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Telecom Industry News

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In this month's issue, we focus on AI and analytics, along with many shades of automation, big data, transformation, insights, and innovation. As if in sync with our issue theme, industry news headlines on these topics rolled in, from advancements in AI that are bringing us new Beethoven from beyond the grave to helping us combat infectious disease before it can spiral out of control.

The top telecom industry news stories from the month are summarized below. To view all the news as it breaks, check out *Pipeline's* [News Center](#) or [subscribe](#) to receive our telecom industry news summary.



AI and Analytics News

This month brought a bumper crop of AI news.

One year after Ludwig van Beethoven's 250th birthday, his unfinished 10th Symphony, which has been completed with the [help of artificial intelligence](#), will be making its highly anticipated premiere in the Telekom Forum in Bonn on October 9. The AI was not only "fed" with Beethoven's compositions and his notes on the 10th Symphony; it was also provided with works from composers and musicians who inspired and influenced Beethoven during his life.

In other AI news, [AeroFarms and Nokia Bell Labs](#) unveiled a groundbreaking multi-year partnership to combine their expertise and expand their joint capabilities in cutting-edge networking, autonomous systems, and integrated machine vision and machine learning technologies to identify and track plant interactions at the most advanced levels. The [Allen](#)

[Institute for AI](#) announced the 3.0 release of its embodied artificial intelligence framework AI2-THOR, introducing a first-of-its-kind virtual agent with a highly articulated robot arm equipped with swiveling joints to bring a more human-like approach to interacting with a variety of objects.

In analytics news, [SAS and bioMerieux](#) have announced the development of a pioneering analytics solution to arm frontline clinicians with real-time health data for better, faster infection treatment against antimicrobial resistance.

In the US, the [Department of Defense](#) Joint Artificial Intelligence Center is continuing to operationalize Responsible Artificial Intelligence with the announcement of a pilot of a procurement review process that will ensure AI acquired by the JAIC is aligned with DoD's AI Ethics Principles.

AI news also included innovations. British AI tech start-up [Kortical](#), which helps companies use machine learning (ML) and artificial intelligence (AI) capabilities, announced that it is able to configure machine learning outcomes faster than Google's Vertex, pushing the envelope of what AI and ML can achieve. [Atos and Graphcore](#) have forged a partnership to integrate Graphcore's advanced IPU compute systems into Atos' recently launched ThinkAI offering to bring AI high-performance solutions to customers worldwide. In the spirit of AI innovation, [Vingroup held AI Day 2021](#) on August 27 in Vietnam with the goal of promoting AI research, development, and application.

Network Evolution News

Network evolution news this month included new reports and research that capture a snapshot in time in an uncertain and rapidly changing world. According to the [2Q 2021 OpenVault Broadband Insights report](#), the migration to faster speed tiers is driving higher levels of broadband usage across all subscribers. The report also found a widening divide between those with the fastest broadband speeds and those who could benefit from upgrades; according to research, more than 20 percent of subscribers are ripe for upgrades.

[5G Americas](#) released a new white paper focused on private and enterprise networks. It details different operating models, network architectures, tools, opportunities and challenges those operators and enterprises face in deploying private networks to show how the pressures of digital transformation across industries and verticals are shaping network evolution.

According to a new report from [Global Market Insights](#), the mobile virtual network operator market size is anticipated to record a valuation of \$125 billion by 2027, driven by the enormous increase in Internet and mobile usage in recent years. The report included four key trends set to transform the MVNO market, including innovative solutions, growing adoption, a flourishing Latin American market, and an increasing distribution market.

Speaking of mobile connectivity, in a first, SOLiD has been selected by BAI Communications, which will be using SOLiD's distributed antenna system as a linchpin to deliver [high-speed mobile connectivity across the London Underground](#). This will transform the Underground from, in Transport London's words, from a "not-spot to a hot spot."

5G News

We're rounding the corner into the fourth quarter of 2021, which means the industry is starting to take stock of 5G with metrics, research, and reports. In 5G news, a new [Juniper Research](#) report reveals that the total number of 5G connections will reach 3.2 billion by 2026, rising from 310 million in 2021 for total growth of 940 percent. How we're using those connections is the subject of another brand-new [Juniper Research](#) study. It has found that the global number of roaming subscribers using 5G services will increase from 4.5 million in 2021 to 210 million in 2026. The research lays out imperatives for roaming vendors to develop 5G-enabled roaming services. And a third [Juniper study](#) focuses on 5G-compatible smartphones, which will account for over 50 percent of smartphone sales revenue by 2025, up from \$108 billion this year. Recent research from [Omdia](#) further benchmarks 5G-enabled smartphones, pegging that currently over 80 percent of 5G smartphones sold this year support only Sub6, the mid- and low-frequency 5G that supports lower data transmission speeds. There is clearly a gap between the hype and the reality that we can hold in our hands.

Beyond the realm of research, 5G news included headlines related to 5G rollouts and milestones. In Europe, [Nokia](#) announced that it has been selected by A1 Telekom Austria Group (A1) to extend its 5G footprint outside of Austria into Bulgaria, Serbia, and Slovenia. In Asia, [Nokia and Taiwan Mobile](#) announced the achievement of the world's first New Radio Carrier Aggregation (NR CA) by combining spectrum in the 700MHz (n28) and 3500MHz (n78) bands. The trial, which took place in a 5G standalone (SA) network environment, opens the way for 5G experiences with enhanced connectivity and capacity. Also in Asia, [ZTE and the Hangzhou Branch of China Telecom](#) have conducted 300MHz 5G QCell verification in Hangzhou Olympic Sports Center, to prepare for the 19th Asian Games Hangzhou 2022, taking place in late September. China Telecom and ZTE will provide smart 5G for up to 80,000 spectators during the games.

Stateside, the [Federal Communications Commission](#) took its latest step forward in making additional mid-band spectrum available for 5G service in the United States, granting more than 5,000 licenses for wireless operations in the band and paving the way for carriers to use this spectrum to provide 5G and other advanced wireless services. Additionally, the FCC announced that over four million households have enrolled in the [Emergency Broadband Benefit Program](#), the nation's largest broadband affordability program to date.

Together, [General Motors and AT&T](#) are working to develop a 5G network architecture to serve as the new standard in automotive connectivity. The companies are laying the groundwork to enable cellular connectivity for millions of GM vehicles coming off the assembly line over the next decade in the United States.

Leaderboard, Transformation and Innovation News

It was a fast-paced month in leaderboard, transformation, and innovation news. The global semiconductor shortage is causing bottlenecks in numerous industries. The international technology group [Giesecke+Devrient \(G+D\)](#) issued warning of failures in economically critical areas such as connectivity, payment systems, and electronic identities related to the shortage. With dire headlines also rolling in about the climate crisis, a new [Digital Outlook](#) report from Telenor and leading Norwegian innovator points to digitalization as a critical part of the crucial “green shift” by 2030. Connectivity and new technologies are essential to enabling greener and smarter ways of living, learning, and working in the next decade. Alongside this news comes a [report from Tata](#) that reveals that up to 90 percent of enterprises are yet to achieve their digital-first goals. Cybersecurity and productivity concerns are two of the most important barriers facing enterprises.

In other innovation research news, consumers are warming to the idea of shopping at autonomous stores, with up to three in four revealing they would be ready to make the leap in [a survey sponsored by Shekel](#) (though fewer than three percent of consumers have embarked on such a shopping experience).

Wrapping up our research roundup is Informa Tech, which has launched [The Broadband Top 50 People to Watch](#), a list highlighting the most influential leaders, innovators and disruptors who are connecting the world, curated by Light Reading, Omdia, and other industry movers and shakers.

In other transformation news, [Siemens has chosen Atos](#) to accelerate its transformation journey and support the migration to the cloud of business-critical applications that provide the backbone for manufacturing, sales, distribution, and operations across most of its business units. [Atos](#) also announced that it has run and orchestrated the key digital IT systems that helped to deliver the 2020 Tokyo Olympic Games safely and securely, enabling billions of fans around the world to follow the competitions.

Finally, in US innovation news, the [FCC](#) created new innovation zones in North Carolina and Boston, Massachusetts to foster advanced wireless communications and network innovation research.

Security News

In cybersecurity news, [SAS](#) issued a report with evidence of a COVID-driven surge in fraud and financial crime, reporting that one-third of financial institutions are accelerating their AI and machine learning adoption for anti-money laundering technology in response to the pandemic—and its increasing digitalization of our lives.

The [Positive Technologies](#) Expert Security Center reveals details of new cyber-attacks launched by APT31, the criminal group known for targeting global government agencies. In other specific cybersecurity news, [Lumen](#) announced that ReverseRat, the remote access trojan it discovered just six weeks ago, has been modified with new capabilities targeting new victims. [T-Systems](#) announced that it is now encrypting all content data and content meta data saved in Microsoft 365 and is pseudonymizing users' information on its way to the cloud for a higher level of protection.

For years, voices from across the security industry have highlighted a cyber skills gap, where there simply aren't enough people with the right knowledge and skills to fill the number of cybersecurity jobs available. Developing the next generation of skilled cyber professionals takes time, but [BT](#) is stepping up the effort. It was recently designated a partner of the UK's National Cyber Security Centre's CyberFirst program, which is focused on closing the cyber skills gap.

Satellite News

In satellite news, teams from [ST Engineering iDirect and Gilat Telecom](#) have achieved the successful remote installation and commissioning of two Newtec Dialog hubs to power cellular backhaul services for mobile network operator Vodacom in the Congo in Sub-Saharan Africa. Gilat Satellite Networks also shared news of new contracts, including for top [global cruise lines](#) for its global mobility platform and with the [US Army](#) to supply high-performance BUCs for tactical communications.

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