you to ensure it works and conduct quality control without incurring data charges. Even if your trackers take weeks to reach a customer, your data costs won't begin until they're deployed in the field.

There's another problem fleet management providers tend to have with APIs. With most connectivity solutions, the data that integrates into your business applications isn't always current. Many cellular IoT connectivity providers don't have their own core network, which means they can't track network events. When you need to troubleshoot devices, they have to retrieve the network events from cellular carriers like AT&T and Verizon. They're an intermediary standing between you and the data you actually need. Our customers don't have that problem. We own our core network and track network events across every carrier, so you get live data and the visibility you need to troubleshoot fast. IoT technology is trending toward simpler, more meaningful integrations between platforms. But right now, "simple" is far from typical. One of our customers even remarked that developing with our API was about four times faster than the other providers they'd attempted to work with. And with EMnify, no matter where you deploy, you and your customers get the same great experience—you're not relying on different APIs (and getting different functionality) in different countries.

Expert IoT support means quicker issue resolution



In IoT, extending your time to resolution for support issues can significantly increase your operating costs and negatively impact your service. Thankfully, resolving issues faster can bring these costs down and improve the experience you provide. And better support can change your time to resolution from weeks to today.

Your customers count on you to help them track and manage their assets, and connectivity issues can disrupt their business operations. And if that happens, they're not blaming your carrier—they're blaming you. So when you call your provider and can't get an IoT expert on the phone, that's a problem.

While traditional carriers have separate customer support lines for businesses, those aren't just for IoT businesses. The vast majority of their business customers don't look like you. Since IoT businesses represent a much smaller percentage of their revenue, their support system is optimized for troubleshooting devices with screens—not working through the nuances of fleet management systems.

There are billions of IoT devices in the world, and they don't use cellular networks the same way smartphones do. Many specialized IoT connectivity solutions already provide expert IoT support, but right now, you can't always expect that from a traditional carrier—their brands and customer bases are often weighted too heavily toward consumer solutions. As a result, resolving connectivity issues can take weeks, leaving you and your customers without the service you're paying for.

That's not the case when you partner with EMnify. We help manufacturers like you manage millions of GPS trackers around the world. And in addition to

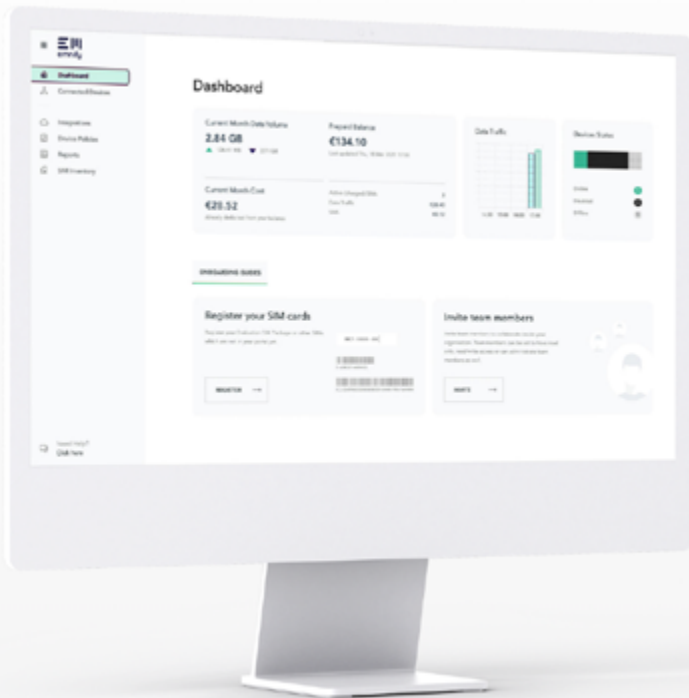


our wealth of IoT-specific support articles, we offer premium 24/7 same-day support, ensuring you can always get an IoT expert on the phone. In IoT, connectivity issues are often device related. Your device might not support SMS or Multi-IMSI, or it may not be compatible with a particular network type (2G, 3G, 4G, etc.). That's one of the many reasons why getting IoT experts on the phone is invaluable—they know what to ask and how to troubleshoot device-specific issues.

And since we own our core network, you won't waste any time waiting for us to talk to a carrier or troubleshoot an issue on your behalf. We have visibility into all the network events related to your deployment, regardless of which network they occur on—and so do you. You get everything you need to proactively test and self-troubleshoot your deployment.

All of our customers are IoT businesses.

4 One SIM, one SKU, one contract, one global customer experience



For example, the country a customer deploys could change what workflow integrations and visibility you have when providing device, application, and connectivity support. This becomes especially problematic when a single customer deploys in multiple countries.

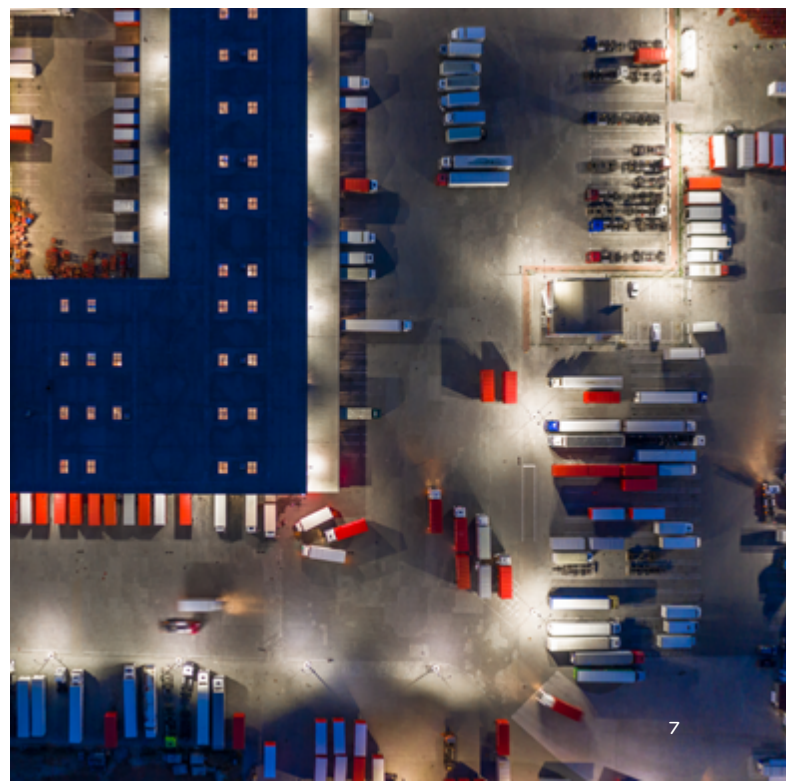
If you're tired of switching between portals, juggling multiple contracts, and rolling out new versions of the same product with different SIM cards, you should know: you don't have to do that anymore. Our global IoT SIM cards enable your GPS trackers to connect to more than 540 networks in over 195 countries—and you can manage every connected device from the same portal with the same advanced capabilities.

One SIM card, one SKU, one contract, and one customer experience for all your deployments. This dramatically reduces the complexity of your accounting, logistics, and support operations, removing friction throughout your business.

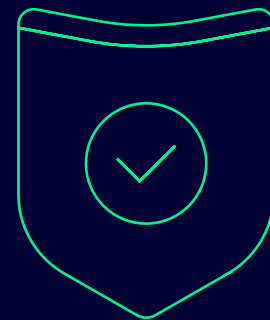
The future of GPS fleet tracking isn't just more advanced—in many ways, it's simpler, too.

For many fleet tracker manufacturers, the more distributed their customers are, the more overwhelming (and expensive) it becomes to manage their deployments. Acquiring a customer or expanding with one in a new country could require you to start a contract with a new connectivity provider, which means installing new SIM cards, integrating with a new API (which may have different capabilities than your customers used to), and ultimately creating a new SKU for the same product you've always built.

Navigating these different relationships and logistics creates a disjointed customer experience for your fleet management customers. A customer with fleets in different countries may have a better experience with you depending on which deployment they're troubleshooting—and they may expect you to have capabilities that you only have with certain carriers.



5 Say goodbye to SIM card misuse



Traditional SIM cards are removable. And for GPS tracking manufacturers, that's created an expensive nuisance: drivers and malicious actors can take them out of your GPS trackers and use them in phones and other devices—leaving you on the hook to pay for the data they use.

For example, long-haul truck drivers often have hours to kill between jobs. Far from home, they don't always

difficult for fleet management companies to deal with SIM theft at scale.

Switch to EMnify, and each of your SIMs come with IMEI locks—a capability that ensures the card can only be used in a device with a specific International Mobile Equipment Identity (IMEI) number. This makes it significantly harder for someone to use your data in another device. A tech-savvy thief could spoof the IMEI number (assuming they knew which one to use), but in that case, EMnify offers further layers of protection, including non-removable SIM cards and greater control over your SIMs' connectivity.

The newest SIM card form factors don't have a SIM card slot. They're not removable. They're soldered directly onto the GPS tracker's circuit board or inserted into a dedicated part of the chipset during the manufacturing process. To remove the card, someone has to dismantle the device, and they'd likely damage the SIM card in the process. You can't just conveniently take the card out, use it in another device, and put it back. And for a bored driver, that defeats the purpose of the theft.

Additionally, EMnify allows you to control your SIM card's connectivity profile. Pinging location updates and other telematics data is very different behavior from streaming videos. In our portal, you can restrict your SIMs' communication capabilities to the functions it needs to operate, rendering the card useless for other types of data consumption.

On top of all that, you have complete control over each SIM's connectivity. You can activate or deactivate their connection right from the portal. So if you detect anomalous data consumption, you can cut it off before a device racks up your data bill. You can even establish data threshold limits to prevent overages altogether. Say your trackers typically use less than 100 KB per month. Set your data limit to 100 KB, and any data beyond that won't be used and won't show up on your bills.

have a lot of options to pass the time. So some of them see your SIM cards as an unlimited supply of data for watching movies, playing games, and making video calls. They remove the SIM card, FaceTime their family, binge The Sopranos, and put the SIM card back when they're done.

There are several ways to resolve this problem for good. But many connectivity providers are making it



Seamless cross-border connectivity

Some of your customers need to manage international fleets. Their assets may cross borders during regular operations or span across multiple countries. These customers can't afford to use GPS trackers that fumble handoffs from one network to another or deliver an inconsistent experience in different countries. But unfortunately, that's what they often get when you rely on traditional cellular carriers.

Poor cross-border connectivity hurts these customers and creates constant friction between their regular operations and your product's service. But with a global solution like EMnify, they get great connectivity wherever they deploy and wherever they roam. As their assets transition across borders, your customers can prioritize networks with the lowest costs or strongest signals, and the handoffs happen in minutes.





Redundant coverage for stronger signals—even in remote areas

Many fleets don't operate in densely populated urban areas, where carriers concentrate cellular infrastructure to support more devices. But as their assets travel backroads, cross mountain passes, or make their way along miles of empty highway where cell towers are sparse, your customers still need the same reliable connectivity to track those vehicles and coordinate their operations.

Unfortunately, single-carrier solutions often deliver unreliable connectivity in remote areas. Their coverage map doesn't match up with where your customers need to operate. To your customers, those gaps in coverage reflect your product's limitations, not your carrier's lack of infrastructure or redundant coverage. They either learn to live with poor service or find a competitor that works better for their use case.

If you're using a single-carrier solution or don't have enough redundant coverage to support service in remote areas, you're losing business to competitors with better coverage, and you can't expect to charge the same prices for less reliable service.

Multi-carrier solutions like EMnify ensure that if a network has poor coverage in the areas your customers operate, there's usually another—or several others—available with a stronger signal. EMnify's automatic network selection defaults to the carrier with the strongest signal or best data rates, but when a customer experiences problems with a network, you can always disable it and prioritize one that works better for them.

Your customers don't have to worry about dead spots, and you don't have to worry about losing business to a competitor with better local coverage.

Fleet activity is seasonal—connectivity costs can be, too

Throughout the year, the number of assets your customers need to manage can fluctuate significantly as the volume of business changes with the seasons. Trucking businesses obviously need more trucks in the last quarter of the year as commerce demand skyrockets during the holidays. Some customers may have increased seasonal business relating to local events or industry trends. Unexpected demand can

temporarily increase the need for vehicles as well. But you and your customers shouldn't be stuck paying for active devices you don't need during the off-season. With EMnify, you can activate or deactivate SIMs as needed to scale up and down with your business needs. This helps you avoid unnecessary expenses without compromising your customers' ability to meet seasonal demand.





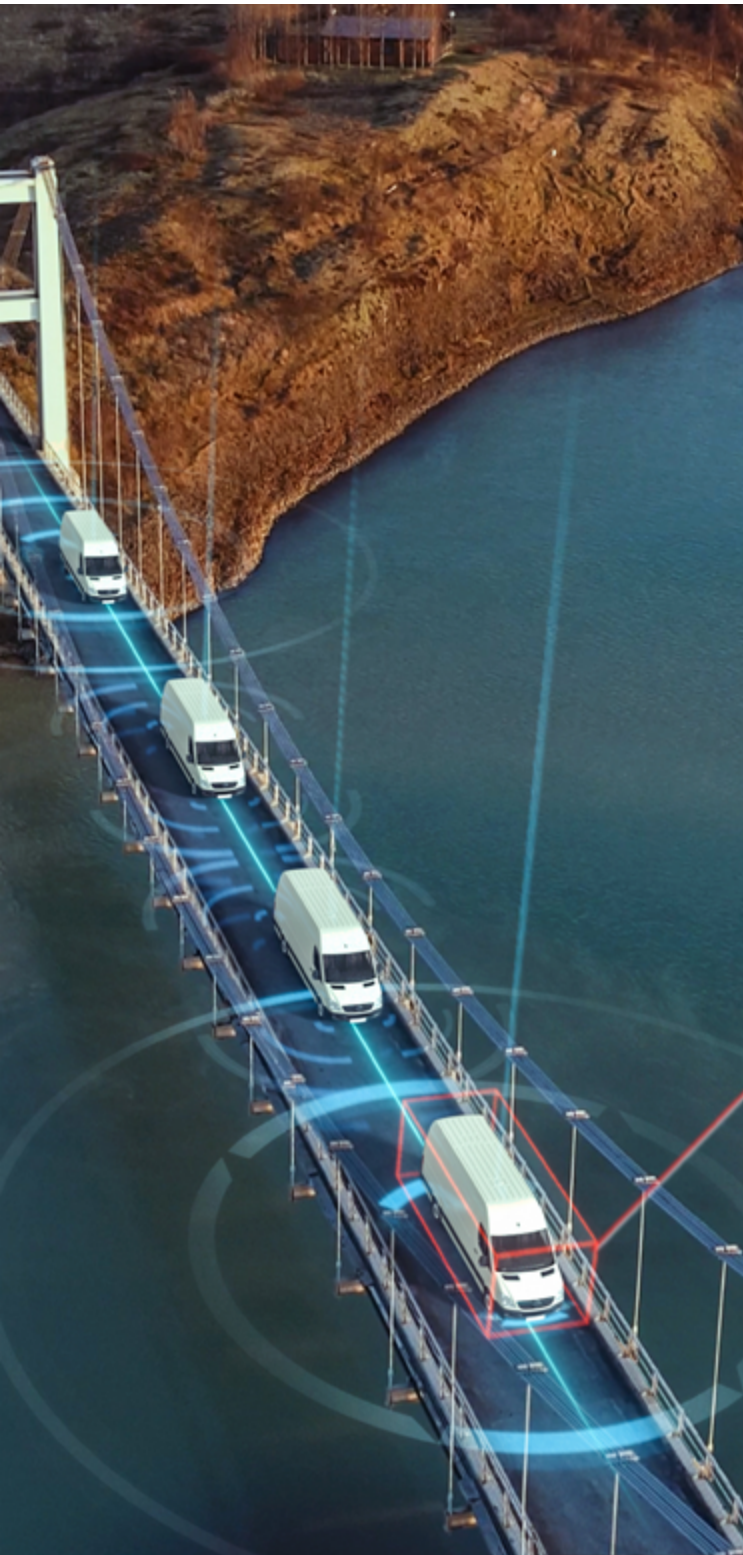
Remote troubleshooting can significantly reduce time to resolution

Devices go offline. It's inevitable in a business that depends on connectivity. But how you resolve that situation greatly impacts whether your customers stay your customers. And your ability to resolve it efficiently depends on your connectivity provider.

Many fleet tracking manufacturers are left scrambling when a device goes offline. Which portal do you need to see that customer's devices? What capabilities do you have in that portal? Is the data you need available? Which carrier will you have to work with to resolve the issue? Are there relevant support articles available? Do their customer service reps speak your language or understand what your business does?

Remote troubleshooting capabilities can reduce your time to resolution by days or even weeks, eliminating back-and-forth communications with carriers and giving you the tools to resolve customer support issues in the moment. You can see all of your GPS trackers and every error, failure, or event that affects their connectivity from a single place. When automatically switching networks doesn't solve the problem, you can manually reset connectivity, switch to a new network, or block specific radio technologies or operators on a device level. All while your customers are still on the phone with you.

10 Network steering can be a problem of the past



You want your devices to connect to the network that does one of two things for your business:



**Provides
the strongest
signal**



**Gives you the
most affordable
data**

But when you use a single-carrier solution, that isn't how it works. They're trying to maximize their margins, too. So they steer your devices to their network, even if it isn't the best one available. Network steering means your customers get an inferior experience whenever your carrier's coverage doesn't fit well with their needs. For some customers, this can create daily friction with using your product. But it's out of your hands—unless you choose a provider that lets you and your priorities do the network steering.

At EMnify, we don't play games with your connectivity. You tell us your priorities—costs or signal strength—and we'll make sure your customers always get the best network. Automatically. We don't have a home network to steer you toward, and we know that giving you the networks that best meet your needs will keep you and your customers happy for the long haul.

See what the future of connectivity means for your business



Your customers have many fleet management solutions to choose from. And if your connectivity provider is inhibiting your customer experience, it's worth remembering that you have a lot of choice when it comes to your connectivity, too.

Right now, the capabilities and service we've explored in this ebook aren't the norm. But they could be for you. In the future, this is where IoT connectivity is heading. And the sooner your business gets

there, the more opportunity you have to use superior connectivity to your advantage.

GPS tracking manufacturers are cutting costs and trying to increase margins everywhere they can. And with the right connectivity partner, you can do both of these things while significantly improving your customer experience.

Maybe it's time to see what EMnify can do for you?

Sign up for a free trial to see our tech for yourself.

→ portal.emnify.com/sign/up

Or talk to an IoT expert today.

→ emnify.com/talk-to-us