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This Week's Stories

Trump Budget Would Continue Support For "Next-Generation Wireless Services"

March 17, 2017

President Donald Trump on Thursday released his initial outline for next year's budget, and it seems he does have an eye to telecom after all.

According to the budget text, Trump's plan "continues to support the National Telecommunications and Information Administration (NTIA) in representing the United States interest at multi-stakeholder forums on internet governance and digital commerce." Additionally, the budget "supports the commercial sector's development of next generation wireless services by funding NTIA's mission of evaluating and ensuring the efficient use of spectrum by government users."

The exact details of Trump's plan to support new wireless services remains unclear – indeed, the only mention of telecommunications at all came in the quotes mentioned above.

However, for the Fiscal Year 2016 budget, Department of Commerce Secretary Penny Pritzker under then-President Obama requested \$49 million in funding for the NTIA.

NTIA is part of the Department of Commerce. It manages federal use of spectrum and identifies additional spectrum for commercial use; develops policy on issues related to the "internet economy," including online privacy, copyright protection, and cybersecurity; and performs telecommunications research and engineering with government and private sector partners. NTIA also oversees the investment of around \$4 billion in projects throughout the country funded in 2009 as part of two broadband grant programs: the Broadband Technology Opportunities Program and the State Broadband Initiative. The First Responder Network Authority (FirstNet) also falls under the NTIA umbrella.

During the 2016 election cycle, Trump proved hard to pin down on telecom issues, aside from broad declarations that he wanted to spur investment in infrastructure. He did have a campaign platform on increasing the country's cybersecurity, though, where he said he would "order an immediate review of all U.S. cyber defenses and vulnerabilities, including critical infrastructure, by a Cyber Review Team of individuals from the military, law enforcement, and the private sector." Additionally, Trump was a vocal critic of Title II and net neutrality, but has stopped short of releasing any policy proposals.

But beyond that, Trump did not have public positions on a number of issues critical to the wireless telecom industry, including 5G, patent reform, infrastructure investment, and spectrum policy during the campaign.

In his early presidency, though, telecom has forced itself into the spotlight. Trump teamed up with SoftBank CEO Masayoshi Son back in December to announce a \$50 billion investment "toward businesses and 50,000 new jobs," and followed up with news that U.S. wireless carrier Sprint would be bringing back or creating 5,000 jobs as part of that push. In January, Trump dipped his toes back into the telecom space with the appointment of Ajit Pai as Chairman of the FCC.

Speaking of the FCC, though, more Trump action might be found there in the near future as some reports have rumored a restructuring initiative driven by the new president might be in the works.

According to Pai, no determinations have yet been made, but rumor has it the plan could shift some FCC functions to other agencies.

We'll have our eye on that and more as we move ahead.

wirelessweek.com

Hulu Teases Its Live TV Service's Features Including Real-Time Alerts, DVR, Simultaneous Streams & More

March 16, 2017

Hulu's live TV service is just around the corner, and will enter a competitive market where rivals like AT&T's DirecTV NOW, Dish's Sling TV, Sony's PlayStation Vue, and YouTube TV are now battling for cord cutters' dollars. To date, Hulu hasn't offered a ton of information on how its service will differentiate itself from others, but it has added a few notable details to the service's marketing website, where it has been taking sign-ups.

The site was spotted by the blog Cord Cutters News (via TVAnswerman). The site was originally thought to have been updated with a couple of pieces of new information about the service, but Hulu says it was actually rolled out in January, but was not publicized at the time. The URL Hululive.com recently was redirected to the site, which is why people are now seeing it for the first time.

There are still a few interesting details on the page for those who haven't been keeping close track of the streaming service's news.

These details matter because outside of the actual channel lineups offered (here's Hulu's), consumers will be selecting a service based on other key factors like pricing and feature set.

Within the current crop of TV streaming services, each focuses on particular aspects to make theirs stand out, beyond just their channel lineup. For example, DirecTV NOW touts its "data-free" nature for those on AT&T wireless plans, while PlayStation Vue pushes its ability to simultaneously stream over a large number of devices. YouTube TV is promising a cloud DVR that never runs out of storage space, and Sling TV is all about its add-on packages to customize the service to your needs.

Hulu's live TV service is offering a handful of competitive features, the refreshed website says. Some features were already known, while others were rumored, and are now confirmed.

We've known that service itself will offer a combination of Hulu's on-demand programming, with the option to add Live TV. In other words, users won't have to choose between on-demand TV and live TV. And we knew that pricing will be under \$40 per month, according to statements made by Hulu CEO Mike Hopkins.

Hulu also said it would have a DVR option, and the website confirms this should be available at launch, noting that users will be able to "save anything to watch later." User profiles via a fresh new user interface will be supported as well, each with their own recommendations and recordings. A guest profile is available, too, so your recommendations aren't ruined by your babysitter.

The site confirms that multiple, simultaneous streams will be supported on live TV. While it doesn't say how many, it does imply it could be more than a couple by noting that "*the whole home can watch at once.*" Given that Hulu is trying to appeal to families with kids, it should be generous on this front. Vue, after all, offers up to five streams – which, so far, has made it the best for larger families. (Hulu's teaser video on the site shows a family with at least two kids, which is a promising sign.)

"Hulu also said it would have a DVR option, and the website confirms this should be available at launch, noting that users will be able to "save anything to watch later." User profiles via a fresh new user interface will be supported as well, each with their own recommendations and recordings."

You'll also be able to pause a live TV show, then pick up from where you stopped at a later point – something that will make Hulu's live programs feel more like on-demand offerings.

A variety of devices will also be supported, the site says, which is more of a given of course – especially since Hulu already has broad support for streaming players, phones, tablets, computers, smart TVs and more.

Maybe one of the more interesting teases is that the Live TV service will offer real-time alerts for events and TV programs you want to watch.

This is a simple feature, but one that's really useful. Having gotten used to on-demand programming you binge through, it can be hard to remember when events are happening – like award shows, games, political events, TV premieres, and more. In the teaser video posted on the site, Hulu demonstrates how this feature works.

A man out for a jog gets a push notification about a game, but he obviously can't stop and watch now. Instead, he pulls out his phone, launches Hulu, and taps a "Watch Later" button to save the game for when he has time to watch.

While many services either offer or are working on DVR features, they don't think about the end-to-end user experience – instead, the DVRs are treated much like cable TV DVRs. That is, you configure your recordings in advance or, at best, remotely through your phone. But they don't fully take advantage of mobile's ability to push alerts and reminders that are personalized to your interests.

Hulu hasn't said when its service is launching, beyond "this spring," but given the big refresh for its website, the timer is clearly clicking down.

techcrunch.com

Products & Services

Shout App Is Like Turning Your Pocket Inside Out

March 17, 2017

“Both the Chrome and iOS versions sync together with one login, so no matter where you save the link, it'll show up for sharing later.”

When you are surfing the internet, daily as most of us obsessively do, you often come across amazing content (memes and BuzzFeed quizzes mostly) that you want to save for later. So you bookmark these pages in your Pocket app so you can figure out which "Sleeping Disney Princess Sidekick" you are, at a later time. Yet, you have this nagging feeling that something isn't right. You want to share these amazing quizzes and political satire pages with your friends, but not one page at a time. No, you want to share a full list of curated content. So you switch from Pocket to Shout.

Like Pocket, Shout allows you to bookmark anything you randomly stumble upon in the depths of the internet. This is a one click action through the iOS (Apple iPad and iPhone) app and Google Chrome extension. Both the Chrome and iOS versions sync together with one login, so no matter where you save the link, it'll show up for sharing later. That is where Shout differs from Pocket and becomes your own personal Reddit, just with less funny memes and probably more links to The Onion articles.

Not only can you create your own curated lists in Shout, you can then set these lists to public and share with everyone. You can invite people to collaborate on your silly little lists, adding their favorite places to get wasted by the dumpster to your list of favorite places to buy malt liquor. You can of course create a list based on anything you want, curate it based on whatever criteria you choose and share with whomever you please. No one is telling you what content to bookmark, curate and distribute. You can deliver these lists via an email digest or share within the app. Or you can print them out in Garamond font and hand deliver with flair.

Here's a video explaining something that seems pretty intuitive but some people need visual aids and that's perfectly fine.

Aside from the public lists, you can create and share private lists, if you want to exclude some of your friends or just share those really dank memes with that one group of friends who won't get super offended. Shout is focused on collaboration and stresses the ability to allow multiple users to create and curate shared lists. We all love content, we all love sharing content so apps like Shout make perfect sense in our over-indulgent internet lives. Now all we need is a Shout app for sunset walks on the beach, oh wait, that's Instagram.

Shout is available on iOS and Google Chrome.

forbes.com

Google Opens Up To A New Customer: Kids Under 13

March 16, 2017

Google has its eye on your kids.

The tech giant is opening up its many online services to kids under 13 with a new tool called Family Link: an app that lets parents carefully manage the content on their kids' devices. It marks one of the first attempts by a major tech company to directly address the reality of kids using tech products, potentially acquiring many more customers in the process — albeit in a limited way.

Family Link allows kids to use real Google services — Gmail, Maps, Chrome and more — not watered down, "kiddie" versions. However, kid accounts are directly tied to parent accounts, and there are many granular controls over what kids can and can't do. Each app has an overall rating for its content (Maps, for example, is rated "G"), and parents can limit the time a child uses a specific app or service, or block it altogether.

Google is opening up a limited beta of Family Link on March 15. The company says it'll solicit feedback for a period, then launch it generally later this year, starting in the U.S.

Opening up services to kids under 13 is something of a third rail among tech companies, mostly because of an almost-two-decade-old law, the Children's Online Privacy Protection Act. COPPA doesn't prohibit kids under 13 from using the internet, but it does severely restrict the kind of information services can collect from users 12 and under. It also requires parental consent before the child can share almost any personal information, such as their gender, location or images of themselves.

"There's always a concern if [kids] are going to stumble into some dark alley on the internet," says Amar Gandhi, Google's director of product management and one of the architects behind Family Link. "This is a problem we think Google can solve. A lot of the people who worked on this project are parents. We never think tech is a substitute for parenting, but we do think technology can help."

Kids on the internet? There's an app for that

Family Link addresses concerns about access with its extensive parental controls and limited collection of child data. Still, Google is potentially wandering into a minefield. The internet can be a confusing and dangerous place for children, and a lot of the success of Family Link will depend on the understanding of technical details, something parents aren't exactly known for as a group.

But Google's move — while risky — addresses a real issue: Kids are accessing the internet at earlier and earlier ages. Research shows the average starting age for a child receiving a cellphone is now 10.3 years and that 39 percent of kids get a "social media" account at 11.4, more than a year younger than the minimum age for most networks.

For tablets, the numbers are even greater, with a 2016 study showing 84 percent of kids 6-12 use tablets on a weekly basis.

Often parents will allow their kids to borrow the same smartphones or tablets that they use, with unfiltered access to the internet. There are third-party apps and services that can restrict access specific devices, but their tools and ease of use are a mixed bag — plus, they don't always work with the current version of Android or iOS.

Google has tried to address this problem before. In Android 4.3 Jelly Bean it introduced restricted profiles, letting kids use specific devices with limited access. But the restrictions lacked granular controls, typically turning services into an all-or-nothing affair.

"Restricted Profiles was much more of a device-centric feature," says Gandhi. "I think that was limiting. The kid could not actually get their own Gmail account, they could not back up their photos into their own account space. They were basically taking a parent's device."

Family Link is meant to fix that. Rather than simply giving parents a tool to restrict access to a specific device, it gives kids their own Google account, complete with a Gmail address, managed by their parents. That way, the child's experience is consistent across devices, and the parent can bestow or revoke permissions at will.

"This is the account that grows up with them, basically," says Saurabh Sharma, product manager for Family Link. "After the child turns 13, you can lift the supervision when you want."

Google clarified that it's the child who has control over when the supervision ends after they turn 13. Which makes sense — since they could, at that point, create their own fully functional Google account if they wanted, giving the child that control doesn't really change anything.

How Family Link works

Parents will manage Family Link via an app they'll need to download from Google Play. A similar app goes on the child's device, and after the parent sets up the program on both devices, the two are linked. Right now, both phones need to be Androids, but Google says it's working on an iOS version of the parent app. Because of the OS permissions needed, the child's phone must be Android.

The basic "unit" of parental management is the app, Google says. Parents can allow or block access to any app (Google or otherwise) on a child's device. Then, once those apps are approved, the parent can control their permissions. Some Google apps have even more controls — Chrome for instance, allows three different levels of access: unfiltered, SafeSearch (where Google blocks porn sites and more) and restricted (where the child is only allowed to visit the sites the parent specifies).

There are broader controls, too. Parents can set a limit on overall screen time, with different limits for each day of the week. There can be blackout times, too, so kids won't be able to access their devices during mealtimes or after a certain time of night.

And there's more than one way for a parent to "lock down" a child's device with just a couple of taps.

"If it's 6 o'clock and it's dinner time, and my kid just won't get off the phone, I can [tap] Lock Devices Now, and the device is automatically locked," explains Sharma. "This is probably our internal users' favorite feature."

Whenever a child wants to download an app or visit a site that's restricted, Family Link will send the parent a notification they can approve or deny. Parents can even view detailed analytics of what apps their kids are using and how much time they're spending in them.

Most Google services — from Play Movies to Photos — are available to the child, with one exception: YouTube. Kids instead get access to YouTube Kids, which has its own age controls and restrictions. Apparently Google didn't think it was worth re-inventing the wheel by building a separate Family Link filter for YouTube since much of that work has already been done.

Critics will see Family Link as Google cultivating new customers by hooking them on its services early. But kids were on the internet and using smartphones and tablets long before Google created tools to address that reality, and the company deserves credit for tackling the issue head-on — and in a way that gives parents the level of control that's right for them.

"Each family has its own family ground rules," says Gandhi. "We've created a system that has flexibility, so each family can adapt it, and as the kid ages they can adjust it over time as well. I think getting that flexibility right has been key to this program."

Even Google can't predict every scenario, and its ambitious products are sometimes crafted with the tech-savvy in mind — what works for Googlers in Mountain View may not work for soccer moms in Kansas City. But this time the stakes are higher: If Google succeeds in bringing kids online safely, it could point the way for Facebook, Apple, Microsoft and all the rest. If not, a whole generation could lose out.

Either way, when it comes to kids, the tech industry has a lot to learn.

mashable.com

Emerging Technology

Netflix Explores Ways To Improve TV Watching On Your Phone

March 16, 2017

"In its latest move, the streaming giant is exploring mobile-specific cuts of its original content to ensure subscribers enjoy high-quality viewing experiences on their phones."

Netflix is consistent in its efforts to roll out quality entertainment and now the company wants to improve the ways in which viewers enjoy their favorite shows and movies. In its latest move, the streaming giant is exploring mobile-specific cuts of its original content to ensure subscribers enjoy high-quality viewing experiences on their phones.

Speaking with journalists earlier this week in San Francisco, Netflix Chief Product Officer, Neil Hunt, explained how the company is working on ways to improve the quality of its content on smaller screens with new cuts, in addition to improved High Dynamic Range (HDR) video to satisfy what he referred to as a growing audience of mobile Netflix watchers. The two-day event took place at Dolby Laboratories and Netflix's headquarters as both companies prepared for the release of *Iron Fist*, the first Netflix series shot natively in HDR.

Upcoming series might also be shot in HDR, which provides a more dynamic range of colors for displays and a greater contrast with brighter whites and darker blacks. Hunt, alongside Dolby executives, added that HDR benefits both big-screen and small-screen viewing.

Hunt went on to describe the company's consideration of reframed and differently cropped versions of Netflix content designed to play better on a smaller screen. This could include creating versions of content with shots that will be more easily visible and immersive on a mobile phone. Certain shots, he said, can be difficult to see and can even appear diminished on smaller screens. In addition to

existing desktop-format shots being altered, new shots could be made specifically for mobile viewing. For example, wide angle shots could become tighter to make a greater impact on a mobile display.

Netflix hasn't yet delivered varying cuts of its content to cater to the multitude of viewing platforms out there, but Hunt confirmed the company's plans to explore these methods over the next few years. "It's not inconceivable that you could take a master copy and make a different cut for mobile," Hunt told reporters.

Since the video streaming service went global last year, the company has seen a huge uptick in mobile usage. Hunt explained that in established markets such as the U.S. and Canada, Netflix viewing, for the most part, continues to occur on television. However, in many South Asian countries, especially India, mobile screens serve as the majority consumption device.

This is wonderful news for the more than 93 million Netflix subscribers in over 190 countries that want to keep up with their favorite shows while on-the-go.

forbes.com

Twitter Goes After Facebook And YouTube With Streaming Video Move

March 16, 2017

"Twitter will open up its API—the application-programming interface that allows outside services to connect to the network—so that publishers can push streaming video into Twitter whenever they wish."

The fact that video is one of the few places where media companies can still make money becomes obvious when you see how many places are banking on it for growth, whether it's Facebook ramping up its live video offerings or services like Genius pivoting to focus on it.

Twitter has also hopped on this particular bandwagon. The company has been busy over the past year signing streaming deals with as many different sporting leagues and associations as it can, including a reported \$10 million deal with the National Football League, among others.

Now, the company plans to make it even easier for content creators and media companies of all kinds to inject streaming video into the service, according to a report at The Information, quoting two people with knowledge of the company's plans.

The report says that next week, Twitter will open up its API—the application-programming interface that allows outside services to connect to the network—so that publishers can push streaming video into Twitter whenever they wish.

Streaming video currently appears on Twitter only when the creator or provider has signed a partnership deal of some kind with the company—as the NFL and others such as Bloomberg News have done—or when someone uses Periscope, the streaming-video app that Twitter bought in 2015.

Although Periscope has attracted a certain number of passionate users—and has been cited in the past by influential users such as Deray McKesson, one of the founders of the Black Lives Matter movement—it hasn't really achieved anything close to mainstream acceptance.

Last year, Twitter shut down another live video service it acquired called Vine. Twitter said at the time it wanted to focus on bringing more streaming video into the network directly instead of having it in standalone apps. The company is also reportedly hoping to make a big splash at the upcoming "newfronts" digital media marketing event in May.

By focusing on streaming video, whether from sports leagues and traditional TV networks or from digital creators, Twitter is likely to run headlong into both YouTube and Facebook.

The giant social network started by pushing its Facebook Live feature as a home for short-form, viral videos by celebrities and other users. But more recently, the company has been shifting its focus somewhat to longer-form content. And it has been signing its own deals with sports franchises, including a recent one with the Major League Soccer.

Facebook has also been paying certain media partners—such as the *New York Times* and BuzzFeed—to produce video, although industry sources say this is likely to come to an end soon. And the social network is also busy signing up creators and licensing more traditional TV-style content as part of a unit that is being run by CollegeHumor founder Ricky Van Veen.

Twitter has shown that it can generate powerful engagement around live events, such as the Oscars telecast and the Super Bowl, which could appeal to live-video publishers of all kinds. But Facebook has 1.5 billion daily users—many times more than Twitter does—and that could make it hard for the smaller service to sell itself as a place for video to thrive.

fortune.com

Mergers and Acquisitions

Toshiba Attracts 10 Potential Bidders For Chips Business

March 16, 2017

Toshiba Corp.'s memory chips business is attracting more potential bidders ahead of an end-March deadline, including Japanese government-backed entities, people with knowledge of the matter said.

The Development Bank of Japan is considering a joint offer with U.S. financial bidders, people familiar with the matter said, asking not to be identified discussing a private matter.

The electronics conglomerate is seeking a sale of the prized unit to make up for a multibillion-dollar writedown in its nuclear operations. The semiconductor business is Toshiba's crown jewel and makes the memory chips that go into personal computers, smartphones and data centers. It accounted for about 25 percent of Toshiba's 5.67 trillion yen in revenue during the latest fiscal year.

The shares of Toshiba rose 3.5 percent in Tokyo on Friday. The stock is down 33 percent this year after unveiling the potential losses in late December.

Late on Thursday, a Toshiba executive said he would welcome a bid from Innovation Network Corp. of Japan. INCJ and DBJ are considering a joint bid to take more than a 30 percent stake, the Yomiuri newspaper reported, but Chief Cabinet Secretary Yoshihide Suga immediately poured cold water on the speculations, telling reporters in Tokyo that Japan is not considering the use of public funds for Toshiba.

Kaori Hiraki, a spokeswoman for Toshiba, declined to comment on the progress of chip unit sale and possible bidders. Representatives for DBJ and INCJ declined to comment.

The number of interested parties, which already include semiconductor makers and investments funds, may increase beyond the current 10 and the company expects final bids by March 29, the executive said. Western Digital Corp., SK Hynix Inc., Foxconn Technology Group, Micron Technology Inc. and Kingston Technology Co. are among those interested, one of the people said. On March 2, Foxconn founder Terry Gou said he is "very serious" about making a bid for the memory chip business.

"The number of interested parties, which already include semiconductor makers and investments funds, may increase beyond the current 10 and the company expects final bids by March 29, the executive said."

Representatives for Kingston, Western Digital and Micron declined to comment. Foxconn's public relations department didn't immediately respond to requests for comment.

The bids could range from 700 billion yen to 1.8 trillion yen (\$6.2 billion-\$15.9 billion), one of the persons said. Toshiba, which is willing to sell off a majority stake in the unit, is seeking bids that value the entire business at 1.5 trillion yen. Toshiba is struggling to regain its footing after disclosing an estimated loss of 712.5 billion yen in Westinghouse Electric. The Tokyo-based company has had to delay its earnings announcement twice, and has also floated the possibility of selling off the nuclear operations.

Financial bidders may be likely but they will probably submit offers closer to the deadline, the executive said. Among the financial bidders are Bain Capital, Silver Lake Partners and KKR & Co., people familiar with the matter have said.

The Toshiba executive declined to clarify whether the government-backed group is the Japanese company that is said to have expressed interest. INCJ was created in 2009 with majority government ownership and a mandate to promote the next generation of technologies and companies. The fund put money into Renesas Electronics Corp., which was formed in 2010 from the struggling semiconductor operations of several Japanese companies. INCJ later created Japan Display Inc. from the troubled screenmaking units of Toshiba, Sony Corp., and Hitachi Ltd.

Toshiba has said it aims to complete the sale of the chips business by March 2018. Its three main lenders have agreed to extend support to the company in the meantime, according to two people familiar with the matter. Toshiba met with the banks on Wednesday, asking for extension of its loans through April and offering equity and real estate as collateral, the people said.

bloomberg.com

Intel To Buy Mobileye For About \$15 Billion In Car Tech Push

March 13, 2017

Intel Corp. will acquire Mobileye NV for about \$15 billion, paying one of the highest takeover premiums this century to play catch-up in the market for technology that helps cars drive themselves.

The U.S. chipmaker will pay \$63.54 per share in cash for Jerusalem-based Mobileye, which makes chips for cameras and driver-assistance features. The offer, the largest ever for an Israeli company, is a 34 percent premium to Mobileye's closing price on Friday. The shares surged 29 percent to \$61.10 at 12:45 p.m. in New York. Intel stock dipped 1.8 percent to \$35.28.

Intel is trying to accelerate a push into what many chip companies view as the next big opportunity: self-driving cars and the data they generate. With Mobileye, Intel gains the ability to offer automakers a larger package of components they will need as vehicles become more autonomous. The Santa Clara, California-based company estimates the market for vehicle systems, data and services will be worth as much as \$70 billion by 2030.

"They're paying a huge premium in order to catch up, to get into the front of the line, rather than attempt to build from scratch," said Mike Ramsey, an analyst with technology researcher Gartner.

The deal is the third most expensive acquisition in the technology industry this century, based on transactions over \$5 billion and Mobileye's trailing 12 month earnings, before interest, tax, depreciation and amortization. The deal gives Mobileye an enterprise value of about 29.5 times this year's projected sales, according to Amit Daryanani, an analyst at RBC Capital Markets. That's more than 10 times the average of companies in the U.S. benchmark Standard & Poor's 500 Index, according to data compiled by Bloomberg.

Shashua and Aviram

Mobileye was founded in 1999 by Amnon Shashua and Ziv Aviram and made its name with systems that alert drivers to pedestrians, unintended lane departures and speed limit violations. The technology, which can also trigger braking to prevent an accident, counts General Motors Co. among its customers. Recently, Mobileye has been pushing to sign up more carmakers for its advanced products, such as technology that collects data from vehicle fleets to build a real-time, crowd-sourced mapping service. Goldman Sachs Group Inc. invested \$100 million in 2007 for a minority stake in Mobileye.

Intel will combine its existing autonomous vehicle technology unit with Mobileye and the new group will be run in Israel by Shashua, the companies said in a statement.

"Shashua is the personification of car safety and autonomous driving," said Shmuel Harlap, chairman of car importer Colmobil Ltd. and Mobileye's biggest shareholder. "Just look at his quarrel with Elon Musk and you understand the personality."

Last year, Musk's electric carmaker Tesla Inc. stopped using Mobileye's systems and the two companies argued publicly about the breakup. The Israeli company expressed concerns about the safety of Tesla's Autopilot hands-free highway driving feature, while Tesla accused the supplier of trying to block its in-house efforts to develop computer vision capabilities for cars.

While Intel's chips are dominant in personal computers and data centers, the world's largest semiconductor maker has struggled to spread the use of its products to other areas where semiconductors based on ARM Holdings Plc. designs have prevailed. Under Chief Executive Officer Brian Krzanich, Intel has sought to break into everything from drones to cash registers. That hasn't fired up Intel's overall sales growth yet, leaving the company reliant on PCs and servers for its profit. Mobileye is the second-biggest acquisition for Intel after Altera Corp., which it bought in 2015 for \$16.7 billion. As of the end of 2016, Intel held about 80 percent of its \$17.1 billion in cash and equivalents overseas. It could use some or all of that to buy Mobileye, a potentially efficient use of cash that would be taxed more if brought back to the U.S. The company had total debt of \$25.3 billion at the end of last year.

On a conference call with analysts, Krzanich said the deal will immediately add to Intel's adjusted earnings and cash flow. But the acquisition won't have much impact on revenue. Last year, Intel reported sales of \$59 billion compared with Mobileye's \$358 million.

"We are looking beyond just the revenue it's going to grow into," the Intel CEO told Bloomberg Television. "If you look at where autonomous vehicles are going, you have to make a deal in order to be there in 2021 when models hit the road."

Qualcomm Rivalry

In the highly competitive market for autonomous cars, Intel's purchase is a shot at rival Qualcomm Inc. The mobile phone chipmaker is in the process of making itself the world's biggest producer of chips used by the automotive industry through its \$47 billion acquisition of NXP Semiconductors NV.

"Intel are so far behind in this space the only way they could catch up was via an acquisition," said Neil Campling, head of technology research at Northern Trust Securities.

Carmakers and technology companies are scrambling to stake out a leading market position. Intel's chips are already in 30 vehicle models currently on the road and are being used in hundreds of autonomous test vehicles, the company said in January. Intel and Mobileye had already teamed up with BMW AG and plan to introduce fully autonomous cars by 2021. The companies are dispatching a fleet of 40 self-driving 7-Series sedans this year to hone systems for complex urban traffic.

\$2 Trillion

Alphabet Inc.'s Google has clocked more than 2 million self-driving test miles on public roads, Tesla has gathered data from 1.3 billion miles of data from Autopilot-equipped vehicles, and Mercedes-Benz parent Daimler AG has partnered with Uber Technologies Inc.

Google, which separated its self-driving car project into a new unit called Waymo last year, plans to start a ride-sharing service using semi-autonomous minivans made by Fiat Chrysler Automobiles NV as soon as the end of 2017. Volkswagen AG is rolling out Moia, a new division that will focus on ride-sharing and other mobility services. Mercedes already offers cars that can pilot themselves at highway speeds.

Digital mobility services for automobiles will reach 1.9 trillion euros (\$2.03 trillion) in 2025, up from 860 billion euros in 2016, according to Sarwant Singh, a senior partner at the global market research company Frost & Sullivan. In an interview earlier this year he attributed much of Mobileye's success to the fact that it was first in its field.

Intel Chief Financial Officer Robert Swan said the company expects to see \$175 million a year in cost and tax savings from the transaction and that this will help cover the premium Intel is paying for Mobileye.

bloomberg.com

Industry Reports

AT&T To Launch 3GPP Mobile 5G Services In Late 2018

March 16, 2017

"Since AT&T supports both non-standalone and standalone options for the 5G standard, the new timeline will accelerate the availability of hardware for both options."

U.S. telecom behemoth AT&T Inc. is planning to offer standards-based mobile 5G services to consumers from late 2018. Last week, the 3rd Generation Partnership Project (3GPP) decided to accelerate some elements in the 5G New Radio (NR) specification. This along with the addition of 47 global operators and vendors gave AT&T's 5G launch plans a shot in the arm.

Per the expedited schedule, 5G NR specifications are to be completed in Dec 2017. This basically supports a 'non-standalone' 5G standard that uses LTE to control 5G data connections.

Since AT&T supports both non-standalone and standalone options for the 5G standard, the new timeline will accelerate the availability of hardware for both options. Each operator will be able to select the option that fits the deployment plans. AT&T has also worked with 3GPP to find out how users can start with the non-standalone option and then gradually move on to the standalone network. This will be part of its AT&T Network 3.0 Indigo platform. All capabilities will run on its Open Network Automation Platform.

The 3GPP Release 15 5G specification is expected to be completed in Jun 2018, including both standalone and non-standalone options. These will distinguish the path from LTE to non-standalone and standalone, and give a rough idea of demand for 5G-enhanced mobile broadband use. Release 16 5G, which lays out massive Internet of Things (IoT), low-latency use cases and more, is set to be completed in late 2019. Together the two releases are expected to cover all 5G use cases and requirements specified by 3GPP and the International Telecommunications Union.

Ahead of 5G services, AT&T is also planning 'mobile-first' 5G trials in 2017. The second trial is expected to start in Apr 2017 in Austin. The trial will allow residential and small-to-medium business customers to stream DirecTV NOW and access next-gen entertainment and enhanced broadband services.

AT&T has been quite ahead of other wireless carriers in relation to 5G network trials and 3GPP standards for 5G. In Jan 2017, AT&T joined Ericsson ERIC and Qualcomm Inc. QCOM to test the initial 3GPP 5G NR specification in the second half of 2017. The trio had planned to deploy 28GHz and 39GHz spectrum bands, using Qualcomm's prototype devices and Ericsson's base station solutions. Then AT&T came up with a deal to acquire FiberTower and its millimeter wave (mmWave) spectrum assets as part of its 5G network strategy, on Feb 1.

Similar 5G Trials

Last week, Verizon Communications Inc. VZ has also started conducting field trials for its upcoming 5G wireless network with partners in 11 U.S. cities. The company is looking at mobile hotspot and home-based fixed wireless for the initial deployment of the next-generation 5G wireless networks in the U.S. in 2018. However, a full-phased 5G wireless network will be offered only in 2020.

Bottom Line

5G marks a revolution in the field of communications and technology. It is the next major phase of mobile telecommunications standards after the 4G/IMT standards.

The 5G network will provide 50 times the throughput of the currently available 4G LTE network. Further, 5G technology is designed to be more power efficient than any other available standard wireless network. Therefore, 5G-enabled mobile devices are likely to last longer than their 3G or 4G counterparts. Moreover, superfast 5G mobile networks will be of utmost importance for the management of the exponential growth in Internet-connected devices, popularly known as IoT.

It is expected that 5G mobile handsets will be available in the market by 2020, following a broader rollout of the technology. The commercial 5G handsets will be first made available in South Korea and Japan and are likely to be exorbitant.

Over the past three months, AT&T returned 2.21%, while the Zacks-categorized Wireless National industry declined 1.21%.

More Stock News: 8 Companies Verge on Apple-Like Run

Did you miss Apple's 9X stock explosion after they launched their iPhone in 2007? Now 2017 looks to be a pivotal year to get in on another emerging technology expected to rock the market. Demand could soar from almost nothing to \$42 billion by 2025. Reports suggest it could save 10 million lives per decade which could in turn save \$200 billion in U.S. healthcare costs.

nasdaq.com

Samsung Commits To Monthly Security Updates For Unlocked US Smartphones

March 14, 2017

According to a report from ZDNet, Samsung is finally bringing monthly Android security updates to one of its most neglected flagship smartphone variants: unlocked US devices. An e-mail from the company says it has "resolved the challenges" with releasing monthly updates, and it is now "committed" to releasing updates every month for "unlocked Galaxy devices" in the US.

Unlocked devices are usually safe bets as the best models for updates because they are free from carrier interference. This means there is one less stumbling block in the usual "Google ⇒ OEM ⇒

"Until now, they haven't been getting monthly security updates; users have been stuck with "quarterly" security updates."

Carrier" software handoff. In Samsung's case, though, there are two major versions of the Galaxy S7 (and most other Samsung flagships): the "international" version with a Samsung Exynos SoC and the "US" version with a Qualcomm Snapdragon SoC. For the "international" Exynos version, the conventional wisdom of "unlocked models get updates first" holds true.

In the US, Samsung is all-in on the carrier-driven business model. The vast majority of the Snapdragon models are sold through carriers, so the unlocked Snapdragon models are the black sheep of the Samsung family. You usually can't even buy an unlocked US Samsung device at launch—for the Galaxy S7, you had to wait three months for a carrier-free version to become available.

As a result, the unlocked Snapdragon Samsung phones are usually pretty poorly supported. Until now, they haven't been getting monthly security updates; users have been stuck with "quarterly" security updates. They are also usually last to get major software updates. The carrier Galaxy S7s got Android 7.0 Nougat in February and March—Samsung's typical six-month update time (and perpetually a version behind the latest version of Android, which now is 7.1)—but US unlocked devices still haven't been updated.

Now at least, starting with the Galaxy S7, unlocked US Samsung flagships should get monthly security updates like all the other versions. It seems like you'll still be last in line for updates, though—the US unlocked S7 is still waiting on Nougat.

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