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VZ - Verizon Communications Inc at UBS Global Media and Communications Conference

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Okay. Thanks, everyone, for joining us. Again, I'm John Hodulik, the media and telecom analyst at UBS, and I'm very pleased to announce, our lunch keynote speaker is Hans Vestberg, the CEO of Verizon. Hans, thanks for being here.

Hans Vestberg - Verizon Communications Inc. - CEO
Thank you for being here during your lunch. Hope you enjoy it and listen some.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst
So we've got 45 minutes for Q&A, and we've got a bunch of questions here. And we've got the iPad apps, so if anybody has any questions they want to going to log in here, please put them into the app and I'll weave them into the program here.

Questions and Answers

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst
So Hans, you've been CEO for a few months now and had been CTO and Head of Strategy for over a year. What are your early impressions about the direction and positioning of Verizon?

Hans Vestberg - Verizon Communications Inc. - CEO
Before that, I have the safe harbor statement. There might be some future statements here as well as -- which could be connected with some risks. You know this so I will not read it from the beginning to the end. So what was the question? I was so focused on getting this right.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst
Yes, which is smart, which is smart. That's a good thing.
Yes, thank you. Thank you.

**John Hodulik** - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Just your initial impressions about the direction and positioning of Verizon.

**Hans Vestberg** - Verizon Communications Inc. - CEO

Yes. No, I've been for quite a while with Verizon right now, and of course, have been working together with Lowell McAdam, our previous CEO, nowadays the Chairman. He's a big part of the strategy. There is no -- we have gone hand-in-hand on that. Of course, the network, enormously important in our overall strategy, our valued customers, our disciplined way of allocating capital, and of course, very much looking into how we take advantage of the next growth wave, which is in 5G. I think nothing has changed there. I had the fortune of starting my career in Verizon, in the network, which is core of our strategy and worked there for quite a while to get acquainted with it. So I think that's sort of where I am right now in my strategy.

**John Hodulik** - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Okay. Before we get into the 5G strategy and where you are, could you talk about the recent reorganization that you've announced? What drove it, and how does that take accelerate the move to 5G?

**Hans Vestberg** - Verizon Communications Inc. - CEO

I think you would need to put into context a much larger transformation that we're undergoing at technology, et cetera. And I think the first -- think about it in 3 different buckets. I mean, the first transformation we're doing was a network transformation. We actually went to the Intelligent Edge Networks, and many of you have heard this before, but we had separate networks for technology reasons and legal reasons. The first thing we did was flip that network to make a horizontal network, which is Intelligent Edge Network. Then we used that as networking service. That was the first thing we did. The second part was that we did a process transformation. Included there, we had our cost reduce that we're doing, the $10 billion that we announced last year. It's a voluntary program that is ongoing right now. It's an IT outsourcing. That was the second part of it. The third part was, when we have that all lined up, we then went to a business transformation where, basically, we're planning to do a customer-centric organization. And all driven from the technology that is coming right now, and that we want to play as a networking service for all our business divisions. And we are sort of all the way from doing business with consumers, to large enterprises, small and medium enterprises, governments. We have wholesale. We have IoT customers. What we're trying to do is, of course, putting that network, the strength of the company and distribution together in order to leverage the next generation of technology, which is 5G and other technologies. So that's -- so you need to put that last piece in a much broader transformation that is ongoing in the company, starting already 2017 with the network transformation and the Intelligent Edge Network.

**John Hodulik** - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Got you. So there's a more sort of customer-centric or customer-focused organization. Will that lead to more bundling of, I'd say, wireline and wireless?
**Hans Vestberg - Verizon Communications Inc. - CEO**

I think we will attend our customers even better. We will have a large network re connectivity. We can offer our customers all types of connectivity from 2G to 3G to 4G to 5G to fiber and the copper. And then on top of that, we have products that actually can be offered to all these customer groups, depends on what they need to have. So we get a much more scale of economy, clearly articulated how we focus on the customer and how we can interact with the customer. So yes, we see this as a good opportunity to leverage our best asset, but also how to get the best to our customers.

**John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst**

Okay. And on the other side, are you concerned that splitting wireless into 2 segments, both the business side and consumer side, could create some more confusion, especially for investors? I mean, obviously, it’s a big company. But does it create any sort of confusion that you’d think we may have to wrestle with?

**Hans Vestberg - Verizon Communications Inc. - CEO**

No. We should not make any confusion for our investors. First of all, I mean, we will move into this model in the first quarter. In the second quarter, we will start reporting in the Verizon consumer group and the Verizon business group. However, we will keep the wireless matrix intact so you can continue to follow us. And of course, as we have -- we always come with new type of metrics, but in general, we will keep that so you can follow net adds and all of that. So we will -- Matt and team, our CFO, are working really hard to see that we’re going to get a good and very transparent work for Verizon as we’ve always done, but we’re also going to reflect the customer dimension that we haven’t done before to see that some of our customers are very important to us and we actually sell the full portfolio to them.

**John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst**

Got you. Now let’s talk about 5G. When we been together in the past, you’ve talked about, really, 4 business cases for 5G deployment: residential broadband, market share growth in mobile and an increased TAM business segment and lower costs. So let’s talk about each one of those and maybe start with the residential broadband market. First of all, who is the target customer for this residential broadband service?

**Hans Vestberg - Verizon Communications Inc. - CEO**

You just need to spin back a little bit so you’ll remember. When we talk about 5G, it’s one network. It’s the same equipment all the way. The difference with 5G are multiple use cases on 5G compared to previous technologies. And that’s why 5G Home is one of the use cases. So 5G Home, as we call it, launched on 1st of October in 4 cities. It’s addressing, of course, broadband at home. We are guaranteeing minimum 300 megabits per second. We see speeds coming up to 800, 900, but we’re guaranteeing 300. It’s a totally different way to doing broadband, meaning, instead of having a cord into the house, you have a wireless wave into the house, but the experience is the same in the house. And I think that’s a big opportunity for us. We have one footprint of Home, and that’s the Northeast where we have our Fios footprint. For the rest of the country, we don’t have it. So of course, we see that as an opportunity. We have been onto this for almost 1.5 years, starting with technology, then working with the installation of technology, then in the home and then the experience for the customers. So we have worked the full chain with new technology, new spectrum, new CPs and all of that during 1.5 years, and we are really happy with that progress. And more importantly, we have gained experience that no one else in the world have. We’re clearly #1. And I have to say, we are in the U.S. right now, but if we would be outside U.S., the majority of the world will not have a fiber-to-the-home. The majority of the deployment will be wireless-to-the-home in the world. There’s few places in the world where they’re putting in fiber-to-the-homes in the world right now. So here, it might be a little bit different because we have so strong many players in the home. But outside, it would be very natural.
**John Hodulik** - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

So how do you expect to sell the services? Are they going to go mostly through your existing footprint of Verizon wireless stores? And are you targeting, this is my early question, are you targeting the sort of the wireless-only user? Or is it sort of the broader [user]?

**Hans Vestberg** - Verizon Communications Inc. - CEO

It’s a broader -- it’s the same technology. The same -- now we’ll get a little bit techy. The same radio-base station that’s going to give you 5G mobility will give you 5G Home as well in the same area. So of course, it depends where we are building out. We’re going to have that 5G Home and in the pace we’re doing it. So we’re going to see new customers coming in. We’re going to see our existing customer bundling and all of that. So we are still in the beginning of it. And of course, we started the launch in the first 4 cities on our proprietary technology 5G, and as soon as the NR technology comes, which is the global standard, we’re going to just roll over to that and continue to roll out. But it’s not only for fixed wireless access or 5G Home. It’s for mobility at the same time.

**John Hodulik** - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Right. So are there early lessons -- you talked about the 4 cities, but things like -- you talked about the throughput already, but maybe ease of installation, usage?

**Hans Vestberg** - Verizon Communications Inc. - CEO

Yes, yes, a lot of learnings. I mean, we are cutting the lead times of installations in the home already quite dramatically. Things like that you’ll learn constantly when you’re out with customers every day. You’ll learn how to place the CPs and the antennas. And also, while -- when you have enough data, you can do that sort of automatically. So of course, we learn a lot of things out in the field right now, as anyone would do if they start with a new technology. And -- but we’re encouraged in what we have seen.

**John Hodulik** - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

And (inaudible) the sort of bigger assumptions where, and from a technology standpoint, it was 2,000-foot radius, non-line of sight. Are those assumptions still holding up as you go along?

**Hans Vestberg** - Verizon Communications Inc. - CEO

Yes. There -- same things holding up. We see better throughput in some places, a little bit less in others. But in general, everything we had as base facts when we started is holding.

**John Hodulik** - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Got you. Now you got out there a target for 30 million addressable homes and 20% penetration. How should we expect that to sort of ramp up over time? I mean, it’s obviously small. You talked about using nonstandard equipment and waiting for the NR. How do you expect the ramp to look?
Hans Vestberg - Verizon Communications Inc. - CEO

I think that if you look at -- on the market of chipsets, which you can follow externally, of course, you realize that the 5G chipsets will come middle of the next year, end of last part of '19. So of course, this is coming more into 2020, late '19, 2021. But you need to learn a lot of things to be prepared for it, and that's what we are prepared right now in order to be able to ramp this as quick as we can, as soon as the ecosystem is ready.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Got you. And then, again, one of the things I thought I'd just mention was the 30 million target homes. I assume that is using the millimeter wave spectrum and the 28 gigs that you guys are currently rolling out. I mean, how big could that number get? Is that the end state? Or if you fold in some lower band spectrum, which we'll get to, can that number grow over time?

Hans Vestberg - Verizon Communications Inc. - CEO

That was a statement we made in the fourth quarter of 2017. That was the ambition early on and we stay with that. And we take it day by day and see that we get there, but there's no other numbers right now we are striving for externally.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Okay. And the ramp that you just talked about in terms of really -- with the NR equipment in 2020, any other thing that needs to happen in terms of like the sale process, the systems? I mean, rolling out any new service, especially for a company of your size, usually requires some investment on the digital side.

Hans Vestberg - Verizon Communications Inc. - CEO

You think about -- you do a full resource and capital allocation all the way from equipment to CP to distribution, marketing. So that's what you do. And of course, there are pieces and products there. But as you have seen in the first phase of 5G Home, we are partnering with many other things on the front end. Like, in the first initial markets, we now have YouTube TV as a TV solution or the [T-solution], and we have Apple TV as a TV solution. So it depends on also how you do it when it comes to investment and partnering. We think that the strength we have as a network is the distribution and the brand, and then we partner where we feel that others are better on it. And we do that in a great partnership, in a strategic partnership.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Great. Now let's turn to the mobile opportunity where it relates to 5G, and I -- we talked about sort of market share gains and potentially growing the actual market. Maybe, first, from sort of level side standpoint, what are the benefits that the average user is going to see as they migrate from a 4G handset to 5G handset?

Hans Vestberg - Verizon Communications Inc. - CEO

So there's quite a lot. I mean, the speed and throughputs will be enormous or much. And I think that -- I feel a "dejà vu" sitting here when you asked the question. I was also in the fire on 4G. So why do we need 4G? 3G seems to be working well for us. So why should we ever upgrade? And in the whole investment community, "We don't need 4G. 3G is enough." Everybody can make a call. We see it 5 years from now, you're going to ask, "Wow, why do we need to 6G now? 5G is so fantastic." So there's no electronic product in the world that is so widely spread in history. It's 3.5 billion people having a smartphone. Of course, there's going to be innovation when it comes to more speed and throughput in the phone. There are more...
developers that were ever seen on this earth that’s going to innovate. So I have stopped saying, what is the killer application because I failed on 2G, 3G and 4G. And what I learned was the ecosystem of the mobile technology is unheard of. There's no other technology that ever had such an ecosystem and so many investors in it. We're going to do some of it ourselves, but it's going to be an ecosystem that's going to see the benefits of throughput, the speed, the latency, et cetera, and they're going to innovate new things that we didn't think of. And maybe we’re too glued to the smartphone, there might be other things as well. A device that’s -- recognize as something else. Who knows.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Got you. So where -- how do you think that the company is positioned to sort of take market share in this game? And you know what, let's start with a recent announcement. You just announced -- you made an announcement with Samsung for a new device.

Hans Vestberg - Verizon Communications Inc. - CEO

Yesterday. Timely for the UBS conference.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Exactly, yes. Perfect for the conference. I appreciate that. That's great. And I think it goes along with the Motorola deal that you also have. So you have 2 devices.

Hans Vestberg - Verizon Communications Inc. - CEO

Slider, yes.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Maybe talk about the importance of -- and maybe differences between both of those deals. I mean, I think -- obviously, given their market share, Samsung, let's say, that's a potentially huge deal. And is it an exclusive deal? And what does it mean in terms of your ability to take share?

Hans Vestberg - Verizon Communications Inc. - CEO

I think the Motorola is a slider -- early on, come in. Of course, they have a great -- made a great innovation, so of course we're working exclusively with them. The Samsung, we just announced. We're going to have some sort of exclusivity. We will not disclose it right now. And what we have said, it's going to be the first half. What is great with that, it's an iconic phone coming out on 5G. And then everybody said it's going to take 2020, 2022, Verizon will have one in the first half of 2019. So we're encouraged of our partnerships. And again, I think it comes back to our network, our distribution and our focus on that. And that's where we can bring in those partners like the Samsungs, et cetera, be very early on. So we're happy for that and we're glad for that announcement.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

And then obviously, that -- and I guess it goes without saying, but that, that phone would see the 28 gigahertz you guys are deploying right now for 5G? Great. And so we calculate -- as we look back when the market evolved from 3G to 4G, and especially the 4G iPhone came out, Verizon was
the best prepared. We all remember the maps that were basically in every commercial. You guys had to best map. First of all, is the -- are those map days coming back? Or a year from now, we're all going to be looking at who's got the biggest 5G map. And we calculate the 700 basis point change in gross add share that Verizon recognized in moving from 3G to 4G. What are we looking at for -- the move from 4G to 5G?

Hans Vestberg - Verizon Communications Inc. - CEO

I will not make any forward-looking statements here, and I will not reveal our marketing plans neither. But you're right. I mean, there is an opportunity from early on in technology, and that's not talking only about the U.S. market. Any market in the world going from 2G to 3G, 3G to 4G is the moment where you can actually gain some market share. It's a little bit harder when the technology is mature. So of course -- but 5G is going to roll out a little bit different than 4G as well. So you need to have that in mind. But of course, we always have high ambitions, but we are not articulating any targets or something like that externally. But we have high ambitions. We want to be early on. We think that's important for our competence. It's important for our technology. And it's [damn] important for our customers to know that if they're going to be with us, they're going to always be on the bleeding edge. They're going to have the latest technology. So everything plays together for us. We're driving the ecosystem. I mean, 2 years ago or 3 years ago, we're sitting in this chair -- well, not in this exact chair, but almost. I was saying that 5G will be in 2020. And what happened is that Verizon pushed the whole ecosystem in the world, so we now have a debate why it's not coming earlier. And now we're in -- end of 2018, we're already launched. We will come in 2019. So we have actually accelerated the whole 5G 2 years. So then you understand how important this is for us. And we will continue. I have a great engineering team that is thinking about this every day. I spend a lot of time on it, and I have spent a lot of time because it's important for Verizon.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Right. Now aside from the market share gains, we've talked about potentially -- the potential to price 5G service different from 4G. Could you comment on that? Is there a --

Hans Vestberg - Verizon Communications Inc. - CEO

I'll make a general statement, that you have seen 3 things on every technology shift. You have seen, one, potential of market share gain in the beginning; the second is the TAM increasing between technologies; and then a cost advantage as the cost is going down with new technologies. I'm not saying that's going to happen with 5G, but that has been historically what has happened between the jumps with 3G to 4G. We are fully committed to deploying 5G as early as possible and see if we can get any of those gains. But it's nothing that we have committed to or said, but that's how it had looked historically.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Okay. Maybe we can touch on spectrum before we leave this sort of the mobile side.

Hans Vestberg - Verizon Communications Inc. - CEO

Spectrum, what's that?

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Yes. We have to go there. Currently, you're deploying 5G at 28 gigahertz and 400 megahertz channels.
Hans Vestberg - Verizon Communications Inc. - CEO

28 and 39.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

28 and 39. You’re deploying 39 as well? I know you have a bunch of 39 and that was part of the -- okay.

Hans Vestberg - Verizon Communications Inc. - CEO

Yes. We have a quite a lot.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Okay. And will the -- actually, will the new Samsung receive 39 as well?

Sunil Rajgopal - HSBC, Research Division - Analyst

I wouldn’t answer that one.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Okay. Okay, got you. So how does this evolve over time? I mean, obviously, I mean, the propagation of millimeter wave spectrum is not sort of what we’re used to in terms of coverage standpoint for a mobile standpoint.

Hans Vestberg - Verizon Communications Inc. - CEO

It's shorter range.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Right. Right, exactly.

Hans Vestberg - Verizon Communications Inc. - CEO

Enormous throughput, shorter range.
John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

So how will 5G sort of roll out across the different spectrum bands that you guys control? And what does Release 16 do in terms of your ability to effectively use those?

Hans Vestberg - Verizon Communications Inc. - CEO

If you fast-forward a couple of years out, 5G is going to be an old spectrum, as with the 4G being older spectrum. So 5G is going to be an old spectrum. The difference is that if you have a high spectrum with a broad megahertz, which you have high up, then you can get enormous throughputs and get sort of all the characteristics of 5G. That doesn't mean you that cannot do it on a very low frequency as well, but you're going to get limited and very little improvement compared to 4G. Still, you want to have it on all the spectrums. So that's how we go fast forward. In Release 16, what you are alluding to, it's also -- right now you need to allocate a spectrum to a 5G phone or a 4G phone. 20% go to the 5G phones and 80% -- you hard code it in the system. By Release 16, you have an instant allocation in between it. So it does not matter if you have a 4G or 5G phone in the spectrum. You get maximum utilization through it.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

So it dynamically changes.

Hans Vestberg - Verizon Communications Inc. - CEO

It's dynamically changing. So there's so many features coming. And I usually say, in the beginning on 4G, I didn't even know what carrier aggregation was. Right now, we're doing 6 frequencies put together in 4G. And instead we have 6 different lanes where the data is going, now we have 1 lane combined of 6 frequencies. I mean, the efficiency of how you treat data is enormous. Of course, you're going to see a lot of improvement on 5G over time as well. We're in the beginning. So I -- and on top of that, what we have said before, right now we use of our mid-band spectrum or our spectrum base, where 50% is use of 4G. So we still have a lot of spectrum there. So we have a nice pool of spectrum that we are actually working with based on our strategy. Others might have other strategies based on their assets.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Got you. And how does this new technology change your need for incremental spectrum? We -- I hear from investors a lot, your spectrum position versus some of your competitors, especially for your [just first] subscribers, there is -- obviously, we have the millimeter wave stuff that you can't really talk about. But if you look further down the road, we've got C-band and CBRS. And just -- does this alleviate your need for more spectrum or does it lessen the need? Or how should we think about the spectrum inventory over the next several years?

Hans Vestberg - Verizon Communications Inc. - CEO

I think I've said it so many times. So we think about data going through the network. And then you think about how do you solve for that? One solution is adding more spectrum. Another is densify your network. The third one is adding new software features like instant allocation or carrier aggregation and things like that. In every moment, the engineers of Verizon are sitting down and saying, what is the best return on investment for us? And the best example is, of course, the AWS-3 auction Verizon did not participate as aggressively because the engineers said that, “Hey, let's densify as well -- instead because that's the a better outcome for us.” And clearly, strategically, right now, when we have densified the dense urban areas coming in millimeter wave, in many cases, we have already all the sites we need in dense urban areas to deploy our millimeter wave. If we hadn't taken that strategy, we need to densify first and then add the site. So again, it's not about one piece when you do engineering on network. And I have learned that the hard way in Verizon with the great engineers we have. Every decision, every -- it's so disciplined. And it could be down
to the state, the county. We think about this when we do it. And we will continue to do that in the future. CBRS, we are already trialing out. We will look into this every time it comes up, spectrum or whatever we’re doing.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Okay. And lastly on mobile, there's the perception that we've seen some convergence in terms of network quality in United States with the 4 carriers. If you go back 5-plus years, that wasn’t really the case. The spread was much wider and it seemed to have narrowed partly because we're all using...

Hans Vestberg - Verizon Communications Inc. - CEO

I haven't seen that narrowing, but continue.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Okay, okay. Just bear with me.

Hans Vestberg - Verizon Communications Inc. - CEO

I see all of the RootMetrics, all that. We still are winning basically on all of them. So I'm not sure what you have seen, but okay. Let's just go. Let's move on.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Right. Okay, okay. Let's just go for argument's sake because we're using the same technology. We're on LTE. You guys were CDMA. There is EVDO versus HSPA+. And so, we're also on the same 5G in our...

Hans Vestberg - Verizon Communications Inc. - CEO

Not all those, I mean...

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Do you believe that we're -- that spread is sort of broadening out as we look into 5G and what you guys doing with C-RAN and all the new technology that brought you (inaudible)?

Hans Vestberg - Verizon Communications Inc. - CEO

One typical question I get a lot. So why are you not doing like them or them? Well, I understand that it was a pivot in the market somewhere 2010, 2011, where basically, the network were providing so many opportunities. You can actually go into different type of business mobile as a carrier. I mean, remember where I worked before. I had worked with all carriers in the world. I had no segmentation model. Everyone buys the same. So why should I segment that? Something happened in 2010 and 2011. Because some of them, you can go into health care as a carrier, you can go into IoT. And of course, that meant that there were many different strategies taken. And there were no unique way or every carrier doing the same.
That's what you want to see in 5G as well. I think we are uniquely positioned with the network with the distribution to all customer groups that benefits from use cases, so we're basically going to play in all fields. I don't think that all carriers in the world want to do that. Some carriers in the world are only having consumers, so they're going to build a network only doing 5G consumers. And some others are -- might be extremely good at doing private 5G network for enterprise. So I think, we're going to see more differences how carriers are doing it. We believe in our strategy and we execute on that with the strong assets we have. So yes, you're going to see differentiation going forward, but the network quality and performance, still, is going to be extremely important.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Got you. Moving on to the third business -- sorry, business case for 5G. Could you talk a little bit about how --

Hans Vestberg - Verizon Communications Inc. - CEO

We're still on 5G?

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

We are still -- we're going to be on 5G a long time.

Hans Vestberg - Verizon Communications Inc. - CEO

Okay.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Could you talk about 5G differentiates Verizon in the business market? We've talked about consumer market, now maybe in the business market.

Hans Vestberg - Verizon Communications Inc. - CEO

Yes. Okay. It's going to load some energy here. Okay. Yes, so we talked about the 5G Home and its opportunity. We talked about 5G mobility, and I'll talk about 5G enterprise. Some of the use cases when 5G was designed was enormous throughput, latency, 1 million connected devices per square kilometer on 5G. 1 million. Today, you can do 1,000 on 4G. Many of these use cases was done for enterprises and our society will be transformed. It will require that you will have a mobile edge compute, where you can do the computation. So of course, enterprises can transform their businesses by using these use cases. Instead of having a corded manufacturing floor or something like that or a retail store or something like that, you're going to have quicker access to data, taking quicker decisions, and you can take away a lot of the things. And so that comes in Release 16, the next generation of 5G coming in middle of next year. So that's a little bit further out, but you need to plan now. You need to design the network right now. You need to work with the partners, the large enterprises, what do they need in 5G, and that we're doing. So that's another use case. Remember, the same network, the same Intelligent Edge Network with the same radio base station. It's not another network.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

So will -- the services that you can provide business, will it cannibalize the existing services that they typically get from a wireline provider?
Hans Vestberg - Verizon Communications Inc. - CEO

Yes. So remember, mainly, we -- today in the enterprise world, there's a lot of connectivity we do in some applications. But in the case here, you're going to transform existing processes that we never have touched before. So in some cases, we need partners as well. I mean, we don't have all those applications. But again, I think we have the connectivity. We have the mobile edge compute platform, and we can have partners to address that for enterprises. So we're working with that use case -- those use cases as well, as we speak right now, but again, that's coming in Release 16, so it's in the latter part of '19 you can do something. And of course, that then goes into 2021. What's important is that if you don't do it right now, if you don't design the network today, you will not be able to do it.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Right. You have the network and now you have the infrastructure with the reorganization.

Hans Vestberg - Verizon Communications Inc. - CEO

Yes.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Can you talk about the -- I've heard you say -- talk about mobile edge computing quite a bit. So can you give us an example of sort of the importance of mobile edge computing as we look at the business market? I mean, what would businesses be able to then with this?

Hans Vestberg - Verizon Communications Inc. - CEO

I will give you some example, but again, if you work with the best enterprise companies, they will tell you what problem you have and then we'll come up with a solution, basically. But just think about video cameras. Today, video cameras in the (inaudible) there's a lot of video cameras. There's a lot of CPU and GPU in the camera today. All that can be moved into the mobile edge and you can basically take down the cost of the camera, I'm not sure, 10x, 20x because you need so a little computing and GPU in the camera. You put the rest in the network. So it's all about transformation of things we're doing today, where we can use the technology. And of course, then the private 5G network is a possibility then. You'll make that secluded for a certain area, a campus or something. So that are some use cases. But again, you need to do this together with your customers. You need to sit down, explain how will you design a network, what type of use case do you see, and then the customer need to comment, this is the problem we have. Can we solve this? And that's what my enterprise team is doing today, going around, talking to the largest enterprises in this country to see how we can do business better together.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Got you. And then lastly, last business case, better cost structure. First of all, is this -- so how should we think of this sort of better cost structure that 5G provides? Is it -- because you're clearly going to be deploying more infrastructure and infrastructure is generally costly. So is it just a function of pumping more bits through larger swaps of spectrum? I mean, are you looking at it on a per-bit basis? Or -- and maybe what else do you need to do for the rest of the network to make sure you get those cost benefits of the 5G edge?
Hans Vestberg - Verizon Communications Inc. - CEO

Yes. The per bit will come down. I mean, every technology is smarter to handle data. There’s no difference with 5G. I think one of the bigger differences is with 5G is that you have multiple use cases for it compared to previous technology. So I think -- and both those together means that you can, I'm not sure if sweat the asset is the best expression here, but sort of you can get more out of the asset because you can do as much more with it. So that will, of course, bring down the cost. And in our case, as you have distribution to all these customers already, which is usually the biggest cost and most difficult to get, and we have the network, that’s the best we can have in order to address our customers and both get in advance of the cost, but also being able to bring new services to our customers.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

So it’s not just the edges. Are you doing -- making changes to the core and making changes...

Hans Vestberg - Verizon Communications Inc. - CEO

Yes. So then you go back to my transformation again. I remember the first phase for network transformation. In the network transformation was several pieces. One was, of course, the new structure and architecture, which Intelligent Edge Network. The other was that when you go to that, you get a totally different way of procuring. From having 4 transport networks, you have 1 unified transport network. To having multiple routers, you have multi-edge routers that is handling everything. From having several core networks, you have 1 virtualized core network for everything you’re doing. So you have -- also, in savings in the whole sort of transformation on the network. And as we have seen up to third quarter, is much of the things you have done so far this year, it’s coming out from the CapEx efficiency we’re doing in the transformation to the Intelligent Edge Network. But that was part of the overall transformation that we’re doing in order to be even better prepared and proactive for the next wave of technology.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Got you. And you've deployed thousands of C-RAN hubs throughout the network at this point. There's more to come. I mean, how does that improve the overall efficiency of the wireless network?

Hans Vestberg - Verizon Communications Inc. - CEO

What you're doing is basically, historically, the radio network and the network as such, as a carrier, has -- is the last sort of piece that's going to be virtualized. We started with the private clouds, everything, where you have your picture. Everything has already been -- then you start -- went to the enterprise, whatever enterprise solutions you have. That's going to be virtualized or it is virtualized. And then you go to the network, and the network is now getting virtualized. And that's what you're talking about, the C-RAN apps. Basically, these connects the hardware and the software. Of course, there's a lot of savings in that, but it's not only that. It's actually from a service point of view. If you're going to get certain services, you need to make that virtualization of the network. And that have been ongoing for quite a while inside Verizon. So -- and there’s also savings in that. And that's also what you need to do if you're going to do a mobile edge compute. You need to have a virtualized network at the edge.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

So wrapping that all together, is the 5G wireless markets are inherently a higher-margin opportunity than what we've seen from 4G and 3G? I mean, how does that translate into sort of profitability of the -- what we think of today as the wireless business?
Hans Vestberg  -  Verizon Communications Inc.  -  CEO

(inaudible) there. No, I think that -- again, we invest in the fundamentals. We believe in new technologies. We have the distribution. We have always high ambitions internally. We are not articulated anything externally in this front, but gosh, we have been onto this for quite a while in the whole organization, and we will continue to hammer it on every day. And we think it's a good opportunity for us, both for the asset point of view, but also for the new technology front.

John Hodulik  -  UBS Investment Bank, Research Division  -  MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Great. Now let's shift to some of the fundamentals, if we could.

Hans Vestberg  -  Verizon Communications Inc.  -  CEO

I thought that was fundamental.

John Hodulik  -  UBS Investment Bank, Research Division  -  MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

That's a little bit longer-term fundamentals, but maybe a little bit closer to home.

Hans Vestberg  -  Verizon Communications Inc.  -  CEO

Closer to home is Sweden.

John Hodulik  -  UBS Investment Bank, Research Division  -  MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Right. So it's not that close, not that close. We're talking about your new home here, your new home. What are your expectations for a continued service revenue growth acceleration? You guys have gone through the trough, seen that inflection back to growth. Can we still expect acceleration as we look ahead?

Hans Vestberg  -  Verizon Communications Inc.  -  CEO

I can only reflect what I have seen in the company up to the third quarter. I think I came in the same quarter as Unlimited was launched on the wireless side. I have to say, the wireless team has done a great job. I mean, from that moment they have been proactive. They have been adding services. They have been -- targeted sort of different segments of the market, and by that, have been doing well up to the third quarter. I think the team is very focused on leading this market and I'm pushing them. In order to be a leader, we need to act like a leader. I think they've done that so far up to the third quarter. Nothing else to say.

John Hodulik  -  UBS Investment Bank, Research Division  -  MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

All right, maybe we'll try a different tactic. Maybe...
Hans Vestberg - Verizon Communications Inc. - CEO

Yes, another angle.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Maybe just talk about ARPU growth. Obviously, you've seen some improving trends there. AT&T and Sprint recently raised prices and fees. Verizon has not. How is the pricing environment -- I mean, maybe the overall competitive environment? And do you think that there's room, even before we get to 5G, to move pricing up?

Hans Vestberg - Verizon Communications Inc. - CEO

First of all, I mean, I think, that if you're in the business and sit there every day, if you would talk to Ronan, it's a very competitive market every day. So it might be that you're feeling it, but we feel of course, it's a competitive market there.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

It seems like that's more on the device side these days, less on the service side.

Hans Vestberg - Verizon Communications Inc. - CEO

I think we see it all of time. And of course, if you want to lead and be proactive, you need to compete every day, in every market, in every store. And I think they're doing it. I think that they have been very focused on the customers and the way we're dealing with customers, both with new type of services, et cetera. I think they will continue to be focused on that. Up to the third quarter we have not been working with price plans, increasing prices. Of course, our Unlimited has got different type of flavors since we started. I think the team is working with that to see that we're actually doing the mix-and-match, as it's called, for our customers so they can select what is best for them. And we will continue to do that. We think that is a good recipe. And Ronan Dunne and his team is very dedicated to this.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Can you give us a sense -- I mean, we look at the promotions pretty closely. And what you saw, maybe on Black Friday, what is -- how does it, say, compared to what you saw last year in terms of the promotions around the new services?

Hans Vestberg - Verizon Communications Inc. - CEO

It's a good question and I wish I could answer. Well, it's a little bit early to tell you about Black Friday. So -- but it's a good question. I would ask it myself. So I'm waiting for the answer.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Okay. I got you. Maybe talk about -- the upgrades have obviously been light for the industry. And there's, actually, interest for the new iPhones have come down. First of all, how does this affect your business in terms of what we should expect for both churn and for margins? Are these --
these are generally thought of as -- certainly in the old subsidized world, those are very good things for the business model. In the new world of installments, is that still a good -- a positive for the...

Hans Vestberg - Verizon Communications Inc. - CEO

Look, so third quarter -- last quarter, of course, was a fairly normal pattern. I mean, even though -- of course, it's more people in this country having the latest and the latest, and that's how it works. But we still see people wanting to change handsets and all of that, and that's what we saw up to third quarter. I think our -- share on management is still very, very good. So we both are making that the same as the churn. And it's a balance between them, both of them, to see how they can grow; at the same time, seeing that your customers stay with you. So it's a balance of that. And I think that the team has done that well up to the third quarter. Whatever happens after that, we're going to report in the beginning of next year.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Okay. Two more things on the fundamentals. First, we had Randall here this morning. FirstNet is a big part of that story, but from a network standpoint, and potentially, in customer acquisitions. Do you guys feel you have exposure to sort of the FirstNet community potentially switching carriers?

Hans Vestberg - Verizon Communications Inc. - CEO

When it comes to the public sector, I think Verizon has a really good position. We have had for a long time served this community, we think, it's a very important community because they demand the absolute best on the network, the absolutely best quality. And that's what we have been standing up for years and years with these customers. We will continue to do that. So our team working with the public safety area are dedicated. They have all the support from us and they will continue to do so. So I feel encouraged about what we have done so far. That doesn't mean we're resting and taking it easy. We are just seeing that we can actually meet the demands of a very demanding segment of our customers. And as what you have seen the last -- I mean, since I came to U.S., I'm not sure how many natural disasters I have seen. It's just unheard of. Every quarter, there's a Michael or whatever they call. It's huge impact. One of the most important things you have in the public safety is the network is working because without communication you cannot fight. So this is a growing importance for us. We have been there for a long time and we will continue to be there.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Got you. And maybe last on the wireless fundamentals, we had Comcast in here earlier. We had Charter in here yesterday. Obviously, a lot of increasing focus on the wireless market. I understand they have a good network that they're reselling. And...

Hans Vestberg - Verizon Communications Inc. - CEO

Have you heard them really say that?

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

They did. They all said we have the best network, which is some free advertising for you.
Hans Vestberg - Verizon Communications Inc. - CEO
Yes. I like that.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst
Is that impacting your business, I mean, from a retail standpoint? I mean, obviously, you're getting -- you're picking up on some of that on the wholesale side. But how do you see that impacting the overall wireless market?

Hans Vestberg - Verizon Communications Inc. - CEO
No, we -- first of all, we were happy with the relationship we have with these guys, and we're happy they are using our network. And if you remember what I said in the beginning, network-as-a-service means that we use as much as you can. If we can have these companies using our network as well, it's happy. We're happy for that and we have a good relationship.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst
But you don't see it impacting either your ability to price in the market or subscriber growth or market share?

Hans Vestberg - Verizon Communications Inc. - CEO
It's a competitive market. Everybody is going to compete. But so far, I think it's a good balance for us. We are happy with the relationship.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst
Okay. Maybe on the wireline, I got -- I have 2 gratuitous sort of wireline questions for you. You do still have a wireline business.

Hans Vestberg - Verizon Communications Inc. - CEO
Which consists of a lot of important customers.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst
Yes, lot of important customers, both on the business side and consumer side. As far as wireline is concerned, we talked a lot about the $10 billion in savings, how much of that will we see in wireless versus wireline? And margins have obviously been an issue on the wireline side. Should we think of the wireline segment as sort of a 20% EBITDA business going forward? Or how should we think of the profitability over that business?

Hans Vestberg - Verizon Communications Inc. - CEO
For the wireline business, as I said, up to the third quarter, and we have said in all previous quarters, we are in sector decline in the core business in the wireline business, which is, of course, hard to manage from a cost point of view. But we work with everything. We tried to find new growth areas, at the same time, we're reducing costs. And again, if you go back to my start, with my network transformation, that should benefit it as well.
And you go back to the second piece, which is the process transformation, where the voluntary programs, we have IT outsourcing, all of that is coming into all our businesses and now we're doing the business transformation. All of those will of course also be benefiting for wireline business. But again, the overall sector is in decline. We're doing work in both -- with the growth side of it, and we'll work with the cost side of it. And we do that proactively. That's where we are and we will continue to do so. But remember, in there, we have enterprise customers, small and medium customers. We have government customers. We have IoT customers. All of them are very important in the future of the -- sort of our strategy in order to leverage our best assets - the network, the distribution and the brand.

**John Hodulik** - *UBS Investment Bank, Research Division* - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

And the $10 billion bogey, how far along are we in terms of getting to that number? And if you could provide a little color in terms of what bucket -- what are the buckets and sort of which have you attacked earlier and which ones are still coming?

**Hans Vestberg** - *Verizon Communications Inc.* - CEO

The early ones came of course from the network transformation because that kickstarted the whole idea, and that's where you see the CapEx savings and other parts from the network being part of that savings. I think we're on plan for the $10 billion cumulative over the 4 years. So we're on par for that. Up to third quarter, we had saved $1.3 billion. So we are on good track on that. We have lot of initiatives. It's always hard. I mean, it's hard to do a transformation when you're coming from a strong position, I mean. But I think we have a good adaptation with that -- when we think about what we call the Verizon 2.0, which we're into right now, which is basically taking the best of today to bring tomorrow. I think we have a good adaptation and a team for that. And so we will continue to hammer that, and it's going to benefit ourselves, our shareholders, our customers and everyone involved.

**John Hodulik** - *UBS Investment Bank, Research Division* - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Now you guys have outperformed in terms of the CapEx budget for 2018 coming in at the low end of the range. Maybe talk a little bit about what sort of drove that benefit that you saw this year. And then as we talked about 5G, you said that you could go faster if you liked what you saw. Is that a kind of -- is that a decision that you’re making now for ‘19, or is that something we should think of a decision that you would make in ‘19 for ‘20? Or how do you sort of gauge the speed that you go in 5G?

**Hans Vestberg** - *Verizon Communications Inc.* - CEO

So when it comes to CapEx 2019, we had the guidance from $17 billion to $17.8 billion, I believe. We brought that down to $16.6 billion to $17 billion. The most important comment I make here is that we're doing everything we planned to do from the beginning. There's no reduction or anything we have stopped. We have just been more efficient. In the first bucket I talked about, the network transformation, we did not only change the whole network, we also changed the whole capital allocation process. And remember what I said, 1 unified network, unified transport, multi-edge routers, all of that is coming into play when we're actually doing in savings. So very important. What I've said about 5G is that we're doing everything we can today on 5G, all the way from the transport to the fiber to whatever we can do. I couldn't even speed it up if I asked my team to do it. We're doing maximum. When it comes to 2019, we will come back to that in the beginning of next year and do our guidance, as we always do in the first -- beginning of the year. And Matt will give you all the readout on that. But we have done a good job so far this year on CapEx.

**John Hodulik** - *UBS Investment Bank, Research Division* - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Great. And as my last question...
Hans Vestberg - Verizon Communications Inc. - CEO

Your last question?

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Last question.

Hans Vestberg - Verizon Communications Inc. - CEO

I thought it was already time up.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

I know, but I've got one more for you.

Hans Vestberg - Verizon Communications Inc. - CEO

Okay.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

We've got a lot of companies talking at the conference here that have done large deals. Some of them transformational, some of them in nature is more around content. Talk more about your M&A strategy at the helm here of Verizon and your set of assets and how you feel your position going forward. I know in the past, previous leadership has looked at content. How are you positioned to sort of navigate the future as you look out over the next couple of years?

Hans Vestberg - Verizon Communications Inc. - CEO

I have no M&A strategy to be honest. I have a strategy of Verizon. And if it's needed to add in things, we're going to do that based on strategy. Your particular question is going back to linear TV, and there I have been very honest, I don't see us playing in that field. So we have our strategy to execute on that. That doesn't mean we can't acquire something. I think one of the most brilliant acquisitions was Straight Path, which was in May 2017, which was the millimeter wave adding into our 5G capabilities. So I think that the question has been much surrounding media and linear. Our strategy is not being in that area. Content still is going to be important. We have Verizon Media Group in Oath, where we have digital media for mobility. But linear TV, we have been very clear on -- that we're not looking into.

John Hodulik - UBS Investment Bank, Research Division - MD, Sector Head of the United States Communications Group, and Telco and Pay TV Analyst

Okay. Hans, thanks for your time today, and thank you all for coming.
Hans Vestberg - Verizon Communications Inc. - CEO

Thank you.