

Telecom COTS World

Broadband Broadcast IoT Convergence

Telecom IT - HPC - A.I.
 Infrastructures - SDN - NFV
 Cloud - Data Centers - Storage
 Video Networks - Broadcast
 Internet of Things

Telecom COTS World is a Global Publication of e2mos

May-Jun 2017

Service Providers *Live* « see what they do »

- Operators Deliver the New Commercial Era of Mobile IoT with more than 400 partners, including: Huawei, KDDI, China Mobile, Unicom, Haier, Vodafone, AT&T ...
- China Telecom aims to make Shanghai a Gigabit City
- nbn achieves 1Gbps speeds in DOCSIS 3.1 trial
- Huawei, Henan Unicom develop smart hotel solution based on all-optical access
- Tata Com and Alibaba Cloud partner to empower and transform global businesses
- NTT Com Launches Munich 2 Data Center in Germany
- HughesNet Gen5 Satellite Internet Service Surpasses 100,000 Sub's In Just 2 Months
- Equinix acquires 29 Data Centers from Verizon ... *and more*

Convention Center
 Santa Clara
 California

August 8-10, 2017



18 Keynote Speakers
 from World-class
 Vendors

Over 60 Technical
 Sessions

135 Key Exhibitors

Flash Memory Summit

Products & Technology from Silicon to Application-ready Platforms

Cover Story: Flash Memory Summit

Flash Memory Is Going Places We Have Never Been Before

see the details page 3, 4 and 5

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« see what they do »

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Daniel Dierickx
CEO & co-Founder
at e2mos
Acting Chief Editor

Dear Reader,

Here is your free copy of **Telecom COTS World**, one of our five e-magazines published by e2mos.

Our aim is to provide you with relevant information directly in relation with your activity.

Those magazines are part of the e2mos « Go-to-Market Platform »

This GLOBAL Platform is a UNIQUE Set of Services for Telecom ICT, Video Broadcast, Embedded Computing, IoT and AI Vendors from Multicore Chips to Application-ready Systems & Rack Space Servers.

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Thank you, Daniel Dierickx

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About the Flash Memory Summit

Chairperson's Message



Chuck Sobey

Chief Scientist, ChannelScience

Flash Memory Summit 2017 offers many new features that will help you meet the challenges of your job. A new slate of invited speakers will introduce you to the top technical minds in the industry, a new marketing track will help you find new customers and meet their needs, and new media and entertainment sessions will introduce emerging applications including virtual reality.

First time Keynote speakers including Kia Motors America, E8 Storage, and eBay/Mellanox will join returnees such as Samsung, Toshiba, Micron, Western Digital, Intel, Seagate, HPE, NVIDIA, Marvell, Microsemi, and NetApp. We have also added sessions on PCIe/NVMe SSDs, hyperconvergence, object based storage and new open source software development including LightNVM.

Returning FMS activities will include:

- Sessions on SSDs, 3D NAND, enterprise storage, persistent memory, Ceph, automotive applications, the Internet of Things and enterprise applications (case studies)
- Extensive coverage of flash controllers, error correction, flash architectures, flash in the data center and cloud computing
- Discussions on wearables, mobile applications, and consumer applications
- Panels covering market research, future trends, venture capital, and solid state memory and storage beyond flash
- The ever-popular beer and pizza session where you can talk shop with leading experts in an informal atmosphere

We'll also have an even better and bigger exhibit area with a product teardown stage, more demonstrations and new and returning exhibitors. So please join us in August for the best FMS ever.

REGISTER NOW

Super Women in Flash

Women, Leadership and Flash – Panel & Networking Event

SANTA CLARA, CA – July 17, 2017 – The Flash Memory Summit 2017 (FMS) is bringing together a team from Intel, IBM and DDN to promote and celebrate the success of Women in the technology industry. Top female and male executives will talk about gaining ground on diversity, its impact on companies and how to build leadership in diverse teams. Join FMS on August 8-10 at the Santa Clara Convention Center, Santa Clara, CA and take part in an engaging panel discussion and social networking event with current business leaders and your peers. This session will take place on Tuesday, August 8, 3:45 – 5:00 PM and is complementary and open to all.

“The FMS event becomes a vehicle for gathering and socialization, along with Women Exec's sharing their experience,” says Camberley Bates, Managing Director and Analyst for Evaluator Group. “The ultimate goal is to encourage more women to enter and succeed in our marketplace.” The Women, Leadership and Flash session presents an excellent opportunity to network, enjoy food and libations, and then explore the Flash Memory Summit exhibit hall to discover the latest advances in memory technology.

The panel of very impressive executives include:

- Calline Sanchez, VP Enterprise Storage, IBM
- Bill Leszinske, VP of Strategic Planning, Marketing and Business Development in the Non- Volatile Memory Solutions Group, Intel
- Jessica Popp, GM IME Business Unit, DDN
- Carol Wilder, Director of Strategic Planning, Intel
- Panel Moderator: Camberley Bates, Managing Director Evaluator Group

FMS features the latest technology trends, the most exciting products, and the broadest coverage of a rapidly expanding market. In 2016, FMS drew almost 6,000 registrants and over 100 exhibitors. The 2017 version already projects significant growth. The conference also features new marketing and market research tracks, and sessions sponsored by NVM Express, SNIA, JEDEC, SCSI Trade Association, SD Card Association, and the Fibre Channel Industry Association. Popular continuing features include a Chat with the Experts session, performance testing results, and a venture capital (VC) Forum.

Supporting Resources

- Visit FMS: www.FlashMemorySummit.com
- Follow FMS on [LinkedIn.com/groups/4129499](https://www.linkedin.com/groups/4129499)
- Follow FMS on [Twitter.com/FlashMem](https://twitter.com/FlashMem)
- Follow FMS on [Facebook.com/FlashMemorySummit](https://www.facebook.com/FlashMemorySummit)

To discuss exhibiting, contact:

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To ask about program issues, contact:

Lance Leventhal, Program Chairperson Lance@FlashMemorySummit.com +1.858.756.3327

About Flash Memory Summit

The Flash Memory Summit, produced by Conference ConCepts, showcases the mainstream applications, key technologies, and leading vendors that are driving the multi-billion dollar non-volatile memory and SSD markets. FMS is now the world's largest event featuring the trends, innovations, and influencers driving the adoption of flash memory in demanding enterprise storage applications, as well as in smartphones, tablets, and mobile and embedded systems.

About Evaluator Group

Evaluator Group Inc. is dedicated to helping [IT professionals](#) and vendors create and implement strategies that make the most of the value of their IT infrastructure and digital information. Evaluator Group services deliver [in-depth, unbiased analysis](#) on storage architectures, infrastructures and management for IT professionals. Since 1997 Evaluator Group has provided services for thousands of end users and vendor professionals through product and market evaluations, competitive analysis and [education](#).
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**Keynote Speakers** see the Abstract [CLICK](#) on the Pictures

Henry Bzeih
Managing Director, Connected & Mobility Division
Kia Motors America
Keynote 1: [How Flash Memory Will Affect Tomorrow's Automobiles](#)
Tuesday, August 8th, 11-11:30am



Jim Elliott
Corporate VP Memory Marketing
Samsung Semiconductor
Keynote 2: [Advancements in SSDs and 3D NAND Reshaping Storage Market](#)
Tuesday, August 8th, 11:40am-12:10pm



Jaeheon (Jae) Joeng
EVP, Solution Product R&D
Samsung Semiconductor
Keynote 2: [Advancements in SSDs and 3D NAND Reshaping Storage Market](#)
Tuesday, August 8th, 11:40am-12:10pm



Steve Fingerhut
Sr. VP/GM of Storage Products
Toshiba America Electronic Components
Keynote 3: [Flash Memory Is Going Places We Have Never Been Before](#)
Tuesday, August 8th, 12:10pm-12:40



Shigeo (Jeff) Ohshima
Technology Executive SSD Application Eng.
Toshiba Memory Corporation
Keynote 3: [Flash Memory Is Going Places We Have Never Been Before](#)
Tuesday, August 8th, 12:10pm-12:40



Eric Endebrock
VP of Storage Marketing
Micron
Keynote 4: [New Silicon Breakthroughs Help Next Generation Datacenters Meet Key Challenges](#)
Tuesday, August 8th, 1:50pm-2:20



Currie Munce
VP of SSD Engineering
Micron
Keynote 4: [New Silicon Breakthroughs Help Nex-Gen Datacenters Meet Key Challenges](#)
Tuesday, August 8th, 1:50pm-2:20



Martin Fink
Executive Vice President & CTO
Western Digital
Keynote 5: [Accelerating a Data-Centric Universe](#)
Tuesday, August 8th, 2:20pm-2:50



Michael Kagan
Chief Technology Officer
Mellanox
Keynote 7: [How to Network Flash Storage Efficiently at Hyperscale](#)
Wednesday, August 9th, 11:00-11:30am



Manoj Wadekar
Principal Storage Architect
eBay
Keynote 7: [How to Network Flash Storage Efficiently at Hyperscale](#)
Wednesday, August 9th, 11:00-11:30am



Bill Leszinske
VP of NVM Solutions Group (NSG)
Intel
Keynote 8: [Transforming Storage with Innovations in Non-Volatile Memory](#)
Wednesday, August 9th, 11:30-Noon



Matt Rutledge
Sr VP Business Marketing
Seagate
Keynote 9: [Mission Impossible: Surviving Today's Flood of Critical Data](#)
Wednesday, August 9th, 1:00-1:30pm



Siamak Nazari
Chief Software Architect
HPE 3PAR
Keynote 10: [Using Storage Class Memory in Next-Generation Designs](#)
Wednesday, August 9th, 1:30-2:00pm



Andy Steinbach
Senior Director, Business Development
NVIDIA
Keynote 11: [Deep Learning: Extracting Maximum Knowledge from Big Data Using Big Compute](#)
Wednesday, August 9th, 2:10-2:40pm



Scott Furey
Associate VP of Enterprise Storage BU
Marvell
Keynote 12: [Using ARM-Based Processing for Efficient Hyperscale Storage](#)
Wednesday, August 9th, 2:40-3:10pm



Derek Dicker
VP & BU Manager, Performance Storage
Microsemi
Keynote 13: [Accelerating NVMe Innovation for Emerging Applications](#)
Thursday, August 10th, 11-11:30am



Jeff Baxter
Strategist & Chief Evangelist
NetApp
Keynote 14: [Creating the Fabric of a New Generation of Enterprise Applications](#)
Thursday, August 10th, 11:30am-Noon



Zivan Ori
Co-Founder and CEO
E8 Storage
Keynote 15: [From Rack-Scale to Network-Scale: NVMe over Fabrics Enables Exabyte Applications](#)
Thursday, August 10th, Noon-12:30pm

High Performance Mobile Edge Computing Platform



Designed for Extreme Environments
and Outdoor Telecom/Networking
Intel® Xeon® based

Features

- Single/Dual Intel® Xeon® Processor E5-2400 v2 series
- Six memory sockets support VLP RDIMM DDR3-1333/1600 REG/ECC up to 96 GB
- Intel® C604 Chipset
- Dual 10G SFP+ ports
- Dual 10/100/1000 BASE-T ports
- IP65 water and dust proof
- Conduction cooled, aluminum chassis

Based on the dual Intel® Xeon® E5-2400 v2 family of processors, the Extreme Outdoor Server MEC platform enables Telecom Equipment Manufacturers (TEMs) and application providers to deliver data center performance at the edge of the network. The Extreme Outdoor Server provides IT and cloud-computing capabilities within the Radio Access Network (RAN) in close proximity to mobile subscribers. This offers a service environment characterized by proximity, ultra-low latency, and high-bandwidth that allows content, services, and applications to be accelerated, maintaining a customer's high-level Quality of Experience (QoE).

The Extreme Outdoor Server mobile edge computing platform provides computing resources, storage capacity, connectivity and access to user traffic and real-time radio and network information. This allows operators to offer context-related services that can differentiate and monetize the user experience. In addition, since the data is processed at the edge in the RAN environment, the Extreme Outdoor Server reduces backhaul costs and improves the infrastructure's efficiency with more intelligent and optimized networks. And with the onset of network functions virtualization (NFV) infrastructure, having data center performance at the edge of networks can enable specific virtualized network functions (VNFs) closer to the consumer, improving QoE.

WHITEPAPER [Mobile Edge Computing Platforms for Outdoor Telecom Applications](#)

**Video
DEMO**



Equinix expands collaboration with Alibaba Cloud

[Equinix](#) has expanded its partnership with [Alibaba Cloud](#) to cover interconnection in Hong Kong, Silicon Valley, Sydney and Washington DC.

Equinix provide direct, scalable access to the Alibaba Cloud via its Equinix Cloud Exchange in its international business exchange (IBX) data centers in the four markets.

Alibaba Cloud and Equinix first entered a partnership in 2015, initially to provide already provide access to the Alibaba Cloud from the Equinix Singapore IBX.

The Equinix Cloud Exchange offers direct and private access to multiple cloud service providers. [The service launched in Hong Kong in 2014.](#)

The US International Trade Administration predicts that the Chinese cloud computing market will grow at a 40% CAGR though to 2020, when it will reach US\$20 billion.

"The global reach of Equinix Cloud Exchange makes it simple for Alibaba Cloud to access new markets, Alibaba Cloud deputy GM Yeming Wang said. "We are pleased to provide greater value and bring our services closer to enterprises by leveraging Equinix's powerful, on-demand cloud connectivity, and in particular to provide greater connectivity to the Chinese market."

Equinix VP of global technology partners and alliances Greg Adgate added that "Alibaba Cloud represents a significant partnership for Equinix as we continue to empower businesses around the globe to build secure, private clouds, without compromising network and application performance."

Source: Dylan Bushell-Embling | June 15, 2017 | telecomasia.net - First published in [Computerworld Hong Kong](#)

Orange Business Services Taps Riverbed for SD-WAN

March 17, 2017 -- Orange Business Services has been using Riverbed Technologies to help manage cloud applications for its enterprise customers and for WAN optimization. Now, Orange is also working with Riverbed for its software-defined wide area networking (SD-WAN) service.

To deliver this SD-WAN service, Orange will integrate Riverbed's SteelConnect technology. The two companies are working together to develop a virtual network function (VNF) that customers will be able to deploy on universal customer premise equipment (uCPE) at their sites.

Phil Harris, general manager of service provider solutions at Riverbed, said that uCPE is essentially the same as off-the-shelf hardware.

Up to this point, Orange has offered an SD-WAN service using existing Cisco routers in its enterprise customers' branch offices. In October 2016 when SDxCentral spoke with John Isch, a practice director at Orange Business Services, he said the company was hesitant to add hardware to branch offices. Isch said many customers want to extend the life of their Cisco routers, and by adding code to the router to offload some traffic to broadband, Orange could provide an SD-WAN solution.

But now, Orange is partnering with Riverbed for a more robust SD-WAN that includes cloud connectivity.

Riverbed's SD-WAN offering — SteelConnect — does real-time traffic routing using the optimum connections between different networks to improve application performance. SteelConnect also enables zero-touch provisioning, allowing enterprises to set up global networks quickly and manage them through a self-serve portal. In addition, SteelConnect allows branch offices to connect their application policies with cloud environments such as **Amazon Web Services (AWS) and Microsoft Azure.**

The first Orange pilot customers will be connected during the second quarter of 2017 using managed SteelConnect appliances. The VNF of the service is scheduled to be available at the end of 2017.

The SD-WAN launch is a key part of Orange's network-as-a-service strategy for its global enterprise customers.

In addition to SD-WAN, Riverbed is also working with Orange on other jointly developed products some of which may be based on Riverbed's new Service Delivery Platform, which it announced last month. The platform is designed to let service providers abstract the complexity associated with NFV and focus on services instead.

Riverbed set up a separate business unit focusing on service providers about six months ago. It includes product development and management, along with sales and marketing, all vertically integrated within the single BU.

Source: Linda Hardesty, Managing Editor, SDxCentral and <https://www.riverbed.com/about/articles/orange-business-services-taps-riverbed-sd-wan.html>

Operators Deliver the New Commercial Era of Mobile IoT

Shanghai - June 29, 2017: Industry experts gathered on Tuesday to discuss progress in Mobile IoT's implementation how operators and the wider industry have successfully deployed commercially available Mobile IoT networks, and their plans for the immediate future. There was consensus throughout that we are now at the point of Mobile IoT's true emergence onto the mass market.

The **GSMA's** Head of Internet of Things Programme Graham Tricky opened the session with an announcement that, following 56 successful pilots over the last year, Mobile IoT has become a commercial reality: Mobile IoT networks are now being rolled out across the world. China is among the countries most appreciative of Mobile IoT's potential to revolutionise services, in both the public and private sectors. As Mr Tricky pointed out, **China Telecom** alone operate over 300,000 base sites, and China as a whole is estimated to have around 486 million of the total 3.1 billion Low Power, Wide Area (LPWA) connections.

With the advent of LPWA, mobile operators can now offer the low-cost, low-maintenance connectivity required to connect vast numbers of devices economically. Mobile IoT's deployment of LPWA in licensed spectrum provides this cost-effective functionality in the most secure and reliable form available, which has driven the Internet of Things' dramatic recent expansion. As President of IoT Solutions at **Huawei** explained, "among all our offerings, among the most important is security". With a '3 + 1' security solution – whereby data is protected by three layers of technological security, plus one human layer – Huawei is among many in the ecosystem enjoying the growth made possible by the confidence IoT technologies are now able to promise. "The Mobile IoT ecosystem is very important – we have **more than 400 partners** in it. And with NB-IoT we can further reduce costs, helping us step up our base this year in commercialisation."

The rapidly increasing opportunities for commercialisation in Mobile IoT were acknowledged by speakers across the industry, with **KDDI's** Takuya Sawada describing it as "one of the hottest topics in our industry – KDDI will start Mobile IoT commercially within this fiscal year, beginning our LPWA network with LTE-M, and possibly then NB-IoT." China Telecom too are adding NB-IoT compatibility to their existing LTE-M capabilities, which their Chief IoT Expert Wang Yi announced is now "the biggest coverage in the world." Opportunities within the Chinese market are of course immense. Madame Huang Yuhong, the Deputy General Manager of **China Mobile's** Research Institute, was emphatic: "China Mobile will prioritise Mobile IoT in its strategy – we really cherish the IoT subscriber, currently over 100 million based on current networks." With more than 680 million users in total, we can expect to see this number rise significantly as Mobile IoT picks up speed over the coming year.

General Manager of Shanghai **Unicom** Mr Shen Hongbo described how, with the launch in May of their NB-IoT network, the operator is targeting of 3 billion connections in the near future. With over 2,700 base stations now in operation in Shanghai, demand is expected to mushroom, as consumers become increasingly conscious of the advantages offered by smart city applications. Mobile IoT is therefore the new gateway to growth: "We have to rely on IoT to grow our business" stated Mr Hongbo, outlining plans to support IoT innovators through a lab bringing together 40 partners. The GSMA has been at the forefront of enabling such collaborations, having created Mobile IoT Innovators, an R&D scheme supported by 65 operators and vendors at the GSMA. There are already more than 500 projects being facilitated in this way, with 160 here in China. The benefits of collaboration are now highly evident: Niu Xuguang, Smart Application Product Director at **Haier**, estimates that "market growth rate is at 50% now – there is very large potential here now."

While developments in China were of particular interest here in Shanghai, markets in North America and Europe are at no less crucial a juncture. **Vodafone's** NB-IoT Forum Chair Luke Ibbeston was very clear: "when it comes to LPWA, we do believe NB-IoT is the right decision, and this was led from our customers; we're a global leader in IoT, and it's one of the fastest revenue growth areas we have." With launches in Spain and the Netherlands already achieved, "Vodafone's main strategy is to get the technology deployed as quickly as possible – to connect every machine, and to improve people's businesses and lives." Cameron Coursey, VP Product Development at **AT&T**, was able to confirm that Mobile IoT is now fully launched in the United States, with LTE-M deployment expected in Mexico by the end of the year.

So what challenges remain? "In order to kickstart the ecosystem, the first thing we need to do is to have the certification in place," suggested Nick Taluja, VP Worldwide sales at **Sequans Communications**. This can however, he suggested, be done "within a few months." With the architecture in place, the final steps necessary can now be taken to ensure consumers enjoy seamless service across different technologies. Angel David Garcia, Chief Business Architect at **WING Nokia** agreed that "standardisation is key – the GSMA and the industry are doing a huge job in this." There was consensus that the industry is now ready to bring the extraordinary range of benefits Mobile IoT has to offer – from agricultural and leisure uses, to applications in shipping and transit – to consumers over the coming year. This remarkable achievement of collaboration, on the part of operators and their industry partners, is now on the verge of yielding commercial reward to all whose work has made it possible. We expect the Fifth Mobile IoT Summit in the United States to witness accounts of striking success from the year ahead.



China Telecom aims to make Shanghai a gigabit city

While China Mobile taps Nokia for an ONT home gateway rollout in 29 provinces

By: Dylan Bushell-Embling | June 13, 2017 | telecomasia.net

China Telecom's Shanghai branch **Shanghai Telecom** plans to deploy the first commercial FTTH network in China using 10G PON technologies, and aims to provide full 1Gbps fiber coverage across Shanghai over the next three years.

Shanghai Telecom has contracted **Huawei** to help with the rollout, which marks an important step towards making Shanghai China's first gigabit city, the vendor said.

Shanghai Telecom was providing 1Gbps access for 269 communities in the city, and through the deployment aims to increase the average access rate for its network from 50Mbps to 280Mbps by the end of 2018.

The operator is using its high-speed network to offer a range of home broadband services, such as multi-channel 4K video streaming, video calls and conferencing and video-based smart home services.

Under the latest rollout, the company is adopting Huawei optical line terminals (OLT) and optical network terminals (ONT) capable of providing gigabit convergence, 4K video streaming to 16,000 concurrent households over a single subrack, 8K video streaming, VR applications and smart home services.

Separately, **Nokia** has announced it has secured a contract to deploy millions of ONT home gateways in 29 provinces across China for **China Mobile**.

China Mobile plans to deploy home gateway units based on Nokia's solution to over 30 million users this year, and use established FTTH networks to extend internet coverage in the home and enable IoT communications between devices and sensors.

"China Mobile is progressing fast as a converged telecommunications operator -- with more than 31 million FTTH subscribers -- and has proven it can successfully leverage its extensive fiber access network to deliver ultra-broadband applications such as 4K TV services and Gigabit access to customers across various provinces.," IDATE principal analyst Roland Montagne commented.

"With the addition of intelligent home gateway technology, China Mobile will be able to further differentiate its services, providing consumers with enhanced internet coverage in the home and a more seamless experience for connecting various devices and sensors."

nbn achieves 1Gbps speeds in DOCSIS 3.1 trial

By: Dylan Bushell-Embling | June 07, 2017 | telecomasia.net

Australia's **nbn**, the state-owned company building the **National Broadband Network**, has announced the results of a trial of DOCSIS 3.1 technology on the hybrid fiber coaxial (HFC) component of its network, achieving peak downlink speeds of 1Gbps.

The technology could help the NBN's retail service providers deliver speeds in the HFC footprint that are on par with the top speeds available over the FTTP component, nbn said.

The trial of the US-developed DOCSIS 3.1 technology also achieved upstream speeds of 100Mbps, which compares to a maximum of 40Mbps currently available on HFC retail services over the network.

Following on from the trial, nbn said it is planning further lab testing of the technology in August, to be followed by field trials in December and a potential commercial launch next year.

"These early tests of DOCSIS 3.1 technology are very exciting. This is another example of the continued efforts of the nbn team to innovate and plan for Australia's growing demands for data," nbn CEO Bill Morrow said.

"DOCSIS 3.1 is going to be able to provide fantastic gigabit potential for end users – just as our FTTP network does today. The best news is that we will be able to bring gigabit broadband to these premises far more quickly, cost effectively and with less disruption to end users than alternate technologies in these busy urban areas."

nbn acquired its HFC network from **Telstra** as part of the A\$1.2 billion (\$903.7 million) agreement reached with the government last year.

Huawei, Henan Unicom develop smart hotel solution

By: Dylan Bushell-Embling | June 02, 2017 | telecomasia.net

Huawei has teamed up with **China Unicom's** Henan branch **Henan Unicom** to develop a smart hotel connectivity solution based on all-optical access.

The solution involves the delivery of broadband capability based on a large-capacity converged optical line terminal, fibers routed inside buildings and converged smart gateways.

Each hotel room will be provided exclusive Wi-Fi access, eliminating issues involving poor coverage or congestion. The converged smart gateways will deliver both wired broadband and Wi-Fi access, and hotel users will be provided dedicated IPTV access.

The solution also supports centralized managed operation and maintenance (O&M) to eliminate the requirement for dedicated IT support personnel, and delivers an access rate of 10GE. It can support control of lights, home appliances, and curtains using external intelligent devices.

"Huawei's all-optical access smart hotel solution has obvious advantages in terms of deployment, service experience, and uniform O&M," Henan Unicom Zhao Songhui said.

"This solution enables Henan Unicom to accelerate hotel informatization effectively, and has earned high recognition from both hotels and their guests. In the future, we plan to spread this solution to more hotels and provide users with more intelligent services."

NEC opens big data analytics center in India

By: Debeshi Gooptu | June 13, 2017 | FinTech Innovation

Japanese technology major **NEC Corporation** plans to strengthen its big data analysis presence globally as well as in India.

NEC Corporation and **NEC Technologies India Private Limited (NTI)** have announced the launch of a Center of Excellence for Analytics Platform and Solutions (COE-APS) for promoting solutions and services of NEC's Big Data & Analytics Platform, Data Platform for Hadoop (DPH).

The COE-APS will simplify digital transformation and act as a one stop shop for both customers and partners in the telecom, retail, banking, financial services, insurance and manufacturing sectors, as well as government organizations. The COE-APS will initially focus on markets that include Japan, India, Singapore, Philippines and Hong Kong, then gradually expand services throughout APAC and other regions.

With the global big data and analytics market expected to reach \$210 billion by 2020, NEC plans to organize a team of 100 professionals within the first few years, to support these operations.

Hadoop alone is expected to reach US\$50.2 billion by 2020. With the industry already facing a shortage in talent, specifically in Hadoop and analytics areas, the establishment of the COE-APS will help NEC to leverage India's strong talent base.

In recent years, the exponential growth in data processing is straining the capabilities of conventional databases and data warehouse solutions. With the advent of big data & analytics solutions, data is comprehensively and reliably analysed, thereby enabling customers to make well-informed decisions at the right time.

In addition, the COE-APS will leverage the computational power and scalability of NEC's specialized hardware for big data & analytics in order to flexibly handle the ever increasing demand for storage and computation by Hadoop.

"The key to success for organizations today is to make fast and informed decisions by extracting insights out of the huge volumes of data that are available to them. The new Center of Excellence is an important step towards utilizing big data analytics and NEC's Data Platform for Hadoop to provide benefits for government bodies and enterprises in India and across the world," NEC SVP Tomoyasu Nishimura said.

"Going forward, we aim to continue driving digital transformation for industries of all sizes and markets."

First published in FinTech Innovation

Tata Communications and Alibaba Cloud partner to empower and transform global businesses

Tata Communications' IZO™ Private Connect service to enable high-speed, low latency access to Alibaba Cloud ExpressConnect to customers from over 150 countries

Mumbai (BSE) - June 10, 2017 -- Today at Alibaba Cloud's Cloud Computing Conference in Shanghai, China, Tata Communications announced that it has partnered with Alibaba Cloud, the cloud computing arm of Alibaba Group, to enable customers from over 150 countries, including India, to connect to Alibaba Cloud's ExpressConnect via Tata Communications' IZO™ Private Connect service.

IZO™ Private Connect provides easy, hassle-free, superfast connectivity for global enterprises to Alibaba Cloud's Express Connect, which provides a reliable connection between the Virtual Private Clouds (VPC), the Internet and end-users' own networks.

"We look forward to working closely with Tata Communications in a bid to provide an exciting proposition with great connectivity for global enterprises wanting to enter China and for Chinese enterprises looking to go global with ease and convenience," said Yeming Wang, deputy general manager of Alibaba Cloud Global.

Alibaba Cloud provides a comprehensive range of cloud computing products in computing, database management, networking, security and storage that can be deployed globally. By accessing Alibaba Cloud Express Connect, a high-speed dedicated connection that securely links customers with their VPCs, and connecting through Tata Communications' IZO™ Private Connect service, enterprises can scale their cloud connectivity and enable rapid provisioning of capacity to Alibaba Cloud.

"We are confident that the partnership between Alibaba Cloud and Tata Communications will assist both of us to become true digital transformation partners for our customers, empowering them to expand to new geographies, boost productivity, safeguard their businesses against threats, and take customer experience to the next level. We look forward to offering more global organisations connectivity to Alibaba Cloud and to strengthening our presence in the Chinese market," said Genius Wong, President, Global Network, Cloud and Data Center Services at Tata Communications.

Tata Communications' game-changing IZO™ cloud enablement platform empowers enterprises to connect and build their cloud, their way – be it private, public or hybrid. It is underpinned by Tata Communications leading global network and partnerships. Today, over 25% of the world's internet routes travel over the company's network, which is the largest wholly-owned subsea cable network in the world.

Equinix acquires 29 data centers from Verizon

May 17, 2017 | Networks Asia

Equinix has completed its acquisition of 29 data centers in North and Latin America from **Verizon Communications**. The US \$3.6 billion all cash deal includes over 1,000 customers, of which over 600 are net new, and approximately three million gross square feet of data center space.

Equinix said the deal will accelerate its ability to help companies extend their IT operations to the digital edge, strengthens interconnection density on the Equinix global platform, accelerates business relationships in the government and energy sectors and supports its enterprise offering. Additionally, it adds three new markets (Bogotá, Culpeper and Houston) and provides additional capacity and the opportunity for expansion in markets where Equinix currently has a presence, including Atlanta, Denver, Miami, New York, São Paulo, Seattle and Silicon Valley.

Spread across 15 cities in North and Latin America, the new assets bring Equinix's total global footprint to over 175 International Business Exchange (IBX) data centers across 44 markets and approximately 17 million gross square feet.

"As the technological shift to digital is transforming large sections of society and the global economy, companies are re-architecting their IT infrastructure to thrive in this new environment," Equinix CEO Steve Smith said.

"They are moving from traditional centralized infrastructure to a distributed model that keeps data closer to the customers, partners and employees using it. With this significant expansion of Equinix's globally consistent footprint, our platform is even more valuable to companies that are leveraging this new model of interconnection at the digital edge."

NTT Com Launches Munich 2 Data Center in Germany

TOKYO, JAPAN --- **NTT Communications Corporation (NTT Com)**, the ICT solutions and international communications business within the NTT (TYO: 9432) Group, announced today that its "Germany Munich 2 Data Center" (Munich 2) has opened, effective immediately, in Unterschleißheim, a suburb of Munich, Germany located 16km from the city center. The facility is under the management of e-shelter, a NTT Com company and leading data-center operator and service provider in Europe.

The two-story Munich 2 initially is offering 2,800 square meters of server space, equivalent to 1,100 racks, which is expected to expand to 5,600 square meters. The facility is operating under NTT Com's **Nexcenter™** brand, which encompasses 24/7 data-center services in more than 140 bases worldwide.

e-shelter, which is known as "home to the cloud," was joined by customers, partners, media and civic leaders to celebrate the opening of its second data center in Munich. The festivities included a welcoming address by the mayor of Unterschleißheim, Christoph Böck.

Munich 2, the latest example of e-shelter's ongoing growth, follows the mid-April launch of the highly anticipated e-shelter innovation lab in Frankfurt. e-shelter expects to open additional data centers in Europe this year.

Highly reliable and energy-saving functions

Munich 2 delivers data-center services based on more than 300 globally unified standards that Nexcenter™ facilities have implemented for equipment and operations. The facility has adopted the industry's top standards to ensure high availability and energy savings. e-shelter designed the structure to adapt flexibly to environmental changes and future expansion. A stable and secure environment is assured by redundant electrical equipment and power supply for air conditioning. Advanced security and telecommunication equipment satisfy enterprises in need of ultimate reliability, such as financial institutions. Munich 2 achieves superior energy savings thanks to the latest technologies for efficient cooling and automatic control of cooling-water paths and amounts, leveraging access to cool groundwater available locally year-round, as well as automatic control of electricity use that is visualized with an original e-shelter program.

Strict measures for operational management and security

Munich 2 provides customer systems with robust protection based on standardized operational processes and multi-phase security. Internal personnel, not external providers, conduct thorough risk management and other important tasks, including 24/7 monitoring of key infrastructure and double-checking of security process by two staffers. Customers can request additional security measures for entering the server room, etc. by controlling access with multi-phase contactless IC cards and biometric authentication. Unauthorized facility entry is prevented with interior and exterior cameras, sensors around the building and a road barrier for approaching cars.

High-quality network environment

Munich 2 provides circuits from more than 10 providers using different paths. Also, all circuits are duplicated in the meet-me-room for telecom provider interconnection, the server room and the network racks. Customers can use maximum 10Gbps internet circuits and carrier-neutral multiple network, as well as build seamless ICT environments combining NTT Com data centers and cloud services worldwide.

Background

In Europe, NTT Com delivers data center services in Austria, France, Germany, Spain, Switzerland and the UK (see Appendix 1). In Germany, NTT Com has actively expanded its base in the country's busy data-center market serving financial, software, automotive, electricity and publication companies.

About NTT Communications Corporation

NTT Communications provides consultancy, architecture, security and cloud services to optimize the information and communications technology (ICT) environments of enterprises. These offerings are backed by the company's worldwide infrastructure, including the leading global tier-1 IP network, the Arcstar Universal One™ VPN network reaching 196 countries/regions, and over 140 secure data centers worldwide. NTT Communications' solutions leverage the global resources of NTT Group companies including Dimension Data, NTT DOCOMO and NTT DATA.

www.ntt.com | [Twitter@NTT Com](https://twitter.com/NTTCom) | [Facebook@NTT Com](https://facebook.com/NTTCom) | [LinkedIn@NTT Com](https://linkedin.com/company/ntt-com)

About e-shelter

e-shelter is one of the leading data center operators in Europe, providing highly secure environments for housing and connectivity of IT and network systems. With a presence in all key city-markets of the DACH-region, e-shelter leverages 300 MW of power capacity and 90,000 sqm of data center space to deliver scalable data center solutions. As a member of the NTT Communications Group, e-shelter provides access to a global network of 140 data centers. Among e-shelter's clients are financial services companies, telecoms operators, IT service and outsourcing providers as well as cloud service providers.

In addition to e-shelter, the companies Arkadin, Dimension Data, itelligence, NTT Communications, NTT DATA and NTT Security are part of the NTT Group in Germany. In this region, the NTT Group represents around 5,300 employees and revenue of more than € 1.2 billion.

You can find further information on the global NTT Group at www.ntt-global.com. <http://www.e-shelter.com>

Digicel Selects Affirmed Networks as Strategic Partner for its Global Network Transformation Program

Operator Plans to Deploy Affirmed Networks' End-to-End Virtualized Mobile Content Cloud Across All Markets, Providing LTE Services and Paving a Path to 5G

ACTON, Mass., /PRNewswire/ -- Affirmed Networks, the leader in virtualized mobile networks, today announced that Digicel, an innovative mobile communications provider with operations in 31 markets, has selected its virtualized Mobile Content Cloud (MCC) solution for deployment across the Caribbean, Central America and Asia Pacific. This selection is a cornerstone in Digicel's recently-announced "Digicel 2030" global transformation program designed to provide customers with a "superior superfast network experience." **The evolution to a 5G-ready, virtualized architecture will allow Digicel to embrace LTE today and 5G in the near future.**

Digicel recognized the inflexibility of legacy solutions to improve network capacity across the markets it serves. Many of these markets are individual islands located across the Caribbean and Asia Pacific. Affirmed Networks' fully-virtualized Mobile Content Cloud solution, enables Digicel to deploy a distributed virtualized network delivering consumer, enterprise and IoT service offerings across their dispersed geographies. The Affirmed MCC delivers the flexibility required to meet the changing needs of each market.

This deployment enables Digicel to flexibly tailor services based on the needs of each individual market, and to centrally-manage the services being delivered to the more than 31 countries in their coverage area. Overall operational expense and complexity associated with managing the network across their vast footprint is significantly reduced through service automation.

"As part of our 2030 network transformation program we are focused on providing our customers – regardless of location – with the best possible communications experience. Our move to a virtualized architecture supports this goal, allowing us to put in place a network capable of handling the unique needs and requirements of subscribers across diverse markets," said Colm Delves, Group CEO, Digicel. "Throughout our transformation program we have been impressed with Affirmed Network's market leading solution as it has delivered the ability to quickly deploy a next-generation network that will allow us to execute against our broader vision as a company and maximize our customers service experience."

"With a focus on quality of their network and the services they offer, Digicel is an important force driving growth and prosperity in their region," said Hassan Ahmed, Affirmed Networks' Chairman & CEO. "We are honored to support their continued innovation by providing Digicel with a fully virtualized, advanced, agile network capable of delivering LTE services today, and supporting 5G services as they become more broadly available." Today, Affirmed Networks has more than 50 customers across five continents, including some of the world's largest and most innovative operators.

About Digicel

Digicel Group is a leading global communications provider with operations in **31 markets** in the Caribbean, Central America and South Pacific. Digicel also runs a host of community-based initiatives across its markets and has set up Digicel Foundations in Haiti, Jamaica, Papua New Guinea and Trinidad and Tobago.

About Affirmed Networks, Inc.

Affirmed Networks has achieved significant attention as its **Network Functions Virtualization (NFV) solution** has become the standard for the world's top mobile operators. Currently, the company has been deployed commercially, including in Tier 1 and Tier 2 mobile networks, and is engaged in many trials worldwide.

For more information, please visit: www.affirmednetworks.com.

Digital Realty expands to Japan - June 13, 2017 | Enterprise Innovation

Digital Realty has inaugurated Digital Osaka 1, its first data center in Japan, a 93,000 square foot facility providing 7.6 megawatts of IT capacity. Digital Realty also announced the acquisition of an adjacent land parcel for the development of a Digital Osaka 2 data center. Upon completion, **the Osaka connected campus will support up to 27 megawatts of additional IT capacity.**

"Digital Osaka 1 was fully leased prior to the official opening, a reflection of the strong demand in the Japanese market for Digital Realty's comprehensive data center solutions," Digital Realty managing director for Asia Pacific Edward Higase said. "The development of our Osaka connected campus will enable us to further expand our world-class data center platform and support our customers' rapidly growing demand here and around the world." Japan has become one of the most highly sought-after markets for cloud data center locations (Canalys report).

Strict data sovereignty laws and high customer demand are some of the factors pushing cloud service providers to seek data centers in Japan, where personal data is increasingly required to be stored in facilities that are physically located within the country. "With the addition of Osaka to our global connected campus network, customers will soon have new opportunities to connect, extend their reach and find new business opportunities across our global data center platform," Digital Realty CEO A. William Stein added. First published in Enterprise Innovation

HughesNet Gen5 Satellite Internet Service Surpasses 100,000 Subscribers In Just Two Months



HughesNet Gen5 Delivers True FCC-Defined Broadband, Attracts New Customers In Every Continental U.S. State

GERMANTOWN, Md., June 5, 2017 /PRNewswire/ -- Hughes Network Systems, LLC (HUGHES) today announced its recently launched HughesNet Gen5 satellite Internet service has reached a major milestone in just two months – now serving more than 100,000 homes and small businesses, including both new subscribers and upgrades, and subscribers in every continental U.S. state have been connected to the service.

Launched in late March 2017, new customers to HughesNet Gen5 are experiencing faster speeds, more data, built-in Wi-Fi and an overall improved Internet experience. HughesNet Gen5 is the first and only U.S. satellite Internet service to offer Federal Communications Commission (FCC) defined broadband speeds – 25 Mbps download and 3 Mbps upload – from coast-to-coast.

"The new HughesNet Gen5 is meeting the need for high-speed Internet in households and small businesses across the country – especially in areas underserved or unserved by 'traditional' wired Internet," said Mike Cook, executive vice president at Hughes. "Everyone has the right to high-speed Internet access and Hughes is proud to bring fast, reliable Internet to all households coast-to-coast across America, no matter where they live or work."

Early customer responses show they are enjoying higher satisfaction and improved performance from the new HughesNet Gen5 service. According to Joe K. from Illinois, "I've seen a big boost in performance with HughesNet Gen5, giving me the true broadband speeds I've wanted. The overall experience is just a lot better."

HughesNet is America's #1 choice for satellite Internet with more than one million subscribers nationwide. HughesNet Gen5 is available in a variety of affordable consumer and business plans to suit customer's specific needs. Plans range from 10 to 250 GB/month of data with the same fast speeds of 25 Mbps on every plan. Additional features include:

- Built-in Wi-Fi to easily connect wireless devices
- No hard data limits if monthly plan data is exceeded, service continues at reduced speed until the next billing cycle
- Video Data Saver to watch more videos using less data
- Bonus Zone – 50 GB of free data per month to use during off-peak hours (2 a.m. - 8 a.m.)

HughesNet Gen5, recently named the winner of a Gold Stevie® Award in the Consumer Services category in the 15th annual American Business Awards, is available through a nationwide network of dealers and sales agents, as well as directly through www.HughesNet.com.

About Hughes Network Systems

Hughes Network Systems, LLC (HUGHES) is the global leader in broadband satellite technology and services for home and office. Its flagship high-speed satellite Internet service is HughesNet®, the world's largest satellite network with over 1 million residential and business customers across North America and Brazil. For large enterprises and governments, the company's HughesON® managed network services provide complete connectivity solutions employing an optimized mix of satellite and terrestrial technologies. The JUPITER™ System is the world's most widely deployed High-Throughput Satellite (HTS) platform, operating on more than 20 satellites by leading service providers, delivering a wide range of broadband enterprise, mobility and cellular backhaul applications. To date, Hughes has shipped more than 5.5 million terminals to customers in over 100 countries, representing over 50 percent market share, and its technology is powering broadband services to aircraft around the world.

Headquartered outside Washington, D.C., in Germantown, Maryland, USA, Hughes operates sales and support offices worldwide, and is a wholly owned subsidiary of EchoStar Corporation (NASDAQ: SATS), a premier global provider of satellite operations.

For additional information about Hughes, please visit www.hughes.com and follow @Hughes_Corp on Twitter.

About EchoStar

EchoStar Corporation (NASDAQ: SATS) is a premier global provider of satellite communication solutions. Headquartered in Englewood, Colo., and conducting business around the globe, EchoStar is a pioneer in secure communications technologies through its Hughes Network Systems and EchoStar Satellite Services business segments.

For more information, visit www.echostar.com. Follow @EchoStar on Twitter.

Rohde & Schwarz acquires Motama technology - IPTV/CDN/OTT

Presse release, Saarbrücken (Germany), May 22, 2017

GMIT GmbH, a subsidiary of Munich-based technology group Rohde & Schwarz, has acquired the technology of Motama GmbH. The acquisition will expand the Berlin-based company's product portfolio for interruption-free transmission of audio and video content in IP networks.

The acquisition will enhance the expertise of Rohde & Schwarz subsidiary GMIT GmbH in the growth market of live online content distribution. Headquartered in Saarbrücken, Motama is a pioneer in the field of professional transmission via unmanaged IP networks. The Saarbrücken-based company's RelayCaster protocol is a solution that minimizes packet losses to enable the quality-of-service (QoS) conditions required for interruption-free transmissions.

Hannes Strobel, Vice President Monitoring & Headend, at Rohde & Schwarz and Managing Director of GMIT, says "RelayCaster technology represents a major expansion of our Broadcast and Media Division's current portfolio in the field of interruption-free transmission, and will impact future applications. RelayCaster gives us the benefits of a fully established product in a highly promising market."

Marco Lohse, founder and Managing Director of Motama GmbH, adds, "Our technology will make a valuable contribution to Rohde & Schwarz achieving its ambitious objectives. The structures and potential within Rohde & Schwarz offer optimal opportunities for the continued development of our products. Our customers will also benefit." The acquisition will provide Motama customers with the financial security of a well-established technology group – an important basis for long-term partnerships with an additional focus on investment security. It is very important to Rohde & Schwarz and Motama that existing customers and partners be fully supported by GMIT GmbH.

RelayCaster and other Motama products are now available from GMIT GmbH as independent product solutions. Motama technology will be integrated into the Rohde & Schwarz broadcast and media portfolio and can be used for new software solutions and cloud environments. Motama GmbH products and technology will remain available through existing sales partners and also be integrated into the Rohde & Schwarz product portfolio for worldwide marketing via the Rohde & Schwarz sales network.

Marco Lohse, who established the company in 2005, will retain primary responsibility for growth and development of the product line as the Director of R&D IP Gateways at GMIT GmbH, a position he will assume effective June 1, 2017.

GMIT GmbH develops multiviewer and automated monitoring products for operating and monitoring broadcast and streaming infrastructures. These products feature top performance and availability and are based on GMIT software components and technologies for processing video, audio and data in realtime. <http://www.gmit-gmbh.de/>

Rohde & Schwarz - R&S® The Rohde & Schwarz electronics group offers innovative solutions in all fields of wireless communications as well as in IT security. Founded more than 80 years ago, the independent company has an extensive sales and service network with subsidiaries and representatives in more than 70 countries. On June 30, 2016, Rohde & Schwarz had approximately 10,000 employees. The group achieved a net revenue of approximately EUR 1.92 billion in the 2015/2016 fiscal year (July to June). The company is headquartered in Munich, Germany, and also has strong regional hubs in Asia and the USA. <http://www.rohde-schwarz.de>

Motama offers software defined products for IP-based media processing, either as turnkey hardware/software products or software-only products for installation in the cloud. These products are used in IPTV, content delivery networks (CDN), Internet/over-the-top (OTT) solutions, telecommunications, hotels, hospitals and corporate networks.

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Clavister receives order from Nokia for Virtual Security

Clavister (HQ Sweden) has received an order for its virtual security solution as part of a larger Nokia network roll-out for an operator in the Latin-America region.

The new order specifies more functions and higher capacity compared to previously announced orders, with a higher initial order value as a result. The order consists of software licenses and support services for the operator's initial requirements. In addition, capacity upgrade orders following network expansion are expected going forward.

Johan Öhman, CEO at Clavister comments: "This is truly a clear sign that cloud solutions are starting to take off within the telecom market and that our strategic cooperation with Nokia is beginning to generate a true return. We are clearly still very early in this process, but the fact that this order is for another geographical region than previous orders, indicates a global trend which is very promising for the future."

MORE: <https://www.clavister.com/>

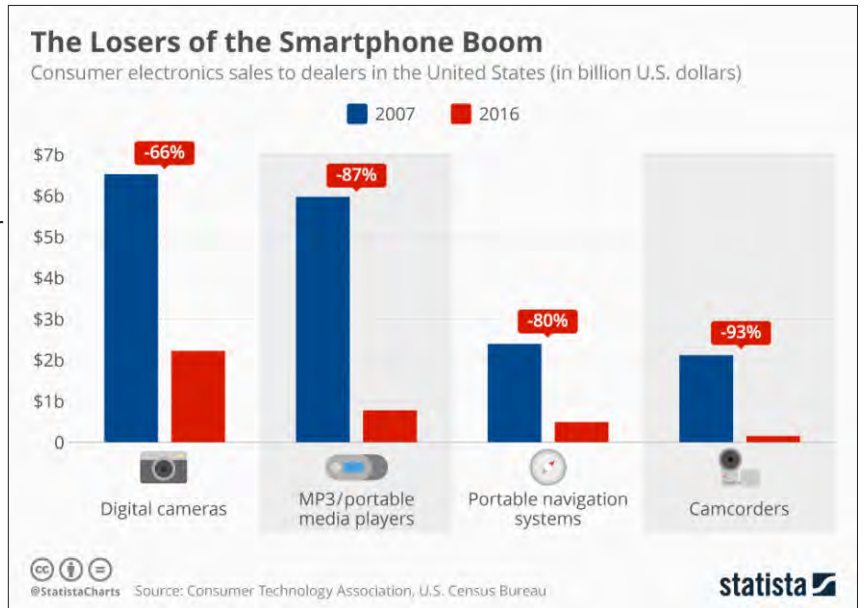
The Losers of the Smartphone Boom

When the original iPhone hit the stores in the United States exactly ten years ago, nobody could have predicted the impact it would have in the years to come. Its (at the time) unique touchscreen soon became the standard for mobile phones and over the years, as smartphones got better and better, the iPhone and its many relatives became the center of our digital lives.

Many companies profited immensely from the smartphone boom that followed the iPhone's release in 2007, but there were some losers as well. As smartphones became smarter and more powerful, people started using them for more and more tasks and other, previously popular devices became obsolete.

Our chart, based on data from the Consumer Technology Association, shows how sales of digital cameras, MP3 players, portable navigation systems and camcorders all plummeted in the past decade. Considering that today's smartphones do everything these devices used to be doing, it's no surprise that consumer interest in them has faded.

Source: Felix Richter, STATISTA <https://www.statista.com/chart/10066/losers-of-the-smartphone-boom/>

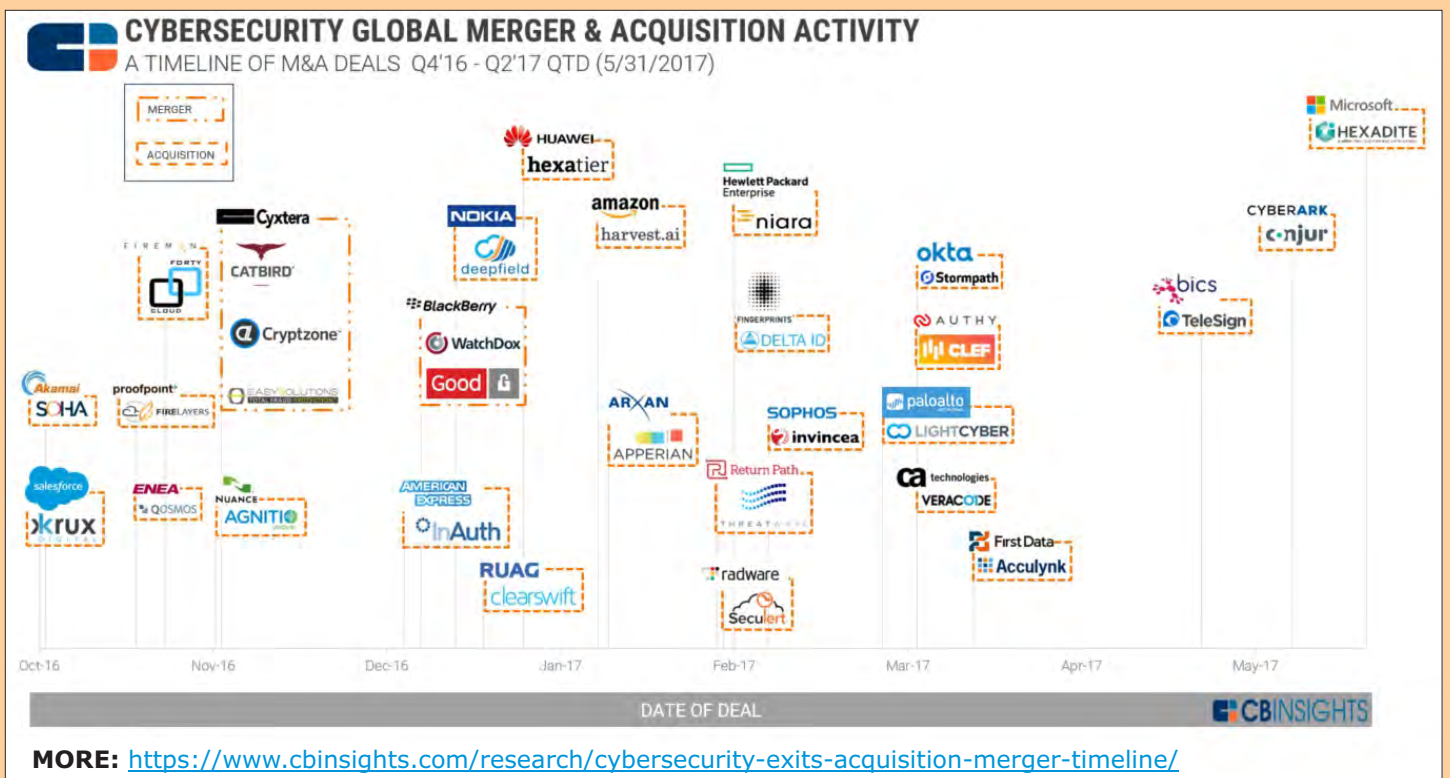


Cybersecurity Global M&A Timeline: Q4'16 – Q2'17

Since October of last year, seven cybersecurity startups have been acquired for more than \$100M. Six of those deals happened this year. The most valuable cybersecurity startup to get acquired since the start of Q4'16 is the website security company Krux Digital, acquired by Salesforce in October 2016, at a valuation of \$750M.

This year's top acquisitions in cybersecurity include: Veracode (acq. by CA Technologies for \$614M), TeleSign (acq. by BICS for \$230M), Invincea (acq. by Sophos for \$120M), Delta ID (acq. by Fingerprint Cards for \$106M), LightCyber (acq. by Palo Alto Networks for \$105M), and Hexadite (acq. by Microsoft for \$100M).

Notable cybersecurity acquisitions by publicly traded corporations over the time period examined include: Niara (acq. by Hewlett Packard Enterprises in Q1'17), and Harvest.ai (acq. by Amazon in Q1'17). Both of those cybersecurity startups utilize AI and machine learning algorithms to protect against cyber crime. Interestingly, the investment firms Medina Capital and BC Partners recently merged their portfolio of cybersecurity companies to form a single entity called Cyxtera. Similarly, the corporation BlackBerry recently merged its portfolio of cybersecurity companies to create a new cybersecurity unit within the corporation called BlackBerry Secure.



MORE: <https://www.cbinsights.com/research/cybersecurity-exits-acquisition-merger-timeline/>