

# AERIS FUSION IoT NETWORK™

---





# AERIS FUSION IoT NETWORK: BEST-IN-CLASS CONNECTIVITY

Aeris has been at the forefront of global IoT expansion for more than a decade, providing connectivity solutions and insights to industries regarding their products, their customers, and their business.

The Aeris Fusion IoT Network is an intelligent solution for connecting IoT devices across 2G, 3G, LTE, LTE-M, and NB-IoT, and is the first-ever intelligent 5G-ready solution designed to enable innovation specifically for LTE-M deployments. With more than 14M units under management, this network provides flexibility across carrier networks and technologies, thereby delivering better performing device connectivity; deep control and visibility to streamline and simplify operations; connectivity-aware application functionality to harmonize next-gen applications and network data; and an evolving network and feature set to drive IoT innovation.

Historically, IoT connectivity solutions have been inflexible and rigid, creating lock-in to certain networks and technologies, with barriers to updating device software, as well as for scaling. As IoT programs can last for 10 years or more, this model is no longer tenable as the pace of change has increased with new regulations, frequent wireless technology transitions, and global growth initiatives. The Aeris Fusion IoT Network turns the legacy model upside down, breaks the application and connectivity silos, and delivers game-changing advantages to enterprise customers.

From provisioning SIMs, to monitoring data consumption, to troubleshooting device and network issues, Aeris will work closely with your IT team to ascertain the type of network that best fits your needs, as well as identifying the specific technologies needed for your project. We care about creating network solutions that customers can rely on.

# WHY ENTERPRISES TURN TO AERIS

## Quality of Service

The Fusion IoT Network coverage footprint is strong, with more than 98% of the USA covered today. But more than that, Fusion optimizes coverage across networks, thereby reducing connectivity issues by more than 10%.

## Support

With Aeris Support, your solution will have fewer network issues—saving 30% on operational costs. We own and operate our own core network, which means we can diagnose and fix issues directly ourselves. The Aeris Support team resolves issues faster, enabling maximum up-time for IoT deployments.

## Total Cost of Ownership (TCO)

The Aeris Fusion IoT Network provides the lowest TCO for IoT deployments in the market today. Organizations can achieve a 60% reduction in connectivity costs; a 50% reduction in over-the-air (OTA) update costs; and 30% faster resolution of any issues that might arise.

## Extending Deployment Lifecycle

With the Fusion IoT Network, routing to the strongest signal reduces battery drain. Additionally, OTA updates let you leave your devices in the field for longer periods of time, updating security patches and product features on-the-fly.

## Launching Faster

With Aeris expertise, guidance, and the ability to update devices in the field, businesses get to market 50% faster than the competition.



# AERIS FUSION IoT NETWORK + LTE-M

LTE-M is poised to dominate the IoT world for years to come, replacing GSM and CDMA protocols. One reason is the cost—to date, cellular technologies have not been optimized for IoT deployments, leading to higher hardware and operational costs.

LTE-M is a bi-directional, standards-based protocol within the same spectrum as LTE. It provides carrier-grade security, long battery life, and low-cost modules. Another strength is that LTE-M does not need a new infrastructure as it can piggyback on existing LTE networks. As such, a carrier can update software on its network to enable LTE-M, with savings that can be passed directly to the customer.

LTE-M is a much simpler technology than standard LTE, and offers unique capabilities that significantly extend battery life. For most IoT devices, operating in a low throughput LTE-M environment is not an issue as they are only sending small amounts of data on an intermittent schedule. However, there can be issues when sending large amounts of data (for example, an

OTA firmware update) while bandwidth constrained. The resulting network congestion can lead to high failure rates, thereby prolonging the time-to-update as well as increasing costs. With the Fusion IoT Network connectivity-aware APIs, these issues can be avoided, ensuring that the update campaign is conducted efficiently and quickly, with complete information about the underlying network status.

LTE-M is today's standard, meeting security and power conservation levels suited for deployments in multiple business sectors. With low-cost modules, extended battery life, better signal penetration, and the ability to use existing infrastructure, LTE-M has the potential to improve all IoT business models.



## Low Cost Modules:

Up to 50% reduction in module costs over comparable IoT devices.



## Extended Battery Life:

Up to 10x improvement in battery life with the use of a power-saving mode, thereby minimizing battery drain.



## Better Indoor / Underground Penetration:

Lower MHz channels provide better indoor and underground penetration.



## Existing Infrastructure:

LTE-M can piggyback on existing LTE networks.



# THE RIGHT TIME FOR AERIS FUSION IoT NETWORK

---

Whether you're new to IoT or a veteran of the industry,  
Aeris can help you get connected.

## Launching New IoT Programs

Get to market faster using the best connectivity network for your needs. Investing and planning a large-scale project can be daunting as enterprises have high expectations for their IoT business. That's why it's vital to make smart investment choices about infrastructure now, in advance, to ensure future viability and success.

Aeris connectivity solutions are designed from the ground up exclusively for the rigors of IoT, not retrofitted from an existing consumer system. Aeris provides a single portal for managing every device—one login for billing, support, APIs, VPN, and more. And everything is backed by our top-rated customer support teams dedicated to your success.

## Transitioning to New Technologies

Gain optimal efficiencies and new functionality with the latest IoT networks, such as LTE-M. Whether you are dealing with a technology sunset, wanting to lower hardware and battery costs, or just trying to reduce overall operating costs, the Aeris Fusion IoT Network provides the pathway to higher functionality with greater cost savings. It is a dynamic and flexible connectivity solution that adapts to a rapidly changing environment. And it comes with the highest level of support in the industry.

## Replacing 2G/3G Technologies

There are many reasons companies switch technologies: sunsetting of older technologies, controlling costs, or simply improving your IoT deployment. Businesses will need to look past the protocols and technologies of today and deploy a solution that's future proof—dynamic, flexible, and adaptable. Adopt next-gen connectivity technologies (LTE, LTE-M, NB-IoT) to improve cost and functionality of any IoT business model. That's the Aeris Fusion IoT Network.

## Improving Your IoT Deployment

With the Aeris Fusion IoT Network, you stay ahead of the competition with industry-leading, cost-effective, and flexible cellular IoT solutions. Expanding to new coverage areas is made simple by managing multiple networks through Fusion's unified dashboard. All-in-all, customers save 60% in connectivity costs; reduce over-the-air (OTA) update charges by 50%; and achieve 30% faster problem resolution.

With the Distribution Channel Package, customers simplify a complex, business-critical function by creating an organized and secure environment for managing IoT solutions. The delegated billing and reporting capabilities result in a reduction of operational costs for OEMs. The Aeris Fusion IoT Network lets you do all this and more.





## DATA AND DEVICE SECURITY

Any device that is connected to the internet is at risk of being hijacked. That's the standard assumption. Businesses deploying IoT solutions are responsible for protecting data and devices, as well as any corporate proprietary data. In the context of IoT, privacy and security protocols need to ensure that access is limited only to appropriate and authorized personnel. To that end, the Aeris Fusion IoT Network provides in-depth data and device security, including:

### ConnectionLock™

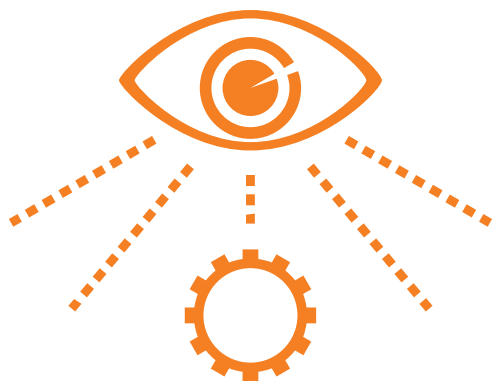
ConnectionLock prevents access to unauthorized endpoints or IP addresses, creating an additional layer of security for IoT devices. If the SIM card gets stolen from the device, Aeris ConnectionLock ensures that the SIM card can connect to no other IP address or URL.

- Connect, send, receive only to/from preselected IP addresses or endpoints.
- ConnectionLock acts as an additional firewall within the Aeris Fusion IoT Network.
- Aeris SIM cards cannot connect to other devices, thereby reducing security risks.
- Our solution is implemented at the network level, without added complexity or work for the customer.

### Connectivity-Aware OTA APIs

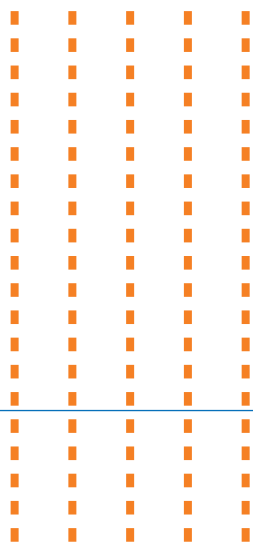
Over-the-air (OTA) updates can be deployed to thousands of IoT devices at once rather than requiring each device in the field to be manually modified. OTA updates eliminate the need to send technicians into the field, save owners time and money, and make IoT deployments vastly more scalable. The ability to make changes to many devices remotely is important especially for operators of large-scale IoT deployments where updating devices manually would be a nearly impossible task.

- Up to 50% reduction in time-to-completion for OTA campaigns.
- Up to 50% reduction in OTA failure rates and data costs.
- Scale for large deployments with ease.
- Significantly reduce manual operations.



## VISIBILITY AND CONTROL

The Aeris Fusion IoT Network provides robust IoT lifecycle management, bound together with heightened customer support. Device traffic management provides customers with the ability to analyze performance and cost drivers and, when combined with alerts management, allows for a wide range of pre-defined or option-driven system alerts and reports, thereby ensuring optimum performance. Additional Aeris Fusion IoT Network functionalities include:



### AerPort / APIs

The Aeris AerPort™ dashboard provides a single portal for managing global deployments, including end-to-end device lifecycle management, billing status, connectivity analytics, and access to customer support. Aeris also offers a rich set of REST APIs, enabling easy integration into other management frameworks.

### IoT Analytics

By identifying devices with connectivity issues, analyzing usage activity, and focusing on outliers or devices behaving abnormally, you can reduce equipment outages and downtime, resulting in decreased business expenditures. The Fusion IoT Network Analytics capabilities find insights, issues, and potential security vulnerabilities before you do.

### IoT Billing

The Fusion IoT Network's robust billing functionality enables a high level of flexibility in enabling new business models, including delegated billing to distribution partners and diverse rollover and pooling policies.

# THE ONLY CELLULAR NETWORK INTELLIGENT ENOUGH FOR IoT DEVICES



Our customers have the most successful IoT deployments because we leverage our proven history of innovation to deliver dynamic, reliable network solutions. With the Aeris Fusion IoT Network, you:

- Know when your devices aren't working because our network was built specifically to monitor and alert.
- Discover cost anomalies before you get our bill because our network was built specifically to deliver visibility and security.
- Launch a better performing solution easier and faster because our team can provide the expertise and guidance to deploy and scale.
- Oversee device connectivity from anywhere in the world because our network standardizes connectivity and management across all underlying networks.



## AERIS SUPPORT: TAKING CARE OF YOUR DEPLOYMENT

Aeris owns and operates its own core network, which means we diagnose and fix issues directly. We're working 24 x 7 to monitor the network and find issues before you do.

We staff our Tier 1 support with engineers who have all the critical information (your applications, our network) needed to quickly troubleshoot problems affecting your deployment.

Our support staff members are quick to respond, excellent at communications and transparency, and capable of resolving any issues that might impact success. Additionally, customers can gain access to the Priority Ticket Queue, along with solution monitoring, VPN monitoring, and a monthly KPI report. At Aeris, we monitor your solution and resolve issues faster than our competitors, sometimes even before you realize that a problem exists. This way, solutions can be implemented before issues can escalate.





READY TO START  
YOUR IoT JOURNEY?

VISIT [AERIS.COM/CONTACT-US](https://aeris.com/contact-us)



# PUTTING EXPERTISE INTO ACTION

For more than a decade, Aeris has powered critical projects for some of the most demanding customers of IoT services. We strive to fundamentally improve businesses by dramatically reducing costs, accelerating time-to-market, and enabling new revenue streams. The Aeris Fusion IoT Network is built from the ground up for IoT and road tested at scale.

Aeris simplifies the complexity of your IoT deployments and enables you to stay ahead of the competition. So, if you are just starting out on the IoT journey, or find yourself on that road but could use additional insights and cost-saving solutions, contact us today to see how the Aeris Fusion IoT Network can help your company grow and succeed.

Visit [www.aeris.com](http://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.

United States Contact:  
[info@aeris.net](mailto:info@aeris.net)  
or +1 408 557 1993

Europe Contact:  
[EU\\_info@aeris.net](mailto:EU_info@aeris.net)  
or +44 118 315 0614

India Contact:  
[india\\_info@aeris.net](mailto:india_info@aeris.net)  
or +91 01206156100

© 2020 Aeris Communications, Inc. All rights reserved. No portions of this document may be reproduced without prior written consent of Aeris Communications, Inc. Specifications are subject to change without notice. Aeris, the Aeris logo, Aeris Connection Lock, and Aeris AerPort are trademarks or registered trademarks of Aeris Communications, Inc. in the United States and/or other countries. All other brands or products are trademarks or registered trademarks of their respective holders and should be treated as such. 0120