

#### **Telecom Industry News**

By: Scott St. John

October brimmed with fascinating news and developments. Network evolution in the skies will provide gate-to-gate connectivity for portions of the Air France fleet, thanks to a new partnership between Global Eagle and Orange Business Services. The 2018 INCOMPAS Show is set to kick off at month's end, with a keynote panel focused on the bandwidth revolution and fiber's key role on the road to 5G. Cybersecurity concerns should remain top priorities, according to



new findings from Vodafone on readiness and business outcomes. And, DE-CIX, the world's leading operator of Internet Exchanges, successfully achieved the largest-ever relocation of the Internet in Germany.

The top 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 news summary each week.

### **Network Evolution**

How do you relocate the Internet in Germany? Ask <u>DE-CIX</u>. Headquartered in Frankfurt and the world's leading operator of Internet Exchanges, DE-CIX achieved the largest-ever infrastructure relocation in its company history—in live operation this month. More than 450 customers were migrated from the old Frankfurt 7 to the new Frankfurt 12 location on the Kleyerstrasse campus. Approximately 15 kilometers of fiber optic cable were laid in the process, and over 40 percent of all data traffic at the world's largest Internet Exchange was migrated without disruption.

Buy now, pay later: <u>Ruckus introduced financing services</u> this month, enticing its customers to invest on credit now in the latest networking technology to enhance—and future-proof—their networks and connectivity solutions. Its multiple financing options will include leasing, zero percent interest and subscription offerings.

This month, network evolution in the skies made headlines with a collaboration between <u>Global</u> <u>Eagle and Orange Business Services</u>. Air France has awarded a long-term contract for in-flight connectivity systems and services to Global Eagle and Orange. The initial phase of the contract includes rolling out connectivity to 113 Airbus A320 family aircraft operated by Air France. Installation is already underway and, when complete, will make gate-to-gate connectivity available on short and medium-haul flights throughout Europe, Russia, North Africa and the Middle East. Elsewhere in Europe, <u>Nokia announced that Netia</u>, one of the Poland's largest regional telecommunication operators, will deploy its Unified Cable Access solution. Initially targeting the cities of Warsaw and Krakow, Netia will boost the cable network capacity needed to bring Gigabit and IPTV services to Poland. The deployment will create Europe's first fully virtualized Distributed Access Architecture (vDAA) cable network.

Nokia also launched its open and programmable fixed access network slicing this month, which will redefine fixed broadband. <u>Nokia Fixed Access Network Slicing</u> partitions the fixed access network into autonomous slices, delivering Network-as-a-Service for operators. With Nokia's solution, operators will be able scale to a virtually unlimited number of discrete network slices that can be independently operated, for example to run 5G mobile transport, wholesale or business services.

the rural US, <u>Redline Communications and Microsoft</u> announced a new partnership that will focus on making TV White Space technology more affordable and accessible.

Network enhancement news included updates from <u>Cato Networks</u>, which introduced self-healing SD-WAN for global enterprises this month. Cato Cloud technology repairs outages occurring across the network of data centers, cloud resources, and branch offices and ensures high availability for nonstop network operation for digital businesses. <u>Ciena</u> has beefed up its packet network portfolio with adaptive IP and coherent optics, enhancements intended to reduce operational complexity and fuel emerging high-growth applications. Its new capabilities will allow CSPs to capitalize on the promise of 5G and navigate ongoing network evolution. In <u>collaboration with HP</u>, <u>Sprint</u> announced support for the HP Spectre Folio with connectivity powered by Sprint's LTE Advanced network. HP Spectre Folio will give Sprint customers an always-connected experience. And <u>Windstream Wholesale</u>, which provides advanced network communications, will be expanding its core network to expand services for international carriers, enterprises, and content providers with fast access to subsea cable. Expansion adds capacity to Ashburn, VA, Newark/New York City, and other major data center markets.

Network evolution news from Brazil rolled in this month. <u>Hispamar and Gilat</u> have partnered to launch satellite-based broadband Internet access service for residential and corporate use in previously underserved regions of the country with poor or no connectivity. Brazilian telecom operator <u>Embratel</u> selected VMware NSX SD-WAN by VeloCloud to expand its portfolio of services and create new revenue streams. And Brazilian power distributor <u>Elektro selected Nokia</u> to deploy a private LTE network to increase the reliability and efficiency of the electrical grid in the City of Atibaia and surrounding areas in the state of Sao Paulo.

### Road to 5G

In key 5G news, <u>Vodafone Italy</u> has acquired spectrum to enable the deployment of new 5G technology. The spectrum will deliver substantial network operating cost efficiencies to meet the expected future growth in data traffic. Total cost was 2.4 billion euros.

Augmented reality via mobile will get a boost with partnership news that broke this month. <u>Deutsche Telekom, Niantic, and MobiledgeX will partner</u> to pave the way for ready-for-5G augmented reality experiences via mobile technology. The partnership will bring Niantic's Real World platform for AR gaming to DT's edge servers and 5G network.

To enable cable network providers to launch new services, deliver consistent quality of service, and prepare for 5G, a new partnership will co-create virtualized LTE RAN for cable networks. The co-creator partners on this initiative are <u>Aricent, Tech Mahindra, Benetel, and Phluido</u>.

## Cybersecurity

<u>Vodafone's new global cybersecurity report</u> highlights that the more cyber-ready a business becomes, the better its overall business outcomes. Its research showed that only 24 percent of businesses globally could be reasonably deemed 'cyber-ready,' while also pointing to evidence that suggests that 48 percent of cyber-ready businesses report increases of more than five percent in annual revenue as well as higher stakeholder trust levels overall.

<u>Windstream Enterprises (WE)</u> marked National Cyber Security Awareness Month this October with workshops, informative blogs, and an array of social media content intended to educate people on the options for and reasons to secure their digital lives and protect their identities and information from the dangers of cybercrime. The content and workshops focused on encouraging customers to create strong, unique passwords, be aware of the risks of using public Wi-Fi networks, examine social media habits and invest in cybersecurity software, such as a Windstream Shield and Security packages, equipped with identity theft protection and online data backup.

ETSI had a busy month. The <u>ETSI technical committee CYBER</u> updated its five-part international compendium of Technical Reports to protect networks from cyberattacks. The Reports use the CIS

Controls v7 recommendations to describe the prioritized set of actions that collectively form a defense-in-depth set of best practices that mitigate the most common attacks against systems and networks. <u>ETSI's Technical Committee Cyber Security (TC Cyber)</u> published a new Technical Report that explores protocol requirements necessary to add quantum resistance to VPN technologies, including client, server and architectural considerations.

<u>At MEF18, Colt Technology Services and Zeetta Networks</u> plan to demonstrate a Proof of Concept to demonstrate a blockchain solution for carriers to buy and sell network services in a secure, distributed and trusted marketplace. The worldwide Proof of Concept (PoC) demonstration 'Blockchain-Based Carrier Marketplace for LSO Sonata' is slated to take place on October 29.

### Cloud

In news that straddles both cloud and cybersecurity, <u>Alibaba Cloud</u> will provide improved security and privacy as a result of a new partnership it has announced with Fortanix, the leader in Runtime Encryption®. The cloud computing arm of Alibaba Group will integrate Fortanix's Self-Defending Key Management Service (SDKMS) with Runtime Encryption key management in the cloud.

<u>Nokia</u> has unveiled the latest release of the Nuage Networks Virtualized Network Services (VNS). Nuage Networks SD-WAN 2.0 is the industry's only automated and secure services platform for the delivery of enterprise IT services across any network and cloud. It offers connectivity, visibility and control at scale from a "single pane of glass" across the entire network, including data centers, public clouds and branches.

To provide cloud connectivity, <u>DataMSP has made Megaport</u>—a leading NaaS provider—available at its purpose-built, state-of-the-art, fully tier-III compliant data center facility in Minnesota. Megaport's Software Defined Network (SDN) enables customers to connect directly to cloud service providers on-demand and with elastic capacity that aligns to cloud-usage models.

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With a doubt, we are in the midst of a technological revolution that is reshaping our homes, workplaces and cities while also redefining how we think about communication, productivity and safety. To delve into the IoT revolution and the changes it is bringing, <u>Mouser Electronics, Inc. and celebrity engineer Grant Imahara</u> released a new video introducing "All Things IoT." This video is the latest in Mouser's award-winning Empowering Innovation Together<sup>™</sup> program.

As the IoT and the number of connected devices grow, mobility-as-a-service business opportunities expand. A new study from <u>Juniper Research</u>—*Why Mobility-as-a-Service is the Future of City Transport*—notes that revenues generated by the use of MaaS (Mobility-as-a-Service) platforms, which integrate multi-modal transport services (including buses, taxis, rail and metro), will exceed \$11 billion by 2023.

Building on their two-year partnership, Twilio, the leading cloud communications platform, and <u>T-Mobile announced that Twilio</u> has created Twilio Narrowband. It is the first developer platform for NB-IoT in the US. NB-IoT is a cellular low-power wide-area network technology that will substantially reduce prices and increase battery life for intermittent low-bandwidth connections.

To accelerate IoT connectivity in enterprises, <u>Orange Business Services is introducing IoT Connect</u> Anywhere, its low power wide area network (LPWA) connectivity offering based on LoRa <sup>TM</sup> open standard technology. IoT Connect Anywhere provides private on-premise connectivity suitable for a range of applications, including energy and fluid management, on-site tracking, geo-fencing, waste control, environmental metering, lighting and parking monitoring in smart cities. Growing interest in IoT and demand for solutions has prompted <u>Kerlink</u> to launch a Japanese subsidiary to support LoRa<sup>TM</sup> network deployments and accelerate the company's growth in the Asian market. And, global communications service provider Epsilon took a step forward to meet the demands of IoT. <u>Epsilon will deploy Juniper Networks'</u> Metro Fabric solutions to support global network upgrades to power future IoT applications and robust enterprise services.

### **Customer Experience**

<u>Verizon's</u> response in the wake of Hurricane Michael demonstrates its commitment to putting customers first. In addition to its round-the-clock efforts to restore wireless services to affected Florida customers, Verizon is donating \$1 million to organizations focused on hurricane relief assistance. Donations will include contributions to the Red Cross Hurricane Michael relief fund. In addition, Verizon will offer three months of free access to its customers in the nine counties most heavily impacted by the storm.

United Arab Emirates-based telecommunications service provider <u>du from the Emirates Integrated</u> <u>Telecommunications Company</u> is collaborating with Nokia on various elements of the Nokia Autonomous Customer Care solution. Nokia's solution will help provide new levels of intelligence and automation in du's workforce, enhancing customer experience. Du showcased Nokia's solution during GITEX Technology Week 2018 in Dubai.

In another example of a focus on bettering the customer experience, <u>BEK Communications has</u> tapped Calix Support Cloud. Newly enhanced visibility is helping BEK to reduce the time to diagnose issues and the self-healing capability can implement fixes before subscribers are even aware of issues.

To improve operational efficiency and enhance customer experience, <u>LOGIX Fiber Networks</u> has gone live with the full Omnia360 suite. LOGIX joins a rapidly growing list of transformative broadband, telecom and electric coop providers to implement Omnia360 for billing and operational needs.

#### **Innovation and Events**

Data centers are projected to consume as much as 20 percent of the world's energy resources in the near future—dire news indeed. Taking energy efficiency to a new level, <u>EcoDataCenter</u> has taken a leadership stance and launched the world's first carbon-positive data center in Falun in central Sweden.

According to a new update to the *Worldwide Semiannual Mobility Spending Guide* from International Data Corporation (IDC). European spending on mobility solutions is expected to reach \$293 billion by the end of the year. IDC expects the market to post a five-year compound annual growth rate of 2.4 percent, resulting in spending of over \$325 billion by 2022. The central role mobility plays in businesses' digital strategy and the proliferation of new mobility use cases and technology adoption is driving spending growth.

To speed the deployment of intelligent Wi-Fi mesh networks, <u>Broadband Forus and prpl</u> <u>Foundation</u> will partner on leading a new open-source initiative. The goal of the initiative is to develop an open-source reference implementation of the Wi-Fi Alliance® Multi-AP Specification, which will make it easier and faster for service providers and retail Original Equipment Manufacturers (OEMs) to develop and deploy carrier-grade mesh Wi-Fi systems and to deliver intelligent, carrier-grade, whole-home and small business coverage.

WISPAPALOOZA, which took place in Las Vegas in mid-October, brings together North American wireless Internet service providers, industry experts and leading suppliers annually to learn, inspire and network. At the event, <u>MCP Networks showcased Aerez Whole Home Wi-Fi</u> solution for Wireless Internet Service Providers (WISPs). The solution allows anyone from the router to the app provider to be ready for OTT with tools for the "Smart Whole Home Management." Also on display at WISPAPALOOZA was the latest antenna technology: Concealed Antenna Node (CAN) represents <u>Alpha Wireless</u>' commitment to changing the way wireless networks are built.

In other industry event news, INCOMPAS will take place in Las Vegas October 29-31, 2018. INCOMPAS member and supporter <u>Equinox Information Systems</u> will again sponsor and participate in the show. <u>FirstLight CEO Kurt Van Wagenen</u> will be speaking on INCOMPAS's Keynote panel on bandwidth revolution on October 30. The panel will discuss how the demand for bandwidth and innovative services presents opportunities for service providers of all sizes, from large national carriers to smaller, specialized regional operators, and how fiber will drive greater bandwidth and serve as the critical backbone for 5G. Stay tuned to Pipeline for more INCOMPAS Show news leading up to and following the event.

In one more piece of conference news, anticipation of next year's SCTE•ISBE's 50th anniversary has spurred long-range planning designed to ensure the continued success and growth of the <u>Cable-Tec Expo</u> as a pivotal event for the entire cable telecommunications industry. Key to success for the next decade of the flagship conference are strategic locations, partnerships with cable system operators, and collaborative relationships with the vendor community and key industry associations. More news will be forthcoming as planning continues.

### **Mergers and Acquisitions**

Mergers and acquisitions news percolated all month. <u>Telarix and Starhome Mach</u>, a leading global provider of SaaS wholesale and retail roaming, clearing, settlement and fraud prevention solutions, announced a merger. The combination of these two leading telecommunication software companies will create an end-to-end technology solution provider enabling telecommunication companies to optimize global connectivity in the digital transformation era. <u>DASAN Zhone</u> <u>Solutions (DZS)</u>, a global leader in network access solutions for service provider and enterprise networks, will acquire KEYMILE, a leading German manufacturer of broadband access solutions. The acquisition further expands the US-based DZS's global footprint. And <u>Infinera</u>, the provider of Intelligent Transport Networks, announced the closing of its acquisition of Coriant. The privately held Coriant is a global supplier of open network solutions for some of the largest global network operators. Infinera's acquisition of Coriant positions the former as one of the largest vertically integrated optical network equipment providers in the world. In the Southeast US, <u>Atlantic Broadband</u>—the nation's ninth-largest cable operator—acquired the South Florida fiber network previously owned by FiberLight, LLC.

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