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Technology Industry News

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IoT connectivity, IoT security, IoT collaboration—with our issue focus on the Internet of Things and the device revolution, we have collected the top IoT news headlines this month, which include updates on the progress toward an ever-more-connected world. Other noteworthy news includes glimmers of 6G, the first test of cellular broadband connectivity from space via a mobile phone, metaverse service experience transformation, and much more.

The top technology industry news stories from the month are summarized below. To view all the news as it breaks, check out *Pipeline*'s <u>News Center</u> or <u>subscribe</u> to receive our telecom industry news summary.



IoT news

Connected device and IoT news was a hot topic this month. New IoT connectivity solutions included the newly launched <u>Bittium Cellular IoT Solution</u>, which provides IoT devices with direct connectivity to cloud services over mobile networks to upgrade 2G or 3G connectivity to 4G or 5G. <u>Veniam and Single Digits</u> announced a partnership that makes it easy for mobile IoT devices and connected vehicles to transfer data over Wi-Fi access points on the move. <u>Ligado Networks and Sony Semiconductor Israel</u> are collaborating to develop chipsets to enable the deployment of advanced connectivity services across North America. In other partnership IoT news, <u>EMnify is working with Videotron</u> to equip enterprise customers with consistent, reliable, and secure cellular IoT connectivity across diverse industry verticals.

In IoT innovation news, <u>Tech Mahindra</u> is collaborating with Anritsu to launch an IoT Experience Lab to provide testing of 5G devices in emerging IoT use cases, so 5G IoT device manufacturers can verify device performance during commercialization. Together, <u>Telit and MicroEJ</u> are enabling a broader software development ecosystem deployed on Telit IoT cellular modules.

Through a new global strategic collaboration agreement, <u>Avnet and Amazon Web Services</u> are focused on helping manufacturers of IoT solutions accelerate time to market by creating a scalable, secure platform that preconfigures AWS' services for application-specific usage.

New expert insights and research clarified the benefits of an Industrial IoT edge solution, which range from helping an enterprise achieve maximum profitability and uncover new revenue opportunities, to reducing energy consumption, and ensuring a level of quality. These insights came from a panel of Industrial IoT experts who recently convened, representing IOTech, Eaton, Mitsubishi Power, and Schneider Electric. The Wireless Broadband Alliance published a new whitepaper exploring how Wi-Fi's 6/6E's latest features are ideal for meeting the unique, demanding requirements for a wide variety of existing and emerging IIoT applications. This includes Industry 4.0 and logistics, involving autonomous mobile robots, automated ground vehicles, predictive maintenance and more.

Innovation news

Amid 5G updates, innovation news included glimpses of progress toward 6G. Nokia announced that it is partnering with DOCOMO and NTT to jointly define and develop key technologies toward 6G. The collaboration will focus on two proof-of-concepts for emerging 6G technologies: an Al native air interface and sub-THz radio access.

5G is the first G in cellular technologies that paves the way for communications service providers to operate in the software layer. According <u>ABI Research</u>, this shift has implications on the commercial models that underpin the industry—and hyperscalers are leading the way in redefining telecom commercial models.

<u>AST SpaceMobile</u> is planning to test cellular broadband connectivity from space with the launch of its BlueWalker 3 test satellite from Cape Canaveral, Florida. The satellite is designed to test cellular broadband communications directly with standard mobile phones, from space, for the first time. <u>Nokia and Innventure</u> announced plans to commercialize high-performance cooling technology developed by Nokia Bell Labs for

data centers and mobile network equipment. <u>CareAR and Infosys</u> are expanding their collaboration to accelerate metaverse service experience transformation enabled by the Infosys Metaverse Foundry, through instant real-time visual guidance and instructional content through devices and wearables.

5G news

After three full years of growth, global wireless 5G adoption has reached a rapid acceleration phase: the milestone of 701 million connections by the end of the first quarter of 2022. Omdia data forecast global connections will reach 1.2 billion by the end of this year, said <u>5G Americas</u>. In other 5G research news, <u>ABI Research</u> also reveals that massive MIMO is driving growth in 5G outdoor infrastructure revenue, representing 35 percent of total revenue and reaching \$43 billion in USD by 2027.

Vehicles warn each other of dangers on the road—and now even across national borders. <u>Deutsche Telekom and Ericsson</u> are demonstrating how seamless 5G connectivity works together with partners at the borders to France and Luxembourg through the 5GCroCo (Fifth Generation Cross-Border Control) initiative.

5G news also revealed progress toward "smart everything." Ericsson, TIM and Comau have joined forces to test the "factory of the future" by leveraging 5G slicing functionality within an industrial environment to develop innovative solutions for Industry 4.0 and smart manufacturing. AT&T participated in a U.S. Department of Defense and U.S. Navy demonstration showcasing a variety of 5G-powered technology solutions that can support the enablement of a Naval Smart Warehouse. To advance smart city progress, the Wireless Broadband Alliance and City of Dublin announced a successful proof-of-concept trial of OpenRoaming in Dublin, Ireland for single-login seamless connectivity across devices that switches automatically between different public Wi-Fi hotspots.

VIAVI is supporting global access to NTT DOCOMO has now adopted key elements of VIAVI's test suite for end-to-end testing of the entire O-RAN. Both companies are also active contributors to specifications development in the O-RAN ALLIANCE.

T-Mobile advanced standalone 5G capabilities with the launch of <u>Voice Over 5G service</u> for customers in limited areas. VoNR keeps devices always connected to 5G. <u>T-Mobile</u> also announced it was able to aggregate three channels of mid-band 5G spectrum, reaching speeds over 3 Gbps on its standalone 5G network. It's the first time the test has ever been done with a commercial device on a live production network. In other news related to 5G speeds, <u>Nokia, Elisa, and Qualcomm Technologies</u> announced that they have hit record-breaking 5G uplink speeds of 2.1 Gbps. This was achieved in a live demonstration at the Nokia Arena in Tampere in Finland.

<u>UScellular and Ericsson</u> announced that they have begun 5G testing at altitude using drone technology. These tests are the first of their kind with UScellular's 5G network and lay the groundwork for future use cases of cellular-connected drones in a variety of industries.

Network news

In network news, <u>Frost & Sullivan</u> released analysis findings that the global secure SD-WAN solutions market is expected to reach \$6.52 billion by 2026 from \$1.67 billion in 2021 at a compound annual growth rate of 31.3 percent. Global SD-WAN demand is increasing as organizations strive to meet security concerns and improve the employee experience.

<u>Bharti Airtel</u> announced the launch of its fiber-to-the-home broadband service, Airtel Xstream Fiber in Ladakh and Andaman and Nicobar Islands. With it, Airtel has become the first private ISP to roll out FTTH broadband in these remote geographies.

<u>Infinera and NEC Corporation</u> announced that Neutral Networks deployed Infinera's ICE6 technology for its new transnational neutral fiber optic network NEXT. The optical network modernization is the largest project of its kind between Mexico and the United States within the last 20 years. <u>Nokia</u> has announced a rural broadband relief program for regional service

providers in North America aspiring to close the digital divide: a network-in-a-box kit suitable for building a network for a town of up to 1,000 homes, available for expedited delivery to rural service providers.

Al and analytics news

In AI news, Mohamed bin Zayed University of Artificial Intelligence, a research university dedicated to artificial intelligence, has announced plans for a <u>strategic collaboration with IBM</u>. The memorandum of understanding focuses on advancing fundamental AI research, as well as accelerating the types of scientific breakthroughs that could unlock the potential of AI to help solve some of humanity's greatest challenges.

In another partnership elsewhere in the world, the <u>Leibniz Supercomputing Centre</u>, <u>Cerebras Systems</u>, <u>and HPE</u> announced the joint development and delivery of a new system featuring next-generation AI technologies to significantly accelerate scientific research and innovation in AI for Bavaria.

<u>Cenebras</u> announced that it has been selected by multiple supercomputing partners—including European Parallel Computing Center, Leibniz Supercomputing Centre, Lawrence Livermore National Laboratory, Argonne National Laboratory, the National Center for Supercomputing Applications, and the Pittsburgh Supercomputing Center—for Al acceleration.

In other supercomputing news, <u>Atos</u> has been chosen to provide the pre-exascale system to be hosted by the Barcelona Supercomputing Center, in Spain, as part of the EuroHPC JU. MareNostrum5 will rank amongst the world's top supercomputers and will pave the way toward exascale capabilities: the next supercomputing era. <u>Quantum Computing unveiled QAmplify</u>, a suite of quantum software technologies that expands the processing power of any current quantum computer by as much as 20x.

Globally, organizations across industries are using big data to improve operations, manage supply chains, and enhance customer service experiences so that they can gain competitive advantage and boost profits. Spatial analysis of big data provides critical intelligence about where, when, and why things happen. To ensure that these insights are accessible in the decision-making process, Esri has released ArcGIS GeoAnalytics Engine. In related news, Striim announced an agreement with Microsoft to meet increasing customer demand for real-time analytics and operations.

Security news

<u>Radware</u> released its 2022 State of API Security report. The survey, which was conducted with Enterprise Management Associates, revealed overconfidence among organizations when it comes to API protection, leaving enterprises exposed to cyberattack threats.

Security news also included new launches. <u>RealNetworks announced a pilot program with Vodafone Germany</u> to launch a new Al-based anti-spam service called Vodafone CallProtect to warn of potential fraudulent, scam, or spam-type calls. <u>Fortinet has launched FortiRecon</u>, which uses a powerful combination of machine learning, automation capabilities, and FortiGuard Labs

cybersecurity experts to manage a company's risk posture and advise meaningful action to protect brand reputation, enterprise assets, and data.

A wide range of industries are increasingly reliant on satellite-delivered timing, but with threats including jamming and spoofing cyberattacks on the rise, operators need to find ways to safeguard services that rely on positioning, navigation, and timing information. <u>ADVA</u> is enabling service provider customers to offer GPS/GNSS-backup-as-a-service (GBaaS) to address these vulnerabilities.

<u>Thales</u> announced its CipherTrust Tokenization, the first SAP-certified tokenization solution available to SAP customers that can be used to secure sensitive data.

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