3 Pitfalls to Avoid
When Moving to LTE-M

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While the advantages of the Internet of Things are significant, there are basic hurdles to overcome when entering into this connected world. With well-thought plans, and an experienced provider, businesses can gain the coverage they need, enact comprehensive connectivity management for total device oversight, and be backed by a support structure that focuses on their success.

CREATING A HASSLE-FREE DEPLOYMENT

Because it's a pioneering technology, there is a lot of confusion around the Internet of Things (IoT), connectivity technologies, and how each might work. There also are concerns regarding the management of all that connectivity, as well as the support needed to maintain and grow an IoT deployment. And it is vital to remember that these are not standalone issues, as each can influence the entirety of an IoT deployment

While the advantages of the Internet of Things have proven to be robust and effective, there are some red flags, or pitfalls, that consumers need to know BEFORE they transition from one connectivity protocol, say LTE, to another, such as LTE-M. This paper will focus on three of those issues for those transitioning to LTE-M. It also will provide easy-to-apply solutions to each. Red flags to recognize and understand include:

Restricted Coverage: The impact of single carrier LTE-M coverage on your IoT devices.

Lack of Connectivity Management: Implications of LTE-M network constraints due to lack of connectivity management insights.

Inadequate Support: The hidden costs resulting from less than optimal support, expertise, and transparency.
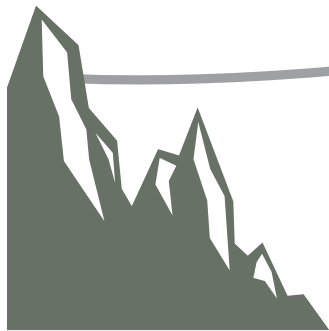
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PITFALL 1

Lack of Reliable, Always-On Coverage

Maintaining always-on connectivity coverage should be a starting point for your deployment. Without it, deployments suffer increased downtime, coverage costs go up, and thought-out business plans become far less effective.

Lack of Integration

Some IoT providers do not even offer secondary or tertiary options for connectivity. That means that you could lose coverage, especially in remote regions, if you do not have fallback options. Then there are providers who might have multiple options, but choices are driven by cost, not quality of connectivity, and that can be a huge mistake, especially if the gathered data is time sensitive (think cold chain monitoring or heart monitors).

These issues alone can hinder optimal performance from your IoT deployment. Put them together and the result could be disastrous for your business.

Aeris Solution

The overriding solution for reliable connectivity is multi-provider, multi-technology coverage that ensures your business always can be connected to the strongest signals, regardless of location.

Aeris offers 2G, 3G, 4G, and soon-to-be 5G cellular connectivity in more than 180 countries across more than 550 carriers. Our networks are built specifically for IoT, and include readiness for next-generation technologies, such as LTE-M and NB-IoT. At present, there are more than 14 million devices on our network, using protocols such as:

LTE Data Coverage: Aeris provides your company with access to leading nationwide 4G LTE connectivity (and LTE-M, as well), optimized with 3G fallback capabilities.

CDMA Data Coverage: With access to more than 50 North American CDMA carriers, Aeris provides ubiquitous coverage to your devices, ensuring you can send and receive data as needed.

GSM Data Coverage: With more than 400 partners across 180 countries,

Aeris provides worldwide connectivity with unmatched depth of coverage to your devices.

Deploy Devices in Multiple Networks

With Aeris' enterprise cellular connectivity, you can deploy devices globally in multiple networks (such as cellular and non-cellular technologies) and manage your deployment from one platform. This basic ability is integral to success.

PITFALL **2**
No Comprehensive Connectivity Management Leading to No Oversight, No Insight

With global cellular connectivity, connecting devices is just the beginning. Once you have deployed the devices, the next most important thing to know is whether the devices and sensors are working properly. However, a key challenge with many IoT processes and tools is the lack or visibility into the device's connectivity information. If your current provider cannot answer these basic connectivity questions, then you might need to rethink your alliance to that provider.
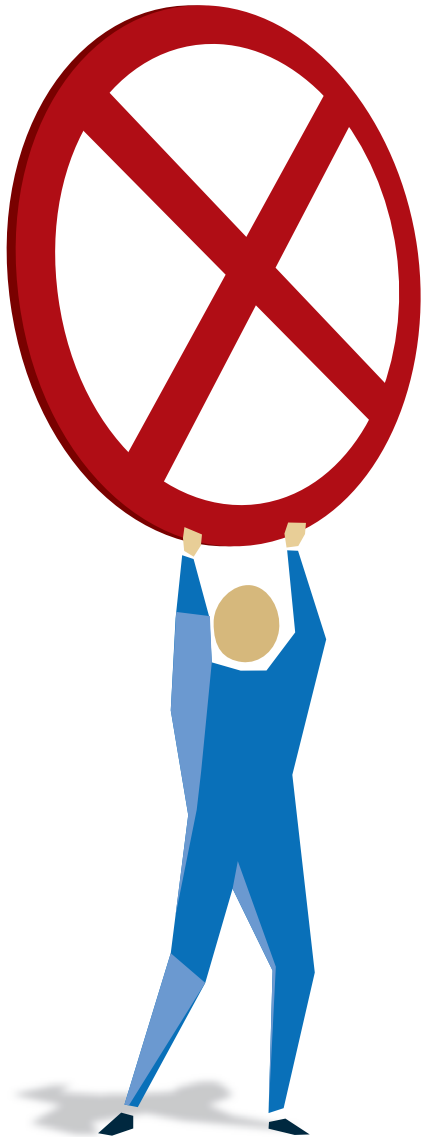
◇ Do I have proactive identification of usage and billing issues?

◇ Do I have easy access to connectivity data?

◇ Can I employ remote diagnosis and support?

◇ Is there a simple-to-use interface to diagnose issues quickly?

◇ How do I manage devices connected to different carriers? Using differing technologies?

Within the entirety of connectivity management, any of these issues could result in higher costs, serious billing issues, slower issue resolution, and less-than-optimal long-term results.

When connectivity is not reliable for basic situations, the entire deployment is in jeopardy. For example, with over-the-air (OTA) or remote updates, high delivery failure rates could ensue if the status of the deployment is unclear, thereby significantly increasing the time and complexity for OTA campaigns. Without the ability to see the status of every device, multiple delivery failures (for the same device) require complicated retry handling mechanisms that increase operational cost and time to completion. This, in turn, increases data transport costs because of multiple delivery retries. With enhanced connectivity management, as well as reliable, always-on connectivity, these issues become far less threatening to the bottom line.

Aeris Solution

Aeris provides sophisticated tools for managing connected devices—from provisioning SIMs, to monitoring data consumption, to troubleshooting device and network issues. The Aeris AerPort platform even enables the management of devices connected by other cellular carriers on other connectivity technologies—all from a single platform.

Aeris AerPort: Connectivity Management

Aeris AerPort is the comprehensive connectivity management platform that provides the cost-saving controls needed throughout an entire IoT device lifecycle. Using the AerPort platform, companies can gain timely insights, proactively identify usage and billing issues, and take positive actions based on real-time data, thereby reducing the total cost of ownership. Aeris AerPort is the one platform providing one view of your entire deployment, regardless of carrier, device numbers or location, or the connectivity technology used.

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PITFALL **3**
Lack of Support
(Pre- and Post-Deployment)

Maximizing global support is becoming a turning point for IoT organizations. Support and troubleshooting for an IoT deployment can consist of several areas of importance, including onboarding and deployment support; help desk assistance; response times; proactive problem notifications; and 24/7 online and automated information services. Support levels can break or make a deal or, in a worse-case scenario, can force customers to switch providers.

A good support infrastructure will resolve issues before they impact your business, thereby lessening troubleshooting times while maintaining maximum deployment uptime. Empowering users, conserving resources, and accelerating time to market is becoming a major differentiator for IoT platform providers. The inability to maintain device uptime, the lack of response, or response times taking far too long are all issues that enhanced support can alleviate.

Aeris Solution

Aeris is dedicated to ensuring that your devices and applications work on the Aeris Fusion IoT Network at the level that meets all your business needs. Aeris has developed Infinity Support™ to provide the critical capabilities you need to achieve breakthrough performance in operational efficiency and solution uptime. All enterprise customers automatically receive Infinity Support.

With Aeris Infinity Support, problems are resolved as quickly as possible. Offered in multiple, flexible packages, Infinity Support includes full support five days a week, with ten-minute response times, and proactive monitoring and issue identification. Staffed by IoT / M2M experts, and powered by the Aeris Fusion IoT Network, Infinity Support sets a new standard in the industry.

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The Path Forward

Whether it's expanding your IoT network coverage, or moving to next-gen technology, deploying a large-scale IoT solution can be daunting.

You need a subject matter expert that can guide you through the transition of existing connected devices to LTE-M, while managing your resources on one platform, regardless of project location, previous technology used, or the number of devices in your deployment.

Aeris IoT connectivity solutions simplify the IoT deployment process from start to finish. Aeris provides better reliability, performance, visibility, and control so that your deployment operates at peak performance. Let us show you how.

Contact Aeris Today to Get Started on Your IoT Journey!

ABOUT AERIS:

Aeris is a pioneer and a leader in the market of the Internet of Things with a proven history of helping companies unlock value through connected technologies. We strive to fundamentally improve business performance by dramatically reducing costs, accelerating time-to-market, and enabling new revenue streams. Built from the ground up for IoT and road tested at scale, the Aeris Fusion IoT Network™ and the Aeris Mobility Platform span the IoT technology stack—from global connectivity to application services. Visit www.aeris.com to learn how we can inspire you to create new business models and to participate in the revolution of the Internet of Things.

Visit www.aeris.com or follow us on Twitter @AerisM2M to learn how we can inspire you to create new business models and to participate in the revolution of the Internet of Things.

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