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New Apple iPhones Legitimize 4K in a Way Nothing Else Could

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- Biggest Loser: Traditional Linear Pay TV

Any one that works in the broadband or home network industries should rush out and order an iPhone 6S and 6S Plus on September 12 when Apple starts taking pre-orders. The world's most widely used cameras are Apple's iPhones. The new iPhones can shoot video in 4K. Who wants to shoot in 4K and watch in ordinary HD? Apple's move into 4K legitimizes 4K more than any maker of TV sets could ever have hoped, even the mighty Samsung.

Apple's new 6S and 6S can shoot video in

4K – a resolution of 3840×2160. Apple didn't stop there. The units have a new 12-megapixel sensor with advanced pixel technology and an Apple-developed and made image signal processor that delivers better colors in sharper and more detailed photos.

The front camera is a 5-megapixel FaceTime HD camera with "Retina Flash," which briefly increases the brightness of the screen three-fold to help brighten selfies.

An optical image stabilization feature helps improve the video quality in low-light situations. The new iPhones also have exposure control, timer mode and face detection.

There's more. A feature called Live Photos shoots 12 megapixel photos that are part of a short video clip that captures a few seconds before and after the shutter button is pressed.

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Sigma Designs' G.hn Prime Chips Set Speed Record

- Side-by-Side Tests

Sigma Designs' home network engineers have developed new firmware called G.hn Prime that substantially increases the speeds of the company's G.hn chips. We confirmed that by testing the products in the same home where some months ago we had tested G.hn adapters from Comtrend and Sigma as well as HomePlug adapters from D-Link.

Sigma says the new G.hn Prime firmware "provides unmatched performance" on its existing G.hn CG5300 and CG5200 series chipsets. The chips are intended for G.hn powerline products that pay TV services, primarily the telcos, will use to provide flicker-free videos, including bandwidth intensive 4K videos, on every TV in the home and without

having to send an installer into the home. The adapters would be used to connect STB, bridges, residential gateways, TVs and even as the devices' power source.

The buzz word in the home networking and broadband industry is "4K" (and/or UHD) because of the bandwidth that will be need for streaming from an OTT service or broadcasting from a pay TV channel to multiple devices in the home. Expectations are that a year from now, all premium smartphones and tablets will have 4K-capable displays and that 1080p HD TVs in sizes 42-inches or larger will be considered stone age relics. One only has to look at the prices that 4K/UHD reached this past summer and wonder what they'll be on this year's Black Friday to know that the financial

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“Who wants to shoot in 4K and watch in ordinary HD resolution?”

“Chips running G.hn Prime have a major performance edge where it counts, overcoming the limitations for achieving high transmission rates in the home.”

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A feature called 3D Touch detects the amount of force when the screen is pressed, Retina HD displays, the strongest glass of any smartphone, aerospace-grade aluminum exterior and an Apple’s A9 processor.

But! The most important new feature is the iPhones’ 4K capability. It will greatly increase sales of 4K TV sets. Who wants to shoot in 4K and watch in ordinary HD resolution? Shoppers will find that 4K TV sets are very affordable and buy them. Increased sales of 4K-capable TV sets will increase demand for 4K movies and TV shows. The biggest beneficiary of that will be the 4K OTT services, who are today the world’s largest suppliers of 4K content. And the biggest beneficiaries of that will be the broadband and

Sigma: *continued from page ONE*

justification for making and buying 1080p HD TVs is disappearing just as it did for large standard definition (SD) TVs. There are no 42-inch or larger SD TVs in the stores, are there?

Sigma said G.hn Prime uses on-chip acceleration engines and algorithms “to move data at twice the speed of the next-closest competitor’s product under TCP protocol which is the dominant delivery protocol for today’s streaming content.”

Nadav Katsir, VP of the home connectivity business unit at Sigma Designs, said, “G.hn Prime is a unique technology from Sigma Designs that... can dramatically increase throughput on the current generation of Sigma Designs’ CG5200 solutions. Our chips running G.hn Prime have a major performance edge where it counts, overcoming the limitations for achieving high transmission rates in the home. G.hn Prime is highly scalable, supporting the largest number of devices, and the highest number of simultaneous video streams including multiple 4K video services, ensuring an outstanding consumer experience.”

The case for a fast, dependable powerline is obvious — not only does every room in first world homes have an electrical outlet, so do most walls in those rooms — especially the wall where the TV is plugged in. MoCA over coax has long been regarded as the gold standard for home networking in both speed and reliability and developers of powerline technologies have striven to match MoCA’s speed and reliability.

The latest G.hn technology attempts to solve

home networking industry because of 4K increased demand for greater bandwidth.

For a number of months we have been predicting that the next major boost to the spread of 4K would come when Apple launched an iPhone or iPad that provides 4K. That has now happened.

The biggest losers will be the traditional linear pay TV companies who have been caught with their networks incapable of delivering 4K content. It will take them years and billions of dollars to get those networks ready to deliver 4K content to the home — except over an Internet connection, of course.

Oh! One more thing! It’s too bad that Apple won’t benefit from the coming surge in sales of 4K TVs it is causing. It still hasn’t launched an Apple 4K TV set.

networking problems caused by “real home environments that are plagued with interference obstacles such as surge protectors and appliances and the congestion challenges of MDUs.”

Q and A with Sigma Designs

We asked Sigma Designs several questions.

The Online Reporter: Will there be in the near future retail adapters with G.hn Prime chops?

Sigma Designs: Yes, it’s in the works

The Online Reporter: Is “G.hn Prime” Sigma’s proprietary extension to the ITU G.hn standard?

Sigma Designs: G.hn Prime complies with the G.hn standard. The Prime is a very smart implementation - a combination of hardware and software.

The Online Reporter: Because the Sigma adapters we tested are not retail products, how do we know that the devices don’t exceed FCC limits and gain performance with extra transmission power?

Sigma Designs: Our Power Spectral Density (PSD) complies with the HomeGrid PSD mask limits. As a side note, Sigma’s G.hn communication frequency band is half that of the AV2 version of HomePlug. Hence we also are lower power than AV2.

First Published G.hn Side-by-Side Testing Results

We had also received the retail version of Comtrend’s G.hn powerline adapters from Comtrend (they are available from **Amazon**). They use **Marvell**’s G.hn chips rather than Sigma Design’s. The pre-production G.hn adapters we received from Sigma Designs are

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manufactured for service providers to test and evaluate.

We set up the same test home that we had used in July to compare powerline adapters from Comtrend and Sigma as well as HomePlug adapters from **D-Link**. There were two differences between these tests and the one we conducted in July:

1. We used jperf v2.0.2 testing software this time instead of the **Atmos** software we used in July. Jperf is the same as iperf but with a graphical user interface that eliminates the need to enter command line commands.
2. The comparison was done over a direct connection between two PCs — a desktop and a laptop. The July test was done between the same two PCs but via a network switch.

Here are the results.

Location	Consistency Range	Average (guesstimated)	Low	High
Sigma Designs (G.hn)				
Breakfast room	178-186	182	157	191
Guest bedroom	94-100	97	91	103
Living room	176-180	178	149	185
Chinese bedroom	175-188	180	144	190
Master bedroom	82-88	85	61	90
Comtrend (G.hn)				
Breakfast room	96-106	100	76	109
Guest bedroom	102-108	105	87	114
Living room	98-108	103	87	114
Chinese bedroom	100-106	103	89	110
Master bedroom	58-62	50	50	66

“Consistency range” is the range in which the speeds mostly appeared.

We performed the tests three times for each adapter in each room over a two-day period but found no noticeable differences — a few Mbps at most. No known changes have been made to the test home’s powerline grid — no new appliances and, no other devices were running that might cause interference such as rechargers or microwaves. The home is a typical 20+ year old American home with about 2,400 square feet, three bedrooms, dining room, breakfast room, laundry room, office/library and a large lighted storage room. It also needs two Wi-Fi routers to provide whole home coverage so it’s a prime prospect

for a powerline-based or coax-based Wi-Fi extender of the sort that Comtrend announced this week.

The Sigma Design adapters consistently outperformed the Comtrend adapters with the exception of one room. We asked Sigma about that inconsistency and they did not have enough information to answer the question. Both the Sigma Design and the Comtrend adapters clearly outperformed D-Link’s HomePlug adapters in this test.

The jperf numbers for HomePlug are significantly lower than the numbers we saw in July when we tested with Atmos software. HomePlug questions why the jperf numbers are significantly lower — the exact same HomePlug adapters with no new firmware, same PCs except connected directly and not through a switch and the same electrical outlets in the same rooms. We are not publishing the jperf test results

from the HomePlug adapters until we determine why the numbers are so different.

It is not clear whether Sigma’s G.hn chips will be in products that’ll be sold at retail. However, there are already G.hn adapters on the retail market — we tested the retail version of Comtrend’s G.hn adapters — and expect other companies to launch similar products.

Except for one room, Sigma Designs was the clear winner. In a warning shot at the HomePlug crowd, the HomeGrid Alliance said, “G.hn will only keep getting

better — and not just incrementally either.”

The Atmos-jperf Factor

The current test results were very different from the results we saw in the July tests. The one factor in common was the D-Link HomePlug adapters. They were the exact same ones we used in July and were tested at the very same outlets in the same rooms. What was different between the two tests was a) we used different testing software — Atmos in July and jperf this time and b) the tests were performed with powerline adapters from Comtrend and Sigma

Sigma: *continued on page FOUR*

“There were two differences between these tests and the one we conducted in July.”

“G.hn will only keep getting better — and not just incrementally either.”

“It depends on whether you intend to test what your high volume user might see or what your hardware ‘could’ do in a perfect world.”

“Speed alone is not invalid — it is so hard to actually pin down — but should not be the sole metric used in evaluations.”

Sigma: *continued from page THREE*

Designs that had the latest firmware.

Several contacts have asked why we switched from using Atmos testing software, which the HomePlug Alliance recommended for the tests we did in July, to using jperf, which Sigma Designs recommended for the latest tests. Sigma designs said that the telcos it is familiar with use jperf, not Atmos.

A contact that is very knowledgeable about such matters provided the following information that sheds some light on software that is used to measure network speeds.

“Jperf is not a traffic generator at all but just a GUI (it is a fancy graphical interface that only helps a novice configure the underlying iperf). So, what you ran was really iperf tests that had the “command line” entered by jperf, which decided how to build that command line by what boxes you checked in the graphical interface. ATMOS and iperf are traffic generators that generate packets in an attempt to “flood” a network connection and see exactly how fast it can actually go.

“Unfortunately, they are heavily dependent on the network processor in the computer upon which they are loaded. Also, they would be dependent on the settings chosen by the tester. People frequently set the tests to enhance their results rather than to reflect the real world (an example is window size). In the real world we see Windows OS using about 64K window sizes but if you set iperf up to use much larger sizes (512K or even 1024K) your results in the test will look much better but that won’t reflect what you would get in the real world. So whether it is Atmos or iperf, settings at 64K might better reflect what you’d see in the real world but settings at 1024K might tell you better what your hardware could support if it was ever available to it in the real world.

“It depends on whether you intend to test what your high volume user might see or what your hardware ‘could’ do in a perfect world. These speed results will usually, for that reason, set bad expectations with the normal user who will never go out and buy a faster machine so will never see the results of a ‘best case’ test.

“The results really depend on the host processor. It is recommended that iperf be run only on a MAC or Linux machine because Windows machines are

usually so poorly able to handle the traffic flows iperf can generate.

“Iperf is the industry standard for free open source generators. Google hosted it for some time before it was moved to the github or open source community. Iperf is the premiere open source tool that is used by most testers around the world who aren’t paying thousands of dollars for a multiport proprietary hardware traffic generator.

“Every company in the network or communications industry knows about iperf.

“Speed alone is not invalid — it is so hard to actually pin down — but should not be the sole metric used in evaluations. It matters not if you can carry 2 Gbps on your hardware if the node at the other end can only absorb a single 22 Mbps ultra-HD (4K) video stream. What would matter in that case is that you could deliver them all very stably and without error to many different nodes. This is different for each end node since with voice the desire is not even volume but elimination of latency, packet order, and jitter (a typical voice stream is only a few hundred kbps in volume) since it is much more sensitive to packet on-time delivery and order. That is why Skype sounds so horrible on a machine that is not connected to a dedicated network that can protect those voice packets when even an analog modem could easily deliver multiple voice sessions without ever hitting its speed limitation.”

Because the same jperf settings were used for all three adapters — the G.hn ones from Sigma Designs and Comtrend plus the HomePlug adapter from D-Link — the test results are an accurate reflection of each adapter’s performance — at least when using jperf software.

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4K/UHD (ULTRA HIGH DEFINITION)

Samsung Announces 4K Blu-ray Player

- But No Prices or Availability
- Fox Backs 4K Version of Blu-ray But No Prices Either

Samsung is the first company to announce a 4K-capable Blu-ray player. It did not provide many details but it's expected to be pricey — upwards of \$1,000 compared to the \$59 that CE retailers sell the current Samsung Blu-ray player that was launched a decade ago.

There are also the unanswered questions of:

- a) When will the 4K Blu-ray player be available? For the upcoming holiday shopping season or in 2016?
- b) How much will 4K Blu-ray content cost because it's upwards of \$30 as many expect, then it'll be three months of a Netflix subscription
- c) What titles will be available in 4K Blu-ray — will they be “must see” enough to attract the mass market consumers away from an OTT service.

Mike Dunn, president of 20th Century Fox Home Entertainment, joined Samsung on the same stage at IFA to confirm his organization's commitment to the 4K Blu-ray format. He said the studio is committed to releasing its slate of upcoming movies in Ultra HD with HDR on the same day it releases the current Blu-ray and Digital HD shows, which include “Fantastic Four,” “Maze Runner,” “Kinsman: The Secret Service” and others.

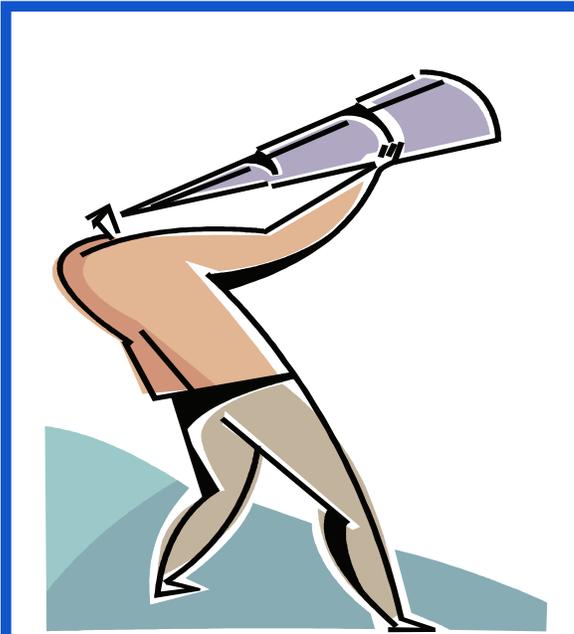
Samsung also said its UHD sets will get a software update to support HDMI 2.0a, which is required to play HDR from the new Blu-ray players.

Fox CTO Hanno Basse said the **UHD Alliance**, the industry's standards setting body that consists of both tech companies and studios, has tripled in size and he hinted at more details to come within months.

LG Shows 111-inch Double-Sided 4K OLED TV

LG's double-sided 111-inch 4K OLED TV is not exactly a mass market product but it would be great to watch the newly restored 4K version of “Lawrence

of Arabia” that Netflix is now offering. LG drew a crowd at IFA 2015 where it showed the 111-inch 4K TV, which is actually three 65-inch TVs that are connected and used a one big display that can be viewed on both sides simultaneously. LG also showed a 55-inch double-sided TV. Prices and availability were not announced.



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“There are also the unanswered questions.”

“The studio is committed to releasing its slate of upcoming movies in Ultra HD with HDR on the same day it releases the current Blu-ray and Digital HD shows”



September 11-17, 2015

“Each of Viacom’s pay TV networks will have its own Plex Play app.”

“The live stream will serve as a test run for CNN’s technology.”

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Viacom Rethinks Its Place in TV -Releases Mobile-Optimized App ‘Play Plex’

Viacom this week launched a suite of mobile TV apps that its international distribution partners can offer to subscribers as part of their TV Everywhere services. The apps will become available in Q4 2015.

“Viacom Play Plex offers us maximum flexibility in distributing our content as the way viewers consume their favorite TV shows continues to evolve,” said Bob Bakish, president and CEO of Viacom International Media Networks (VIMN). “These apps are designed to complement our linear pay TV channels and to allow our existing distribution partners to deepen and improve the entertainment experience they offer their subscribers.”

The apps offer content from Viacom’s linear pay TV networks, organized and presented with smaller screens in mind. Bakish has said in the past that most of the streaming across Viacom brands is now coming from mobile devices.

Each of Viacom’s pay TV networks will have its own Plex Play app, and each app will offer full episodes, on-demand content and live linear streaming. Some apps, such as that for Nickelodeon, will also offer games.

“Viacom Play Plex also opens up new distribution opportunities for us, particularly in the fast-growing mobile TV sector, and, ultimately, positions us to succeed in a world of more personalized entertainment services and greater consumer choice,” Bakish said.

The mobile-centric apps will be available to distribution partners to offer to pay TV subscribers via authenticated log-ins, but Viacom hinted that the apps may be used at a later date to launch stand-alone mobile TV services.

CNN Will Live Stream Republican Presidential Debate

Pay TV news network CNN will live stream an upcoming US Republican presidential debate, for the first time for free to any streamers, without a need for pay TV authentication. CNN is hoping that making

the event available online will help the network collect more eyeballs for the event, and bring new viewers to its news service.

A recent Republican presidential debate, which aired on Fox News, drew in an impressive 24 million viewers, beating all previous records for party presidential debate viewership. The measurable uptick in interest in the Republican presidential race this year is due to an unusual mix of politicians vying for the Republican nomination, including billionaire Donald Trump.

CNN’s Republican debate will likely bring in large numbers, and CNN is making the debate as tall of a tentpole event as it can. For those viewers who won’t be in the vicinity of a TV set, the debate will be available to stream on CNN.com as well as on CNN’s mobile apps.

CNN said the live stream will serve as a test run for CNN’s live streaming technology. Fox News streamed its earlier debate, but made the live stream available only behind a pay TV login, and many users reported streaming outages. CNN has said it’s ready for the level of demand it’s anticipating it’ll see on streaming networks during the event.

Alibaba Adds NBCU Films to TMall Box Office

Alibaba, the online retail giant based in China, has acquired key films from **NBCUniversal** to stream on its new SVoD OTT offering, TMall Box Office (TBO). Alibaba has just launched a beta version of the TBO streaming movie service this week.

The multi-year licensing deal with NBCUniversal includes top box office performers “Fast and Furious 7,” “Jurassic World,” and “Minions.”

Verizon’s Go90 Beta Now Streaming to Subs

Verizon has launched a beta version of its mobile Internet TV service, Go90. The service has been made available to a select group of its wireless subscribers,

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Verizon's: *continued from page SIX*

and said it may launch the service nationwide as soon as later this month.

Verizon has said the initial iteration of the service won't include all the content and features it initially envisioned for the service, and the ad technology from Verizon's acquisition of AOL won't yet be integrated into the platform.

The service will be free and ad-supported, with content specially designed to be shared across social platforms. Verizon is currently in talks in advertisers and brands for content-sponsorship opportunities and original content development.

Netflix to Land in 4 Asian Markets in 'Early 2016'

Netflix is heading into Singapore, South Korea, Taiwan and Hong Kong next year. It plans to open an office in the region to support its expanding business there. Netflix launched in Japan earlier this month, marking its first foray in an Asian market.

"The combination of increasing Internet speeds and ubiquity of connected devices provides consumers with the anytime, anywhere ability to enjoy their favorite TV shows and movies on the Netflix service," said Reed Hastings, CEO of Netflix. "These four markets well represent those trends."

Radio Station to Highlight YouTube's Music and Emerging Artists

Here's a first: A terrestrial radio station firm is turning to YouTube for music hits. Canada-based Rogers Radio, owned by **Rogers Media**, has announced a new partnership with YouTube for a radio show entitled "YouTube Hits." The weekly, hour-long show will highlight the top performing music on the site, and showcase emerging artists that are gaining audience and buzz on the platform.

Rogers plans to include interviews with YouTube stars. It will also feature the "best cover song" of the week, referring to the popular video uploads of users covering songs by their favorite artists.

"People still use radio as a primary source to

discover new music," said Julie Adam, SVP of radio at Rogers Media. "Given how strong YouTube is in terms of music and talent, we thought that it was a great partnership where listeners could hear the songs that are getting a lot of attention."

Pay TV Defends Biz with OTT Launch ahead of Netflix Arrival

Nos, the Portugal-based pay TV provider, has launched a subscription OTT service, as it and other incumbent pay TV providers get ready for Netflix's arrival in the country.

Netflix will launch in Portugal, Spain and Italy in October.

Nos' SVoD service, named N Play, will offer to stream a library of films, drama series and children's shows, all in HD quality, for a monthly fee of €7.50 (\$8.50). The SVoD service will be made available for free to its Iris pay TV subscribers for its first three months.

Netflix hasn't yet announced pricing for its own service in Portugal, but it recently hiked its HD service package Euro-prices to €9.99 (\$11.30) per month.

BBC's Hall: Internet Is the Future of BBC

BBC's director-general Tony Hall outlined his vision of the BCC in the age of the Internet, sketching out new goals for the public broadcaster to help it remain competitively relevant in the face of new challengers that have emerged from the OTT space.

"I wonder whether there has ever been a technological challenge as bracing – and exciting – as this one. As bracing as the challenges – and the opportunities – posed by the Internet," Hall said. "I would like to introduce you to our idea of an Open BBC for the Internet age. We are going to change, we have to change, and we want to change."

The speech revolved around Hall's idea of a new "Open BBC," which highlights the major trends and shifts occurring in the TV industry world-wide. "Like every other broadcaster we are facing a world in transition – a changing digital world that presents new challenges, but also, let's be clear, presents exciting

BBC's: *continued on page EIGHT*

"These four markets well represent those trends."

"We are going to change, we have to change, and we want to change."

“It’s likely NFL Now site wasn’t attracting enough visitors, ad revenues or subscription revenues.”

“We will make a transition from rolling news to streaming news.”

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BBC’s: *continued from page SEVEN*

new opportunities to serve our audiences,” Hall said. “Increasingly, in a way made possible by the Internet and by mobile devices, people are enjoying what they want, whenever they want, wherever they are. Indeed, it is perfectly possible that by the middle of the next decade that [ie the Internet] becomes the main route to what the BBC does.”

The thrust of Hall’s strategy is for the BBC to develop and distribute premium content, whether that be dramas, comedies or news, all available across platforms old and new. “The Internet will transform our mission to inform in the coming decade,” he said.

Hall breezed over some intriguing specifics, such as a personalized streaming news service that will be optimized for mobile devices. “We will make a transition from rolling news to streaming news. News in the palm of your hand,” Hall said. “It’ll also be the backbone of our global news operation helping us to reach 500 million people.”

And appropriately, Hall hinted that the TV streaming iPlayer will see more exclusive content and full season releases in the future.

“I now want to experiment with the BBC issuing bigger and bolder series all at once on iPlayer, so viewers have the option of ‘binge watching’,” Hall said.

Read the full speech here: <http://www.bbc.co.uk/mediacentre/speeches/2015/tony-hall-distinctive-bbc>

NFL Consolidates Its OTT and Web Video Products

The NFL launched its own online video platform in 2014, under the name NFL Now. The platform offered free short-form videos featuring clips, stats, analysis and commentary on league news, ideally to keep fans engaged during the off-season. NFL Now also offered a “premium” tier, for \$1.99 a month, that gave subs in-game highlights and access to the library of NFL films.

The NFL announced this week it will bring that NFL Now short-form video across its other digital properties, including its NFL Mobile app and Game Pass, the subscription OTT service that offers fans the ability to stream regular season games in HD

resolution on-demand.

NFL said the re-organization was spurred by a desire to aggregate digital video ventures for ease-of-access, but it’s likely NFL Now site wasn’t attracting enough visitors, ad revenues or subscription revenues.

As part of that reorganization, the league has redesigned its mobile app. Viewers can choose “game day” and “non-game day” versions of the app, which will ease navigation for users. NFL is also consolidating its subscription OTT services (Game Rewind, Audio Pass, Preseason Live and NFL Now Plus) into a newly revamped Game Pass, which will cost \$100 per year.

Ericsson to Acquire Envivio

Ericsson will acquire US video encoding company **Envivio** for around \$125 million minus the \$32 million Envivio has in cash in the bank. Envivio has around 300 pay TV service providers and content owners as customers including **AT&T**, **Comcast**, **Liberty Global**, **Sky** and **Telstra**. Last week Envivio rival **Elemental** was acquired by Amazon.

Comcast Pitches Its Own Live Streaming Platform

Comcast’s multi-screen and content delivery division, Comcast Wholesale, is pitching a live streaming platform to programmers that will compete with **MLB’s** Advanced Media, **Verizon’s** Digital Media Services, and Turner Broadcasting’s recent acquisition, iStreamPlanet.

Disney’s Proprietary Digital Locker Slow to Expand

Disney was the last major studio hold-out for UltraViolet, an almost-industry standard digital locker service that lets viewers access films they’ve purchased across the devices and platforms that are UltraViolet-enabled.

Disney went its own route, developing and launching its own, exclusive digital locker, called “Disney Movies Anywhere.” The digital locker offers over 450 movie titles, as well as a library of short-form content that viewers can access.

Disney’s: *continued on page NINE*

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Disney's: *continued from page EIGHT*

After two years of being available on iOS and Google devices, as well as Walmart's OTT movie service Vudu, Disney's digital locker is finally expanding out to other video streaming devices and ecosystems, taking a few more steps toward its goal of becoming a truly useful and ubiquitous digital locker.

Disney Movies Anywhere will now be available on Amazon Fire TVs, Xbox 360 game consoles, Roku net-top boxes and Android TV. No word on when the locker will be made available on Xbox One or PlayStation 4 game consoles, or on smart TVs via a smart TV app.

ORIGINAL ONLINE VIDEOS

MCN Tastemade Expands Reach with Scripps Deal

Tastemade, the food-centric online multi-channel network (MCN), is re-packaging some of its Web video to air on linear TV – specifically, Scripps Network Interactive's pay TV network The Cooking Channel. The deal is a perfect example of the “frenemy” relationship between online video networks and linear TV networks. They are both competitors and collaborators. Scripps led a \$25 million investment round for the MCN last year, which got its start on YouTube and has since expanded its reach to include dedicated content apps on Apple TV and Amazon Fire TV. Tastemade is also a content partner for both Snapchat's discover platform and Facebook's online video experiments.

The Cooking Channel is airing this month Tastemade's Web series “The Grill Iron,” reformatted into seven 30-minute episodes.

Amazon Embraces Web Video for Fire TV

Amazon is the newest syndication home for online video creators. Amazon aims to capitalize on new viewing habits emerging among viewers that include spending more time watching Web video on the TV set.

Earlier this year, Amazon partnered with Beachfront Media, a mobile video platform, to announce a platform that gives online video content creators the ability to easily create dedicated content channel apps for Amazon Fire TV.

The platform is mutually beneficial: content creators can expand their reach and network, and generate additional advertising revenue while also gaining more control over the experience of watching

their videos – in a dedicated app, instead of in the wild west of YouTube; Amazon, on the other hand, is able to add more content to its platform, making Fire TV more attractive to those viewers. It's also a nice compromise on Amazon's earlier ambitions to include Web video channels in its OTT service, Amazon Prime.

YouTube's top beauty guru Michelle Phan used the platform to create an Amazon Fire TV app for her ICON Internet TV network; Dormtainment, which makes a Web series for Comedy Central, YouTube's Mishka the Talking Husky, and WatchMojo have also used Beachfront's platform to launch apps for Amazon Fire TV.

Comedy Central Has Developed another Snapchat Web Series

Viacom's comedy pay TV network Comedy Central has premiered a new Web series on social video platform Snapchat this week. It's the first of five new Web series the network has developed for Snapchat, a mobile app that users – and now TV networks, publishers and brands – use to distribute short videos to followers.

The series, “Swag-A-Saurus,” is hosted by comedian James Davis and is perfect designed for the short-form format of the platform. The weekly episodes will focus on explaining slang terms in a comedic manner.

The network's four other Web series, which will appear on Snapchat sometime in the coming months, mimic the “vlog style” of video that has been made popular by YouTubers: the other series will feature comedians talking, and ultimately making jokes about a range of topics. Only one of the series, “Now

Comedy: *continued on page TEN*

“The deal is a perfect example of the ‘frenemy’ relationship between online video networks and linear TV networks.”

“It's the first of five new Web series the network has developed for Snapchat.”

ORIGINAL ONLINE VIDEOS

Comedy: *continued from page NINE*

Hiring” starring Michelle Wolf, will take the form (somewhat) of a TV show: it’s a sketch comedy series about a job recruiter.

“Snapchat Discover has been an incredible partner for the Comedy Central brand, and our fans love the platform,” said Comedy Central president Michele Ganeless. “Creating original series specifically for Snapchat is the perfect next step in the evolution of our content.”

YouTube, AwesomenessTV Announce First Film under New Deal

YouTube and **DreamWorks Animation’s** MCN AwesomenessTV have announced the first feature film of a production deal the two entered into earlier this year. The film, entitled “Dance Camp” will star YouTuber Meg DeAngelis and Vine celebrity Jake Paul.

Few other details about the film have been released, but YouTube said earlier this year that through its film partnership with AwesomenessTV, films will premiere globally on YouTube before being distributed on other platforms.

Endemol Unveils Online Video Platform for Its Web Video Creators

Endemol Shine, North America’s digital division, Endemol Beyond, has created an online video platform and Website where it aggregates and distributions a number of Web video “channels” across verticals and genres. The destination site, www.GetBeyond.us, will distribute content across platforms and devices, and will optimize content for sharing across social video platforms such as **Facebook** and **Twitter**.

Endemol Beyond has been busy acquiring talent from YouTube multi-channel networks such as “Simon’s Cat” and Michelle Phan. It launched a Web star-studded lifestyle and beauty online network called ICON, which is headed up by YouTube celeb Michelle Phan. At launch, GetBeyond aggregates content from 13 creators.

“We’re building a direct-to-consumer brand as

people make choices about where to go for their content,” said Adrian Sexton, interim president of Endemol Beyond USA. The destination site will showcase free, ad-supported video from its content creators, as well as sponsored and branded video from partnerships with marketers. Endemol will continue to offer its standalone network sites such as Icon. network, too. The company is eyeing launching a subscription video service in the future.

BroadbandTV Brings Children’s Web Series to YouTube

Multi-channel network (MCN) operator **BroadbandTV** is bringing a new children’s series to YouTube, as part of YouTube’s push into more family-friendly Internet TV programming.

The new original series, entitled “The Adventures of Annie & Ben,” is the product of BroadbandTV’s recent acquisition of YoBoHo, the firm behind the kid focused MCN HooplaKidz. HooplaKidz MCN operates 40 channels on YouTube, and it was a key content partner for YouTube’s child-gear app launch earlier this year.

“The films will premiere globally on YouTube first.”

“Endemol Beyond has been busy acquiring talent from YouTube MCNs.”

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September 11-17, 2015

HOME NETWORKING

Celeno Teams up With Intel on a STB Design with Its Super-Fast and Steady Wi-Fi

- And Comtrend on a Whole Home G.hn-based Smart Wi-Fi Extender

“Its Quicksilver technology also “raises the bar on Wi-Fi reliability.”

There is a large contingent that says Wi-Fi is the way forward for all in-home networking and that wireline technologies such as MoCA over coax and the two powerline technologies — HomePlug and G.hn — will slowly disappear. A prominent member of the contingent is **Celeno Communications**, which develops and produces super-charged Wi-Fi chips. However, it has also partnered with adapter maker **Comtrend** to produce an G.hn-based Wi-Fi Extender.

Celeno said it has fully integrated its next generation Quicksilver 802.11ac Wave 2 silicon into the **Intel Puma 6 Reference Designs** for STBs. Celeno’s Quicksilver Wave 2 technology offers 4x times the speed of traditional Wi-Fi by using four simultaneous streams and simultaneously connecting to three concurrent devices.

Celeno said its Quicksilver technology also “raises the bar on Wi-Fi reliability,” an important consideration for pay TV services that want to deliver flicker-free 1080p HD videos today and 4K in the future. It’s also important to makers of net-top boxes such as **Roku** that make their living by streaming flicker-free streams from OTT services, many of which have already assembled a library of TV shows and movies and 4K.

Consumers don’t want to be watching the glorious splendor of the restored version of “Lawrence of Arabia” — now available on **Netflix** — and see the enormous expanses of deserts distorted or hear the stunning music hit a glitch or become disconnected from the scene.

Celeno said the high density of Wi-Fi devices in a radio spectrum that is already crammed full will more than likely “result in an inconsistent connectivity experience and, more often than not, insufficient per-user throughput.” It said its new technology is designed to address these challenges.

Of course, Celeno cites the coming 4K evolution as

a primary justification for using its Wi-Fi technology. It said, “Celeno’s Quicksilver product family delivers 4x better ‘real world’ throughput, critical for streaming 4K video services, enabling high capacity managed home hot spot services and for ensuring an overall consistent and seamless Wi-Fi user experience.”

Celeno founder and CEO Gilad Rozen said, “Time and again we hear from our service provider and cable operator clients that Wi-Fi coverage and reliability, as opposed to speed, are critical pain points for end users today. While the industry has focused on winning the race for theoretical speed, we have opted to solve real world problems that our service provider partners and their customers face in their homes every day, while still offering best of breed speeds.”

Ran Senderovitz, VP of Intel’s connected home division, said, “Celeno’s 4x4 11ac Wi-Fi solution ensures a continued strong pace of Wi-Fi innovation helping to create a robust wireless ecosystem that allows Intel based gateways to deliver the outstanding cloud to client connected experiences.”

Comtrend Selects Celeno for Its G.hn/Wi-Fi Extenders

Comtrend, maker of powerline adapters and other gear for the home, doesn’t think wireline home networking is going away. It decided to use Celeno’s Smart Wi-Fi OptimizAIR 2.0 in Comtrend’s new G.hn powerline Wi-Fi Extenders, which it says, “brings virtualized Wi-Fi to multiple nodes” translated into consumer speak, that means the whole home can get Wi-Fi speeds and reliability that’s good enough for multiple streams of 4K videos.

Because they plug into any power socket, customers can take them anywhere they have an AC outlet — such as the patio, garage or external storage room or workshop.

Comtrend and Celeno make the point that today consumers “expect a perfect wireless experience on their tablet or smartphone no matter where they are in the home, or how far away they might be from the home gateway.” But because there are now so many Wi-Fi

Celeno: continued on page TWELVE

HOME NETWORKING

Celeno: *continued from page ELEVEN*

devices in the home (count 'em in yours), conventional home gateways are hard pressed to provide whole home, wholly reliable high-speed connections. Ordinary extenders, they said, may assist in boosting the Wi-Fi signal across the home but, if not properly managed, the extenders and gateway may compete over air resources, which results in poor performance.

Comtrend and Celeno Designed said they are striving “for perfect connectivity and coverage across multiple devices connected concurrently throughout the home.”

Lior Weiss, Celeno’s VP of marketing, said Celeno believes a combination of well-coordinated gateway and multiple Wi-Fi extenders delivers the best coverage and Wi-Fi throughput. “Consumers continue to demand more from their home networks and today, much of that demand is centered on mobile devices. The more mobile device penetration we see, the more important it will be to extend and improve wireless coverage to enable consumers to enjoy perfect Wi-Fi in every corner of their home, while ensuring we don’t compromise on overall network capacity.”

John Hsieh, Comtrend’s marketing director, said, “Celeno’s smart Wi-Fi solution provides a significant advantage for our customers in terms of superior user experience and customer satisfaction, as well as by offering both extended coverage with reliable service and increased capacity in a distributed network.”

Celeno said its CL1860 and CL2200 chips and smart Wi-Fi technology OptimizAIR 2.0 will also enable the virtualization of Wi-Fi resources, so that Wi-Fi capacity can be dynamically apportioned and provisioned to different devices, services and applications. It also enables new services such as homespots, IoT, home security and home automation on different SSID’s from each extender with unprecedented reliability.

Quantenna 8x8 Chips Aims at Enterprise, Gateways & the World

Quantenna believes it has leveraged its lead in Wi-Fi chipset de-sign to open up a retail and an enterprise market for its chips. But more than anything, it’s new 8x8 MU-MIMO chip pushes its design lead in operator

supplied set tops and home gateways – beyond the reach of **Broadcom** and **Qualcomm-Atheros** for the foreseeable future. It claims the device can top out at 10 Gbps throughput.

Quantenna did its usual, and we think unnecessary, heavy handed marketing, coining the term Wave 3, marking out its new chip design as a step beyond the Wave 2 802.11ac devices which came out for the most part in January, with a few earlier exceptions.

Quantenna for its own part already had an 8x8 development plat-form design in January, which extended to MU-MIMO, and while the company assures us that this part is now in volume, it has really moved the 8x8 technology on a notch with its new part the True 8x8 QSR10G chip.

That’s because it can operate in 5 GHz and 2.4 GHz simultaneously, offering 8 beamforming streams in 5 GHz and another 4 in 2.4GHz, for a total of 12 radios and 12 antennas. When working in multi-user mode that means the 8 antennas operating in 5 GHz can develop 4 concurrent streams. The chip can now operate with 1024 QAM, ahead of most devices on the market which top out at 256 QAM, with provides perhaps another 15% throughput, where this modulation coding scheme actually works.

The system is designed to be adaptive and calculate what approach will give its best performance, and it does this by looking at the jobs it is being asked to do, and that includes the number of antennas the receiving clients have and decides how best to pro-ceed, changing dynamically. If it has say 30 clients to deal with, it clusters them into high performing or high priority clusters, and layers them onto the 4 MU-MIMO channels.

That means that when a bad apple occurs – the problem of one poorly performing client which slows down an entire single user network – it can isolate its effects for the remainder of the multi-user streams – it just affects one stream. This is critical if you have devices that just have 2.4 GHz access or some which can talk to 5 GHz, but with only one antenna, such as most older smartphones. Current generations of devices are 2x2, but most of the installed base of smartphones are 1x1, and an access point will have to adopt different strategies for difference mixes of

Quantenna: *continued on page THIRTEEN*

“Striving for perfect connectivity and coverage across multiple devices connected concurrently throughout the home.”

“When a bad apple occurs – the problem of one poorly performing client which slows down an entire single user network – it can isolate its effects.”

HOME NETWORKING

Quantenna: *continued from page TWELVE*

legacy and modern devices. And the data mix between say a UHD video stream, which must not be disrupted, and IoT data collection, which involves many tiny amounts of data, will have to be accommodated in the near future in many homes and businesses.

At *Faultline* we have watched Quantenna from its inception, and we would say that it has gone past a dangerous point a few years back, when it could not reveal any of its customers and when it had to search hard for development funds. Its last funding round was in December when it picked up \$22 million with new investors **Centerview Capital Technology**, **Vivint** and **NTT** in Japan. In its previous round only **Rusnano** in Russia could be found to lead the fund, but this time all of its major investors including **Sequoia Capital**, **DAG Ventures**, **Rusnano**, **Sigma Partners** and **Venrock** all took part.

This is primarily because very quietly, over the past 3 years it has lined up some impressive customers, which are all now ramped into volume, including tier 1 services at **AT&T**, **DirecTV**, **Swisscom**, **Telefonica**, **Orange** and **Belgacom**, which use the devices inside their set tops, home gateways and multi-room DVRs. In each case these operations are in growth in terms of customer numbers (except for AT&T and DirecTV this quarter, due to the merger, but that's temporary we suspect).

Quantenna has passed the danger point in its development when investors were scarce—now it is seen as a sound investment

And also during that time Quantenna has lined up a fair few allies. This week it also saw **Freescale** introduce a home gateway reference design using the chip in its QoriQ LS1043A residential gate-way, targeting fiber optic Internet deployments in the US and Japan, coupled with open, Linux-based security, video streaming and networking applications, featuring a new Freescale quad-core 64-bit **ARMv8** processor.

In the past, Quantenna has formed alliances based on the age old principle of “my enemy’s enemy is my friend” cutting deals with **Lantiq** (now **Intel**) Freescale and **ST Micro**, and doing interoperability testing with **MediaTek** handset Wi-Fi, and working with **Texas Instruments** on a small cell part. Each of these companies compete with its major competitors

Broadcom and Qualcomm Atheros.

Other companies that have jumped onto the Wave 2 MU-MIMO Wi-Fi bandwagon include Broadcom, **Marvel** and **Ralink** (MediaTek) as well as **Celeno**, the Israeli start up that won all the early rounds of operator based Wi-Fi at **Deutsche Telekom**, Liberty Global and **China Telecom**.

But the all-important aspect of how these chips perform is what they do in real-world homes and enterprises. The requirement for 802.11n products was just 25 Mbps in “every” corner of a home. This has since moved on to 100 Mbps in every part of the home, which 4 x 4 802.11ac Wave 1 chips are seen as being able to achieve – more or less. These rather low numbers are to do with the client devices in use – if you use a 1x1 smartphone with a Wave 2 device, it can only receive 433 Mbps as a maximum. It only gets higher if all 4 radios are talking at once and being heard by 4 radios at the other end. In MU-MIMO it can talk at 433 Mbps to 4 devices at once.

We suspect that all MU-MIMO devices will do much better under the current mix of clients, although not as well as a system that can insulate the network against high interference, low performance clients, like the Quantenna device can.

A spokesman for Quantenna said that its new chips perform closer to 600 Mbps in real world deployments, and we know it has a test-bed where it tries out real world situations, however it has no concrete pillars with which to cope as many European MDUs

Other companies that jumped on the Wave 2 MU-MIMO bandwagon include Broadcom, Marvel and Ralink have, so perhaps its performance will drop off somewhat when operators test it.

One of the nicest things about this chip is the way it uses both 5 GHz and 2.4 GHz at once, because it can run faster clients in the 5 GHz and slower, older clients in the 2.4 Ghz zones.

There are multiple chips in the range, the QSR10GU which offers 12 stream operation, the QSR10GA with offers 10 stream operation, the QSR10PA, which supports just 8 streams and the QSR10G5 that only supports 5GHz. All devices are now sampling to Quantenna customers.

This appeared in *Faultline*.

“Quantenna has passed the danger point in its development when investors were scarce.”

“Its new chips perform closer to 600 Mbps in real world deployments.”

NET- & SET-TOP BOXES

Apple's 'TV Redefined' Leaves Much to Be Desired

Half a year late and missing its key content lynchpin, the new **Apple TV** net-top box, referred to as **Apple TV 4**, officially debuted this week at the company's big hardware event. The NTB, however, strikes out as an expensive "me too" update to a television future that has been defined in the past two years, largely without much input from Apple.

Apple has dubbed the box "the future of television," along with this message:

"Apps are quickly becoming how we watch today. So we built a new foundation around this vision — with a new operating system called tvOS, innovative ways to connect with your screen, and a smart use of Siri to search for something to watch. This is the new **Apple TV**. This is where television is headed."

If Apple had held the same announcement, with the same hyperbole, two years ago, the grandiose tone of the announcement would be warranted. But in 2015, it's a bit behind the times. Most of the thrust of the **Apple TV** redesign has been about Apple catching up in terms of net-top box features, and it will cost Apple fans an arm and a leg: pricing for the NTB is \$149 for the 32GB version and \$199 for the 64GB version.

Apple TV 4 Plays Catch-Up

The new box has an A8 processor running a special version of iOS 9, what Apple is now referring to as "tvOS." The A8 processor isn't the newest or most powerful processor – the new iPhones are running on A9 – but it's a big upgrade over the A5 processor that the current generation of **Apple TV** runs on. The interface can now be controlled via voice command and Apple's device interface companion, Siri.

Apple has redesigned its remote control for the NTB, emphasizing a trackpad over its physical buttons, reminiscent of the innovative remote control that **FanTV** first introduced with its **Fan TV** NTB a few years ago. "It's an experience that makes you feel like you're interacting directly with the screen, even though it's on the other side of the room," the company said.

Apple is encouraging users to utilize "touch

and voice to reimagine how you interact with your TV screen." To be clear, the remote does still have physical buttons, such as a "Home" button, volume control, play/pause and a button to press to activate the mic in the remote control to let the viewer speak to Siri, just like an **Amazon Fire TV** remote.

Apple has re-configured navigation to make it less linear – ie less "forward, forward, backward backward." Users can now "quickly bounce between apps," it said.

Siri is also able to perform searches across some content sources, which removes much need to manually move between apps when the viewer knows exactly what he or she wants to watch. This is arguably the best feature of **Apple TV 4**. Much like **TiVo's** search feature, **Apple TV 4** will let the viewer know where a specific movie can be found, and whether the title is available via a SVoD service the user subscribes to, or if it can be purchased or rented on iTunes. This feature doesn't work with *all* the content apps available on **Apple TV**, just the main ones such as **Netflix**, **Hulu**, **HBO Go** and **Showtime**. Siri can also bring up material such as sports scores, weather and stock info to the TV set.

Apple Wades into Murky Territory with 'Gaming'

One of the more odd new features to appear on **Apple TV 4** is the prospect of gaming. Like **Roku** did in 2012, and **Amazon** did in 2014, Apple is jumping on the NTB-as-casual-gaming-console bandwagon. Talk about a head-scratcher. No one is seeing much success in casual gaming on a TV set via a NTB, so we're very confused as to why Apple would even bother offering so flimsy a feature.

Apple highlighted a mere two games during its presentation this week, and released a few more titles on its Website following the presentation. The gaming community was not impressed.

When **Amazon** decided to jump into gaming with **Amazon Fire TV**, **Amazon** purchased a fairly popular gaming studio – and its gaming platform still hasn't been much of a success. Apple's venture into gaming likely won't be successful beyond a very, very niche

Apple's: continued on page FIFTEEN

"In 2015, Apple's TV announcement is a bit behind the times."

"The gaming community was not impressed."

NET- & SET-TOP BOXES

Apple's: *continued from page FOURTEEN*

demographic of parents with young children that want to play games such as “Disney Infinity.”

No 4K Support and No Revolutionary TV Service

While Apple’s new iPhones now support capturing 4K video, its new Apple TV doesn’t support streaming 4K video, representing an unusual gap across devices. If 4K video is the future – we think it is, and Apple must too if it put 4K in its newest line phones – than why wouldn’t it want viewers to be able to stream 4K titles from OTT services such as Netflix to the their 4K TV sets using an Apple TV NTB?

By forgoing 4K streaming, Apple is resigning all 4K video streaming on the TV set to non-Apple interfaces. As more consumers take home low-priced 4K sets, and the OTT services such as Netflix continue to expand their 4K library offerings, the less time these consumers will spend using Apple TV NTBs to watch video in the living room.

Perhaps Apple is ready to cede this space to smart TV operating systems because it’s planning to launch its own 4K TV set, or better, it’s planning to launch its own smart TV operating system for TV makers to use, much like **Google** has done with Android TV, and

Roku has done with Roku smart TVs. This is Apple’s best bet to get in the 4K streaming game.

Apple is working on an Internet TV service that Apple promises and some predict will revolutionize the TV experience. The TV experience has already been revolutionized, thanks to devices such as Chromecast and Roku, thanks to service providers such as **Dish Network** and Netflix, content networks such as HBO and YouTube – and of course, thanks to the emergence and continued progress of ubiquitous Internet connectivity.

Apple has met a few obstacles in creating its Internet TV service, notably obstacles in acquiring the content Apple wants, at the price Apple is willing to pay. We expect any Internet TV service Apple cobbles together will be more in line with what TV-outsider **Sony** was able to do with PlayStation Vue (expensive and without much flexibility), rather than what TV-veteran Dish Network was able to do with Sling TV (low-cost and flexible).

After reviewing the new Apple TV 4, it’s puzzling why this reveal took as long as it did. There is nothing revolutionary about Apple TV 4: it’s just your standard device evolution, and hardly worth its hefty price tag. Perhaps the long wait will be better understood once Apple’s TV service comes to fruition. Looks like more waiting to be wowed.

“Perhaps Apple is planning to launch its own smart TV operating system.”

LIES, DAMN LIES AND STATISTICS

Every Household Will Have 5 Media Devices by 2019

According to market research firm **IHS**, every household on the planet will have five media-enabled devices by 2019 and North America will remain the world’s most saturated hardware market with eight devices per household.

The global connected devices base neared 10 billion at the end of 2014. Devices with viewing screens comprised 60% of the connected device market and IHS predicts that this share will rise to 75% by 2019.

The ratio of smartphones to tablets will increase from 5:1 to 9:1 as the number of smartphones will more than double to 5.9 billion in 2019 from 2.6 billion in 2014, according to Merrick Kingston,

principal analyst at IHS Technology.

In the smart TV space, market consolidation around software ecosystems is beginning. **Sony** and Philips have adopted Android TV, **Samsung** is using Tizen, **LG** is using its WebOS and **Panasonic** has gravitated to Firefox OS. However, as of 2014 Samsung’s global base of 63 million connected TVs largely outweighs any of the competition with the nearest rival’s base being LG’s 29 million.

Apple TV still leads the net-top box (NTB) space, with 25 million installed at the end of 2014. However, the gap is closing as **Roku**, Chromecast and **Amazon**’s Fire TV now have 13 million, 10 million and 5 million installed, respectively. Between the successes Roku has had courting content partners, the “impulse-buy”

Every: continued on page SIXTEEN

“The ratio of smartphones to tablets will increase from 5:1 to 9:1.”

LIES, DAMN LIES AND STATISTICS

Every: *continued from page FIFTEEN*

price point of the Chromecast and the value Fire TV adds to Amazon's Prime business, competition in the space is more heated than ever as market success will likely revolve around content exclusivity and embrace of the pay TV ecosystem.

Device ubiquity has allowed the online media industry's growth. Kingston described device proliferation as "a process that's co-determined with the availability and distribution of media." Netflix, with a market of 300 million devices pushing towards 500 million in 2019 and accounting for 30% of the total connected device installed base in the United States, is a microcosm for this process.

In the Mobile World, Content Reigns King

The Yahoo analytics firm Flurry released new data for Q2 of 2015 outlining the average American consumers' mobile device usage habits. On average the American consumer spent 3 hours and 40 minutes per day on their mobile devices, a 35% increase from one year ago. Of that time, only 10% of it is spent in the browser while 90% of time spent on a mobile device is spent in apps.

Of the time being spent in apps, 31% or 68 minutes per day is spent in messaging and social apps and 20% or 44 minutes is spent daily in entertainment apps. Mobile gaming showed a major decline in daily usage to just 15% or 33 minutes daily, down from 32% last year due to a lack of new hit games, upswing in

eSports entertainment popularity and gamers who use in-app purchases to "buy their way" rather than "grind their way" through games.



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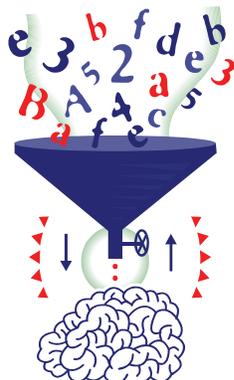
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It's not the news that counts. It's the analysis that makes it useful to busy executives at companies involved in digital media.

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We spotted important technologies like Wi-Fi, DOCSIS 3.0, VDSL2 Vectoring, MoCA, HomePlug, G.hn plus trends such as the OTT services and their move to creating original content long before anyone else.

Verizon's OTT Service Is about Demographics

"Go90 may be more about the company's vision than about the consumer. Offering up a service that might make its real moneymakers even a little bit more compelling, especially to teens and Millennials might be enough. Because what is clear is that **Verizon** seems really, really, *really* anxious about reaching a specific demographic: teens and Millennials." – From *Wired* magazine. See: <http://www.wired.com/2015/09/verizon-launching-video-service-no-one-asked/>

On the Net, Niche Sports Rule

"Traditional ball sports continue to dominate regular television and cable. But on the computers and mobile phones where young people increasingly spend their time, there is a parallel world where so-called action sports like surfing, skateboarding and snowboarding have more viewers and influence." See: <http://www.nytimes.com/2015/09/08/technology/for-online-sports-videos-the-action-is-no-longer-on-the-field.html>

Netflix Gets the Restored Version of 'Lawrence of Arabia' and in Full 4K

Netflix stuck in its thumb and pulled out a plumb. Netflix is offering its subscribers what many consider the greatest movie of all time — "Lawrence of Arabia" — the restored version and in 4K — with a stunning performance by then newcomer Peter O'Toole and some of the most splendid scenery ever shown in a movie — splendid enough that it should have been listed as a supporting cast member. The music is

as great as in any movie ever and is best enjoyed at high volume on a surround sound system. It's worth the price of a new 4K TV to see the movie in 4K, just to see it in its full glory. Based on actual events, it shows 4K naysayers what 4K can do for even a movie that was released 53 years ago, year-end 1962.

SnapChat: A Different Way to Skin the Online Cat

"Snapchat's perishable media delivers two clear benefits. First is that it creates a sense of urgency: It forces users to watch something attentively before it's gone. The second benefit, perhaps less appreciated, is that Snapchat doesn't incur the cost of storing and serving vast quantities of old content in gigantic server farms. Snapchat, with the currency of live TV and a lower cost of infrastructure, has figured out a different way to skin the online-video cat. And unlike its self-destructing messages and media content, Snapchat has built a business that will be around for a long time." See: <http://variety.com/2015/digital/news/snapchat-video-youtube-facebook-long-tail-1201586133>

AirTies CEO: Wi-Fi Is as Critical as Electricity, Gas and Water

"Wi-Fi is the latest home utility that is fast becoming as critical as electricity, gas or water. Just as with these utilities consumers now expect to have equal access to Wi-Fi from all points of the home and for it to flow everywhere just like water." —Philippe Alcaras, CEO of **AirTies**, which produces Wi-Fi products

that use its intelligent Client Steering technology, which seamlessly switches mobile devices dynamically in real time between access points and as well within the 2.4GHz and 5GHz bands. It has solved the 'Sticky Client' problem in which mobile devices remain connected to the same access point even when a faster one is nearby.

To See UHD with HDR Is to Believe

"Seeing is believing. When my colleagues and I at Fox first saw the side-by-side comparison of UHD with HDR versus HD, it was reminiscent of the difference between standard def and high def. This is a massive leap forward for the consumer experience." – Mike Dunn, president of 20th Century Fox Home Entertainment

Apple Misses Big Parts of the 4K Market

Notable missing from **Apple's** entry this week into the 4K market was a fully 4K capable Apple TV, which has only the 1.4 version of HDMI; support for **Amazon** Prime Instant Video, one of the major suppliers of 4K content; 4K content on its iTunes library and, most noticeably, a long-rumored 4K-capable TV set and iPad. But, at least there is a 4K capable iPhone.

Freeview to Become the New Normal for Watching TV

"We believe that **Freeview** Play is set to become the new normal way of watching TV. Viewers will be free to choose what they watch and when they watch it on their main set free from subscription." - Guy North, managing director of Freeview

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