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Mar-Apr 2019

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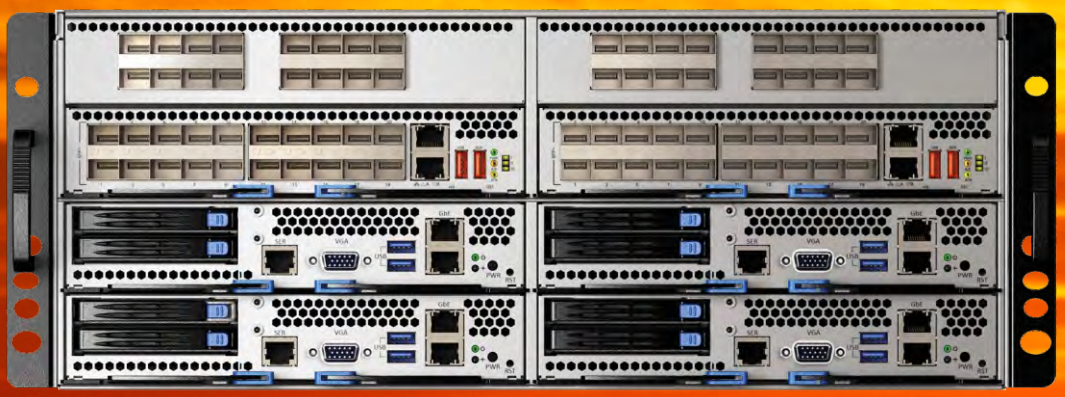
- Broadpeak Wins 3 Awards at 2019 NAB Show, Ultra Low Latency With Multicast ABR

400G

Carrier-Grade Network Appliance from Adlink

with High IO Density, Throughput and Performance



Products & Technology from Silicon to Application-ready Platforms

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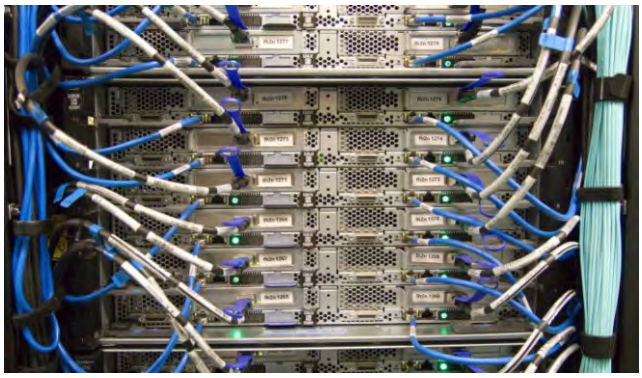

Daniel Dierickx
CEO & co-Founder
at e2mos
Acting Chief Editor

Over 3 Decades Semiconductors & Computer Systems Market Expertise

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Editor/Publisher: e2mos
WEB: www.e2mos.com
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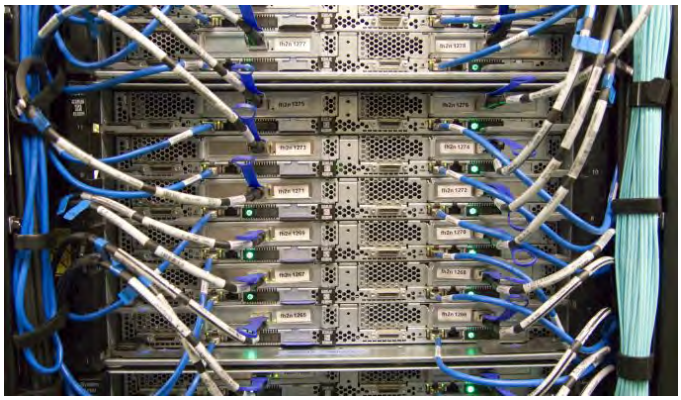
Roundup data centre launches: Intel, Lenovo, Huawei, Dell

By Abigail Opiah Updated: 17:10, 3 April, 2019
Source: DATA | ECONOMY



What do Lenovo, Intel, Huawei & Dell all have in common?

They have all been busy revamping their data centre portfolio with launches, new products & refresh of their technologies.

Lenovo revamp

Lenovo has announced a series of upgrades to its ThinkSystem and ThinkAgile data centre infrastructure portfolios, aligned with Intel's launch of the 2nd Generation Intel Xeon Scalable processors with Intel Optane DC persistent memory modules. The company said that with Intel Optane DC persistent memory, customers can experience 12.5 times faster recovery from planned or unplanned outages, and can process significantly more data in in-memory databases, making the solutions ideal for SAP HANA environments.

"Customers today need IT solutions that are built to handle a diverse set of applications and engineered to accelerate workloads for improved business outcomes," said Kamran Amini, Vice President and General Manager, Data Centre Infrastructure and Software-Defined Solutions at Lenovo Data Centre Group.

"Lenovo's new ThinkSystem servers featuring Intel Optane DC persistent memory are revolutionizing how customers think about application use cases, particularly how they manage their large memory challenges and higher availability of their applications.

"These new Lenovo solutions with persistent memory allow for more data and virtual machines to be stored on a single platform, and for mission critical applications like SAP HANA, they deliver much faster recovery of the data from a planned or unplanned outage.

"This helps reduce a customer's overall operating expenses and enables further resiliency within their IT environment."

In addition to the new ThinkSystem and ThinkAgile portfolio additions, Lenovo is also developing a series of engineered solutions designed specifically for key workloads.

Huawei next generation

Huawei announced that it has introduced its new FusionServer Pro intelligent servers during its Taking Computing to New Levels press conference. The company added that the x86 servers also has intelligent data centre systems for a number of scenarios.

Huawei said that the new generation of servers support a smart acceleration engine and smart management engine, upgrading traditional servers into intelligent ones, which enables intelligent data centres with stronger computing power.

Intel data solutions

Intel has unveiled a new portfolio of data-centric solutions consisting of 2nd-Generation Intel Xeon Scalable processors, Intel Optane DC memory and storage solutions, and software and platform technologies optimised to help its customers extract more value from their data. Intel's latest data centre solutions target a wide range of use cases within cloud computing, network infrastructure and intelligent edge applications, and support high-growth workloads, including AI and 5G.

Intel's data centre solutions target server, network, storage, internet of things (IoT) applications and workstations. The portfolio of products advances Intel's data-centric strategy to pursue $300bn data-driven market opportunity.

Dell refresh

Dell EMC has announced that it has refreshed its PowerEdge Server line to support the new CPUs, and the new PowerEdge servers will also back up Optane DC Persistent Memory. Dell EMC added that the new servers would have improved security, better scalability, and more control.

Dell EMC has also introduced Prescriptive Security with centralised key management through OpenManage Secure Enterprise Key Manager. The company revealed that OpenManage FlexSelect Secure gives users more control over server security for encryption.

2nd Annual The Future of the Mobile Industry: A Reality Check from Mobile World Congress 2019

MWC 2019 could best be characterized as displaying an anxiety borne from an industry suffering from a combination of split personality disorder and ADHD. It is clear that we have an industry where its participants know there needs to be change, and without that change and a massive recalibration of its fundamental business model and modus operandi, it will become obfuscated. What we saw as a response to this deep-seated "need" is much misdirected energy and a lack of unification about how to achieve this massive change.

ABI Research had seven analysts at the conference. Their findings are captured in our second annual post-conference whitepaper, "The Future of the Mobile Industry: A Reality Check From Mobile World Congress 2019: 6 Brief Reads for Visionaries." Our analysts focused on the most compelling transformative technologies:

- 5G & Mobile Network Infrastructure
- Digital Security
- M2M (Machine to Machine), IoT (Internet of Things) & IoE (Internet of Everything)
- Smart Cities & Smart Spaces
- Smart Mobility and Automotive
- Smartphones & Wearables

Some of the analysts' conclusions from the whitepaper include:

- Private LTE is slowly getting momentum in a market where 5G takes all the headlines
- A new trend is emerging in the convergence of MSPs and cloud giants as the two categories need each other
- As a form factor, iSIM is clearly positioning to take advantage of the massive IoT to address low power, computing capable, and low-cost device types
- Innovation within the payment cards space has clearly moved down the value chain to smaller, more agile players, particularly from a fingerprint sensor perspective
- The unveiling of fundamental new business strategies and market positioning for traditional IoT module and chipset suppliers

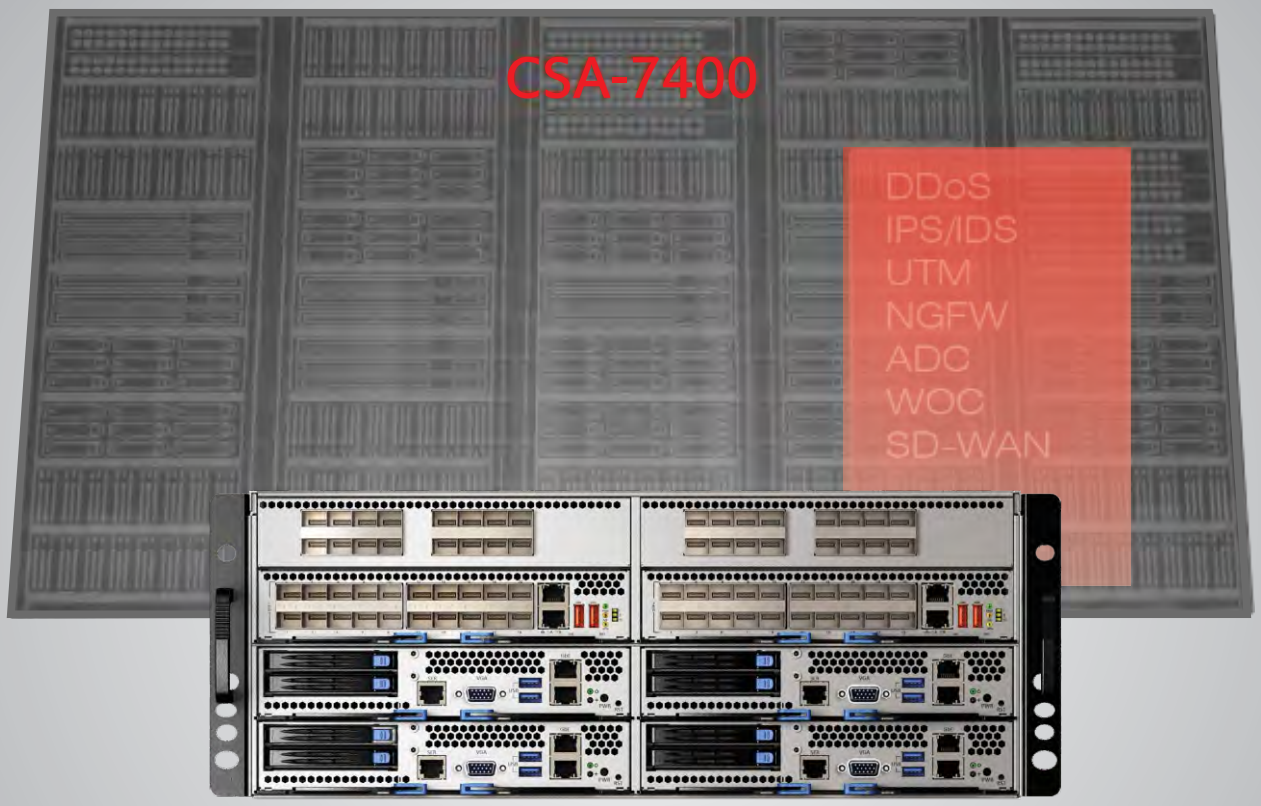
Download the Whitepaper

Companies included in the report ranked by appearance: Nokia, Sercomm, Deutsche Telekom, Osram, Cisco, Vodafone, Vodafone, IBM, Microsoft, Telefonica, Verizon, AT&T, Ericsson, Huawei, Kathrein, CommScope, RFS, Blue Danube, Rakuten, Altiostar, ARM, STMicroelectronics, Infineon, Gemalto, G&D, IDEMIA, TATA, Fingerprint Card, Rambus, Samsung, Apple, Visa, Mastercard, RuPay, Mir, Troy, ZTE, Fibocom, Quectel, Qualcomm, Sierra Wireless, Wireless Maingate, Numerex, Sequans, Sigfox, Airbus, Objenious, Bouygues, Chordant, GeoSpock, Alibaba, 5GAA, BMW, Ford, Audi, Harman/Samsung, Seat, Ficosa, Daimler, Royole, TCL, Sony, Xiaomi, LG, OPPO, OnePlus, MediaTek, Punkt, F(x)tec.

Report Published March 7, 2019 - **More Reports** www.abiresearch.com

ADLINK
Leading EDGE COMPUTING

400G
Carrier-grade Network Appliance



ADLINK's flagship network appliance CSA-7400 has been deployed worldwide to enable a variety of high-end applications for next-generation firewalls, data centers, telecommunications, and multi-access edge computing.

Built on ADLINK's Open Compute Carrier-grade Edge Reference Architecture (OCCERA), the CSA-7400 platform significantly enhances solution integrators' competitive advantages by leveraging its superior flexibility, modularity, scalability and more importantly, the highest processing and I/O density in the market, ensuring fast time-to-market, low cost/performance ratio, and thus high ROI and customer satisfaction.

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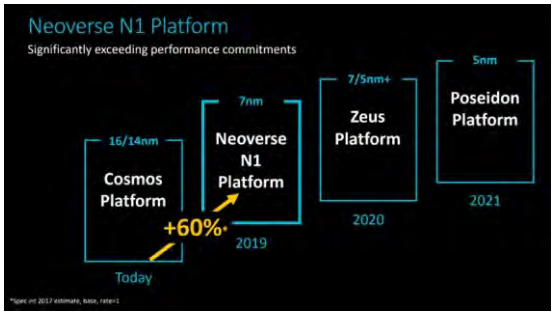
DATASHEET

Arm Unveils Neoverse N1 Platform with up to 128-Cores

By Tiffany Trader HPCwire | February 20, 2019

Following on its Neoverse roadmap announcement last October, Arm today revealed its next-gen Neoverse microarchitecture with compute and throughput-optimized silicon designs catered toward general-purpose cloud computing and edge computing. The Arm Neoverse N1 platform, the first built on the 7nm "Ares" core, scales up to 128 cores and delivers a 2.5x performance improvement on key cloud workloads, according to Arm. The company's Neoverse E1 platform, also announced, debuts as a high-efficiency throughput platform, promising a 2.7x improvement in throughput performance over previous generations.



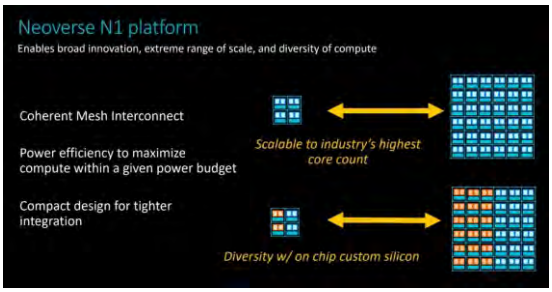
The new N1 platform (previously known by the Ares codename) is the successor to Arm's 16nm Cosmos platform, which includes the Cortex-A72, A75 and A53 CPU cores. AWS' Graviton processor, announced in November at AWS re:Invent, is based on Cosmos.

Arm reports that chips based on the N1 platform will boost integer performance by 60 percent over the Cortex-A72 Cosmos processor (measured with the industry SPEC int 2017 benchmark), overdelivering on their promise to improve performance by 30 percent year to year. N1 also yields a 30 percent power efficiency improvement over Cortex-A72, according to Arm.

"Going beyond raw compute performance, the Neoverse N1 platform was built from the ground up with infrastructure-class features including server-class virtualization, state-of-the-art RAS support, power and performance management, and system level profiling," commented Drew Henry, head of Arm's infrastructure business unit — its fastest-growing division — in a blog post. "The platform also includes a coherent mesh interconnect, industry-leading power efficiency, and a compact design approach for tighter integration, enabling scaling from 4- to 128-cores." Partners have the flexibility to add accelerators or other features with their own on-chip custom silicon, he added.

As you'd expect, Arm's Coherent Mesh Network (CMN) is key technological asset of the N1 platform. "We've been making coherent interconnects for quite some time in different markets and have evolved from cross bar to a ring and now a mesh given the core counts that we're at," Senior Director Brian Jeff told reporters last week. "Ares and the CMN were designed together to optimize the way the mesh interconnect works together with the CPU and communicates about how much data to prefetch into memory, how the cache can be used and allocated among the different cores and a lot of other features." Jeff also noted, in a blog post (offering a closer look at the microarchitecture), that the N1 system could scale beyond 128-cores, however "real systems will architect around memory bandwidth and likely come in at 64 to 96 cores with 8ch DDR4 and 96 to 128 cores with DDR5." An 8 core chip at the edge is expected to draw <20 watts while an 128 core chip for hyperscale applications is estimated at <200 watts.

In a briefing last week, Henry, senior vice president and general manager of Arm's infrastructure business, noted the company's rising momentum underscored by Top500 recognition for the world's first petascale Arm supercomputer in November. Arm is also the engine for the massive post-K supercomputer, being built in Japan this year with Fujitsu AFX64 Arm CPUs. AWS, Huawei and Ampere have all announced Arm CPUs in recent months.



Market watchers have been looking for Arm's traction in the larger datacenter market. "Everyone has wanted to know, 'where are you guys in hyperscale, where are you in servers?'" Henry told reporters last week. With the rollout of AWS Neoverse Graviton and the launch of Arm's N1 platform, Henry wants the industry to know that the success Arm has had in other areas of infrastructure is now moving into the core datacenter. "The N1 platform is really about the core compute – the core compute you need in the hyperscale datacenter and the core compute you might need in the 5G base station or at an internet gateway," said Henry. The Neoverse E1 platform, also announced today, "was designed very specifically to put high throughput through the internet, also from the edge to the core datacenter."

"Featuring an intelligent design for highly-efficient data throughput, the Neoverse E1 achieves 2.7x more throughput performance, 2.4x more throughput efficiency, and over 2x more compute performance compared to our previous generations," said Henry. "It also delivers scalable throughput for edge to core data transport, supporting everything from a sub-35W base station all the way through to a multi-100GB router." Both the N1 and E1 designs have been available to partners for "a while," Arm said. The company expects the first silicon to come to market by the end of this year, ramping up into the following year, pending customers' schedules and timelines.

Source - Special Links - Larger Pictures CLICK HERE

Data centre hardware and software spend hit $150bn in 2018 due to cloud – report

By Abigail Opiah Published: 10:03, 2 April, 2019 Updated: 11:50, 2 April, 2019 -- DATA | ECONOMY

Microsoft features heavily in the rankings due to its position in server OS and virtualisation applications.

Spending on public cloud infrastructure grew by 30%, while spending on enterprise data centre infrastructure grew by 13%.

Worldwide spend on data centre hardware and software grew by 17% in 2018, according to new data from Synergy Research Group.
The growth was driven by an increasing demand for public cloud services and by a requirement for ever-richer server configurations, which drove up enterprise server average selling prices, according to the report findings.

Spending on enterprise data centre infrastructure grew by 13%, which was driven by 23% growth in private cloud or cloud-enabled infrastructure, which helped to offset a marginal decline in traditional, non-cloud infrastructure.

In terms of market share, ODMs in aggregate account for the largest portion of the public cloud market, with Dell EMC being the leading individual vendor, followed by Cisco, HPE and Huawei.

The 2018 market leader in private cloud was Dell EMC, followed by Microsoft, HPE and Cisco, and these four vendors also led in the non-cloud data centre market, though with a different ranking.

The report also revealed that the total data centre infrastructure equipment revenues, including both cloud and non-cloud, hardware and software, were $150bn in 2018, with public cloud infrastructure accounting for well over a third of the total.

Private cloud or cloud-enabled infrastructure accounted for just over a third of the total. Servers, OS, storage, networking and virtualisation software combined accounted for 96% of the data centre infrastructure market, with the balance comprising network security and management software.

The report found that Dell EMC is the leader in both server and storage revenues, while Cisco is dominant in the networking segment.

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Data centre hardware and software spend hit $150bn in 2018 due to cloud – report

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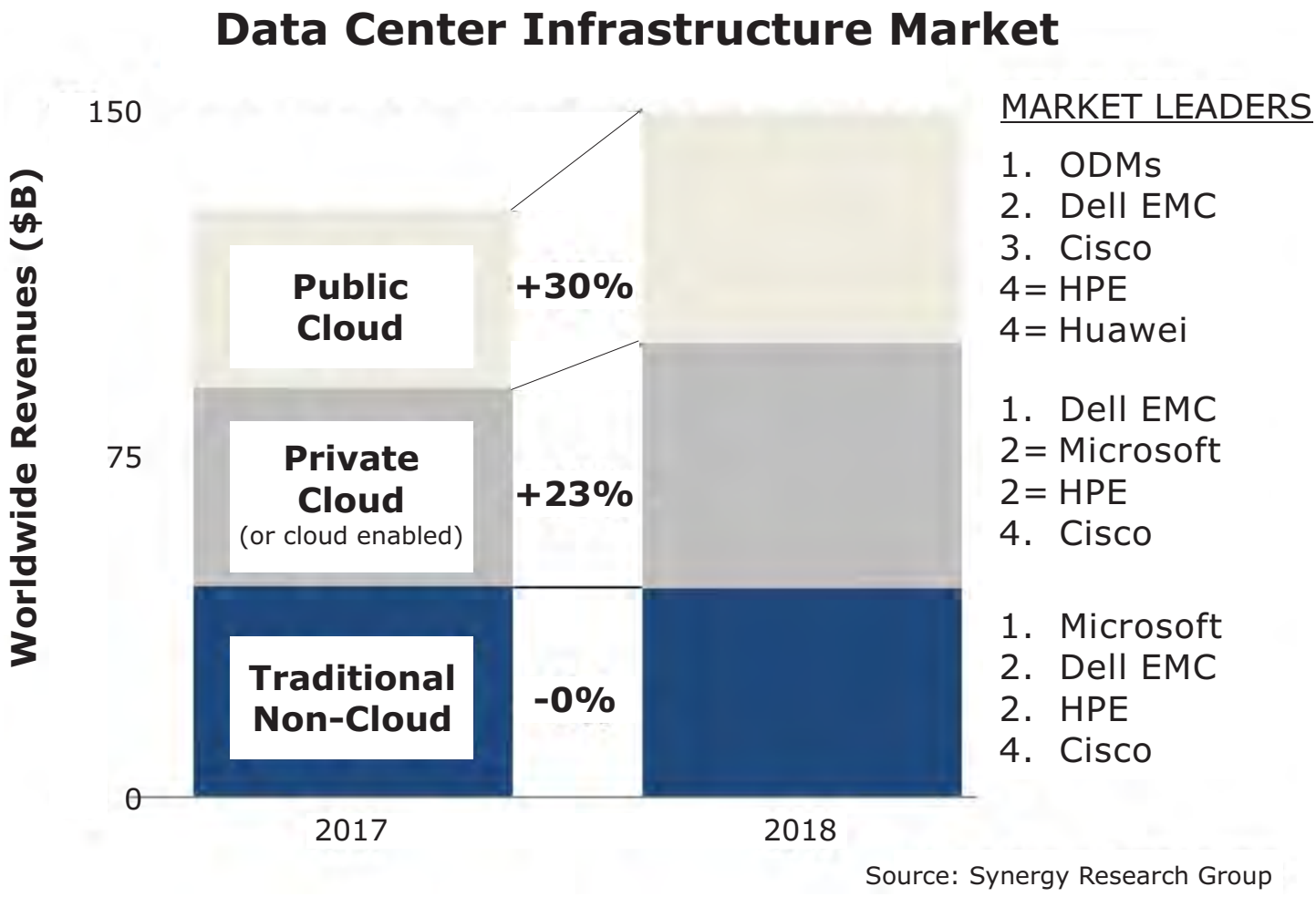
Outside of these three, the other leading vendors in the market are HPE, VMware, IBM, Huawei, Lenovo, Inspur and NetApp. Inspur and Huawei were the two leading vendors that achieved the strongest growth in 2018.



Source: Synergy Research Group

"Cloud service revenues continue to grow by almost 50% per year, enterprise SaaS revenues are growing by 30%, search/social networking revenues are growing by almost 25%, and e-commerce revenues are growing by over 30%, all of which are helping to drive big increases in spending on public cloud infrastructure," said John Dinsdale, a Chief Analyst at Synergy Research Group.

"We are also now seeing some reasonably strong growth in enterprise data centre infrastructure spending, with the main catalysts being more complex workloads, hybrid cloud requirements, increased server functionality and higher component costs.

"We are not seeing much unit volume growth in enterprise, but vendors are benefitting from substantially higher ASPs."

More on: Synergy Research Group|Cloud|Cloud Spend|Data Centre|Dell EMC|Microsoft

ADLINK Joins Open Data Center Committee (ODCC) as Supplier Member to Accelerate Transformation of 5G Network Infrastructure

Leveraging this collaboration with the leading industry consortium, ADLINK is well poised to enable customers to tap into enormous new service opportunities with its leading Edge Computing solutions

San Jose, 2019/04/25

ADLINK, a leading provider of Edge Computing solutions, today announced its membership as a Supplier Member of the Open Data Center Committee (ODCC). ADLINK will focus on contribution and collaboration with the Open Telecom IT Infrastructure (OTII) Project governed by the ODCC. By joining the ODCC, ADLINK will continue to play an increasingly important role in influential industry consortia and work together on advanced, open architecture business initiatives with its broad range of strategic ecosystem partners.

Initially co-sponsored by leading enterprises and institutions including **Alibaba, Baidu, Tencent, China Telecom, China Mobile, CAICT (the China Academy of Information and Communications Technology) and Intel,** ODCC focuses on integrating the results of cutting-edge research in the data center domain such as integrated servers, data center infrastructure and open networks, aiming to create an open data center platform and promote industry development and standardization.

The operator-led OTII Project was initiated in November 2017 under the Server Working Group of the ODCC, with a goal of driving the transformation of telecom network infrastructure and operator business models by promoting open standards based, next-generation server technologies, solutions and reference designs.

"Today, telecom operators are driving the network transformation by leveraging network disaggregation, white box economics, open source software and software-defined standards. Especially against the backdrop of fast increasing demand for Edge Computing in the era of 5G, the network transformation significantly raises the bar for servers in terms of real-time capability, reliability and serviceability. Since its inception, the OTII has been instrumental in facilitating the development of open standards based Network Function Virtualization (NFV) and Multi-access Edge Computing (MEC) solutions for the whole ecosystem of the telecom industry, opening up enormous business opportunities for new services," said Julian Ye, ADLINK director for networking and communications. "We are very excited to join and contribute to the ODCC, as we are able to leverage the OTII's community resources and reference designs to develop next-generation network solutions, enabling infrastructure for fast time-to-revenue while lowering both CapEx and OpEx for 5G Edge deployment. For example, **ADLINK's new 2U/1U Edge Computing servers** MECS-7210 and MECS-6110 will be among the first platforms to fully comply with the guidelines and standards of the OTII.

The two platforms are designed to meet the requirements of ultra-low latency, high bandwidth, and real-time access to radio networks, and help our customers realize huge business potential from a vast array of applications, such as artificial intelligence, machine learning, deep learning, augmented and virtual reality, predictive and real-time analytics, ultra-high-definition (UHD) video, blockchain and cyber security. Our ultimate goal is to bring ADLINK's innovation and unique value proposition to profoundly facilitate the ongoing network transformation," concluded Ye.

By leveraging more than 20 years of expertise in developing highly reliable and available embedded computing systems, ADLINK is a premier supplier of extensive, cost-effective COTS, as well as fast time-to-market ODM solutions to worldwide tier-one TEMs and network security integrators, leveraging its Open Compute Carrier-grade Edge Reference Architecture (OCCERA) solutions to develop next-generation networking and communications platforms. ADLINK has also been an active contributor to other leading industry consortia including the Open Compute Project (OCP) and the Telecom Infra Project (TIP). ADLINK offers design services in every major geographic region, benefiting customers with increased responsiveness, short delivery lead-time and ease of doing business. ADLINK ensures best practices in product obsolescence and lifecycle management by leveraging its long-standing strategic partnerships with major processor and software vendors.

Learn more about the ODCC.

The Race For 5G: How 20 Corporations Are Building The Future Of Connectivity

April 23, 2019 | By CB INSIGHTS

Major telecom cos and smartphone manufacturers have started carving out their own place within the 5G gold rush.

Fifth-generation wireless technology — commonly known as 5G — is among the most hotly anticipated technological advancements on the horizon.

Boasting significantly faster data transfer rates, 5G promises to transform virtually every aspect of the mobile internet. Unprecedented download speeds could enable the proliferation of emerging technologies like augmented reality, the internet of things, connected vehicles, and more.

Demand for 5G is expected to be intense and dozens of corporations are seizing the opportunity. Companies vying to take a 5G lead range from network provider Verizon to device maker Samsung to chipset maker Qualcomm, among many others.

And before widespread 5G network connectivity is possible, telecommunications companies will have to invest in significant network upgrades, including installing equipment for new spectrum bandwidths, laying fiber optics cables, and the development of cellular transmission technology.

We identified 20 corporations with big ambitions for a 5G world.

This following list focuses on larger corporate players in the space and is not intended to be exhaustive of corporations working on 5G technology.

1. Qualcomm is building 5G tech for smartphones

Few companies are poised to dominate the 5G landscape like Qualcomm.

Qualcomm owns roughly 15% of the world's 5G technology patents, according to Forbes, and the company is one of the largest smartphone chipset makers in the world, with a market share of approximately 42% in 2017. Qualcomm's 3G and 4G network tech account for around 75% of Qualcomm's profits, according to Riskhedge, putting the chip maker in a strong position to secure significant market share in 5G networking technologies.

As of October 2018, Qualcomm was the only manufacturer making 5G modems and antennas in the United States. The company's Snapdragon 855 chipset, which was announced in December 2018, already appears to be the industry standard for smartphone 5G tech.

This could prove immensely lucrative for Qualcomm, which reportedly levies licensing fees of up to 5% of the price of each Qualcomm-powered 5G device sold. In 2017, Qualcomm earned more than $6.4B solely from its licensing business, and this figure is set to rise as Qualcomm's chips and processors become even more ubiquitous alongside 5G becoming more common.

Qualcomm settled its ongoing legal battle with Apple over royalty payments in April 2019, with a supply agreement for 5G chipsets being announced alongside the settlement. Partly in a nod to the lucrative opportunities which 5G offers, Qualcomm shares rose by more than 23% shortly after the announcement.

Read more: CNBC, Forbes

2. AT&T plans ambitious network coverage

AT&T has invested significant sums into developing robust 5G networks in certain parts of the US. The company has spent more than $700M since 2015 in Kentucky alone, an investment that means St. Louis will be among the first 12 cities in the country covered by AT&T's 5G networks. These investments include more than 1,100 wireless network upgrades across the Bluegrass State, and the construction of 15 new cellular sites and 8 new Distributed Antenna Systems statewide.

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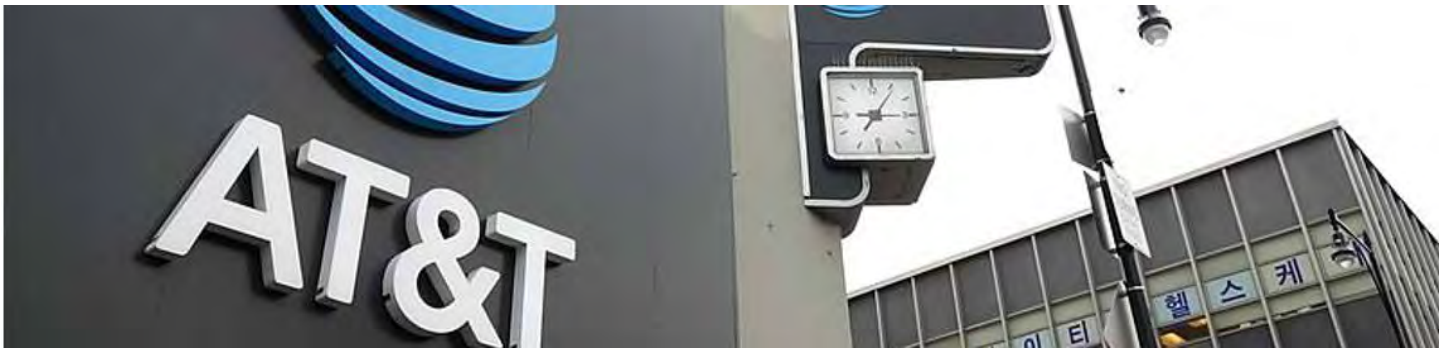

The company claims that, when ready in 2020, its 5G networks will cover more than 200M consumers in the United States — more than 60% of the population. Despite significant potential profits in the consumer market, AT&T has indicated that it expects the majority of revenue growth derived from its 5G technologies will come from the enterprise sector.

AT&T also made headlines in early 2019 when it emerged that the carrier was planning to replace the LTE status icon on certain devices with a "5GE" icon — a standard AT&T described as "5G Evolution." AT&T's 5GE network is really an extension of its current generation 4G LTE network, different to the investments described above, and does not offer what many would consider to be true 5G.

Read more: AT&T, Tech Republic, The Verge, VentureBeat

3. Samsung pushing premium 5G devices

With more than 2B Galaxy devices sold worldwide and a market capitalization in 2018 of $326B, Samsung is one of the biggest smartphones players in the world and has a significant interest in 5G.

In August 2018, Samsung announced it planned to invest approximately $22B in 5G and AI technologies over the course of the next three years. The South Korean multinational has stated that it aims to secure a 20% share of the 5G market by 2020.

In terms of hardware, Samsung's folding smartphone, the Galaxy Fold, will be 5G-enabled, and will retail for almost $2,000. The device will reportedly boast network speeds approximately 10 times faster than current-generation devices.

However, anticipation about the Galaxy Fold was overshadowed by reports in April 2019 that Samsung's new device was exhibiting problems connected with broken screens. Samsung has since delayed the release.

Read more: Business Insider, CNBC, Reuters, The Verge

4. Nokia targets 5G infrastructure

Finnish telecommunications multinational Nokia has invested heavily in 5G initiatives during the past several years. In 2018, Nokia entered into an agreement with T-Mobile to provide the mobile carrier with 5G network infrastructure in a deal worth $3.5B — the largest 5G deal in the world at the time.

In addition to its deal with T-Mobile, Nokia has over 20 contracts with various other telecommunications providers across the globe, including AT&T, Vodafone, and Optus.

Nokia is also engaged in approximately 100 individual trials of 5G technology worldwide, including operational efficiency tests in South Korea and the launch of a 5G-based home internet service in Australia.

Read more: Nokia, Reuters, TechRadar

5. Verizon expanding 5G across US

Verizon, one of the largest telecommunications providers in the world, began conducting field trials of 5G technology back in 2016, and has promised to roll out 5G across 30 major US cities by the end of 2019.

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In addition to its plans to offer 5G in major metropolitan areas, Verizon will be the first American carrier to offer Samsung's 5G-enabled Galaxy S10 smartphone. In recent tests conducted by South Korean mobile carrier SK Telecom, the 5G-enabled Galaxy S10 reached data transfer speeds of up to 2.7 Gbps by combining 4G and 5G signals — an 80% increase in transfer speed over 5G alone.

Read more: Channel Partners Online, VentureBeat, The Verge

6. Xiaomi plans mid-range device for US, India

While 5G promises never-before-seen speeds and significant reductions in network latency, it is also likely to drive up costs of 5G-enabled hardware, particularly in the smartphone market.

Chinese manufacturer Xiaomi hopes to appeal to a broader market by constraining the cost of its forthcoming 5G smartphone, the Mi Mix 3 5G. The device is expected to retail for approximately $680, making it considerably less expensive than many 5G devices scheduled for release throughout 2019.

In terms of how Xiaomi might compete on the global stage, the company is in a potentially strong position. Xiaomi has fared better politically than fellow Chinese phone makers Huawei and ZTE, giving it an advantage as it seeks to penetrate the American market. In addition, Xiaomi has made inroads in to the Indian market, and is growing steadily in Europe.

Read more: TechCrunch

7. T-Mobile opting for low-band spectrum 5G

Like many other telecommunication cos in the US, T-Mobile is developing a range of 5G initiatives that will roll out in 2019. Similarly to AT&T and Verizon, T-Mobile's 5G service will initially be limited to 30 cities across the US.

T-Mobile has opted to pursue low-band spectrum 5G instead of the "mmWave" technologies currently being developed by AT&T and Verizon. T-Mobile's low-band approach would sacrifice some bandwidth in favor of greater signal range.

In addition to its considerable investments in 5G initiatives in the US, T-Mobile was also among the first telecommunications company to be awarded licenses to develop 5G technologies in Austria.

Read more: LifeWire, PCMag, Reuters

8. Huawei poised to dominate the Chinese market

As the world's largest supplier of telecommunications technology and the world's second-largest smartphone manufacturer, Chinese hardware company Huawei is in an enviable position when it comes to 5G. At present, no American telecommunications companies currently manufacture the kind of wireless technologies Huawei produces that are vital to 5G devices.

However, Huawei's strong 5G market position was put under pressure when the US banned the use of Huawei and ZTE hardware in government projects due to the company's alleged proximity with the Chinese government's cybersecurity and intelligence-gathering operations.

Despite the company's political troubles in the US, Huawei is making significant progress on a number of 5G initiatives elsewhere around the world. The Chinese 5G market — which some expect to be the largest 5G market in the world by 2025 — represents an incredible opportunity for Huawei. The company has reportedly spent more than $600M on 5G projects since 2013, and plans to launch its own 5G smartphone, the Huawei Mate X, in summer 2019 for a price of around $2,600.

In addition to intense demand for 5G technology across China, the country has also secured vital mineral extraction contracts across Africa and Latin America that will feed into China's technology manufacturing sector — a situation that may see China emerge as the world's most influential player in the 5G market.

Read more: The Verge, The Wall Street Journal, The Washington Post, Wired

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9. Honor plans to build 5G devices

Established in 2013, Honor is a subsidiary brand of Huawei. While Honor will undoubtedly benefit from Huawei's proprietary technologies and significant spending power, Honor has ambitions of its own, including plans to build a 5G smartphone.

During the first two quarters of 2017, Honor shipped approximately 26M handsets in China, making it one of the biggest smartphone brands in southeast Asia. Honor hopes that its upcoming 5G smartphone will help the brand grow, though specific details on the device remain scant.

Read more: Android Authority, South China Morning Post

10. Sony bides time on 5G while scaling down smartphone division

Unlike many other companies, Japanese electronics conglomerate Sony is in no hurry to bring a 5G-enabled device to market, despite displaying a prototype 5G phone at the 2019 Mobile World Conference.

The company has stated that it will wait for broader rollouts of 5G networks before releasing a 5G smartphone. While such caution may make sense for the Japanese manufacturer, with sales of its Android devices struggling to meet investor expectations in recent years, it may also put Sony in a vulnerable position.

Nikkei Asian Review reported that Sony is strategically pulling back from the smartphone market, with the company rumored to be cutting the workforce of its smartphone division by as much as 50%, or roughly 2,000 full-time positions, due to intensifying competition and poor sales.

Despite the company's reluctance to enter the 5G device arms race, Sony is still well-placed to benefit from 5G when the technology becomes commonplace. The company has several media streaming services boasting a catalog of thousands of movies, TV shows, music, and games, all of which could benefit from the increased data transfer capabilities of 5G networks.

Read more: Nikkei Asian Review

11. OnePlus plans affordable 5G devices

Chinese smartphone manufacturer OnePlus has become one of the most popular Asian consumer electronics brands thanks in part to the company's range of affordable mid-range devices. OnePlus hopes to be among the first smartphone manufacturers in the world to release a 5G handset in 2019, debuting a prototype 5G device at the Mobile World Congress 2019 in Barcelona.

The company stated that the device would be available in the UK and Finland via British carrier EE and Finnish carrier Elisa in Q2'19.

Read more: Tech Advisor, The Telegraph

12. OPPO developing tech for the Indian market

Chinese manufacturer OPPO ranked 5th in smartphone sales worldwide in Q4'18, according to International Data Corporation. The company's plans for 5G are ambitious, but unlike other Chinese hardware companies, OPPO's strategy for the emerging 5G market focuses not on China, but India.

OPPO has invested approximately $1.4B in its 5G initiatives. In 2018, OPPO established a research and development center in Hyderabad, India, and the company plans to roughly double the headcount of personnel working at that facility in the next two to three years. While OPPO's Hyderabad R&D center is developing 5G technologies that OPPO will utilize in its global operations, researchers at the facility are also working on solutions developed exclusively for the Indian market.

One of OPPO's biggest challenges will be achieving a balance of performance and value. According to Tasleem Arif, OPPO's Vice President of R&D in India, more than 85% of Indian consumers use mobile devices priced less than $250, with just 5% of consumers using devices priced at between $500 and $700. OPPO's considerable spending power may help offset initial losses on lower-priced devices, but profitability is likely to remain an ongoing challenge for the manufacturer — especially as competition in the Indian market intensifies.

Read more: The Economic Times

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13. Lenovo plans 5G laptop

While many companies remain tightly focused on 5G technologies for mobile, PC manufacturer Lenovo is taking an alternative approach by building what the company claims will be the world's first 5G-enabled laptop.

During a presentation at the Mobile World Congress 2019, Lenovo confirmed it was working on a 5G-enabled laptop computer, but offered few specifics. The machine is expected to rely on Qualcomm's Snapdragon 8cx, a laptop chip which integrates 5G connectivity through Qualcomm's X55 modem.

Read more: AnandTech, Qualcomm

14. Ericsson signs 5G infrastructure deals

Swedish telecommunications giant Ericsson is aggressively pursuing numerous 5G initiatives worldwide. To date, Ericsson has entered into at least 10 formal 5G contracts with various service providers around the world. In addition, the company has reportedly hired as many as 4,000 additional network engineers to support its 5G R&D operations.

Ericsson is also developing a proprietary 5G technology called Ericsson Spectrum Sharing. The technology, which the company debuted during a live demonstration at the Mobile World Congress 2019 in Barcelona, relies on algorithms to efficiently allocate spectrum bandwidth across 4G and 5G networks in line with network traffic.

Read more: Ericsson, GizChina

15. Vivo hints at plans with 5G prototype

Chinese telecommunications company Vivo opened a 5G research facility in Beijing in 2016, and since then has developed proprietary 5G technologies designed for Vivo's NEX range of smartphones.

Vivo formally announced a prototype 5G mobile device, the Apex 2019, in January 2019. However, the Apex is not expected to be released as a consumer phone, with its experimental design, such as lacking a charging port, and 5G chipset more likely to indicate the direction of future Vivo phones.

Read more: MarketWatch, The Verge

16. Sprint making use of excess bandwidth

In addition to a limited four-city launch of 5G in the US scheduled for May 2019 and its partnership to produce 5G-enabled smartphones with Samsung, Sprint has invested heavily in 5G research and development in recent years. The network provider recently announced it had doubled its quarterly network investment to $1.4B to meet the demand for 5G tech.

Sprint is taking a novel approach to its initial rollout. Rather than focusing on mmWave spectrum technologies in the way AT&T and Verizon have, Sprint is opting to use excess bandwidth on the 2.5GHz spectrum that the carrier currently uses for its 4G LTE service. Although this approach will allow Sprint to deploy 5G faster and at lower costs than otherwise, it will not offer the same high speeds and reduced latency as mmWave technologies.

Read more: Digital Trends

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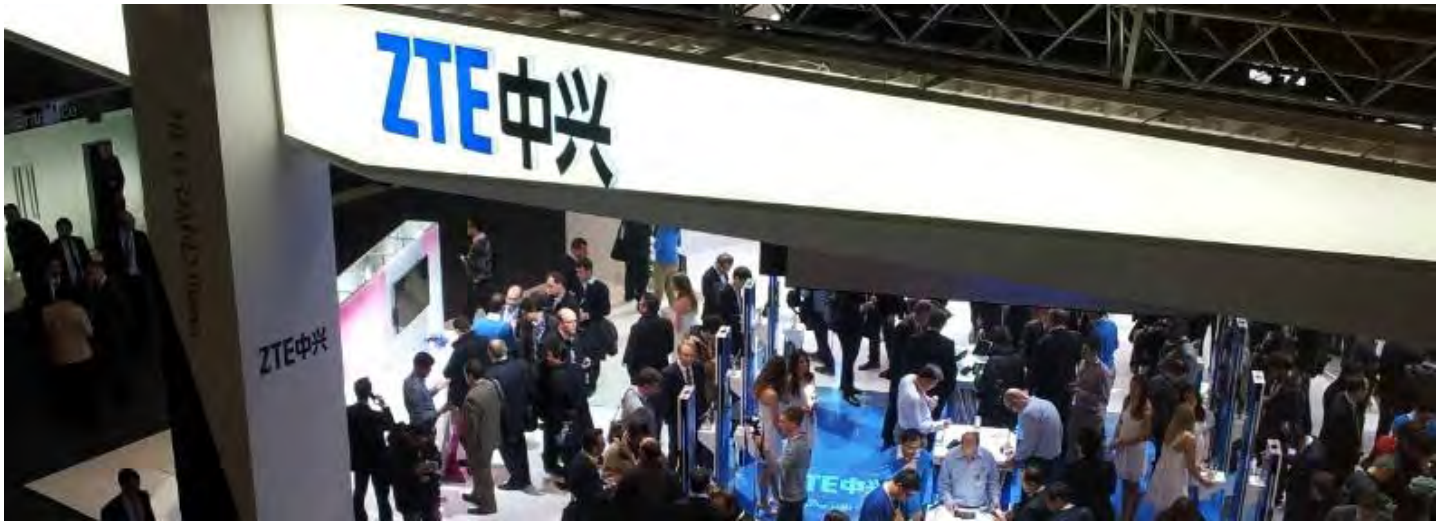
17. ZTE disrupting logistics and manufacturing

While many telecommunications companies are focused intently on mobile 5G technologies, Chinese manufacturer ZTE is forging ahead with a number of initiatives designed for applications beyond mobile networks.



At the Mobile World Congress 2019, ZTE demonstrated a range of 5G technologies that the company believes will revolutionize everything from transportation to logistics infrastructure to manufacturing.

One example is ZTE's combined 5G-enabled sports venue service which aims to offer audiences "a low latency, multiple-angle instant replay audio-visual experience." ZTE's 5G technologies have also been applied to robotics, with the company touting a 5G-enabled robot that can be controlled in real-time by a remote human operator.

Read more: ZTE

18. Motorola pins hopes on 5G peripherals

Despite the Motorola's diminished presence in the smartphone market, Motorola hopes its Moto Z3 will be attractive to consumers hoping to gain access to 5G at a more affordable price point. Although the Z3 itself is not a true 5G device, Motorola's 5G Moto Mod peripheral enables 5G connectivity for the phone.

motorola
a Lenovo company

The Moto Mod is an external device that connects to the Z3 to give the smartphone 5G capabilities through mmWave technology.

Read more: The Verge

19. Intel plans a 5G industrial revolution

Much of Intel's 5G approach has focused on developing solutions for the automotive market for use in connected vehicles, as well as industrial manufacturing applications such as 5G-enabled heavy machinery and manufacturing equipment

However, the company's 5G strategy took an unexpected turn in April 2019 when Intel announced it was withdrawing from the 5G smartphone modem market entirely. The announcement was made just hours after Apple and Qualcomm reached a settlement in the companies' ongoing royalties lawsuit.

Read more: CNBC, Intel, Reuters

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20. DoCoMo makes vehicle connectivity advances

Japanese mobile phone operator DoCoMo is planning to launch a 5G service in 2020, and announced plans in October 2018 to invest almost $9B in 5G technologies between 2019 and 2023.

DoCoMo's initial 5G research has already shown promise. For example, in May 2018, DoCoMo stated that it had achieved a 5G transmission between a base station and a fast-moving car, which may have applications for connected vehicles and the Internet of Things (IoT).

Read more: DoCoMo, Bloomberg

Docker Enterprise "leads the pack" in the Forrester New Wave

The Forrester New Wave™: Enterprise Container Platform Software Suites, Q4 2018

"Leads the pack with a robust container platform well-suited for the enterprise"

The Forrester New Wave Enterprise Container Platform, Q4 2018 Report

In the Forrester New Wave ™: Enterprise Container Platform Software Suites, Q4 2018 report, Docker was cited as a leader in enterprise container platform category with Docker and our Docker Enterprise Container platform receiving a "differentiated" rating in eight criteria including runtime and orchestration, security, image management, user experience, vision and more.

Docker's customers interviewed for the report highlight Docker's approach to end-to-end security, support for Windows and support expertise.

Docker Enterprise enables organizations to build, secure and manage both existing and new applications with the freedom to deploy these applications across any infrastructures. Download the report and learn how Docker stacked up among the 8 other enterprise container platform providers and why we were ranked a Leader.

Submit your details to complete the download

Broadpeak Wins Three Awards at 2019 NAB Show, Champions Ultra Low Latency With Multicast ABR

RENNES, France — April 29, 2019 — Broadpeak®, a leading provider of content delivery network (CDN) and video streaming solutions for content providers and pay-TV operators worldwide, today announced that its **ultra-low latency multicast ABR and local video caching** technologies won multiple awards at the 2019 NAB Show.

The company's **nanoCDNTM multicast ABR** solution with ultra-low latency and device synchronization for live streaming was presented with the **2019 NAB Show Product of the Year Award** and IABM's BaM Award in the Consume category. In addition, Broadpeak's **BroadCache Box** was recognized by **PRODU magazine** in the **IP delivery** category.

"Broadpeak's nanoCDN is the only multicast ABR technology on the market today that combines multicast delivery with CMAF and chunked transfer encoding, allowing operators to send video chunks while they are being processed," said Jacques Le Mancq, CEO at Broadpeak. "Winning these awards acknowledges our hard work, swift responsiveness to industry challenges, and pioneering role in bringing ultra-low latency multicast ABR, as well as local video caching technology, to the market."

As the first provider of multicast ABR technology, Broadpeak has set the benchmark for scalable live multiscreen video delivery. The company's nanoCDN solution leverages multicast ABR technology to synchronize all devices receiving a live feed in the HLS or MPEG-DASH format. As a result, it eliminates the echo effects of several screens in the same location. It also significantly **reduces end-to-end latency**, bringing it down from 30 to 40 seconds to where it is with traditional Digital TV. By solving these issues, the solution enables pay-TV oeprators to **switch from IPTV technology to full ABR**.

The third award won by Broadpeak was granted by **PRODU** for its **BroadCache Box**. The solution, deployed by **HBO Latin America**, leverages local video caching technology to **lower CDN** costs for broadcasters and content providers. Using BroadCache Box, broadcasters can dramatically reduce CDN costs while **boosting subscriber QoE** by deploying local caches into the networks of telecom or cable operators. Since the content is streamed from a location closer to end users, latency and network congestion are reduced, resulting in **higher video bit rates, faster start times, and uninterrupted viewing sessions**.

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for Full Article with all Direct Links

ANGACOM Hall 7, Stand B52

ROHDE&SCHWARZ

ANGACOM Hall 8, Stand R8

At ANGACOM Rohde & Schwarz presents latest products and solutions to optimize the present and design the future

Rohde & Schwarz will show its leading-edge solutions at ANGACOM in Cologne from June 4, to June 6, at booth R8 in hall 8. Highlights include end to end cloud-based OTT monitoring systems, monitoring and multi-viewer solutions, advanced DOCSIS 3.1 testing and signal and spectrum analyzers up to 44GHz.

With R&S PRISMON.cloud Rohde & Schwarz is offering end to end video and audio monitoring. It helps to view outside the premises and across the delivery ecosystem in an all IP end to end approach compatible with R&S PRISMON on-premise probes. By monitoring the content and its adaptive bitrate profiles continuously, R&S PRISMON.cloud helps to safeguard quality of service and is entirely deployable from a standard web browser.

R&S PRISMON A/V monitoring and IP baseband multiviewer

The field-proven R&S PRISMON solution provides a new take on two primary applications: an advanced audio/video monitoring for distribution/delivery environments and an IP baseband multiviewer for studio/production/playout environments. Deployed as a multiviewer, R&S PRISMON is one of the most advanced and versatile solutions on the market. It visualizes all content at the highest level.

Leading in DOCSIS 3.1 test and measurement

Besides an in-depth analysis of downstream signals, the DOCSIS signal analyzer R&S DSA supports also detailed analysis functions for upstream signals. In connection with the DOCSIS signal generator R&S SFD, components in the return path or cable modems can be easily tested.

The DOCSIS cable load generator R&S CLGD offers a look into the next evolution step of DOCSIS 3.1 with its support of FDX (Full Duplex).

Measuring precisely the signal power of burst signals can be a challenge. With the R&S NRX, the first power meter generation with modern and intuitive touchscreen based user interface, Rohde & Schwarz offers the right solution.

RF & Microwave device test

The analysis of 5G NR wireless communication technology demands more bandwidth and higher RF performance from R&D and production test solutions. Rohde & Schwarz addresses this market with the new R&S FSV3000 and R&S FSVA3000 signal and spectrum analyzers. Available with up to 400 MHz analysis bandwidth and up to 44 GHz frequency, they cover all relevant 5G NR frequency bands. Their user interface includes new features for fast measurement setup and easy troubleshooting.

The R&S ZNL is a universal all-rounder for RF component measurement applications in industrial electronics and wireless communications. It combines the functionality of a vector network analyzer, a spectrum analyzer and a power meter in a single box. It offers a wide dynamic range of up to 130 dB for measurements on high rejection filters as well as fast measurement times and data processing for applications in production environments. The R&S ZNL is a very compact, lightweight and portable unit designed for field and production/lab use with a variety of hardware and software options.

Visitors to ANGACOM in Cologne can take a closer look at the broadcast and media specialist's solutions at booth R8 in hall 8.

Iskratel drives software-enabled broadband access with new ONF collaboration

Kranj, Slovenia, 13 March 2019 – As part of its ongoing work to enable seamless network upgrades to virtualised, cloud-based and Central Office Re-architected as a Datacenter® (CORD®)-compatible infrastructures, Iskratel today announced it has joined the Open Networking Foundation (ONF), an operator led consortium spearheading disruptive network transformation, as an ONF Collaborator.

As one of Europe's leading providers of communications solutions for the digital transformation, Iskratel's collaboration in the ONF follows its development of the world's first "dual-nature" xPON Optical line Terminal (OLT). This transforms its hardware-based SI3000 Lumia GPON OLT into a fully virtualised, CORD®-compatible OLT, via a simple software upgrade. The dual-nature OLT operates as a traditional integrated OLT but also provides a disaggregated white-box solution, based on virtual OLT Hardware Abstraction (vOLTHA) principles.

For operators looking to deploy open source software-enabled broadband solutions – including ONF members – Iskratel's offering eliminates the need for hardware upgrades when virtualising the central office and easing cloudification of the edge. As a result, networks can be seamlessly and cost-effectively upgraded to virtualised, cloud-based infrastructures.

"We are exceptionally proud to be the first solutions provider which can create a traditional hardware architecture with embedded software, while also supporting software-enabled broadband on that exact same hardware," said Janez Öri, Director Strategy and Business Development at Iskratel. "This means that operators can take their existing hardware-based OLTs and make them work in an open, CORD®-based environment – enabling them to skip an entire hardware investment cycle, granting considerable savings and providing them with a solution which gives them flexibility for the future."

Iskratel will contribute to ONF's initiative which is led by some of the world's largest operators. The group aims to drive transformation of network infrastructure and carrier businesses models. Iskratel's move follows its collaboration with ONF at Broadband World Forum 2018, where it held the first ever live demo of its OLT in CORD® mode at the ONF's booth. "As part of our collaboration with the ONF, we hope to be able to work hand-in-hand with some of the world's leading operators to provide them with an innovative, open and programmable, proven solution which can transform their networks towards software-defined, next-generation access," Janez added.

Iskratel will demonstrate its new GPON and XGS-PON OLTs, alongside its comprehensive portfolio of next-generation broadband solutions at Booth S08, at FTTH Conference 2019, which takes place in Amsterdam, The Netherlands, from Tuesday, March 12 to Thursday, March 14. A **video interview** with Janez Öri, Director Strategy and Business Development at Iskratel, discussing Iskatel's new CORD®-compatible OLT can be found HERE.