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## Letter from the Editor

By: [Scott St. John](#)

Access to information has always been essential and often the difference between who has power and who does not. But how—and how fast—we access information has radically changed. In the 1800s, newspapers used the fabled Pony Express to gain the advantage on competitors by breaking news stories first. New York's *Courier and Enquirer* published scooped accounts of President Andrew Jackson's annual message to Congress by paying for a horseback express from Washington to Baltimore, a ship to Philadelphia, and a second horseback express to New York City. All said, the press run took six hours and cost \$300—equivalent to \$10,000 in today's money. But it was well worth the investment. Having access to the information first provided a critical competitive advantage, accelerated business and profits.

Today, access to information is instant. It's literally at your fingertips. With just a few taps on your mobile device screen (or by posing a question to your voice assistant), you can read the news, check the weather, and connect directly with anyone you know, or even indirectly with thousands or millions you don't over social media. Circa the Pony Express, you would have to wait at a news stand for the daily newspaper or, for professionals, invest in a telegraph or ticker tape machine – which boasted a blistering one-character-per-second speed.

Our seemingly insatiable appetite for instant access to information is driving technology adoption, innovation, and transformation. As the technology has evolved, it has also spurred the advent of new automation technologies such as AI, machine learning, robotics process automation, and other tools to help realize this new reality. The end goal being an always-on, always-connected world in which information is fed to us in real time, anytime and anywhere we want it.

This new instant-access and data-driven world can only be made possible with wireless connectivity as an integral part of the solution. Even today, there are places where the only connectivity choice people have is wireless. And, in other places cellular coverage alone may not cut it. If you find yourself pinned under a rock in the middle of nowhere, for example, your chances of cell phone coverage are slim to none.

The strength of wireless connectivity is that it can connect virtually any two points together, regardless of terrain, environment, or even whether they are between Earth and in outer space. But wireless connectivity also has its limitations. Certain wireless wavelengths have difficulty penetrating indoors spaces making reliable connectivity difficult. And if you're in motion – say hurdling through the air at 30,000 feet in an aluminum tube – wireless connectivity can fall far short of delivering a seamless experience. Which means, if you're planning an important transatlantic trip to Mobile World Congress this year, you may not be able to stay connected to your family, team or files while in transit; which may cost you many valuable hours.

Enabling connectivity for a world hungry for pervasive and ubiquitous mobile connectivity, also introduces significant cost and complexity—from network buildouts requiring billions in investment, to energy usage costs that may surge up to [140 percent higher](#) for 5G than 4G – with energy efficiency being one of the drivers behind the evolution to 6G. Many innovators are tackling the challenges to make this a reality and unlock the opportunities, including new use cases, efficiencies, and business opportunities.

The acceleration to a ubiquitously connected global society, is really a race to the future. Extending connectivity may be the last great land grab left on Earth, and beyond. The opportunities lies is in the coverage gaps such as underserved regions and emerging markets—but it's not only about market domination. It's also about [broadband as essential infrastructure](#) and [enabling connectivity equity](#), because being and staying connected is mission-critical for the entirety of our global society and connected future. Whether it's on this planet or beyond, every new frontier will have to be connected, enabling our access to information. The mobile and wireless connectivity that underpins this evolution is what makes this issue of *Pipeline* so significant.

In this issue of *Pipeline*, we explore the challenges and opportunities of pervasive mobility. Intelsat discusses enabling [satellite connectivity for 5G wireless](#). ETSI updates us on [THz communications for 6G](#) to advance connectivity now—and in the future. NGMN explores [use cases for 6G and AI](#) and oneM2M offers predictions on [IoT trends for 2023](#). Cloud4Wi discusses improving [indoor connectivity with Wi-Fi 6](#), while the Wireless Broadband Alliances addresses [fixing in-flight Wi-Fi](#) for a seamless connectivity experience. Spirent Communications explains why [testing for Open RAN](#) is critical for a connected mobile ecosystem, and WIM unpacks the [proactive configuration management for RAN](#). Optiva highlights opportunity for MVNOs to become one-stop-shops with [converged digital billing](#), and Mobileum reveals the potential of [private 5G networks](#) for enterprises. All this plus the latest [enterprise and communications technology news](#) and [more](#).

We hope you enjoy this and every issue of *Pipeline*.

**Scott St. John**

Managing Editor

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