Cal/Amp®

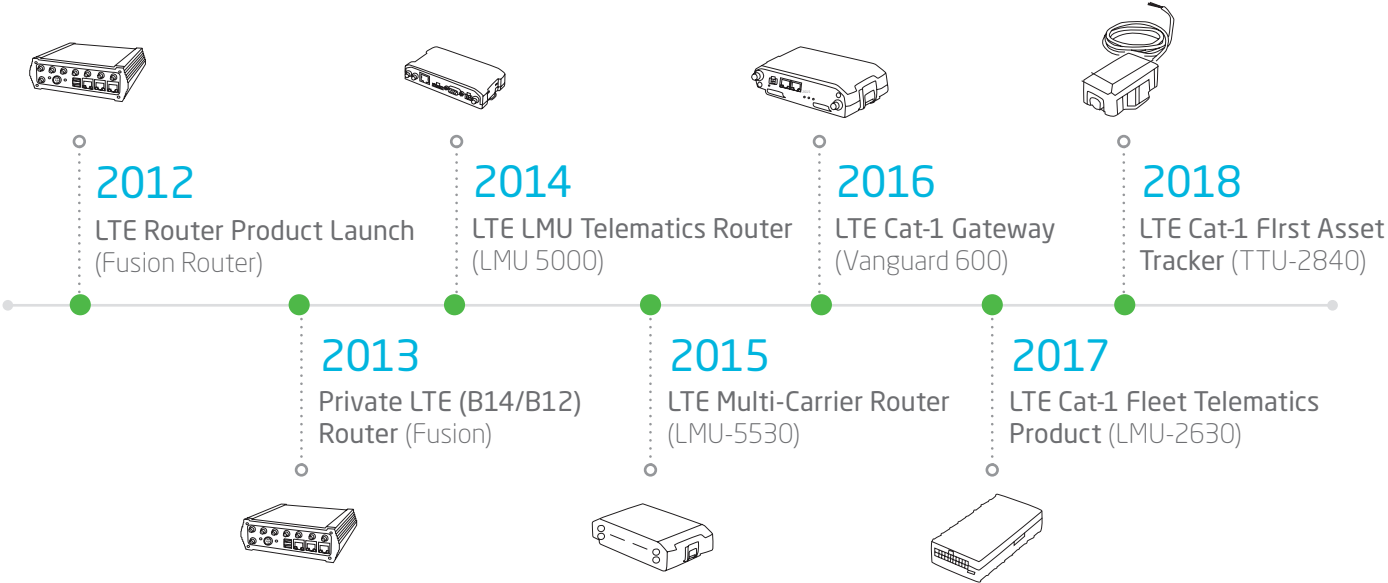# LTE Connection: Why It's The Backbone of Today's M2M & IoT

The notion that the fastest network gives you an edge over your adversaries still holds true to some extent today, but the line between the advantage of using a 4G LTE capable device and the race to launch the first 5G device is for some, not entirely clear or well defined. LTE, through several technology evolutions, continues to be the optimal choice for large-scale IoT deployments.

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LTE brings all-IP wireless technology to the wireless data communication space with seamless transmission of messages and data. This 4th generation technology was designed for longevity and flexibility to adapt to different types of applications. It is even in its name 'Long Term Evolution,' and with a number of device categories for IoT, LTE offers faster uplink and downlink than 2G and 3G technologies at a lower operating cost. LTE ranges from high-bandwidth applications such as real-time video, to value-optimized performance with cost versatility which makes it ideal for M2M communications, including low-power options for battery-operated devices. Tailored for longevity, LTE continues to offer better coverage for difficult areas within buildings and underground.

The Next Phase in Wireless Data Communications

Harnessing the full-potential and depth of LTE, CalAmp continues to develop and commercialize LTE products utilizing CAT 1 technology while preparing for the next phase of LTE, CAT M. From an application perspective, CAT 1 devices are ideal for ATMS, IoT and vehicle gateways, digital signs, kiosks, vehicle telematics and video surveillance. CAT M is better suited for asset trackers, trailer trackers, monitoring systems, sensor nodes and utility meters. The benefit of adopting either a CAT 1 or CAT M LTE device is that it will offer improved value, making it ideal for lower-bandwidth, powered and battery-operated applications requiring longer term deployments such as asset tracking and trailer tracking. In the near future, companies will have a broad array of choices when determining the product that best tailors to their connectivity needs.

With the attention and focus surrounding 5G, it is still in the early development phase, and will be a few years out before 5G is ready for mass adoption related to IoT applications. As 5G continues to evolve, it will have its own unique set of applications and use cases. For that reason, LTE is expected to continue to play a large role in the expansion of IoT.

2012
LTE Router Product Launch
(Fusion Router)

2013
Private LTE (B14/B12)
Router (Fusion)

2014
LTE LMU Telematics Router
(LMU 5000)

2015
LTE Multi-Carrier Router
(LMU-5530)

2016
LTE Cat-1 Gateway
(Vanguard 600)

2017
LTE Cat-1 Fleet Telematics
Product (LMU-2630)

2018
LTE Cat-1 FIrst Asset
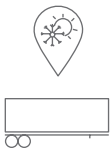Tracker (TTU-2840)

A Proven Pioneer in LTE

CalAmp is a leader in new innovations that enable companies to leverage their M2M and Industrial IoT investments. We have long-standing expertise in M2M and IoT solutions developed with a broad array of integrators, technologies, modules and chipset OEMs, including core radio design in private wireless technologies. As a longtime cellular provider for M2M across generations of networks, CalAmp was first to market with a multi-carrier router and developed our own integrated B14 LTE radio module.

Our extensive knowledge and in-depth understanding of network technologies enables us to design our products around achieving the most optimal LTE performance which, when required, includes fallback to 3G and 2G to help bridge the gap during network transitions. Pair that with CalAmp's comprehensive device management platform, we make it easy to manage and update devices and firmware over the air, and support the deployment of edge computing applications. With this in mind, CalAmp launched its first family of LTE devices in 2012 with a solution that offered dual networks for companies requiring high QoS for network redundancy with failover and fallback for continuous uptime. CalAmp is one of the most trusted manufacturers of private LTE devices and private radios for those specialized markets and early adopters.

An Expanding Device Portfolio

The commercial sector continues to explore and expand what is possible utilizing LTE which continues to be the backbone in CalAmp's product portfolio, connecting a diverse array of IIoT equipment such as fleets, heavy equipment, unpowered assets, utility meters and vehicle area networks. While 5G's enhanced mobile broadband (EMBB) makes its debut, advancing the fixed broadband backhaul wireless market and the adoption of Massive-IoT is still a few years away from commercial-ready. CalAmp is keeping a steady pace in commercializing LTE CAT 1 devices to align with market demands and continues to balance technology maturity, along with network readiness in conjunction with commercial coverage, when launching new radio technologies. We expect the LTE evolution to continue to scale worldwide. As innovation drives new applications, CalAmp is there with solutions that connect the Internet of Machines securely, reliably and simply.

Asset Trackers	Vehicle Solutions	Fleet Telematics	Telematics Gateways
TTU-2840XT	V-Series ELD	LMU-2630	LMU-3640
TTU-2830		LMU-2631	LMU-4233
TTU-1230			

About CalAmp

CalAmp (NASDAQ: CAMP) is a telematics pioneer leading transformation in a global connected economy. We help reinvent businesses and improve lives around the globe with technology solutions that streamline complex IoT deployments and bring intelligence to the edge. Our software applications, scalable cloud services, and intelligent devices collect and assess business-critical data from mobile assets, cargo, companies, cities and people. We call this The New How, powering autonomous IoT interaction, facilitating efficient decision making, optimizing resource utilization, and improving road safety. CalAmp is headquartered in Irvine, California and has been publicly traded since 1983. LoJack is a wholly owned subsidiary of CalAmp. For more information, visit calamp.com, or LinkedIn, Twitter, YouTube or CalAmp Blog.

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