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(As Prepared, Not Necessarily as Delivered)
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The worlds of wireless and content are intersecting like never before, and that's why CTIA has officially joined the Media Institute. Our worlds are now connected, and our futures are linked.

Mobile and video are better together. This is a theme the wireless industry is seeing across industries. The days of just wireless voice and text are long past.

It is those other services on the modern 4G platform that I want to focus on: the connected life aspect of our industry. By connected life, I mean how mobility enhances and impacts practically every facet of our lives.

Like the mHealth applications that offer more freedom for patients. Earlier this year, Columbia University announced a new diagnostic tool that will replace $18,000 worth of lab equipment with a $34 attachment to your phone. Better results, accessible and affordable to all.

Or the next-generation connected car with a new suite of 4G services to make our driving experience safer and more enjoyable. Did you notice that the Super Bowl ad for Chevy this year was about a truck's LTE connection, not its hauling power? The world is changing.

Mobility will touch everything from kids' textbooks to fleet management and energy conservation. Already you can pay with your phone from McDonalds to Bloomingdales. Mobility is impacting everything.

And, yes, even content. One of the hits of the Sundance Film Festival this year was *Tangerine* – a movie shot entirely using an iPhone 5. And a recent *Modern Family* episode was shot with phones and tablets exclusively.

I want to talk today about video distribution on the mobile platform, what that means for our future, and the policy implications of this evolution.

A quick step back. Since the middle of the 20th century, television has been the premier content distribution platform. Broadcast signals beamed from Rockefeller Center, and from humble beginnings in the Pennsylvania mountains, cable eventually crisscrossed the country. The programming content that came over those airwaves – as well as those cables – helped shape this nation.

Television defined eras and drew families together. We have a nostalgia for the programs we watched together in the living room.

Historically, the distributors of content and the wireless industry played on their own turf and viewed the communications landscape through very different lenses. Today though, mobility is rising as a content platform. Content consumption is shifting, from a communal event to an individualized experience, anywhere, anytime, and increasingly mobile.

I'm not here to give a cutting the cord speech, or make grandiose predictions about the smartphone replacing your 60-inch TV. There have been enough commentaries on that topic. Mobile is having – and will have – a dramatic impact on the future of content with or without cord cutting.

What I do want to discuss is how the wireless industry looks at video – as both a great opportunity and challenge. Specifically, I want to first cover the significant growth trends. Second, our technical response. And, third, the policy implications of this evolution.

MOBILE VIDEO ADOPTION AND GROWTH

Consumers are increasingly relying on wireless devices to access video content, whether it's on-demand, user-generated or live TV. In many ways, the past six years has been all about mobile data, and the next six will be all about mobile video.

Video is the largest and fastest growing component of mobile traffic. Here in the U.S., mobile video traffic is up twelve hundred percent in the last five years and is projected to represent over 75 percent of all wireless traffic by 2019.

From a demographic perspective, the shift is stark. 63 percent of 18-24 year olds used a mobile video app in the past month. And, this year, according to Ericsson, more consumers will stream video on demand at least twice a week than will watch broadcast TV. That is a staggering statistic.

Three key factors are driving this growth. First, more video-capable devices are in the hands of consumers and bigger screens drive video consumption. Consumers with an iPhone 6 Plus generate twice as much data as regular iPhone 6 users. This is true across the board. A HD device has an average consumption rate over four times that of lower resolution devices. Bigger and better screens mean more bits and more mobile video.

Second, 4G LTE networks are so much faster and more robust. With every network evolution – from 2G to 3G to 4G – the proportion of video traffic has risen. Today's LTE networks see 5 times as much mobile video traffic compared with 3G networks.

And third, what you already know, content is being delivered and designed for the mobile platform. Over the top services, like YouTube, dominate mobile video traffic today. YouTube alone represents nearly 20 percent of mobile traffic. Subscription-based services like Netflix are rising in mobile popularity, generating significant data consumption per user.

And the traditional media industry is becoming more active by the week. Disney's Maker Studios is producing content exclusively for Samsung Galaxy devices. The NFL has partnered with Verizon to deliver game day video on demand, and CNN and National Geographic are partnering with Snapchat. NBC is launching a subscription-based streaming service this year, so is MTV, HBO, and CBS. ESPN has been a leader in mobile for some time.

Every programmer and MVPD has their own mobile plan and strategy. If you want video, there's a mobile app for that or soon will be.

WIRELESS INVESTMENT IN OUR VIDEO FUTURE

In response to this growth, carriers are enhancing their mobile networks to better accommodate the surge in video traffic. We have invested over 120 billion dollars in the last four years to get networks ready for video and other connected life applications. This investment in faster and more robust networks is essential to our ability to deliver the video services that consumers want. We're also hard at work developing new video standards and compressing content at higher rates to ensure better video experiences.

Carriers are also offering bigger data buckets, and consumers are flocking to them. Four years ago, carriers were offering 2 GBs a month – enough for watching one movie. But with the increased data consumption from mobile video viewing, we see a competitive marketplace responding to consumer demand. Since 2005, the mobile price per megabit has dropped 99 percent. Sprint has doubled its mobile data package and the percentage of AT&T subscribers choosing a 10 GB bucket has nearly doubled year-over-year. Consumers can choose from nearly 700 smartphone plans to find the right wireless and video experience for them.

And carriers continue to innovate. One of the most important recent developments is the LTE Broadcast standard, a technology that can help wireless providers meet the mobile video demand from subscribers. Multicast technologies, like LTE Broadcast, can efficiently deliver video content because it provides operators the ability to transform one-to-one mobile links to one-to-many broadcast links in real time.

This dynamic, scalable technology provides a new flexible tool for operators. Importantly, carriers don't have to dedicate spectrum for broadcast. They can dynamically do it when the need arises with the capability to send 24 streams of content, using only 60 percent of a 10 MHz channel.

This is a revolutionary technology, and carriers are actively trialing it right now. AT&T demoed LTE Broadcast at the Oregon-Ohio State football game, and Verizon conducted trials at the Super Bowl and the Indy 500 last year. The results are promising: great picture quality, no buffering, and spectrally efficient.

This offers such great potential for live event streaming, stadium-casting, and other real-time updates. Device manufacturers and providers are building this functionality into their latest phones and networks. We expect carriers to begin deploying LTE Broadcast commercially later this year.

It is this evolution of wireless – even within existing standards – that I find most remarkable. Many of you in this room lived through the DTV transition and coupon program for broadcasters. The cost and complexity of taking broadcast from analog to digital was significant and an accomplishment that we are all rightfully proud of.

Wireless has done analog to digital, or 1G to 2G. Since then, we have gone from 2G to 3G, and now 4G. Each year brings more 4G advancements as we start setting the course for 5G. As a result, your device, your network, and everything else changes pretty much year-after-year, and the American consumer is the beneficiary.

As the worlds of wireless and content continue to overlap, carriers, content companies, and advertisers have an opportunity to develop new partnerships, enabling a new suite of services that give consumers their media content tailored to the mobile platform. And we know advertising dollars will flow to where the eyeballs are. As consumers watch more mobile video, mobile advertising is growing so fast, totaling $9.6 billion in 2013. This is already roughly a fifth of the advertising revenue of broadcast television. Effectively a multi-billion dollar business created from nothing in the past few years.

As we approach this opportunity, we start with the proposition that content owners have rights and must be compensated for those rights. From that starting point, we can work together to develop the right business plans to meet the mobile opportunity. It may or may not look like traditional models. And, we should embrace experimentation.

Carriers are innovating in this space too – developing platforms that can offer discounts if consumers choose to watch advertising, incorporate location-based ads, or zero rate content. Zero rating is a really intriguing pro-consumer option that does not get enough attention. What it does is provide some content without charge to the end user customer, separate and apart from their monthly data allowances.

Ultimately, we don't know if the eventual mobile video business model will be advertising-driven, subscription-based, revenue-sharing, built into data bundles, or some combination. What we do know, is that when we get this right, it will be a win-win for consumers and both wireless and content.

You can see that kind of innovative spirit right now for music services. Sprint and Spotify offer a bundle of their services. T-Mobile provides music services a zero rating option with Music Freedom. This type of differentiation and pro-consumer offerings is what happens in a

marketplace where you have 97 percent of Americans benefiting from 3 or more mobile broadband options, fiercely competing for subscribers.

I am excited to see what this competitive dynamic creates for video.

POLICY IMPLICATIONS

And, finally today, what does this mean for policymakers as Congress considers modernizing the Communications Act and as the FCC gets more active in online video generally? There are three points I want to address.

First, I think we should all start with two basic guiding principles when thinking about mobile video. One. Mobile providers need a seat at the table when discussing the future of video. As video consumers increasingly rely on mobile broadband, our voice needs to be part of these conversations. And two. Given how nascent and evolving mobile video is, we should resist reflexively applying legacy rules, business models, or requirements on this new platform. I am optimistic that commercial arrangements can be adaptive and responsive enough to meet consumer needs.

Second, spectrum. We need to ensure the availability of additional spectrum to promote mobile video adoption. LTE Broadcast will certainly help wireless carriers address consumers' demand, but providers will need hundreds more MHz of spectrum to deliver the high quality video services that consumers want. Chances are your phone now is relying on spectrum that was auctioned in 2006 and 2008. We went from 3G to 4G largely because of that new spectrum. The auction of 65 MHz of federal spectrum earlier this year will certainly help, but it represents only 13 percent of the government's own conservative spectrum goal of 500 MHz. We need much more.

The historic bidding in the recent AWS-3 auction does illustrate the pent-up demand for airwaves to carry mobile broadband traffic. Six years is too long between auctions. And, there is still substantial unmet demand. In fact, we are already pushing for the auction after the broadcast auction.

With respect to the broadcast auction, rest assured whenever the FCC holds that auction, the wireless industry will show up with billions. Every trend we walked through today is why. So, as broadcasters evaluate their own business opportunity with respect to that auction, they should have full confidence that the wireless industry is ready for another successful auction. We have our eye on well over 100 MHz of spectrum for future mobile broadband usage.

One last point on spectrum. Given the ability of providers to off-load traffic on unlicensed spectrum, CTIA supports additional spectrum for unlicensed use too. In fact, we are excited by the promise of incorporating LTE technology into the unlicensed bands for a more efficient and robust experience for all consumers.

Last policy point, net neutrality. Any discussion of the future of mobile unfortunately is now a conversation about the FCC's rules and the uncertainty the FCC's action will cause. The impact on investment – and the faster networks we will need to support video – is the most obvious concern. And it is one we have discussed at length with a focus on the negative experience in Europe of overly regulated mobile markets.

Moving forward, we will continue to invest as an industry, but we will invest less because of the significant regulatory uncertainty and overhang created by the FCC. We simply don't yet know the order of magnitude. I fear it will be substantially less.

The impact on innovation is what I want to touch on here. As we enter an age of experimentation in business models for mobile video with new technologies like LTE Broadcast and new service options like zero rating, the FCC's decision to subject all new offerings and options to a vague, innovate-at-your-own risk structure is the wrong policy at the wrong time of our development. I worry about the chilling effect on disruptive services that would otherwise be launched.

We have four national carriers and important regional and rural operators, all pushing for subscribers and the FCC has just made new differentiation harder. All of this really underscores why having a wireless-specific approach would have been far superior to what the FCC just did.

Moving forward, 74 percent of Americans would be more likely to try a new video start-up with zero rating options. The FCC needs to quickly clarify that pro-consumer developments like zero rating, sponsored data, and Music Freedom are not only permitted but encouraged.

Similarly, the FCC needs to clearly state that the new mandates do not apply to offerings like LTE broadcast and other managed services that are not public Internet services. We need clarity to innovate and work with everyone in this room on the best delivery mechanism for your content.

Ultimately, I fear only Congress can provide that clarity in the short-term. We hope that a bipartisan solution develops on the Hill and greatly appreciate the leadership in both the House and Senate for their hard work and commitment to finding a path forward. A legislative approach can provide mobile providers and content companies with a framework to innovate and invest in next-generation networks and content.

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Video is our shared future, a future I look forward to working with all of you on.

Thank you for the opportunity to join you today.