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This Week's Stories

Microsoft, Facebook Team Up To Build Cross-Atlantic Cable
May 27, 2016

Microsoft and Facebook are partnering up to build a massive undersea cable across the Atlantic.

Dubbed "MAREA," from the Spanish word meaning "tide," the cable will span 6,600 kilometers (4,101 miles) and connect Virginia Beach, Va., with Bilbao, Spain. From there, it will extend to network hubs in Europe, Africa, the Middle East, and Asia.

The project is intended to meet a growing demand for fast, resilient connectivity for Facebook, Microsoft, and their customers. People and businesses alike expect to have instant access to information they need.

"We're seeing an ever-increasing customer demand for high-speed, reliable connections for Microsoft cloud services, including Bing, Office 365, Skype, Xbox Live, and Microsoft Azure," wrote Frank Rey, director of global network acquisition for Microsoft Cloud infrastructure and operations, in a May 26 statement.

As the world continues to move towards a cloud-based future, Rey continued, Microsoft is working to build a global infrastructure so it can support reliable and low-latency connectivity for cloud services.

"This robust, global infrastructure will enable customers to more quickly and reliably store, manage, transmit and access their data in the Microsoft Cloud." MAREA will be the highest-capacity undersea cable to cross the Atlantic, with 8 fiber pairs and an initial estimated capacity of 160Tbps.

Microsoft and Facebook are building the cable in partnership with Telxius, Telefónica's telecommunications infrastructure company. Telxius, which has experience in subsea cables, will operate and manage the MAREA system.

MAREA is being developed with an "open" design so it can work with a variety of networking equipment. This methodology is good for customers, who benefit from lower costs, easier equipment upgrades, and faster growth in bandwidth rates, because the system will be able to "evolve at the pace of optical technology innovation."

Facebook aims to meet its goal of connecting people around the world. "By creating a vendor-agnostic design with Microsoft and Telxius, we can choose the hardware and software that best serves the system and ultimately increase the pace of innovation," wrote Najam Ahmad, vice president of network engineering at Facebook, in a statement.

Ahmad noted that Facebook hopes to do more projects like this in order to boost efficiency and collaboration. Facebook believes this is how most subsea cables will be constructed in the future, he said.

Rey also noted that MAREA will be built south of existing transatlantic cable systems in the New York/New Jersey region. This separate placement will ensure stronger and more reliable connections to customers around the world.

The idea of constructing subsea cables to improve connectivity is not new. In fact, both Microsoft and Facebook have previously made investments to improve connectivity across oceans and continents.

In May 2015, Microsoft announced a partnership with Hibernia and Aqua Comms for a cross-Atlantic project. Each company will connect one high-speed data cable in order to connect Microsoft's data center infrastructure in North America, Ireland, and the UK.

In 2012, Facebook invested in an underwater Internet cable dubbed the Asia Pacific Gateway to improve connectivity for people and businesses. The 10,000-kilometer (6,214-mile) cable would run directly from Malaysia to South Korea and Japan, with sections extending to different countries, reported the BBC.

With respect to their newest project, Microsoft reports both companies have met the requirements to go "Contract-in-Force" with their plans. Construction for the MAREA cable will begin in August 2016, and is expected finish in October 2017.

informationweek.com

Feds Spend Billions To Run Ancient Technology
May 26, 2016

"The government is squandering its technology budget maintaining museum-ready computer systems in critical areas from nuclear weapons to Social Security. They're still using floppy disks at the Pentagon."

The government is squandering its technology budget maintaining museum-ready computer systems in critical areas from nuclear weapons to Social Security. They're still using floppy disks at the Pentagon.

In a report released Wednesday, nonpartisan congressional investigators found that about three-fourths of the $80 billion budget goes to keep aging technology running, and the increasing cost is shortchanging modernization.

The White House has been pushing to replace workhorse systems that date back more than 50 years in some cases. But the government is expected to spend $7 billion less on modernization in 2017 than in 2010, said the Government Accountability Office.

"Clearly, there are billions wasted," GAO information technology expert David Powner told the House Oversight and Government Reform Committee at a hearing.

Although lawmakers of both parties say they are frustrated, it's unclear whether Congress will act. Part of the problem is finding money to invest in a transition to new systems at agencies across the government.

Among the vintage computing platforms highlighted in the report:

The Defense Department's Strategic Automated Command and Control System, which is used to send and receive emergency action messages to U.S. nuclear forces. The system is running on a 1970s IBM computing platform, and still uses 8-inch floppy disks to store data. "Replacement parts for the system are difficult to find because they are now obsolete," GAO said. The Pentagon told GAO it is initiating a full replacement and the floppy disks should be gone by the end of next year. The entire upgrade will take longer.

Treasury's individual and business master files, the authoritative data sources for taxpayer information. The systems are about 56 years old and use an outdated computer language that is difficult to write and maintain. Treasury plans to replace the systems but has no firm dates.

Social Security systems that are used to determine eligibility and estimate benefits, about 31 years old. Some use a programming language called COBOL, dating to the late 1950s and early 1960s. "Most of the employees who developed these systems are ready to retire and the agency will lose their collective knowledge," the report said. "Training new employees to maintain the older systems takes a lot of time." Social Security has no plans to replace the entire system but is eliminating and upgrading older and costlier components. It is also rehiring retirees who know the technology.

Medicare's Appeals System, which is only 11 years old, faces challenges keeping up with a growing number of appeals, as well as questions from congressional offices following up on constituent concerns. The report says the agency has general plans to keep updating the system, depending on the availability of funds.

The Transportation Department's Hazardous Materials Information System, used to track incidents and keep information regulators rely on. The system is about 41 years old, and vendors no longer support some of its software, which can create security risks. The department plans to complete its modernization program in 2018.

GAO says its estimate of at least $80 billion spent on information technology in 2015 is probably low. Not counted were certain Pentagon systems, as well as those run by independent agencies, among them the CIA. Major systems are known as "IT investments" in government jargon.

"Legacy federal IT investments are becoming obsolete," the report concluded. "The federal government runs the risk of continuing to maintain investments that have outlived their effectiveness and are consuming resources that outweigh their benefits."

The White House has been nudging agencies to identify obsolete systems for replacement, but GAO said that clearer, more specific goals and timetables are needed. A starting point could be recent legislation supported by the White House to create a revolving fund of $3 billion for replacing or upgrading older technology. It seems certain that President Barack Obama's successor will have to grapple with the situation.

"This is not a partisan issue," said committee chairman Jason Chaffetz, R-Utah, who supports the goal of modernizing the government's aging systems, but has not committed to any particular legislation.

"We all need to come together on this, on both sides of the aisle," added Chaffetz. "It is a vital part of the infrastructure we need in order to have a fully functional government."

mobile-tech-today.com

Products & Services

Passwords For Android Apps May Go The Way Of The Dinosaur
May 25, 2016

Unveiled at its developer conference last year, Google's Project Abacus to "get rid of passwords" is expected to begin seeing real-world tests starting in June.
Next month, several large financial institutions are set to begin testing a Trust API (application program interface) that uses machine intelligence for user authentication, Dan Kaufman, director of Google's Advanced Technology and Projects group, said at the Google I/O developer conference last week.

Depending on the success of those tests, the Trust API is expected to become generally available to Android developers by the end of this year, he said.

Authentication by Face Detection

Project Abacus was the vision of Deepak Chandra, who until recently was head of mobile authentication at Google, Kaufman said. (Chandra's LinkedIn profile indicates he recently became director of engineering at Addepar, a financial technology company that -- like Google -- is headquartered in Mountain View, Calif.)

"We have a phone and these phones have all these sensors in them," Kaufman said, explaining the idea behind the project. "Why couldn't it just know who I was so I don't need a password?"

While Kaufman didn't offer information about what kinds of personal details the Trust API would use to verify a user's identity, research papers published by Chandra earlier this year seem to offer some clues. For example, a study published in March that was written by Chandra along with researchers from Rutgers and the University of Maryland described how to provide continuous authentication through "partial face detection" via a smartphone's front-facing camera.

Growing Security Concerns

Financial services and insurance companies are increasingly frustrated with the security shortcomings of passwords to authenticate employees and legitimate users of services, noted an article in the Wall Street Journal in September. In addition to Google, companies like Wells Fargo and Aetna are also working on algorithms to verify identities through behavioral analysis, according to the article.

"In today's world, mobile devices are being used not only for verbal communication but also for accessing bank accounts and performing transactions, managing user profiles, accessing e-mail accounts, etc.," Chandra and his fellow researchers said in the paper on face detection. "With increasing usage, there is a growing concern about ensuring the security of users' personal information on these devices."

An incident reported last week highlighted some of the security problems inherent in the use of passwords. After some 117 million e-mails and passwords for LinkedIn users were found for sale online -- four years after the initial hack was discovered -- analysis showed the top passwords used by many hundreds of thousands of those users included such easily guessed strings as "123456," "linkedin" and "password."

Google last week also announced the launch of its new Safe Browsing API version 4. First released in 2007, the Safe Browsing API is designed to protect Internet-connected devices, including mobile phones, from security threats like malware and phishing attacks.

mobile-tech-today.com

Wireless Carriers Ready To Capitalize On Virtual Reality
May 24, 2016

Last week, Google announced the Daydream Android VR Platform at its annual Google I/O developers conference, naming eight Android device manufacturer partners who have committed to offering "Daydream Ready" smartphones.

 If Google Cardboard represented the company dipping a toe into VR's waters, Daydream is Google making the splash the industry has been waiting for. Of course, it is not alone. Virtually every major tech company, including most of the big device manufacturers, are making a VR play too. We're seeing new equipment, more content deals, emerging ecosystems - and it's still only the beginning.

In the early stages of this virtual reality reboot, success will be determined by which leaders can offer easy access to physical demo opportunities, put an end-to-end play together, and pay close attention to what early adopters want to spend and see in initial VR offerings.

U.S. Online Consumer VR Awareness and Interest Analysis

Last week, IBB Consulting published the "Consumer Virtual Reality Views" report. We surveyed over 8,000 U.S. online consumers and leveraged IBB Consulting's product launch experience, convergence expertise and industry predictions to offer a current perspective on VR market opportunities and launch strategies. We found that VR market awareness is high – only 12% said they "do not know what virtual reality is." However, of the 17% of consumers who said they are interested in VR, only just about one-third actually tried it. This points to an opportunity to convert the high awareness of VR into direct interest.

Wireless Carriers Well-Positioned To Convert VR Awareness Into Interest

VR is on the radar of almost every client we work with and the most frequent question we get is whether this makes sense right now. The answer varies of course, but one thing that's clear is that the sidelines are starting to get rather lonely. In the meantime, consumers are giving thought to what their individual VR experiences might look like.

More than three quarters (77%) of respondents expressing an interest in VR told us they are willing to spend on VR head-mounted display (HMD) gear, with 18% saying they'd pay more than $250. Because virtual reality is an emerging market, we expect that consumers will want to physically try VR-enabled smartphones and HMDs before making purchase decisions.

While companies like Google push strongly into VR, many are missing a component that IBB believes will be initially important in converting early users: brick and mortar locations that will make it easy to demonstrate VR.

On the other hand, U.S. wireless carriers own thousands of physical stores that represent prime real estate for promoting and demonstrating VR to customers, and leveraging existing channel sales teams to help guide purchases.

While brick and mortar stores started to look like a liability for carriers in the mature smartphone market, these ubiquitous physical retail presences could prove an advantage when selling an emerging technology like VR. Wireless carriers have an opportunity to provide hands-on customer experiences, drive upgrades to higher-spec smartphones that can better support immersive VR content and sell high-margin accessories and services.

Of course, great real estate alone will not guarantee success. Wireless carriers will also need to create a thoughtful set of VR demos that appeal to a range of consumer segments.

Knowing Your Customer To Create Compelling Content Plays

Among consumers interested in VR, IBB found that "movies and TV" had about 50% interest in almost all age groups from 18 – 65+. No other content category attracted a higher level of widespread appeal.

Wireless carriers should consider trends like these when designing initial content packages. For instance, creating a set of VR demos centered on popular movies and timeless TV shows would give customers a personal movie theater experience. This could be one of several interesting ways to demonstrate an amazing VR use case that doesn't require VR-specific content.

Understanding your audience is crucial in creating demo experiences that drive further interest and uptake. Although movies and TV attracted broad interest across almost all age groups, interest varied across content categories like gaming, travel, live events and user-generated. Interestingly, while men expressed more interest than women in most categories, women are actually 35% more interested than men in travel-themed VR experiences.

This type of insight can expand beyond in-store demos and content portfolio strategies. Wireless carriers could work with a travel partner to give subscribers an opportunity to experience the sights and sounds of a foreign country before taking the time to plan and spend on a vacation. Carriers could also work with travel-themed programmers to create VR experiences for advanced age customers that want to experience sights and sounds but are unable to travel.

These are just a few examples from our research that point to opportunities to experiment and create a unique market play targeted to individual subscriber bases.

VR Here To Stay, AR & MR On The Way

A majority (54%) of consumers that are interested in VR told us that they think it is here to stay. IBB Consulting advises clients that VR is not the end game, but rather, the beginning of migrating computing power from a device consumers carry to one they wear. This will have major implications on the long-term opportunities in the space but stakeholders need to plan for this inevitable future when designing strategies today.

Eventually, VR will coexist with augmented reality and mixed reality. For now, the market is wide open for the right players with the right strategies to win share.

fiercewireless.com

Emerging Technology

Iris Smart Home Watering System; Internet Irrigation
May 27, 2016

"By pairing Iris by Lowe's Smart Home Hub with two Orbit Iris Hose Faucet Timers, I aimed to create an Internet-connected above-ground system that allows me to water my lawn using regular hoses and movable sprinklers, all controlled by taps on an iPhone screen."

Now that it's finally, really, almost spring where I live in Minneapolis, it's time I got serious about my yard. Experts have told me that watering consistently is the only way to get a lush, green lawn. As I planned a tech-enabled automated watering system, I had visions of walking across my property like Jason Day evaluating his next putt at Augusta, not a single weed in sight.

There are several devices you can use to schedule regular, consistent waterings. The most effective is an in-ground sprinkler system. The exorbitant cost—around $2,000, including equipment and labor—gets you a system that stays hidden and is very efficient. You can also get an Internet-connected controller box that can be set by an app on your phone. The controllers like the ones from Rachio, Skydrop, and Blossom can even gather weather data and pause your watering schedule on rainy days.

There are ways, however, to get the benefits of a connected sprinkler system without spending thousands of dollars and digging trenches through the grass. I decided to put one such method to the test. By pairing Iris by Lowe's Smart Home Hub with two Orbit Iris Hose Faucet Timers, I aimed to create an Internet-connected above-ground system that allows me to water my lawn using regular hoses and movable sprinklers, all controlled by taps on an iPhone screen. Total cost: well under $200.

Installation Fun

The hub and controllers are all part of the Iris smart home platform. It's a Lowe's product (yep, the hardware store), and the company sells dozens of devices made by different manufacturers that can all talk to each other. The hub acts like a traffic cop, relaying your commands and keeping everything

working together. You can install things like smart power outlets, smart door locks, and motion-sensing security alarms, connect them to the hub, and control your entire house through the Iris app. The tiny Iris hub ($51) is required, and so is the free Iris app—though downloading the correct app is important. There's a first-generation version of the Iris app and a new version, but both are in the store. It's hard to tell the difference; both apps use a similar Iris logo, but one app is clearly marked first-gen. You want the new one.

The Orbit faucet timers ($40 each) have an in nozzle, an out nozzle, and a dial for setting watering schedules manually. You connect your sprinkler hose to the out nozzle, then turn on the faucet and leave it on. The timer regulates the flow from there.

To get them online, you connect them to the Iris hub using ZigBee, a short-range wireless protocol that's very similar to Wi-Fi. You plug the hub into your Wi-Fi router using an Ethernet cable, install the app on your phone, then, after registering for a free Iris account, start building your network of devices. The hub beeps three times each time you connect something new.

If you have a large house or, like me, you're trying to talk to devices outdoors, you may need a $30 Iris Smart Plug. This acts as connected outlet that you can switch on and off with your phone, but it also doubles as a repeater, creating a stronger ZigBee connection so the hub can talk to devices further away.

Let the Watering Begin

If your lawn is dry like the surface of Mars, you can click a button to water manually for a set duration—say, 15 minutes or four hours. Manual watering is not what I had in mind; I wanted automation. The Iris app has "cards" for things like your lighting, or your lawn and garden maintenance. I would have preferred the app asked about watering schedules as soon as I paired the faucet timers, but after some scrolling and poking, I figured out how the cards work. I set up a schedule for watering in the early morning and again at night. (The most efficient way to water your lawn.)

Amazingly, the timers worked perfectly and right on schedule. At 7 am, all of my sprinklers erupted right on cue. At 7PM, it happened again. Then, it happened all week. Over a period of about two weeks, my lawn started taking on a darker, healthier hue. The total cost for all of this was under $200.

My only minor complaint is that it's a little weird leaving the faucets on at all times. They tend to drip a little, and I wondered if it wasted water. An in-ground system connects into your water lines directly and shuts off the flow. In some ways, automated sprinkling with hoses and sprinklers is a bit old-school, but it does provide extra flexibility. I ended up repositioning my sprinklers a few times. I also experimented with different sprinklers, including the kind that spray everywhere and the kind that offer spot coverage.

Then I hit on an idea. I set one faucet for lawn watering and another for my garden. I went back to the app and configured the garden watering schedule to be a little more aggressive—one full hour two times per day. The water pressure in my home was barely enough to make this all work, but it achieved my goal. I never had to hire someone to install an in-ground system, yet the results in my yard were remarkably similar. I even drank lemonade on a patio and watched it all happen.

I should note that the user reviews for the next-gen Iris system are extremely poor. Many customers are complaining about compatibility issues with their older Iris gear, and some have even decided to go back to solely using first-gen hardware and software. I was focused on automated sprinkling using new gear, so I never had any issues with the Smart Hub or Smart Plug or the Iris app. Even the lemonade was perfect.

wired.com

Olympic Cyclists Are Training With These Smart Glasses…And So Can You

May 25, 2016

However, it's not just Olympians getting in on the smart shades - the device is also undergoing a crowdfunding campaign on Kickstarter, with an expected release this October.

Remiscent of Google Glass, Solos use an optics display to overlay information over the cyclist's vision as they ride - such as their heart rate, speed, distance, and elevation.

The glasses can also track data on a dedicated smartphone app, as well as sync with other programs like MapMyRide, Strava and TrainingPeak.

Also similar to Google Glass is Solos' pricetag. While not as costly as Google's take on eyewear, a pair of Solos will be sold for $500 - a cost made a little more palatable by a 50% discount for the first 200 backers who sign up on Kickstarter, but still fairly steep for a pair of shades that only function when on a bike.

techradar.com

Mergers and Acquisitions

Intel Buys Computer Vision Startup Itseez To Improve Navigation In Self-Driving Cars

May 26, 2016

Intel has acquired computer vision and machine learning startup Itseez to develop better navigation for self-driving cars. The value of the deal was undisclosed.

Founded in 2005 and based in San Francisco, Itseez makes computer vision algorithms and software. The company's products include a suite of algorithms for automobiles it calls "advanced driver assistance systems," which allows car hardware to recognize pedestrians and traffic signs and warn about potential collisions.

The acquisition of Itseez comes one month Intel announced the purchase of Yogitech, another Internet of Things-related company. Based in Italy, Yogitech works on functional safety for semiconductors (which means its tech makes sure the chips powering autonomous vehicles are working properly).

Last year it also bought Lantiq, which makes chips for smart objects. Intel already makes chips, software, and a development kit for self-driving cars.

In Intel's announcement, Doug Davis, Intel senior vice president and general manager of its Internet of Things Group (IOTG), said, "Itseez will become a key ingredient for Intel's Internet of Things Group roadmap, and will help Intel's customers create innovative deep-learning-based [computer vision] applications like autonomous driving, digital security and surveillance, and industrial application."

Itseez has also developed algorithms for robotics, surveillance, smartphones, and sports analytics.

The acquisition is part of Intel's strategic shift, which it announced last month, from PC chip maker to cloud computing, the Internet of Things, and analyzing data from those devices. Intel says its data center and Internet of Things businesses, which make up 40 percent of its total revenue, are already

its "primary growth engines," and have helped it weather a decline in the PC market by creating a total of $2.2 billion in revenue growth last year.

But the restructuring has already come at a huge cost—Intel is laying off 12,000 employees, or 11 percent of its workforce. Intel CEO Brian Crzanich said the job cuts are part of Intel's "restructuring to accelerate its transformation."

techcrunch.com

Otterbox Partners With Square, Sandisk, And Others On Universe Modular Case For iPhone

May 24, 2016

This year may very well be seen as the dawn of the modular smartphone, with LG and Motorola both offering an array of functionality-enhancing hardware accessories that attach to their flagship handsets and Google's Project Ara poised to ship its first development kit. But phones are not the only members of the mobile ecosystem to adopt this trend, now that protective case maker OtterBox has introduced its ambitious modular case system, known as Universe.

Compatible with the current and previous generation of iPhones (6 / 6s / 6 Plus / 6s Plus), the system is built around a version of the manufacturer's $50 Symmetry series case, though it features one key design difference: a slotted rail expansion bay around back, at the bottom.

But the real story here is the wide array of modules available at launch or soon after. OtterBox has teamed up with a number of other well-known companies that have contributed custom-built add-ons, which give the phone additional storage, payment processing, advanced camera, mounting, and larger battery solutions.

Specifically, the partners and their modules include:

– SanDisk, with its iXpand Flash Drive, in 32GB, 64GB, and 128GB capacities

– Square, whose retail packaging for its credit card reader and NFC contactless payment device now ships with a compatible adapter.

– Olloclip, with its swappable zoom, wide-angle, and fish eye lens kit

– Nite Ize, with a vehicle vent mount kit

– Manatee Works, which has contributed a version of its StingRay barcode scanner

– Seek, with perhaps the most ambitious (and priciest) module, a $250 thermal camera

– Influx, with a Wi-Fi booster

– PolarPro, with a range of modules, including tripods, an external battery, clip-on Bluetooth speaker, wide-angle lens, armband attachment, and mobile wallet for storing cash

– Goal Zero, with an external battery

venturebeat.com

Industry Reports

PayPal Is Shutting Down Its Windows Phone, BlackBerry, And Amazon Apps

May 26, 2016

PayPal is thinning the number of mobile operating systems supported by the company's flagship app down to just two: Android and iOS. The PayPal mobile apps for Windows Phone, BlackBerry, and Amazon's Fire OS will be discontinued as of June 30th.

It's fairly common to see these decisions for Windows Phone and BlackBerry, but a little less regular to see a company of PayPal's stature just up and abandon Amazon's fork of Android, which runs on Kindle Fire tablets and the failed Fire Phone. PayPal doesn't offer much of an explanation for the decision, but claims it'll lead to better apps for the remaining platforms.

"It was a difficult decision to no longer support the PayPal app on these mobile platforms," said Joanna Lambert, PayPal's VP of consumer product, in an announcement on the company's blog. "But we believe it's the right thing to ensure we are investing our resources in creating the very best experiences for our customers."

PayPal is quick to point out that despite being left without a native app, affected users will still have full access to PayPal's mobile website for account management and money transactions. There are other options, too; BlackBerry users can still send peer-to-peer payments with PayPal through BBM. And on the Windows side, Outlook.com users can enable the PayPal add-in to send payments right from the email app.

"We remain committed to partnering with mobile device providers, and we apologize for any inconvenience this may cause our customers," Lambert said. PayPal claims that putting a sharper focus on just the two apps will allow the company to "innovate and make enhancements to PayPal's mobile experiences to give our customers the best possible ways to manage and move their money."

theverge.com

Americans Consumed 9.6 Trillion MB Of Mobile Data Last Year

May 23, 2016

American mobile users ate through 9.6 trillion MB of data last year, more than doubling the 4.1 trillion MB of data they consumed in 2014, according CTIA's latest annual report on the wireless industry.

The wireless consortium said 228.3 million users in the U.S. owned a smartphone in 2015, up nearly 10 percent from the previous year. Americans spent 2.8 million minutes on their mobile devices, up 17.4 percent year over year, and SMS and MMS traffic combined was up 17 percent.

Interestingly, incremental capital investment was essentially flat, dipping slightly to $31.9 billion from $32 billion in 2015. That figure may decrease further this year as carriers tighten their belts in advance of 5G buildouts.

Are you considering the move to 5G? Attend this complimentary 1 hour webinar to get up to speed on wireless technologies and their impact on design and test to make the transition from LTE to 5G a smooth ride. Reserve Your Spot Today!

"The amount of traffic on mobile networks more than doubled last year and shows no signs of slowing down."

CTIA said the mobile penetration rate climbed from 110 percent in 2014 to 115.7 percent last year, and annual wireless revenue came in at $191.9 billion, up slightly from $187.8 billion in 2014.

"Americans today have mobile-first lives," said CTIA CEO Meredith Attwell Baker in a prepared statement. "In 2014, we had a record amount of data on our 4G networks. Remarkably, the amount of traffic on mobile networks more than doubled last year and shows no signs of slowing down. I'm proud our industry invested more than $30 billion to keep up with our demand and support millions of jobs."

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