Don’t worry. We’ve got you covered.

The cellular landscape is complex and will be in flux for the next several years. Rest assured that Emerson is doing everything we can to help prepare the cargo tracking industry for this cellular network transition:

• Advising customers about which real-time trackers work best for their shipping routes
• Working with network providers to understand the timing of 2G and 3G turndowns
• Developing next-generation, real-time tracker technologies
• Providing industry stewardship on how to achieve uninterrupted real-time cargo tracking

Wherever your business ships its perishable cargo, we’ll help you navigate the cellular transition.

Real-time temperature tracking is changing.

For many years, 2G and 3G cellular networks have provided the infrastructure that enabled real-time trackers to deliver location and temperature data throughout the global perishable cold chain. But over the next several years, many of these networks will become obsolete and potentially present gaps in real-time cellular coverage. In order to help make the transition to cargo-tracking devices built to utilize next-generation networks, it’s a complicated landscape, but Emerson will help you navigate the cellular transition.

An industry in transition — the 2G and 3G cellular network turndown

1. The quickly evolving mobile device industry has outgrown both 2G and 3G networks.
2. As 4G and 5G technologies roll out globally, 2G and 3G networks are becoming obsolete.
3. Specific turndown timelines are dependent on carrier and geographic regions.

What does this mean to the cargo tracking industry?

Real-time trackers help end users monitor food quality and safety by providing access to location and sensor data such as temperature, humidity and much more.

As 2G and 3G networks turn down, cold chain stakeholders will begin to experience gaps in their coverage, which could result in:
• Inability to monitor food quality (freshness) and safety in real time
• Losing real-time alerts (emails/text messages)
• Incomplete data to resolve shipment disputes promptly
• Potential risks to brand reputations

What’s taking the place of 2G and 3G networks?

Real-time trackers transmit small packets of data that require relatively little memory, battery power and bandwidth.

Next-generation networks, called low-power, wide area network (LPWAN) technologies, are an evolution of 4G LTE:
• Category M (Cat-M), where “M” stands for mobile
• Narrow band IoT (NB-IoT)

These new networks will deliver similar performance characteristics to 2G and 3G while keeping the cost of real-time trackers affordable.

When will these new networks roll out?

1. Cat-M and NB-IoT networks are new and currently in the process of rolling out.
2. Major U.S. network providers have already started turning down 2G and 3G networks to dedicate infrastructure and technology investments toward next-generation technologies. Look for this to continue.
3. In some countries and shipping regions, 2G will remain viable well into the future due to its installed base and cost-effectiveness.

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