TechTalk
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LISTENING TO BUSINESS, APPLYING TECHNOLOGY

Windows 10 Release Coming Soon

Earlier reports indicating Microsoft is wrapping up development on its Windows 10 operating system in the hopes of having it out sometime early in the summer seem to be accurate. A new report from those who've been accurate about Microsoft's plans in the past peg the Windows 10 release for this coming July.

Technology website The Verge is reporting that Microsoft still has plans to finish developing and polishing its upcoming operating system for July. More specifically, the report says that "sources familiar with Microsoft's plans" list July 29th as one of the Windows 10 release dates that Microsoft is considering.

Questions remain whether Windows 10 will be ready without a number of bugs in time for July, but Microsoft is on track and pushing to get the operating system out to machines as a free upgrade. Current Windows 10 testers will likely be the first to receive the final version of the OS ahead of any public upgrades. Internally, Microsoft is close to code completion where Windows 10 is locked in a particular state and engineers start working on squashing bugs instead of adding new features. Unlike previous Windows releases, there will be a smaller gap between the release to manufacturing process, where the OS is delivered to OEMs in preparation for new machines, and it's availability as an upgrade to download and install. Microsoft has been refining its upgrade process throughout the Windows 10 development process, and the company has been making a number of preview builds available just days or weeks after they were compiled internally.

That preview process will continue once Windows 10 is released, and the launch marks just one point in time for the new operating system. Microsoft is transforming its development processes to be service and update driven, allowing Windows 10 to receive regular feature updates in the future. Those updates will be previewed to Windows insiders, and then gradually rolled out to machines. Some features, like extension support in Microsoft Edge, won't make the July launch for Windows 10 and will be delivered later in the year. Microsoft is also planning for a number of larger feature changes in an update wave codenamed "Redstone" for 2016.

IN THIS ISSUE

Mahindra Vehicles Will Soon Get Android Auto

Mahindra & Mahindra, India's top-selling utility vehicle maker, plans to offer Google's Android Auto technology in its vehicles, a top company executive has said in a statement. The technology, which links smartphones and tablets with an in-vehicle infotainment system, will be available in Mahindra's sports utility vehicles XUV 500 and Scorpio as well as future platforms, said Pravin Shah, president and CEO, automotive unit.

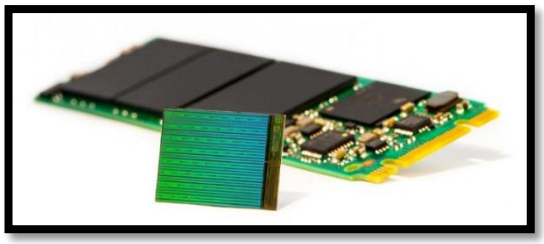
Shah said it would be made available after "successful integration," without committing to a timeline. Android Auto, an extension of Google's smartphone operating system, is expected to make driving safer and easier by allowing drivers to access applications like maps through voice command or by using controls on the steering wheel.

The company, part of the $17 billion Mahindra Group, also said it has become a member of the Open Automotive Alliance (OAA), a global group of automakers and technology companies working to bringing the Android platform to cars. Automakers such as Ford Motor, Honda Motor, Renault and Volkswagen are part of the alliance which also includes Google, Delphi and LG among others.

The Future is Now

10TB Solid State Drives May Soon be Possible

An innovative new process architecture can extend Moore's Law for flash storage – bringing significant improvements in density while lowering the cost of NAND flash.



Intel Corporation – in partnership with Micron – have announced the availability of 3D NAND, the world's highest-density flash memory. Flash is the storage technology used inside the lightest laptops, fastest data centers, and nearly every cellphone, tablet and mobile device.

3D NAND works by stacking the components in vertical layers with extraordinary precision to create devices with three time's higher data capacity than competing NAND technologies. This enables more storage in a smaller space, bringing significant cost savings, low power usage and higher performance to a range of mobile consumer devices, as well as the most demanding enterprise deployments.

As data cells begin to approach the size of individual atoms, traditional "planar" NAND is nearing its practical scaling limits. This poses a major challenge for the memory industry. 3D NAND is poised to make a dramatic impact by keeping flash storage aligned with Moore's Law, the exponential trend of performance gains and cost savings, driving more widespread use of flash storage in the future.

"3D NAND technology has the potential to create fundamental market shifts," said Brian Shirley, vice president of Memory Technology and Solutions at Micron Technology. "The depth of the impact that flash has had to date – from smartphones to flash-optimized supercomputing – is really just scratching the surface of what's possible."

One of the most significant aspects of this breakthrough is in the foundational memory cell itself. Intel and Micron used a floating gate cell, a universally utilized design refined through years of high-volume planar flash manufacturing. This is the first use of a floating gate cell in 3D NAND, which was a key design choice to enable greater performance, quality and reliability.

The data cells are stacked vertically in 32 layers to achieve 256 GB multilevel cell (MLC) and 384 GB triple-level cell (TLC) dies within a standard package. This can enable gum stick-sized SSDs with 3.5TB of storage and standard 2.5-inch SSDs with greater than 10TB. Because capacity is achieved by stacking cells vertically, individual cell dimensions can be considerably larger. This is expected to increase both performance and endurance and make even the TLC designs well-suited for data center storage.

World's First Robotic Kitchen To Debut In 2017

Moley Robotics has unveiled an automated kitchen system, able to scan and replicate the movements of a human chef to produce recipes.

The world's first automated kitchen system was unveiled at Hanover Messe in Germany – the premier industrial robotics show. Developed by tech firm Moley Robotics, it features a dexterous robot integrated into a kitchen that cooks with the skill and flair of a master chef.

The company's goal is to produce a consumer version within two years, supported by an iTunes-style library of recipes that can be downloaded and created by the kitchen. The prototype at the exhibition is the result of two years development and the collaboration of an international team including Sebastian Conran who designed the cooking utensils and Mauro Izzo, DYSEGNO and the Yachtline Company, who created the futuristic kitchen furniture.

Two complex, fully articulated hands, made by the Shadow Robot Company, comprise the kitchen's key enabling technology. The product of 18 years' research and development, Shadow's products are used in the nuclear industry and by NASA. Able to reproduce the movements of a human hand with astonishing accuracy, their utility underpins the unique capability of the automated kitchen. The Moley Robotics system works by capturing human skills in motion. Tim Anderson – culinary innovator and winner of the BBC Master Chef competition – played an integral role in the kitchen's development. He first developed a dish that would test the system's capabilities – a crab bisque – and was then 3D recorded at a special studio cooking it. Every motion and nuance was captured, from the way Tim stirred the liquids to the way he controlled the temperature of the hob. His actions were then translated into elegant digital movement, using bespoke algorithms. The robot doesn't just cook like Tim – in terms of skill, technique and execution it is Tim producing the dish. The kitchen even 'signs off' its work with an 'OK' gesture – just as the chef does.

Moley Robotics, headquartered in the UK, is now working to scale the technology ready for mass production and installation in regular-sized kitchens. Future iterations will be more compact, with smaller control arms but with added functionality in the form of a built-in refrigerator and dishwasher to complement a professional-grade hob and oven. The company is working with designers, homebuilders, kitchen installers and food suppliers to promote the system. The mass-market product will be supported by a digital library of over 2,000 dishes when it launches in 2017 and it is envisaged that celebrity chefs will embrace 3D cooking downloads as an appealing addition to the cook book market. Home chefs will be able to upload their favorite recipes too, and so help create the 'iTunes' for food.

Technology Focus

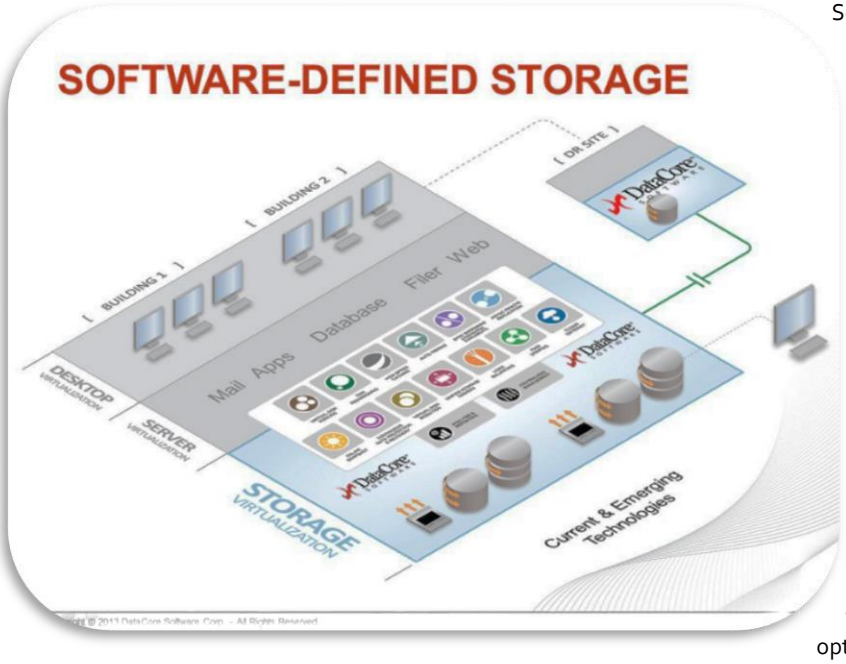
What's The Real Value of Software Defined Storage?

It appeared at the beginning of this year that the clamor around software defined storage (SDS) or software defined anything was waning. But we have recently seen another upsurge in software defined messaging. And far from lacking in substance, the recent 2015 Research and Markets report painted a very different picture. SDS just passed a major milestone – more than a billion in annual sales.

"The total software-defined storage market is expected to grow from $1,409.7 million in 2014 to $6,217.6 million by 2019, at an estimated compound annual growth rate of 34.6% from 2014 to 2019."

This prediction is backed up by Ashish Nadkarni, an analyst at IDC who said that SDS platforms will continue to grow faster than any other segment within the file and object-based storage segment, and the vendor community has followed suit. As well as a slew of SDS startups, the big boys such as EMC and IBM have jumped into the ring. IBM, for example, recently announced a $1b investment in SDS.

"During the economic recession, the rapid growth of storage as well as high costs forced companies to consider alternatives, fueling the larger storage vendors to jump on the SDS bandwagon" said George Teixeira, CEO and President, DataCore Software.



So SDS appears to be happening. That said, many users are still scratching their heads asking themselves what the real value is.

"The real promise of software defined storage is the ability to decouple not only hardware from software, but the different rates of innovation that occur across different storage oriented technologies," said Teixeira. "Flash, hyper-converged, cloud storage, and disk arrays are each innovating at different rates and each require a software layer that can absorb and utilize them to fulfill their promise."

As another side to the storage defined surge, Texeira noted that we have been experiencing a move away from proprietary hardware towards commodity hardware as a means of reducing cost. This, in turn, has been eroding the distinctions between storage systems and server systems, causing new players like Lenovo and Huawei to enter the market successfully.

That's all very well. But how about a tangible example of SDS value? Texiera mentioned a hospital that wanted to store patient data long-term as well as provide high-performance I/O for their Picture Archiving and Communication System. The options offered from the existing storage vendor proved too expensive. It turned to SDS to bring in storage products that fit the capacity, performance, reliability and costs for each project. This allowed them to aggregate and administer this storage environment through one management plane.

"In addition, SDS eliminated the time and expense of migrating data by pooling the storage systems so data could be moved seamlessly without disrupting operations," said George Teixeira, CEO and President, DataCore Software. "SDS helped the hospital meet its IT objectives by providing better storage options, and drove down storage costs."

Greg Schulz, an analyst with Server and StorageIO Group, added that SDS also enables enough flexibility to deploy storage management when, where and how it is needed in a cost effective way that removes complexity.

"SDS is not just about defining the storage hardware, it should also unlock value and be able to define your storage software tools and cloud services," said Schulz. "This is where we move from storage defined marketing to software defined storage management."

Ian Hamilton, CTO of Signiant, explained the relationship between software defined networking (SDN) and SDS. SDN separates core routing and switch functionality from ancillary networking functionality and SDS separates core data storage from ancillary storage functionality.

Hamilton doesn't see the end to proprietary hardware completely. Rather, he sees a balance being achieved between the SDS side and proprietary systems. But at the same time, such systems will only persist where really called for and commodity systems will dominate in the majority of cases.

"Creating a standardized interface between core functions that benefit from specialized hardware and non-core functions that don't, provides better separation of concerns, and allows for simpler more targeted systems that eliminate bundled functionality," said Hamilton. "This leads to more reliable systems." He gave the example of creating a well-defined interface between a file transfer control plane that manages the logistics of file transfer and a file transfer data plane that performs actual file transfer. By doing so, a number of software defined benefits can be achieved including greater storage freedom. "Software defined solutions change the way that the enterprise constructs their data center," said Letschin. "No longer is it a case of buying the largest box or most expensive system that comes with a technician to install every piece."

Tech News

Indian Post Office ATMs Coming Soon

Customers having their accounts in the Post Offices may no longer wait in the queue to take out their cash. Recently the Indian Post announced that it will soon deploy its own ATMs across the country. The task of deploying the ATMs in the country have been assigned to CMS Info Systems, a cash management and payments solutions company. The company has said in a press release, CMS has signed a deal with the Department of Post to personalize over 15 million debit cards for India Post savings account holders. The deal, valued at Rs 30 crores, is estimated to be completed in the next three years.

The Department of Post (DOP) presently covers a base of approximately 100 million account holders in India, and is in the midst of a phased deployment of ATMs across the country, to better service their customers. To facilitate production of personalized debit cards that can be used at these ATMs, CMS Info Systems has been selected by the DOP to supply RuPay enabled cards.

As the leading player in Card Personalization, CMS is proud to be associated with initiatives that help make financial services more accessible across India. In addition to financial cards, CMS also personalizes Smart Cards which are being increasingly used in large scale government projects, including National ID, Rashtriya Swasthya Bima Yojana (RSBY), Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) and Employee's State Insurance Corporation (ESIC). Some of these form a critical backbone for financial inclusion projects in the country," he added.

The personalized debit cards for DOP will be issued on the NPCI platform and their usage would initially only be on ATMs installed at DOP branches, as a closed loop environment. The cards can later be used on other ATMs with RuPay affiliation. These cards will initially be of the magstripe variant, with the option of EMV being available to the account holders after a set period of time.

Dell Buys Start-Up AppAssure At Unknown Price

Dell Inc. has acquired AppAssure Software, Inc., in complete application protection for virtual, physical and cloud infrastructures.

The acquisition of AppAssure, a fast-growing backup software technology company, further extends Dell's storage and software strategy.

Dell has taken significant steps over the past three years to expand its storage portfolio to offer customers a complete range of storage products and solutions. AppAssure's backup solutions enhance Dell's existing storage capabilities by providing customers confidence that their applications and data are protected.

Dell provides customers with solutions that help manage the growing complexity in IT and the rapid explosion in data. Today, Dell offers a portfolio of SAN and NAS solutions, based on its Fluid Data architecture, and is complementing these offerings with security, data compression and backup and restore capabilities.

"AppAssure's unique architecture delivers innovative cloud-enabled backup and replication solutions that meet the challenges of protecting the explosive growth of data in both virtual and physical environments," said Brad Anderson, president, Enterprise Solutions Group, Dell. "At a practical level, AppAssure enables Dell customers to seamlessly move and replicate data across our existing platforms - from an EqualLogic array in a remote office to a Compellent array at a data recovery site."

"Dell's acquisition of AppAssure is a strategic industry move given its relentless focus on providing innovative solutions to protect customers' applications and data in cloud, virtual and physical environments," said Najaf Husain, president and CEO, AppAssure. "Combining Dell's global brand, scale, reach and existing storage portfolio with our innovative technology provides customers with world-class data protection and recovery capabilities in their virtual, physical and cloud environments." "AppAssure's speed and ease of use are great, and the continuous backup makes recovery go really smoothly," said Dave Buzzell, CIO of Sedona Group. "Our IT environment is constantly changing, and only AppAssure has been able to keep up with it. We estimate that we can keep three years of continuous backups just due to AppAssure's true global deduplication and compression technology. That's amazing."

Intel Partners Up To Bring Rezence Wireless Charging To The People

Intel is looking to drive adoption of Rezence, partnering with Targus and Chinese manufacturer Haier to get wireless charging standard into homes, hotels, restaurants and more.

It's usually regarded as pretty impolite to put your phone on the table when you're in a fine dining establishment, but what if you were charging your phone rather than just being rude?

That's the dream behind Intel's next big push on Rezence, the magnetic resonance wireless charging standard first announced way back at the end of 2013.

At the Computex 2015 trade show here, Intel has doubled down on the wireless charging standard, partnering with a variety of companies to bring chargers and other Rezence-driven devices to consumers.

Rezence is supported by the Alliance 4 Wireless Power (A4WP). The A4WP just recently merged with rival wireless charging group Power Matters Alliance (PMA), with the new entity to be renamed later this year. Whatever it ends up being called, it's certainly going to have some clout in the marketplace: AT&T, Broadcom, MediaTek, Powermat, Procter & Gamble, Qualcomm, Samsung, Starbucks and Intel are all part of the new consortium.

This leaves the Wireless Power Consortium (WPC) and its Qi standard as the lone rival. At Computex 2015, Intel said that it was interested in "reaching out" to the WPC to see if the two could work toward a single standard.

Unlike some other wireless power solutions, Rezence can charge multiple devices at once and without the need to carefully position the device getting the charge in any particular way. It even works through obstructions as thick as two inches of wood, which is very handy if you're looking to build it into a table (like the one Intel showed off at Computex last year). This was just one part of Intel's concept of a truly wireless PC, with no cables or ports required.

Intel announced that it will be working with accessory maker Targus to create charging devices, while Chinese electronics manufacturer Haier will be bringing Rezence to restaurants, hotels, cafes and airports in China later in 2015.

Tech News

Facebook tests new "Security Check" tool to fend off account hijacking

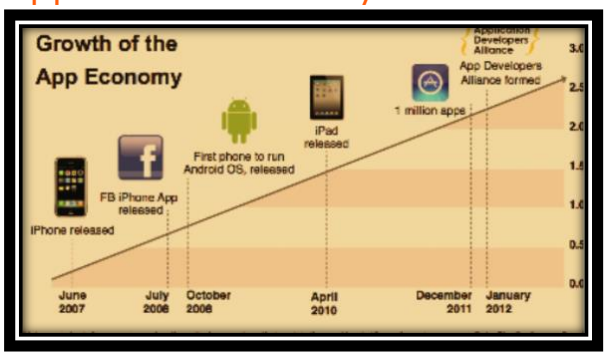
Ever worried that someone else might access your Facebook account?

Facebook helps with this - as well as Google, PayPal and plenty of other platforms, Facebook can send alerts any time there's a new login, and there are various versions of device management that will list all the devices that have accessed your account.But how many users skip by these tools, if they even know they exist?

Recently Facebook released a new feature that takes its security tools and puts them directly in front of users' faces, so skipping them or being oblivious to the tools is all that much harder. The new tool, which is just a test at this point and has only been rolled out to some users, is called Security Checkup, as Facebook said in its official post. Those who see the test appear on their News Feed will be able to change their passwords, turn on login alerts, and clean up login sessions simply by clicking through the screen prompts. The Security Checkup will appear over the top of Facebook's site and will prompt users to explore various options to increase their security. Then, Facebook will walk users through password security options and show the various gadgets that are logged into different Facebook services. That should make it pretty easy to spot somebody who's logging onto your Facebook services without your say-so.

Special Focus

Application Economy: The Next Wave In Enterprise Business



Today an increased number of people are bringing their own devices to the workplace. This has given rise to the Bring Your Own Device (BYOD) trend which is putting a lot of pressure on the IT team. With employees carrying devices, apps to their workplaces, security is always at the top of the minds of CIOs. However, on the positive side, the BYOD and broad consumerization of IT also means corporate CIOs are now embracing the benefits of an 'app economy' like never before. Moreover, faster mobile connectivity and trends like cloud computing are prompting CIOs to use app store model to offer employees with business-critical applications. As a result, we are surrounded by an application pool where everything is driven by a connected, mobile, application-based world where the customers are far more likely to experience the brand and interact with the enterprise through a software application than a live person.While many already use commercial enterprise app stores from providers, organizations are also increasingly building their own internal app stores to manage in-house apps for employees. The question that often comes to mind is: Are IT organizations ready to harness the power of BYOD and mobile apps? It is here that the leading software solutions providers come into focus, helping organizations have an API strategy so as to power innovation, drive productivity and accelerate the development of secured mobile applications and offerings. India is a hotbed for many new businesses and given the economies of scale, the application economy has a huge scope to thrive in such a situation. The application economy has thrust many startups into leadership position, putting pressure on the industry giants to taste the flavor of this medium.
As we move into a post-PC, mobile-first era, the application economy will continue to transform how we use software. As mobile apps have become an intrinsic part of everyday life, the biggest challenge is making businesses aware of the real value of an API especially due to the plethora of channels in the market, including mobile, social, and third-party developers creating new apps, and so on. The enterprise empire is vast and enjoys the brand equity and brand loyalty, which has been built through years of brand promotion, product innovation and delightful services. However, gone are those days when the brands used to scale up their sales solely due to brand name, because of fewer market players! With the growing technology and software innovations, plethora of brands have entered the category giving cut throat competition to industry giants. The impact of the application economy is clearly being felt more intensely by top management, especially far more by the "C-Suite" (e.g., CEO, CIO, CMO, CFO, etc.)

In today's world where people have stopped visiting the brick & mortar stores and buy almost everything ranging from apparels, food, gadgets to consumer durables, online over an app, there is hardly any room for businesses who do not integrate their business objectives to this platform. Application Economy provides you with relevant services, exciting offers, hassle free delivery and plethora of options to choose from, at your fingertips through an app. Such is the power and aura of the medium with instant and long lasting magnetic effects. Apps with excellent infrastructure and huge warehouse can pump into thousands of brands, products and services to people in express one day delivery with exciting offers, unbelievable prices, instant delight and gratification. To this end, a debate is gathering storm as to whether 'App Loyalty is becoming the new face of Brand Loyalty.' With numerous competitors entering the market providing similar products and services in the same category there arises a threat of Brand Parity which occurs due to confusion created by similar products and services offered by different brands to the customer who fails to distinguish between them. Apps can be a distinguishing factor in the market abundant of competitors, creating unique identity for the brand in the market. Apps can bring back the once loyal customers, fetch new customers and convert competition's customers by creating enriching feel and experience which a brand, product or service can never create in silos. Apps can create an army of brand advocates and brand ambassadors through instant delight and gratification which can act like a shield during a crisis or rough patch experienced by the brand.

The application economy has played a vital role for the startups, transforming them into market leaders. This in no way stops giant enterprise businesses to adopt this strategy in order to retain their monopoly in the market, maintain their brand loyalty and increase brand equity. To fire-fight the increasing brand parity which arises owing to multiple brands in any category offering similar products and services, enterprises will need to be aware of what application economy can do to their business – from pulling out of the clutter, to offering an edge over their competitors.

About Galaxy

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VALUE PROPOSITION

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MD Speaks

"With this issue, TechTalk completes 3 years and this is indeed a proud moment for Team Galaxy. A special thanks to Mr. G.Balakrishnan for inspiring us to start this publication, Vineet Gadia & Mukesh Choithani for their selection of articles, Dimple and Needa for distribution and all our readers whose valuable inputs and encouragement have kept us going.

Over this three year period, our 'Future is Now' section has picked a few winners - driverless cars has become a reality, last mile delivery by drones is close to that, 3D printing and wearable devices are becoming commonplace and a whole lot of others are round the corner. I'm sure that we'll hear a lot more of 3D Nano & robotic kitchens or operating rooms in the near future.

We have tried to capture interesting articles on a variety of technologies, but we would really like our readers to contribute some articles. That would give this publication a true readers' perspective and definitely add value to our readers. I request you to please contact anyone from our team for this.

Thanks again for sticking by us and we promise to continue providing you with informational and interesting articles on technology."