



# The Fleet Manager's Essential Guide to Evolving Wireless Networks

Discover what your fleet needs to know about the  
3G wireless sunsets and 4G LTE connectivity.

## A Quick Primer on the Necessity for Advanced Wireless Networks

Here's a fact: The average U.S. household now has 11 Wi-Fi-enabled smart devices. Phones, tablets, smart watches – they all inundate our lives as we demand faster speeds for more content. As a result, the day of reckoning for our current mobile network infrastructure has come.

Fleet managers who take this seriously are in a unique position to make a major advancement for their operations.

### Why is now the time?

While there seems to be an infinite supply of Wi-Fi enabled devices, there's a finite amount of spectrum to go around.

The transmission of real-time data and continuous internet connectivity requires networks to be better, faster and provide more coverage. This all boils down to the fact that networks need more bandwidth and frequencies to keep up with today's – and tomorrow's – demands for faster, better data transmission.

Think of it like a highway, where frequencies are the lanes. Each lane can only hold so many cars. LTE is about going from a one-lane street to a three-lane highway – with more bandwidth and frequency to

connect us all at a faster and more reliable rate. By making the investment now for your fleet, the upgrade will provide benefits that will be priceless down the line.

### From this ebook, you will:

- Achieve a better understanding of how wireless carriers are repurposing older networks.
- Understand what this means for your older onboard equipment.
- Realize the short-term and long-term benefits of advanced connectivity through 4G LTE networks.



**\$35.4b**  
trucking app  
market by 2025

**20.8b**  
devices connected  
to the internet  
in 2020

**75b**  
devices are  
forecasted  
by 2025



## What the 3G Sunset Means for You.

### Service degradation is on the horizon.

The need for better, faster and more widely-available coverage has resulted in new networks with faster speeds and more bandwidth.

All the major carriers have invested in Long Term Evolution (LTE) for many years now, and customers are experiencing LTE coverage where Code Division Multiple Access (CDMA) and High Speed Packet Access (HSPA+) were previously never available, such as rural and remote areas of the U.S., Canada and Mexico.

To continue investing in LTE and the future, carriers must reallocate their portion of the spectrum from CDMA and Global System for Mobile Communications (GSM) to LTE networks, rather than maintaining lagging, obsolete networks that cannot accommodate new technology and faster speeds. Fleets that are still reliant on these older networks will experience more and more service degradation. And the impact of this will really start to be seen over the next year.

### Key Takeaways:

- Wireless carriers are repurposing older 3G networks, specifically CDMA and GSM networks.
- Coverage will start to degrade as cell towers are repurposed, meaning increasingly spotty coverage until they are shut off for good.
- If you have 3G-powered onboard devices, ensuring your fleet's connectivity will be reliant on 4G LTE-connected devices.

# The ABCs of LTE.

## Get to know your three new favorite letters.

The thought of transitioning your fleet to LTE may sound like a hassle on the surface. But the benefits you'll experience both today – and in the years to come – will set your business on a new path of streamlined communication and profitability.

LTE is the next MAJOR advancement when it comes to higher bandwidth and lower latency – far beyond CDMA and GSM capabilities. It continues the path of

long-range technology planning that's designed to ensure longer-living devices, faster speeds and much better service. The LTE network available currently is 4G LTE, which is highly available nationwide and offers higher bandwidth and improved network responsiveness. This network is built to last for the long run, so the sooner you make the switch – the better off you'll be.

### A quick overview of the benefits:



Increased Bandwidth



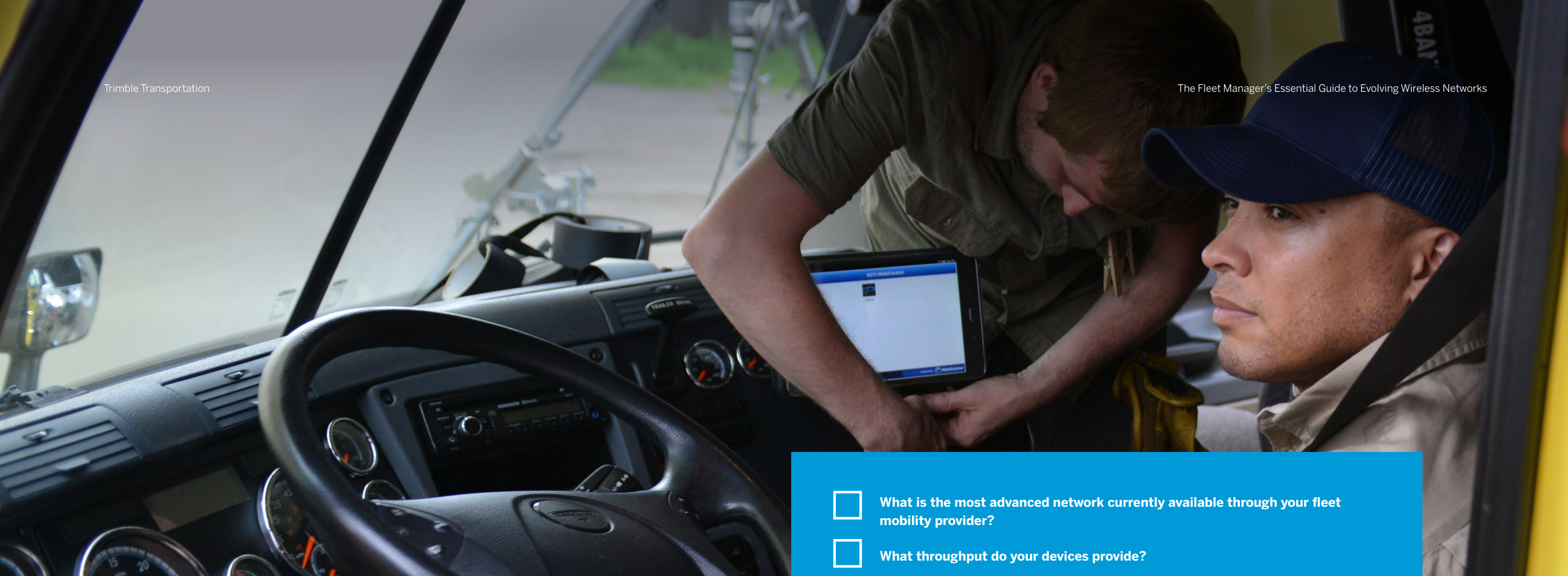
Lower Latency



Increased Network Capacity



Future-Proofed Devices



## Checklist for Successfully Navigating the LTE Switch.

**“Where do I start?” By asking the right questions.**

Networks will continue to evolve along with technology, and it's imperative that your fleet selects a technology partner that truly sets you up for the future. As a fleet manager, here are a few key questions to ask of yourself.

- What is the most advanced network currently available through your fleet mobility provider?
- What throughput do your devices provide?
- Do your devices provide a seamless experience across North America?
- Does your provider offer a fully managed and monitored solution?
- What is your fleet's technology path and plan - and does your fleet mobility provider align with those plans?
- Is your provider engaged to continually evolve for the latest advancements?

Addressing these network-related questions up front can help ensure you're selecting technology that's built with your fleet's future in mind.

At Trimble, we're in the business of creating future-proof solutions – so you only have to make this decision once.



## Trimble's Approach to Future-Proofing Your Connectivity.

In 2017, Trimble was the first telematics company to provide 4G LTE connectivity in the North American trucking industry. Since then we've been perfecting the path forward when it comes to faster connection speeds, improved efficiencies and increased safety.

### The Trimble Difference

- Trimble offers a wide range of LTE-connected hardware options, with Android-powered displays, giving you a flexible operating system that is built for today and tomorrow's fleet mobility solutions.
- Trimble's Enterprise Mobility Management enables you to take full advantage of advanced LTE connectivity, allowing you to give drivers the tools they need to be productive while giving you peace-of-mind in knowing you can safely manage a wide range of apps and devices across your driver base.

- Trimble's Managed Network provides fleets with monitoring solutions that provide highly detailed wireless network metrics that report minute-by-minute connectivity, coverage depth and latency for all trucks in a fleet.
- Trimble's solutions are relied on to manage 3.1 million vehicles each day – with 78% of the top 100 private fleets in North America and 100% of the top 100 for hire fleets using at least one of our solutions.

At the end of the day, a partnership with Trimble will not only seamlessly help you navigate the 4G transition – it will set you up for today, tomorrow and the years to come.

## Top Takeaways

There's a lot to digest as you look ahead to your fleet's transition to 4G LTE connectivity. Here's a little cheat sheet to remember the essentials.

- The intense surge in mobile smart device use is connecting us like never before, with predictions that there will be 75 billion connected devices by 2025.
- This greater demand for speed by a greater number of connected devices is putting a significant strain on our mobile networks – and ultimately the spectrum.
- To make way for improved networks, U.S. carriers will reallocate their portions of the broadband spectrum, removing obsolete networks that cannot support faster speeds and real-time data transmission.
- U.S. mobile service providers began to repurpose CDMA and GSM networks beginning in 2019, and large areas of coverage are beginning to disappear.
- Major carriers are building the infrastructure to increase supply to meet growing demand and support the next generation of wireless connectivity.
- Trimble is leading the way to prepare its customers for future networks, working closely with carriers to upgrade to devices that support LTE connectivity.

# Never Stop Evolving with Trimble Transportation.

Ready to Harness the Power of 4G LTE Connectivity?

Contact us to get started today.

**Phone: +1 866 914 5299**

**Website: [transportation.trimble.com](https://transportation.trimble.com)**

**Trimble Transportation** provides solutions to create a fully integrated supply chain, helping customers make more informed decisions and maximize performance, visibility and safety. With an intelligent ecosystem of products and services, Trimble Transportation enables customers to embrace the rapid technological evolution of the industry and connect all aspects of transportation and logistics — trucks, drivers, back office, freight and assets.