Telecom Industry News

By: Scott St. John

From FCC rulings to lifting the lid on Victorian-era manhole covers, the last weeks have brought a crop of interesting news stories on network evolution, the road to 5G, and IoT. As is fitting for this time of year, a host of 2018 end-of-year summaries as well as forward-looking 2019 predictions came in, including the ten top consumer trends of the year as reported by Ericsson's ConsumerLab report, now in its eighth year. Top innovation award winners from Microsoft's M12 venture fund, the Nokia Open Innovation Challenge, and the Nokia Bell Labs Prize were also announced.

The top 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 news summary each week.

Network Evolution

Tigo and Ericsson announced two new network modernization and upgrade efforts. In Africa, Tigo Senegal has selected Ericsson for its nationwide network modernization project as it looks to accelerate digitalization in the expanding Senegalese market. The terms of the new three-year deal cover over 1000 existing sites, including the latest Ericsson Radio System (ERS) technology to refresh legacy infrastructure, roll out LTE across the country, and modernize and expand Tigo's mobile backhaul network with Ericsson's MINI-LINK. In South America, Tigo selected Ericsson to modernize its radio access network (RAN) across Paraguay and Honduras in a multi-year deal involving the rollout of Ericsson Radio System. Under this deal, Ericsson will implement the Ericsson Radio System portfolio into approximately one thousand TIGO sites, with the first phase taking place in Paraguay and Honduras in 2018.

Elsewhere in Latin America, Gilat announced that Dish Mexico has chosen Gilat's SkyEdge II-c multi-service platform, operating over Hispasat's HTS satellite, Amazonas-5, to deliver high-quality broadband services in Mexico. And Telefónica Business Solutions launched a new IP network point of presence (PoP) in Mexico City; the addition brings the total number of International PoP to three—two in Mexico City and one in Monterrey—strengthening and expanding its existing network. And Optiva announced the deployment of a new mobile virtual network enabler (MVNE) platform for a Tier 1 LATAM telecom provider.

News on broadband upgrades for rural U.S. residents rolled in over the month. Consolidated Communications announced the completion of more than 500,000 customer broadband upgrades across northern New England in 2018, bringing faster speeds to residential and small business customers in Maine, Vermont, and New Hampshire. In the Southeast, GigSouth and Southern Telecom will partner to increase rural broadband access. GigSouth has entered a leasing agreement with STI for dark fiber that will expand its current network within target rural areas utilizing STI's metro dark fiber service and backbone fiber network.

Continuing its effort to close the digital divide, the Federal Communications Commission has taken several steps to significantly improve the quality and expand the availability of high-speed Internet service in rural America. These measures include additional funding for the Connect America Fund, the FCC's program that helps expand broadband deployment and make broadband service more affordable in rural areas, as well as requirements for providers to expand the availability of

faster service that will better meet the needs of consumers and businesses.

Mobile and 5G

Mobile and 5G advancements, agreements, and announcements came in from the U.S. and abroad. In a world first and a milestone toward nationwide 5G, T-Mobile, Ericsson, and Intel have completed the first 5G data call and video call on 600 MHz, both on a live commercial network.

Tele2 AB (Tele2) and Telenor have signed a new complementary agreement for the expansion of a joint and nationwide 5G network in Sweden, with implementation to be initiated in the second half of 2019. Furthermore, Tele2 and Telenor have secured frequencies in the 700MHz spectrum that will strengthen the established 4G network and consolidate the ambition to provide the first customers with 5G access by 2020.

To help improve 4G mobile coverage for customers in busy urban areas, Vodafone is using inventive ways to expand and strengthen its network. It has installed mobile equipment within street furniture such as manhole covers, lamp posts and phone boxes to increase the speed and extend the coverage of mobile signals along busy roads, town squares and in shopping and entertainment areas with minimal disruption and without changing the look of an area. This effort includes keeping the look of Victorian-era manhole covers while also paving the way for the smart cities of the future.

The Federal Communications Commission issued a ruling rejecting requests to make it harder for text messaging providers to protect consumers from spam and scam robotexts. The Commission's decision makes clear that wireless providers are authorized to continue their efforts to stop unwanted text messaging through robotext-blocking, anti-spoofing measures, and other anti-spam features. In other news from the federal agency, the FCC took a significant step toward holding a major 5G spectrum auction in 2019 by adopting new rules that will promote the availability of high-band millimeter wave spectrum for the next generation of wireless connectivity. The airwaves in the combined Upper 37 GHz and 39 GHz bands are the largest amount of contiguous spectrum available for wireless service in the millimeter wave bands—2,400 megahertz in total—while the 47 GHz band provides an additional 1,000 megahertz of spectrum. The Fourth Report and Order in the Spectrum Frontiers proceeding is another key step toward ensuring American leadership in 5G.

ETSI's millimetre Wave Transmission Industry Specification Group (mWT ISG) released a new Report, ETSI GR mWT 012, which addresses prominent 5G backhaul/X-Haul scenarios in preparation for 5G deployment.

The 5G Infrastructure Association (5G IA) and the Alliance for Internet of Things Innovation (AIOTI) have signed an Memorandum of Agreement agreeing to explore topics of common interest relating to technologies and solutions that will shape the way we live and work. These topics will form part of a Joint Strategic Research and Innovation Agenda (SRIA) that will bring together key European stakeholders to explore the opportunities for new IoT applications built on world-class digital infrastructure.

Insights and Trends

Insights and trends reports are always a news mainstay, but perhaps never more so than at the end of one year and start of the next. As 2018 came to a close, BuddeComm released the Global Ranking of its Telecom Maturity Index (TMI), which analyzes the broadband, mobile and fixedlLine markets of a country as well as a range of economic parameters to rank it on a scale of 1 to 100 and compare it to its region. Europe dominated the top 10 global rankings, followed by South Korea, Hong Kong, and the U.S.

Ericsson released the eighth edition of its ConsumerLab trend report, 10 Hot Consumer Trends 2019, representing predictions of 34 million early technology adopters. The latest edition of the annual report evaluates consumer thoughts and predictions on near-future technology including AI,

VR, 5G and automation. The report reveals that autonomous and mood-predictive technology could soon play a bigger role in people's everyday lives—including how smart speakers might be ready to jump into a family's arguments as readily as its members.

Analysis Mason Research's top annual predictions list for 2019 includes insights into 5G deployments, the expand IoT market and adoption trends, smart and connected homes, digital transformation, and much more.

Innovation

Innovation award winners made waves this month. Nokia announced the top three winners of its fifth annual Bell Labs Prize, an international competition for innovators with ideas that will significantly 'change the game' in the field of information and communications technologies by a factor of 10. The winners collectively earned $175,000 in cash prizes and are given the unique opportunity to collaborate with Nokia Bell Labs researchers to help realize their vision. Samory Kpotufe won the top prize for his fundamental breakthrough in machine learning.

SPARK Microsystems, which is developing a low-power wireless transceiver for the industrial Internet of Things revolution, has been named the winner of the Nokia Open Innovation Challenge 2018. To help bring its innovative solution to the marketplace, Nokia will provide SPARK Microsystems with $100,000 as well as access to resources across Nokia and Nokia Bell Labs to further explore and develop their solution.

In other contest news, Microsoft Corp. venture fund M12, in partnership with EQT Ventures and SVB Financial Group, announced the two winners of the Female Founders Competition: Acerta and Mental Canvas. Each winner will receive $2 million in venture funding to further their companies' trajectories in transforming enterprise tech.

In a world-first achievement, Nokia, Elisa and Efore have partnered to commercially deploy a liquid-cooled base station system in an apartment building in Helsinki, a breakthrough that promises lower costs for operators and owners of base station sites as well as reduced CO2 emissions.

ETSI had a busy news month. In addition to its new Report on prominent 5G backhaul/X-Haul scenarios, it released a new Industry Specification Group on Permissioned Distributed Ledgers (ISG PDL). The group will analyze and provide the foundations to operate permissioned distributed ledgers to be deployed across various industries and governmental institutions, enabling the use of blockchain technology.

Periscope Data has introduced its new Data Engine solution, powered by Amazon Web Services (AWS). Data Engine will enable data-driven companies with complex pipelines or expanding data needs the flexibility to use Amazon Redshift alongside other analytical infrastructure for faster queries for analysis and data ingestion at any scale.

IoT, Cloud, and Security

Optiva announced that a Tier 1 Australian service provider is the first CSP to utilize the power of the public cloud, migrating its wholesale billing solution to Google Cloud Platform (GCP). During its more than six-year partnership with Optiva, this CSP doubled its number of wholesale customers, becoming the market leader in the domain. Migration to GCP offers further evolution of the provider's BSS with the advantages of the public cloud.

Trinity College Dublin spin-out Danalto announced a seed investment of 750,000 euros led by Atlantic Bridge. The investment will be used to grow Danalto Engineering, Sales, and Customer Support teams in Ireland and expand market reach into global enterprises as the development of IoT—and the proliferation of devices—continues.

RoboSense, a leader in LiDAR perception technology solutions and CES 2019 Innovation Award Honoree, will publicly demonstrate an upgraded version of its MEMS solid-state LiDAR—an

automotive grade solid-state LiDAR designed for the mass production of autonomous vehicles—at CES 2019. The new RS-LiDAR-M1 with patented MEMS technology offers ground-breaking vehicle intelligence awareness to fully support Level 5 driverless automated driving.

Valeo and Autotalks displayed global V2X (vehicle to everything) capabilities integrated into the Telematics platform at CES 2019. V2X technology will significantly increase safety by extending the perception of the car for better anticipation of the potential road dangers. By enabling constant exchange of information between vehicles and with the infrastructure, V2X is one of the key technologies in the move towards cooperative driving and to globally optimize Smart City traffic flow and services.

To offer enhanced protection, Consolidated Communications announced it is partnering with SimpliSafe, the nation's fastest growing home security company, to bring award-winning wireless security services to residential and small business customers across its service area.

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