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This Week's Stories

T-Mobile-Sprint Merger Would Not Have Created Value- D.Telekom CEO

November 7, 2017

Deutsche Telekom ended talks on a merger between its T-Mobile US business and Sprint Corp because it would not have created value, CEO Tim Hoettges told staff after the deal collapsed at the weekend.

Hoettges said he flew 50,000 km in seven days to try to save the deal, meeting Masayoshi Son, head of Sprint owner Softbank Corp, at his private home in Tokyo only for the two sides to decide against a deal.

"In the end, it is always about creating value for shareholders. Our impression was that this did not work out," Hoettges wrote in a blog post to staff that was seen by Reuters.

The deal would have created a business with 130 million customers - a close third behind AT&T and Verizon.

Alone, T-Mobile has 70.7 million customers and although it has added more than a million subscribers for 18 quarters in a row it will take a long time to close the gap.

T-Mobile has invested more than \$40 billion in the last six years to scale up its operations, but without Sprint's spectrum portfolio faces further spending as U.S. telecoms players gird for the rollout of 5G services, analysts say.

Hoettges said day-to-day control and respective ownership of the merged entity; valuation; financing; and regulatory issues had all been important issues throughout the talks on bringing T-Mobile and Sprint together.

"On the basis of these four points, we together decided against a merger," he said. "This decision was not easy for us, we struggled hard. But on the other hand, I have always said: We don't do bad deals." Shares in Deutsche Telekom were slightly higher after shedding 2.6 percent on Monday. It reports third-quarter results on Thursday.

reuters.com

Intel Inks Multiyear Deal To Become Exclusive Virtual Reality Provider For Turner's NBA Coverage

November 7, 2017

Imagine lounging by the fireplace of your rustic log cabin in the foothills of the Appalachians on a chilly Saturday evening in February, when you decide to strap on a VR headset that your children purchased for you at Christmas.

While Aaron Gordon of the Orlando Magic prepares for a 360 degree windmill dunk, you are instantly transported from your La-Z-Boy in New Hampshire to Staples Center in downtown Los Angeles, the

host of the 2018 NBA All-Star Game. Within seconds, you could find yourself sitting courtside between Russell Westbrook and Kevin Durant on All-Star Saturday Night.

A technological innovation that may have seemed unfathomable before the former Oklahoma City Thunder teammates entered the league will soon become possible through an immersive media experience designed by Intel.

On Tuesday, Intel and Turner Sports announced a multiyear partnership under which the Silicon Valley technology company will become the exclusive provider of virtual reality for the NBA on TNT.

Under the deal, Intel will deliver live content for a select number of NBA games on the network, beginning with 2018 All-Star Weekend. Separately, Intel reached another agreement with the NBA to become a provider of virtual reality and 360-degree volumetric video with Intel's freeD technology for the league's global broadcast partners.

Financial terms of the deal were not disclosed.

"This unique partnership with the NBA will enable us to work with official league broadcasters, including Turner Sports, to take their broadcasts to an unprecedented level and create new ways to immerse viewers in the game," said James Carwana, vice president and general manager of Intel Sports.

"There are a lot of fans who love the game, but don't actually sit within proximity of their favorite team. How can you bring to that experience to the fans? It's envisioning yourself putting on a headset and being transported to that courtside seat."

Using its VR capture system, Intel can create a lifelike virtual reality experience for viewers, allowing them to sift through highlights of a resounding, monster jam by LeBron James or an off-balanced 3-pointer by Stephen Curry from multiple angles. Eventually, the technology may allow a fan to diagnose a play from the same viewpoint as someone like Kyrie Irving when the point guard must decide whether to penetrate off a pick from Al Horford or deliver a pass to the open screener.

"As a fan you might elect to choose the point of view from one of your favorite players and have that virtual camera almost sitting on their nose, so you're watching from their eyes as the play unfolds," said Jeff Marsilio, NBA vice president, Global Media Distribution. "You might be able to put on one of these headsets and you might be able to look around as you were Kyrie Irving."

For the fan hoping to receive an up-close view of a pick-and-roll at a critical moment of a game, the technology could become available on a Video On Demand basis fairly soon, Marsilio said. It might take a little more time for the technology to be applied in real-time, he added.

At present, two NBA franchises, the Cleveland Cavaliers and Dallas Mavericks, feature Intel's freeD technology at their respective arenas by incorporating advanced computing and high-definition cameras to create enhanced replays and highlights. For the 2017 NFL season, 11 stadiums throughout the league offer volumetric video powered by Intel, which in effect uses more than 35 HD cameras positioned around a venue to provide fans with a panoramic, 360-degree view of the action. By comparison, Intel's VR capture system, which will be used by TNT starting on All-Star Weekend, features about a half-dozen pods each containing 12 lenses, Carwana explained.

The latter is more mobile, according to the Intel executive, enabling TNT's production crew to easily transport the system from city-to-city.

While the virtual reality technology will be available through a new NBA On TNT VR app, users will need to have a cable or satellite subscription to view the live, in-game portion of the experience, said Will Funk, executive vice president of property marketing and corporate partnerships for Turner

Sports. The network intends to make the virtual reality experience available for a considerable portion of its NBA Playoffs coverage, including some games of the Western Conference Finals.

Although the parties were reluctant to discuss the bidding process for the contract, the NBA views the deal as complementary to its partnership with NextVR, which provides virtual reality content for games that appear on the subscription-based NBA and International NBA League Pass.

"The technologies and the processing capabilities are really coming to a strong tipping point," Carwana said. "The experiences we are going to be able to deliver starting with All-Star Weekend will be great, and as we keep pushing the boundary on what is possible it will only get better each season thereafter."

forbes.com

Disturbing Videos Reportedly Showed Up On YouTube Kids

November 6, 2017

The controversy comes as tech giants face increased scrutiny over algorithms and their vulnerability to abuse.

YouTube is under fire for allowing troubling videos to get past its filters on an app designed specifically for younger viewers, according to a report this weekend by The New York Times.

The Google-owned website is the largest video site in the world, with more than a billion people visiting a month. The affected service, YouTube Kids, was launched in 2015 to be a family-friendly version of the site.

But the kids service reportedly has a dark side. One video showed Mickey Mouse in a pool of blood while Minnie looks on in horror. In another video, a claymation version of Spider-Man urinates on Elsa, the princess from "Frozen." The videos were knockoffs depicting the beloved Disney and Marvel characters.

Representatives from The Walt Disney Company, which owns Marvel, didn't immediately respond to a request for comment.

YouTube called the content "unacceptable," but said it isn't rampant. In the last 30 days, less than .005 percent of videos viewed in the app were removed for being inappropriate, the company said. YouTube is trying to reduce that number.

"The YouTube Kids team is made up of parents who care deeply about this, so it's extremely important for us to get this right, and we act quickly when videos are brought to our attention," a

YouTube spokeswoman said in a statement. "We use a combination of machine learning, algorithms and community flagging to determine content in the app as well as which content runs ads. We agree this content is unacceptable and are committed to making the app better every day."

The videos made it onto YouTube Kids by getting past safety filters, either by mistake or by trolls gaming the software.

The controversy comes as tech giants find themselves under intense scrutiny from Congress over the power and influence they have over what billions of people see online. Google, Facebook and Twitter spent last week in marathon Senate and House hearings over the way Russian trolls abused their platforms to meddle in last year's US presidential election. Lawmakers grilled the tech companies over accountability for the algorithms they used.

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"One video showed Mickey Mouse in a pool of blood while Minnie looks on in horror."

This isn't the first time YouTube has faced a backlash for unsavory content. Earlier this year, advertisers boycotted YouTube after their ads appeared next to extremist and hate content because of YouTube's automated advertising technology. Major brands including AT&T and Johnson & Johnson ditched advertising on the platform.

As for the issues with YouTube Kids, the company said parents can use additional controls to limit what their kids see. The controls allow for blocking specific videos or channels and turning off search. YouTube said the app was never meant to be a curated experience, and that parents flagging inappropriate videos would make the app better over time.

[cnet.com](#)

Products & Services

Microsoft Word's New 'Resume Assistant' Uses LinkedIn To Make Your Resume Better

November 9, 2017

Microsoft and LinkedIn are teaming up to make one of the most important parts of job-hunting easier: writing your resume.

The companies introduced a new Resume Assistant feature that puts LinkedIn data directly in Microsoft Word to help users write better resumes.

The feature, which will begin rolling out to Microsoft Insider this week, pulls in relevant LinkedIn data as you're writing a resume based on your industry and what type of job you want. It automatically detects the job descriptions you've written and highlights what people with similar experience have put on their resumes. For example, it will show you how people who've worked in similar roles in your industry describe their job experience and skills.

The idea, according to the companies, is to help provide more inspiration to people who aren't sure the the best way to describe their experience and skills.

The feature also ties into some of LinkedIn's job-finding tools: It will pull in job listings from LinkedIn's database, which should help you further customize your resume, and you can opt-in to LinkedIn's feature that tells recruiters you're interested in a new job.

The update is the latest way Microsoft and LinkedIn are working to tie their two services closer together following Microsoft's \$26.2 billion acquisition last year. Though the LinkedIn data is available to anyone outside of Resume Assistant too, it shows how the two companies are combining their data to make their platforms more personalized to each user.

After first rolling out to Office 365 subscribers that are signed up for Microsoft's Insider program, resume assistant will be available to all Office 365 subscribers "over the coming months."

[mashable.com](#)

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"The feature, which will begin rolling out to Microsoft Insider this week, pulls in relevant LinkedIn data as you're writing a resume based on your industry and what type of job you want."

T-Mobile Can Keep Nest Secure Online If Your WiFi Fails

November 8, 2017

It's the exclusive cellular backup provider for the Nest alarm system.

In September, Nest released its Secure alarm system, complete with motion and door sensors and an app that lets you manage the system from anywhere. But arming the alarm through your phone or receiving alerts that motion has been detected in your home requires the Nest system to be actively connected to WiFi. If your internet service goes down or your home network stops working, however, you won't get those alerts or be able to access your system through Nest's app. That's why Nest has worked cellular backup into the Secure system and T-Mobile announced today that it's the exclusive cellular provider for Nest Secure.

Through T-Mobile, you'll be able to get the full Nest Secure pack, including the Nest Guard base, two Nest Detect door/window sensors and two Nest Tag key fobs that let you arm or disable the alarm system without having to mess with a passcode. It also comes with a Nest Cam Indoor security camera with intelligent alerts provided through Nest Aware. And, of course, it comes with cellular backup that will kick in whenever your WiFi becomes inaccessible.

The T-Mobile Nest plan costs \$240 down and \$10 per month (for 24 months) once a \$5 monthly credit is applied. That credit is only available for a limited time, according to T-Mobile, and it's unclear how long the deal will last. If you cancel your wireless service plan before the 24 months are up, though, you'll have to pay the remaining balance. If you want to buy the setup without T-Mobile's service, you can get it for \$698, which is what it would cost through Nest.

The Nest security pack will be available in T-Mobile stores starting November 10th.

engadget.com

Apple Finally Releases Its Venmo Killer, Apple Pay Cash

November 8, 2017

Months after teasing Apple Pay Cash at its World Wide Developer Conference, Apple is ready to release the person-to-person payment option — at least in beta form.

Starting with iOS 11.2 Beta, which arrives Tuesday, iPhone and iMessage users will be able to send and receive cash payments directly from inside the iPhone's Messages app using iMessage (as long as their contacts also install the latest iOS Beta). The full version will arrive when iOS 11.2 and watchOS 4.2 are released for all iPhone and Apple Watch users later this year.

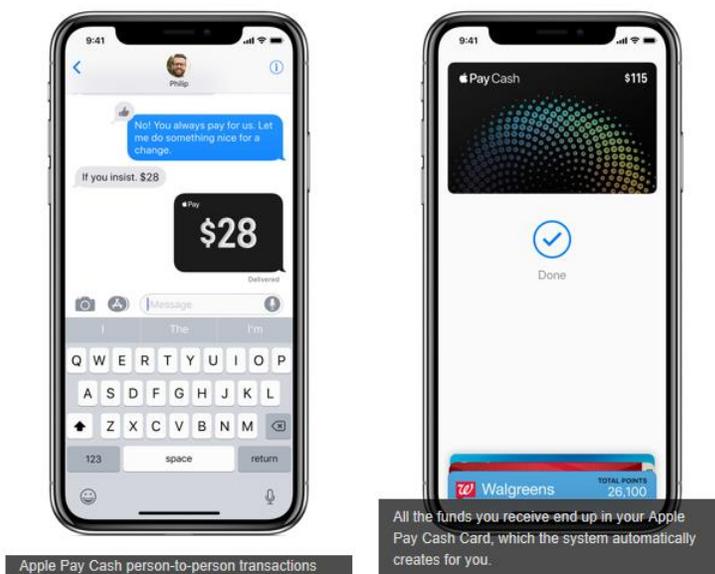
For Apple, Apple Pay Cash is a natural extension of its Apple Pay contact-less payment system.

The service has grown, according to Jennifer Bailey, VP of Apple Pay, from 3% acceptance at retail when Apple Pay launched in 2015 to more than 50% of all retail. Still, the overarching goal for Apple Pay was, she said, "to replace the wallet." And with billions of person-to-person cash payments happening each month for everything from paying the baby-sitter to splitting the dinner check, Apple knew it couldn't reach that goal without adding support for these everyday payments.

Like other person-to-person payment systems (Venmo, Zelle), Apple Pay Cash will let you use a credit or debit card to pay someone directly through your smartphone. Unlike, Venmo, there is no special Apple Pay Cash app. Instead, Apple Pay Cash lets you pay and receive funds through the Messages app.

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"Instead, Apple Pay Cash lets you pay and receive funds through the Messages app."

The feature will appear as the Apple Pay logo in the App Drawer, the shallow bar that appears below your iMessage thread and that, for iPhone X owners, is also home to Animojis (soon to be the second best reason to use the App Drawer).



You can tap the icon and send money to your iMessage contact. The money is drawn from a debit or credit card you already have in your Apple Wallet on the iPhone. Debit cards will let you send the funds for free, but credit cards put an industry-standard 3-percent fee on every transactions.

Notification that money is now part of an iMessage thread appears as a special iMessage chat bubble. You have to click "Accept Money" to receive your funds.

If you're lucky enough to be on the receiving side, the money is automatically deposited in a new Apple PayCash Card, which is created automatically and lives inside your Apple Wallet.

"Apple Cash can be used instantly in any place Apple Pay is accepted," said Bailey.

You can also choose to transfer those funds from the Apple Cash Card to your own checking account, so you can spend it in all the places that don't accept Apple Pay.

Apple Pay Cash won't significantly alter the look of iMessages. In fact, the messaging system will watch for discussions about money or splitting payment and add a little indicator near the comment.

If someone writes in iMessage, for instance,, "Hey, you owe me \$20 for those movie tickets," there'll be a link near the message. If you click it, it will open Apple Pay Cash Wallet so you can initiate a \$20 digital cash transaction.

Contacts who can accept Apple Pay Cash Payments will have a little dollar sign next to their info in the Contacts app.

Apple Pay Cash will also work with Siri ("Hey Siri, send Lance Ulanoff \$100") and Apple Watch.

Each transaction requires authentication: Face ID on the iPhone X, Touch ID on iPhone 8. 8 Plus and other Touch ID-enabled iPhones, and your passcode on Apple Watch.

Apple Pay Cash may be convenient, but it doesn't have a clear path to millennial hearts or wallets.

PayPal's Venmo is still the market leader, boasting huge growth, skyrocketing from \$2.5 B quarterly transactions in 2015 to over \$8 Billion in Q2. In addition, some of the biggest banks in America, including Chase, Wells Fargo, and Citibank, joined forces last summer to launch their own person-to-person payment system, Zelle.

Why would anyone choose Apple Pay Cash over Venmo or Zelle?

"First is that it's in Messages," said Bailey, "Millions and millions are already using it to communicate with friends and family," she said. These are precisely the people you would normally be conducting person-to-person cash payments (think about how many kids are about to start getting their allowance this way).

In addition, noted Bailey, "there's no app to download or even concern that someone else is also using the same app." They will, though, need to be using the most-up-to-date iOS to access Apple Pay Cash and the Apple Pay Cash Card.

In addition, making using these funds as easy as sending and receiving them should inspire more people to start using this cashless cash payment system.

"We're unlocking funds that historically, in other systems, might have been harder to access or use immediately," said Bailey.

mashable.com

Emerging Technology

Flying Cars Are No Joke For Uber

November 9, 2017

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"Uber is working with NASA and several aerospace and property development partners to get the pilot project off the ground."

On November 8th at Web Summit in Lisbon, Uber Chief Product Officer Jeff Holden used his full twenty minutes with thousands of journalists and tens of thousands of attendees to detail the company's plans for ... flying cars. Given the year Uber is experiencing, it might be understandable for Holden to try to divert attention away from some glaring issues. But Holden was deadly serious and added significant details to Uber's previously announced plans to introduce a local air taxi service. Holden announced that Los Angeles will join Dallas-Fort Worth and Dubai as pilot cities for the Uber Elevate service test in 2020. That's the year that arrives in 25 months.

Uber is working with NASA and several aerospace and property development partners to get the pilot project off the ground. The schedule is no less aggressive than the pricing strategy Holden announced for the air taxi service: Uber Elevate will be price competitive with Uber X when it launches. That's right: if you pick the right destination, you could ride in a VTOL aircraft for the same price as being ferried around in a hipster's Prius.

To be realistic, there are a host of issues to work through in a short time. NASA was enlisted to create an air traffic control system that could allow liftoffs from numerous building rooftops without hindering commercial aviation or endangering the public. Finding suitable real estate for the launch pads and building a reasonable system for automating the check-in process are both potential stumbling points. And perhaps as daunting as all of these challenges combined is designing a new type of aircraft. This is something that Bell Boeing and the U.S. armed forces had a great deal of difficulty with during the 25 years between the initiation of the experimental project for the V-22 Osprey and full-scale production.) Like the Osprey, this craft will need to take off like a helicopter but fly more like an airplane. Unlike the Osprey, it will need to do so with unparalleled reliability at a competitive commercial cost. And be significantly quieter than helicopters. And be adequately powered by multiple electric engines.

To be fair, Uber has some high profile partners, including Boeing, Bell Helicopter, Mooney and Embraer. And it is not surprising that a transportation company the size of Uber is looking to the skies for growth. Along with Elon Musk's hyper-loop project and a handful of other mass transit gambits, the airspace over urban areas is one of the few remaining possibilities for transformational growth in urban mobility. But the timeline seems impossible. Unless it isn't.

Realistic or not, the project represents a significant diversion of resources for Uber, even in the short term. The question is, why is Uber pursuing this so hard? Is it simply the unrealistic nature of a Silicon Valley unicorn? Or perhaps that's not the right question to ask.

Instead of wondering how Uber can afford to pursue this plan, it may be fairer to ask whether they can afford not to. The reality is that Uber is in an untenable strategic position that shows no signs of getting better. After years of enjoying unlimited growth and hobbled competition, the service is losing some of its structural and technological advantages. Reaching for the skies may be an attempt to find another temporary monopoly.

Uber's Terrible, Horrible, No-Good, Very Bad Year

Uber in the past year has looked like a sprinter with a ten lengths lead who trips and stumbles near the finish line. The company has been besieged by a series of crises, from failing to renew its operating license in the city of London to the forced withdrawal of co-founder Travis Kalanick, all while facing an increasingly difficult struggle to avoid being classified as an employer of 160,000 Uber drivers.

Uber also faces significant competitive threats on the horizon. Lyft, which is reportedly just a quarter of Uber's size has gained share on the giant in the past year and is notably unburdened by the scandals that Uber has faced. Lyft has a more PR friendly public face (now that it has lost the unseemly car mustaches) and some driver-friendly policies to boot.

Black Clouds On The Horizon

Taxis and black car services represent more of a threat than they've been to Uber in years. Part of this has to do with driver unhappiness over Uber's labor practices and the relatively low barriers for them to work for other employers. But a more significant threat looming on the horizon is disintermediation: the idea that with blockchain transactions, individual drivers could use freely available software to replicate the Uber service complete with Yelp-like ratings of both drivers and passengers.

Uber is also jockeying with Lyft for position in the upcoming transition to driverless cars. Both companies are pursuing autonomous fleets of self-driving cars, but they're behind Waymo (part of Alphabet, the Google parent company). Waymo CEO John Krafcik announced on November 7th (also at Web Summit) that the company launched a self-driving test fleet (using Waymo employees as passengers) at the beginning of this year in a Phoenix suburb. Krafcik also announced that the company will soon remove the human backup drivers from the cars and open the trial to the general public. It appears that Waymo will beat Uber to the autonomous car future.

And it's not even clear that any of these companies will be the eventual winner when driverless vehicles arrive in greater numbers. The common theory is that driverless cars will be owned in fleets, not by individuals. Car manufacturers, knowing full well the implications of going from millions of customer to just a handful could have for their operating margins, are also working hard to create their own part of this future. Both Porsche and Volvo have created driver programs that work much like cellphone plans: riders pay a flat fee that covers both the vehicle and insurance and are able to swap out the individual cars frequently, or even at whim.

Maybe The Air Isn't So Thin Up There After All

In this context, Uber's sudden fixation with the skies makes more sense. If Uber believes that the economics can work, then taking part in the regulatory and logistic creation of the structure of a new industry is wise. Uber can effectively lock in an early mover advantage by working with NASA, real-estate developers and aerospace companies the same way that Tesla has by setting up battery charging points around the country and investing heavily in battery technology.

It's too soon to say whether Uber's plans will succeed or fail. But the motivation is rational and the need is great. With some luck, Uber's passengers — and its prospects — might just soar in 2020.

forbes.com

An Industry First: Carbon Intros New 3D Printing Silicone

November 9, 2017

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"As a result, we were able to develop a durable, flexible device that can support many different deployment techniques for pediatric stent placement."

Carbon, a Silicon Valley-based 3D manufacturing company, today announced the release of Silicone (SIL 30), a soft, tear-resistant, biocompatible resin, opening up additive manufacturing applications for a range of medical and consumer products such as headphones, wristbands, and other various attachments for wearables. With this new material, Carbon has the potential to revolutionize manufacturing for the wearables market, which, according to International Data Corporation (IDC) is expected to double by 2021 due to the increase in sales of smartwatches and smart clothing.

Carbon worked with NAMSA, a leader in biocompatibility testing, to certify SIL 30 as well as six additional Carbon resins, including multiple resins that will be used in medical device manufacturing - another industry that has seen significant benefits from using 3D printing.

"Consumer goods and medical are two industries that show the most promise for using 3D printing for production at scale, which is why we've prioritized the development of novel materials like SIL 30," said Carbon CEO and Co-founder Dr. Joseph DeSimone. "We now have seven biocompatible materials, more than double the amount of any other additive manufacturing company."

In addition to SIL 30, the other six Carbon resins that have been certified biocompatible include: Cyanate Ester (CE 220): A highly temperature-resistant and stiff material similar to glass-filled nylon, used primarily for applications that need long-term thermal stability like under-the-hood automotive components, electronics assemblies, surgical instruments, and industrial products. CE has excellent dielectric properties for uses in high voltage transformers and radio frequency applications.

Rigid Polyurethane (RPU 61): A versatile, tough, and rigid material comparable to ABS and used primarily for single-use surgical tools, housings, consumer, and industrial products.

Rigid Polyurethane (RPU 70): Like RPU 61, a versatile, tough, and rigid material comparable to ABS. RPU 70 also has a UL 94 HB flame-resistance classification.

Elastomeric Polyurethane (EPU 40): A highly elastic, tear-resistant, and resilient material comparable to TPU elastomer used primarily for cushioning, vibration isolation, gaskets, and seals for applications like surgical robotics, prosthetics, and diagnostic devices.

Epoxy (EPX 81): A temperature-resistant and strong material comparable to glass-filled PBT used primarily for applications like electrical connectors.

Urethane Methacrylate (UMA 90): A rigid material similar to conventional SLA resins that is well-suited for producing manufacturing jigs, fixtures, and general-purpose prototypes.

"We were investigating how to best create pediatric stents that can be easily switched out as a child grows, but found that traditional 3D printing methods and materials repeatedly failed due to the dynamic action of the airways," said Dr. Robroy MacIver, Cardiothoracic surgeon with University of Minnesota Health. "Carbon's SIL 30 material offers an isotropic, smooth finish with the durability to withstand such action in the trachea, while its innovative Digital Light Synthesis technology allowed for the size, fine resolution, and robust-build quality required for such small airways. As a result, we were able to develop a durable, flexible device that can support many different deployment techniques for pediatric stent placement."

"For several years now, Carbon's materials scientists have been aggressively working to create the broadest possible range and depth of photopolymer materials with exceptional surface quality, mechanical properties tuned for production, and now biocompatibility," said Jason Rolland, Carbon's vice president of materials. "We engage closely with our customers to understand their individual requirements as we develop new production-quality materials, so the range of materials that can be used with our M Series 3D printers and Digital Light Synthesis™ technology will continue to grow extensively."

For more information about SIL 30 and Carbon's other biocompatible materials, visit www.carbon3d.com/materials or contact sales@carbon3d.com.

About Carbon

Carbon is a Silicon Valley-based company working at the intersection of hardware, software, and molecular science to deliver on the promise of 3D manufacturing. The company empowers its customers and partners to evolve beyond using 3D printing for basic prototyping to producing at scale by revolutionizing how they design, engineer, make, and deliver their products. With Carbon's Digital Light Synthesis™ technology and its SpeedCell™ system (M Series printers and Smart Part Washer), manufacturers can unlock new business opportunities such as mass customization, on-demand inventory, and differentiated products made with unique functional materials. Carbon's solutions also provide substantial operational efficiencies, such as the elimination of tooling costs and decreased time to market. To learn more, visit www.Carbon3D.com.

mobile-tech-today.com

Mergers and Acquisitions

Apple Has Acquired Imaging Sensor Startup InVisage Technologies

November 9, 2017

As Apple continues to work on ever-smaller but more powerful computing devices, it has acquired a startup focusing on nanotechnology, and specifically as it relates to image sensors. TechCrunch has learned and confirmed that Apple has picked up InVisage Technologies, a startup that develops solutions to improve imaging capabilities on space-constrained devices, like smartphones.

An Apple spokesperson has confirmed the acquisition to us with its customary statement: "Apple buys smaller technology companies from time to time, and we generally do not discuss our purpose or plans."

And here we have a slightly less official Animoji relaying the news to those who prefer to hear it coming from a cute animal.

There were some murmurs of an acquisition last month but no confirmation from either company.

But as we started to look around we found a number of signs that pointed to a sale:

There are a handful of InVisage employees that are already noting on LinkedIn that they work for Apple. We were able to determine that several more who have not updated their LinkedIn profiles are also working there. Meanwhile, InVisage erased the section of its web site that detailed some of its senior staff (but you can still find those pages through web archiving services).

InVisage itself went radio silent on social media and other communications channels in November of last year.

InVisage has 27 patents registered to the company, and while none of these have (yet) transferred over to Apple's ownership, the legal firm representing InVisage changed in September. It's now using the same firm that Apple uses for all its patent work. (Thanks to patent specialist J. Nicholas Gross for helping us track this detail.)

Several people we contacted connected to the company told us they were not at liberty to discuss the acquisition, but in doing so also inadvertently confirmed that it took place.

More public evidence of a sale (but not to whom) is that multiple InVisage VC backers now list the company as exited on their web sites. Founded in 2006 by Ted Sargent (an academic from Canada who specialises in nanotechnology) and Everett McGinley (who left the company after two years),

Invisage had raised \$98 million in funding from backers that included InterWest Partners, Nokia Growth Partners, Intel Capital, CRV, GGV and more.

It's not clear how Apple will be using InVisage's technology, but as a rough guide, it's interesting to look at what the startup had developed.

Its key product is something called QuantumFilm, which brings together both software technology and material science to create smaller imaging technology that is better at taking high quality pictures in a variety of non-optimal lighting conditions.

As InVisage itself describes it, "QuantumFilm is a photosensitive layer that relies on InVisage's newly invented class of materials to absorb light; specifically, the new material is made up of quantum dots, nanoparticles that can be dispersed to form a grid once they are synthesized. Just like paint, this dispersion of solid materials can be coated onto a substrate and allowed to dry."

Traditional image sensors are silicon-based, and InVisage notes that its QuantumFilm is able to absorb the same amount of light as silicon, but in a layer that is ten times thinner and made specifically to absorb the full spectrum of light, allowing for more efficient and complete processing.

InVisage not only developed the technology, but the physical materials to implement the tech, with a dedicated foundry in Taiwan that made the QuantumFilm solution, wafers to overlay on chips, and full image sensor chips.

There is an obvious benefit here to consumers being able to take better pictures with their smartphones; and, if you consider the ongoing debate about which phone really does have the best camera, it's clear that this is a deal maker and deal breaker in the smartphone market.

But having hyper-accurate, high-definition imaging capabilities also opens the door to a number of other applications.

InVisage points out that QuantumFilm's tech can be used in IoT applications and to help with "authentication, autonomy, and augmented or virtual reality" — all areas that Apple is already doing

some interesting work in with innovations like FaceID and ARKit, and will continue to be developing in the future.

There are also other applications of this tech, in areas that are not directly in Apple's wheelhouse but very adjacent to it, such as in using these sensors in video cameras for high-definition film making.

Before going quiet, InVisage had put up some cute footage for how these films might look and the material works.

techcrunch.com

Microsoft Acqui-hires Cinemagraphic Photo App Swng

November 6, 2017

Computer vision and clever imaging technology remain hot areas in consumer and enterprise apps, and today Microsoft is picking up talent and tech from a startup called Swng Technologies to give it some IP and talent in this department.

Swng announced the news itself, and Microsoft's VP heading up Skype, Amritansh Raghav, also made a little announcement, too.

Swng Technologies had developed a cinemagraph app called Swng (originally called Polaroid Swng) that lets you take impressionistic, GIF-like short videos that you can then 'move' buy dragging your finger or a mouse across them. The startup's team will be joining Microsoft's Skype division, the companies said today.

Skype may be known more as an app that lets you make voice and video calls, but it has been revamping itself as a more enhanced messaging and chat app, with a Cortana integration and a Snapchat-inspired makeover earlier this year. It's not clear exactly what Swng will be doing at Microsoft.

The terms of the deal are not being disclosed, but from what I understand, the app will continue to live on for the time being. Swng was a small company that had around 10 employees including ex-Apple engineers and computer vision specialists from MIT among its staff when it launched last year.

It's not clear how many of them are still with the startup, or which employees will be joining Microsoft.

The news marks the end of an interesting journey for the startup. Co-founders Tommy Stadlen and Frederick Bladford had very little startup experience — and no technical experience — when they met Twitter co-founder Biz Stone and came up with the idea of a cinemagraphic app.

Stone was so enthusiastic about the concept that he invested in the startup, became its chairman, and even travelled to Minnesota to ask PLR, who had been the owners of Polaroid's IP at the time, for permission to use the brand in the app.

(Stone's excitement proved to be infectious: PLR subsequently became an investor in the app. As did Lloyd Dorfman, the founder of Travelex, among other undisclosed investors.)

The app launched in 2016 very much with Polaroid branding on its sleeve, promising to bring the name back from the photographic graveyard by using it prominently in its ambitious app.

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"The Swng team's deep expertise in imaging technology will help us deliver great new features and capabilities for Skype."

“Polaroid Swing has the potential to change the way we think about images, just like Twitter’s 140 characters changed how we think about words,” said Stone at the time. “People will start seeing the world in one-second moments. It’s a genre-defining medium.”

Stone was not the only name associated with the app. Cole Rise, the photographer who helped build early filters for Instagram, also helped design Swng and once held the role of chief creative officer.

But in these days of fast-changing tastes, not every app is a rocket, and while Polaroid Swing saw some early success, it couldn’t sustain that.

It may not have helped that Polaroid Swing had to rebrand. In May of this year, the Polaroid IP was acquired by the largest shareholder of the Impossible Project, which was on its own Polaroid mission, to start to produce the cameras and film once again.

That led to the new owner pulling the Polaroid name from various places where it had been licensed, and so Polaroid Swing became Swng.

App analytics firm Apptopia estimates that lifetime downloads of the app have been about 500,000.

It averaged about 60,000 monthly active users the first three months of launch, “but the last three have averaged about one-third of that.”

Microsoft, and specifically Skype, will give the Swng team a chance to try to build at significantly more scale.

“This is a unique opportunity for the team to bring our ideas to a global audience,” said Tommy Stadlen, Co-Founder of Swing Technologies, in a statement.

“It’s an exciting time to join Microsoft, which is thriving under the leadership of Satya Nadella. We believe in the power of brands and technology, so the Skype mission and values resonate strongly with us.”

On Microsoft’s side, its acquisition track record over the last several years has largely been focused around the company’s enterprise and cloud businesses (its acquisitions of Minecraft-maker Mojang and Altspace VR are two exceptions).

And while it seems that, for now, Microsoft has decided to stop trying to build a blockbuster smartphone, it has continued to work on ways of keeping its hat in the mobile game, through apps.

In the case of photo apps, for Microsoft so far these have been mainly in-house efforts, such as Pix, Sprinkles, and Face Swap — three camera and imaging apps that tap into the company’s AI smarts.

Now, it seems, we can add Swng’s experience and smarts to that list.

“The Swing team’s deep expertise in imaging technology will help us deliver great new features and capabilities for Skype,” said Raghav in a statement.

“They have an impressive track record of delivering great user experiences and brand design around the technology they develop. I welcome the new team members and am excited about how Swing will deliver innovation to our customers.”

techcrunch.com

Industry Reports

Kroger Is Using Google And Microsoft Clouds To Avoid Paying Amazon

November 8, 2017

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"Kroger is joining the likes of Wal-Mart and Target in finding other vendors to handle their massive workloads for their digital and e-commerce offerings."

As Kroger moves to cloud computing, the nation's largest grocery store chain is sending millions of dollars to Microsoft and Google.

But not to Amazon.

"For obvious reasons competitively, it doesn't make sense for us to do a ton to help grow that business for them," Chris Hjelm, Kroger's chief information officer, told CNBC in an interview.

With Amazon's retail business pushing into more industries and competing more directly with a growing number of companies, Amazon Web Services is starting to experience a backlash.

Kroger is joining the likes of Wal-Mart and Target in finding other vendors to handle their massive workloads for their digital and e-commerce offerings. Alphabet said in its latest earnings release that Kohl's has moved to Google's cloud.

In a blog post on Monday, venture capitalist Glenn Solomon from GGV Capital underscored how pervasive this has become. Solomon said several of his firm's portfolio companies that use AWS have been asked by retail clients to "provide a mirrored service on another cloud because they'd prefer not to have their data stored with Amazon given competitive fears."

For Kroger, that fear has become more obvious by the day. In August, Amazon bought Whole Foods for \$13.7 billion and instantly cut prices at the upscale grocer. CNBC has also been reporting on Amazon's potential efforts to crack the pharmacy market, another reason for Kroger to be concerned.

Kroger gets about 9 percent of sales from its more than 2,200 pharmacies.

Hjelm said the company started investing heavily with Microsoft Azure and the Google Cloud late last year. With Azure, the grocer is rolling out digital shelf technology to combine the use of sensors and smartphones to alert customers about relevant deals.

For e-commerce, delivery and data-focused initiatives such as smart pricing, Kroger is turning to Google. The company also uses infrastructure technology from Pivotal.

Kroger does have some projects running on AWS for businesses that the company acquired. But for any new initiatives, "that investment in growth is not going to AWS," Hjelm said.

Regarding Microsoft and Google, "we feel like we're not losing anything from a competitive perspective working with those companies," he said.

If AWS is worried about Kroger representing an emerging trend, it's not showing up in the unit's financial performance or its market share.

Revenue in third quarter surged 42 percent to \$4.58 billion, and AWS produced \$1.17 billion in operating income for a company that's used to running with little to no profit. Nordstrom, Under

Armour, Lululemon and Nisa Retail in the U.K. are a few of the retailers and consumer brands that count on AWS.

For cloud infrastructure as a whole, AWS controls 34 percent of the market, followed by Azure at 12 percent, IBM at 8 percent and Google at 5 percent.

According to AWS, retailers will continue to use its infrastructure because they care most about agility, security and performance when deciding where to run their workloads.

"AWS is the clear leader in these areas," a company spokesperson said in an e-mail. "Retailers' end users don't care about any rivalry that may exist with another retailer."

Like most big established enterprises, Kroger isn't moving everything to the public cloud. The company still has many of its core computing functions and storage in its own data centers.

But Hjelm said that in the cloud, Kroger has thousands of projects for testing and development running as well as live applications.

He wouldn't specify how much the company is spending on the cloud, but he said it's in the millions of dollars and is split roughly equally between Microsoft and Google.

"Over time that balance could shift depending on who creates more value," he said.

Tariq Shaukat, a president in Google's cloud division, said in an interview that even if retailers have been reluctant to give Amazon their money, a lot of them have still historically run on AWS. Google is picking up customers now because its cloud platform finally has the services they need, he said.

"There's an increasing recognition that GCP is a viable option and a leader in areas they care about, like security, data analytics and machine learning," he said.

cnbc.com

Millions Of Netflix Users Targeted In Email Phishing Scam

November 7, 2017

Netflix users should click through their emails carefully this week, following news of a phishing email being sent to millions of subscribers to the online streaming site.

Employing the headline "Your suspension notification," the duplicitous email is meant to grab users' attention.

Once the user clicks it to read, the email attempts to get them to click through to a site that prompts them to "validate...billing information for the next billing cycle" or risk account termination.

Unlike similar scams, this phishing attempt is particularly unnerving; at first glance, the email appears legitimate, and the site the email directs to is a clone of Netflix's homepage. There are, fortunately, telltale signs that the message is fraudulent.

First, the email registers as coming from "No sender," and the email message is addressed to simply "#name#". Furthermore, if a user clicks through, the URL of the site doesn't belong to Netflix; rather, as Mailguard reports, this scam is utilizing "compromised Wordpress blogs" to present a webpage resembling Netflix's payment information page.

If a user goes so far as to enter their credit card and other personal information, they are then presented with a fake confirmation page reading, "Your membership has been reactivated."

"We take the security of our members' accounts seriously and Netflix employs numerous proactive measures to detect fraudulent activity to keep the Netflix service and our members' accounts secure," a Netflix spokesperson tells SFGATE.

"Unfortunately, scams are common on the internet and target popular brands such as Netflix and other companies with large customer bases to lure users into giving out personal information."

Netflix subscribers who believe that they may have received the email should exercise usual caution, and visit the Netflix site directly to check their payment information rather than the link presented in the email.

sfgate.com



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