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# EDITED TRANSCRIPT

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## PRESENTATION

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

Thank you, Brady. Hey, everyone. Good morning, everyone, and welcome to Verizon's 2022 Investor Day. I hope you're equally excited as I am to discuss the strategy of Verizon and the power of what we're doing and the updates we want to give you. But personally, it's great to see so many. I met a couple of you outside, and we haven't met for 2 years physically. So great to see you all. I know we have a lot of conversation during the years. Now we're here in person. We can have our conversations out there, can be in the room here. So thank you for coming and being with you -- being with us.

We have a lot to go through today, so I have to kick it off immediately and talking about what we're doing. So today, we're here to talk about a very different Verizon. One that has transformed over the last 3 years and is driving the technology megatrends that are changing how we all work and live. This has and will continue to strengthen our #1 position in all markets where we compete. Our deliberate strategy to optimize our portfolio of assets, make key investments in our networks, change our organization structure and rebranding during the last 3 to 4 years were all guided by our understanding of the transformative technologies and trends that have redefined our market.

We're looking ahead and then doing what we do best, planning and executing a very clear strategy that is delivering today and creating new markets for the future. Verizon has evolved since our inception 21 years ago. And it's even more different today than it was last time we were together. We have thought carefully about which aspects of our business we wanted to preserve, strengthen and transform. We have now all of the assets that we need to execute our strategy as we look to service a significantly larger addressable market than our company has ever seen before.

I have long said that the 21st century infrastructure is mobility, broadband and cloud. As the world continues to transition toward increased connectivity, the telecommunication industry has a vital role to play in building and expanding the critical infrastructure of the 5G economy. We are leading the way in a rapidly advancing digital world. And the demand for fast, reliable connections for both consumers and businesses has never been more apparent and is only accelerating. This enables people, businesses, governments and society to prosper. And no company is better positioned than Verizon to capitalize on this. We have never had so many opportunities in hand, not in theory, but in reality, here and now. Today, we're going to bring you inside our journey and introduce you to the new markets we are creating. We are building on 21 years of proven leadership from the best network to the largest consumer base and an unmatched enterprise and public sector offerings.

The number of touch points where people are accessing our network is growing exponentially as smartphones have given way to a new world of interconnected devices. That's why my executive team and I have confidence that we can give you a financial outlook of substantial growth with our strategy, investments and execution paying off today and setting Verizon up for growth well into the future.

Now I will tell you how we're going to do this. We're describing a vision, a blueprint, a business model and a technology framework all in one. It's a suite of products and services that empower us to deliver optionality to our customers in life and business. It's called Network as a Service, and it's how we expand and deepen our customer relationships, and most importantly, is how we enable the transformative technologies that define our economy today.

When the smartphone was adapted, it changed everything. Today, we're living in a world where the smartphone is just a single entry point into the wider ecosystem of devices. As we look into the future, traditional metrics like net adds alone no longer capture the true scale of how 5G is fundamentally changing how we interact with the technology.

When you consider emerging trends from connected life, hybrid work, digitization, digital inclusion, responsible business, we have an unprecedented opportunity to infuse intelligence, maximum flexibility and computing power at the edge throughout our networks and daily lives. Our network is a foundation for how we will go forward. It will underpin and fuel our shared economy, the 5G economy. It will run on and above our multipurpose network and support a number of connectivity solution, devices, new use cases and experiences from variables to Internet of Things and robotics, AR/VR and real-time analytics.

Network as a Service is uniquely positioned as the backbone of a new wave of technology innovation and remains the only service that is both flexible and capable of meeting the ever-evolving demands of customers that are enabling the 5G economy. Our network is virtualized for agility and to open the door to a multitude of business models. It's built for the distributed edge, which is the future of network cloud compute. It's a platform for distribution and allow us to play above connectivity as we build a mobile edge compute, and this is a business solutions in the market.

Our systems are not just automated. They are intelligent and designed to support a personalized and scalable experience as you will hear in announcements today. Our network powers a future-proof strategy built on strong trends in mobility, broadband and cloud. These are all trends that have been with us. And as they have accelerated and grown, we have transformed the company around them.

Over the last 3 years, we have executed on technology, infrastructure expansion, M&A, partnership, digital inclusions efforts to make all of this possible. We have redefined Verizon and created new growth opportunity that's here today and for the next 10 years.

Let me share with you some of the highlights of our journey. In 2018 and 2019, we launched the Verizon Intelligent Edge Network. We implemented a new customer-centric organization and became the first in the world to offer 5G Mobility, 5G Home and mobile edge compute solution in partnership with AWS. In 2020, we introduced nationwide 5G and expanded our mobile edge compute offerings to private networks, which deepen our content offerings through partnership with companies like Disney, Discovery, Apple, Google and many more.

And last year, we divested Verizon Media Group, and we closed our TracFone acquisition and acquired C-Band. And of course, we forged new partnership around that. And this year, we have already expanded the 5G Ultra Wideband and are pioneering new markets for home and business customers. You have been with us for many of these milestone moments. Each represents an important step towards realizing our comprehensive Network as a Service strategy, which is powered by our multipurpose network.

While we have been on this journey, we have consistently been recognized by customers and experts for the quality and reliability of our networks, products and services. This includes being awarded the Highest Network Quality Award by J.D. Power 28 times in a row. Our 5G network is second to none. With 33,000 millimeter wave nodes on air and with our first tranche of C-Band, we are now reaching 30 million-plus households with a fixed wireless access and covering more than 100 million POPs with the 5G Ultra Wideband. And this is just the start, we're just starting with that transformation.

We were also recognized as the most reliable 5G network by RootMetrics in their latest study. We continue to be 5G pioneers and are reaching more customers than ever before. This results in an unmatched industry leadership because we saw the change coming and we prepared for it. And now we are far ahead of our peers and best positioned in the industry to capitalize on the 5G economy. We built the Verizon Intelligent Edge Network because we imagined a world of hyper-connectivity and massive capacity, knowing it would inspire innovation and new use cases. Even with the immense momentum we see today, what has most excited us is that we know that our network design will support use cases that have not even been imagined.

For example, we never realized how well it would support the metaverse. You will hear more about that in a few moments from Rima Qureshi, our Head of Strategy. With all of these assets in place, harnessed by the operational excellence of our team, we are producing financial results that well-reflect the successful execution of our strategy. And today, we have exciting news across our businesses that will help you to understand not just where Verizon is but where we are going.

Today, you will hear several announcements from partnership with meta to new product announcement, and of course, an update on our C-Band deployment. These building blocks are critical to the work Kyle, Tami, Manon and Rima will share, including our ability to consistently deliver financial performance and growth year-over-year.

When we tell you we are going to do something, we do it. While we have been executing our strategy and through our work over the last couple of years, we have been growing wireless service revenue as well as earnings per share. We have increased our dividend for the 15th consecutive year. And our strong cash flows continue to support our disciplined strategy and capital allocation to maintain balance sheet strength. We will continue to manage our debt profile to achieve our deleveraging goals. You will hear later from Matt on how this growth will continue as we are already seeing increasing demand for offerings.

Customer trends from the last 24 months has augmented and accelerated all our Consumer and Business opportunities. And we can take advantage of owner's economics in our mobility, fixed wireless access and mobile edge computing offerings. Not to mention our millimeter wave and C-Band performance, already well ahead of our early expectations. We lead with a strong purpose and have a clear multi-stakeholder strategy. Our responsible business commitments permeate our strategy, for it's only when our customers, shareholders, employees and society all are served that Verizon's business succeeds.

As part of our responsible business initiatives, we're delivering on our core strategy: to promote digital inclusion where we bring connectivity, technology and support to improve the lives of those who need it most. We are proud of our impact our infrastructure build has on urban and rural communities. We continue to invest deeply in STEM education curriculum and student outcomes. And we have signed up more than 40,000 businesses on our Small Business Digital-ready, an online education resource for business owners.

Globally, we work for digital inclusion alongside the World Economic Forum with the EDISON Alliance, where I serve as the Founding Chairman. In support of climate protection, our second part, we have recently issued our fourth \$1 billion green bond and became one of the nation's leading buyers of renewable energy, all on our journey toward a carbon-neutral operation by 2035. And finally, to enhance human prosperity, we have expanded our work preparing people for the jobs of the future with a goal of reskilling 0.5 million people by 2030. And Verizon employees support this vision and have worked more than 1 million volunteer hours since we began tracking voluntarism in 2019.

And the market has noticed our responsible business strategy. This year, JUST Capital ranked Verizon in the top 10 of all public companies in the top in our -- and #1 in our industry for effectively implementing a stakeholder-centric approach to value creation. We are proud not just on what we have accomplished in business, but how we conduct ourselves in the society. This is who we are, and we expressed our identity through a brand that we can be proud to represent and that all of our stakeholders can be proud to associate with.

Verizon's brand is an incredible powerful asset that underpins our business ambitions. Over the last 3 years, we have been deliberate about creating a differentiated, focused and consistent brand, not only through advertising, but in everything our customers see and experience. We have expanded from the core to make Verizon a technology brand rooted in trust and innovation. This transformation is critical to the plan we will discuss today. We are making network matter as a driver of choice in the loyalty in the 5G era. We have built 5G Ultra Wideband, recognized now as the gold standard in 5G quality and performance. And now with our Ultra platform, our positioning continues to lead the market, creating a practical understanding of what 5G network can do with products and plans that give customers more. That's the premium value only Verizon can provide. We are now the most valuable telco brand in the world and 1 of the top 10 strongest tech brands in the country. Our brand is strong to compete today and ready for the next 10 years.

Because we are playing a vital role in the shared future, we already enable multiple aspects of the 5G economy. Our expansion of 5G Ultra Wideband with C-Band increased the speed and device capacity of our network by orders of magnitude, creating a broader market for both consumer and business mobility across all customer segments. And with the fixed wireless access, we'll be able to compete nationwide with traditional broadband. With each accomplishment, we grow Verizon and we grow our market.

When we started Verizon 2.0, we designed our strategy around an addressable market that would almost double within a decade. And today, we see an addressable market that we expect to grow by \$120 billion from now to 2026. Rima will give you some more details on that later on. We choose a strategy where we not only have a much larger market, but also a market where we are in the leading position in every vector. This may represent the use cases that we know about today. I fully expect our addressable market to be even larger when we speak next year as this 5G economy continues to mature and expand.

With one network architecture that supports multiple business cases, our foundation of Network as a Service is the key of enabling the 5 vectors of growth that will drive Verizon's performance as we create new markets that define the 5G economy. Our vectors of growth include: 5G mobility, nationwide broadband, mobile edge compute and business-to-business solutions, the value market, and network monetization.

As you -- as we will show you later, we see a continued acceleration in growth across our 5 vectors as our expanding addressable market has opened new markets across Verizon's platform. The bottom line is that we have a multiyear head start on delivering the full capabilities of the 5G economy. After all the moves we have made over the last couple of years, this Verizon looks very different today than it ever has done before. And as we continue to innovate, we don't believe there is time for anyone else to put together anything remotely comparable.

Now let's discuss how this impact our financial performance. We have high confidence in our financial outlook. We expect to deliver 4% growth in annual service and other revenue growing -- and growing adjusted EBITDA and cash flow along the way. We expect to bring capital intensity below pre-C-Band levels as we complete investment programs in initial C-Band build, One Fiber, Intelligent Edge Network and reducing LTE spending and targeting lower -- we are targeting a capital intensity below 12% by 2024, below 12%. Through our CapEx reduction, business growth, balance sheet management and industry-leading cost structure, we expect to reach our 1.75 to 2x target leverage ratio by 2025. Matt will talk about our capital allocation plans, which includes an update on our share repurchases.

As we work for all our stakeholders, we will continue to lead on our ESG in our industry. We are spending \$3 billion to facilitate digital inclusion by 2025 and targeting achieving carbon-neutral operation by 2035. It's good for the business and the right thing to do. We have taken deliberate steps to construct the foundation needed to achieve our outlook, building an arsenal of high-quality assets underpinned by our Network as a Service strategy has been our plan all along. Today, we couldn't be more proud of our teams for making it all happen. This will produce an even better financial profile for Verizon and our shareholders.

We believe, given today's technology and its direction, our timing and position could not be better. Thank you very much. And now I would like to hand it over to Rima Qureshi, our Chief Strategy Officer, who is both the architect of our strategy and our execution. So please welcome Rima.

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**Rima Qureshi** - Verizon Communications Inc. - Executive VP & Chief Strategy Officer

Thank you, Hans, and good morning, everyone. Our Network as a Service strategy has remained consistent since we introduced it in 2019. It's a future-proof strategy, built on our multipurpose network assets and shaped by the societal and technological trends that Hans highlighted. Our

strategy is to extend our leadership in mobility, capture a disruptive share in the adjacent broadband market and create new business models and ecosystems enabled by 5G and edge computing. This allows Verizon to execute on multiple paths to growth. Our strategic investments and partner ecosystem are the key enablers that accelerate our strategy and amplify our opportunities.

Let's start with the strategic investments. First, we have been investing across the key elements of our network architecture. Kyle will take you through all of them in more detail, but let me highlight a couple. Our ongoing Intelligent Edge Network transformation is already driving significant cost efficiencies. The continued build-out of our One Fiber program is extending our owners' economics to effectively compete in all of our businesses.

Second, we have our strengthened spectrum portfolio. Our investment in C-Band will give us nationwide reach across -- with massive capacity. We have committed significant capital to deploy the acquired spectrum as soon as possible. We continue to deploy millimeter wave, which is a key part of our network, providing massive bandwidth in dense urban areas. Finally, the execution of strategic transactions, such as the divestiture of Verizon Media and acquisition of TracFone, support our network-focused approach.

Now let's talk about our partner ecosystem. We are systematically building an ecosystem to support the 5G economy by forming partnerships with the leaders across the value chain. It all begins with differentiated connectivity as we partner with satellite providers, such as Kuiper and infrastructure providers such as Ericsson, Nokia and Samsung. We then extend our partnership to device manufacturers so that we can support all network devices, not just phones.

Moving above the network. We are developing the mobile edge compute ecosystem in partnership with leading cloud providers and system integrators. We also recognize the need for global interoperability and founded the 5G Future Forum to accelerate the delivery of 5G and MEC solutions globally. We brought key customers such as UPS and Corning into the mix to test and commercially deploy new use cases. And throughout, we've provided amazing entertainment and live experiences to our customers through partnerships with the NFL and the NBA as well as streaming and gaming companies. We built this ecosystem to complement the Verizon Intelligent Edge Network because we saw the world moving to a hyper-connected model that requires massive capacity, low latency and increased security.

And that's for the use cases that were easily imagined. In fact, when we started building 5G Ultra Wideband, we were most excited by the use cases that were not yet envisioned. Take the metaverse, for example. Over the next decade, the metaverse will create virtual spaces that are more immersive and realistic than ever before, providing people with new ways to connect across work, home and play. Today, we are excited to announce a first-of-its-kind strategic partnership with Meta. This is to understand the foundational requirements for the metaverse and its applications. Immersive metaverse experiences featuring high-resolution graphics, spatial audio and the need for immediate responsiveness will require ubiquitous connectivity with significantly reduced latency and jitter and faster networks. Our collaboration with Meta will explore how Verizon's MEC infrastructure can deliver intensive XR cloud rendering and low-latency streaming.

In addition, some features of the metaverse will require that cloud computing infrastructure move closer to end users. Our efforts will enable both companies to measure the impact of edge computing on key application performance metrics and evaluate where our network capabilities can enable more powerful metaverse-optimized applications. With complementary capabilities, Meta and Verizon are building the foundation of the metaverse.

As Hans described, the 5 vectors of growth are how Verizon classifies the growth opportunity for Network as a Service. Let me walk you through each vector at a high level, describe our aspirations and how we will assess our progress. Most importantly, I will emphasize the addressable opportunity that we have in front of us and how we are excited about the prospects for Verizon. Later in the presentation, you will hear specific details of our progress to date by vector as well as our plans for the future from Tami and Manon. Matt will bring all of this together to show you how these strategies and actions drive financial performance in the years ahead.

With that, let's dive in. Our first growth path is 5G Mobility. We aspire to accelerate 5G Mobility growth and increase ARPA via step-ups, premium offerings and products and subscription services. We will continue to build on our position as the leader in mobility. On the Consumer side, the key enablers of our growth are our mix-and-match offering with premium unlimited plans and our content partnerships. On the Business side, in

addition to our premium unlimited plans, the key enabler of our growth is our suite of above-the-network products and services. We will assess our progress in this sector by tracking ARPA, subscribers and accounts growth and premium unlimited plan adoption.

Our second growth vector is nationwide broadband. We aspire to lead the industry and become the first nationwide broadband provider for consumers and businesses through fiber, 4G and 5G fixed wireless access. Fixed wireless access allows us to significantly expand our coverage of households and businesses with reliable broadband more than it has ever been possible before. With this new alternative to traditional broadband, we intend to disrupt an existing market and capture share.

On the Consumer side, our wireless customer base offers a significant opportunity to bundle our offerings with home broadband and extend average customer lifespan with simple and flexible plans. On the Business side, in addition to reliability, fixed wireless access provides choice, especially to those who require ease and mobility that traditional competitors cannot provide. We will continue to grow our world-class fiber offering, adding more open for sale in our footprint. We will assess our progress here by tracking homes and businesses covered as well as the total number of subscribers.

Our third vector is MEC and B2B solutions, which will drive our enterprise growth. We aspire to build on our first-mover advantage to capture share in next-gen, real-time cloud computing and high-value enterprise solutions. The partner ecosystem that we have been building is foundational to creating the next-generation applications and solutions enabled by 5G and MEC. Last year, we stated that demand for MEC services unlocks over \$30 billion in addressable opportunity by 2025 across private networks, edge computing, IoT and enterprise solutions. We continue to believe in this opportunity and the potential for significant growth beyond the planning horizon. You'll hear more from Tami on the work we're doing. We will assess our progress in this vector by tracking total new revenue.

Our fourth vector is the value market. The acquisition of TracFone strengthens our portfolio of brands, expands our scale and broadens our distribution to effectively compete in this market. With the TracFone family of brands, Visible and Verizon prepaid, we aspire to capture incremental share in this market by addressing customer needs across all segments. We are now #1 in this sector, and we'll focus on increasing value to these customers and growing our revenue faster than the market. You'll hear more from Manon on our strategy for growth in this sector, and we will assess our progress by tracking prepaid subscribers, ARPU and revenue. Our final vector is network monetization. We aspire to maximize our return on invested capital by monetizing our network assets via wholesale arrangements with MVNOs. We will measure this vector through wireless service revenue.

This wraps up the overview of our growth vectors. Now let's bring them all together to examine the total opportunity available for us. As Hans mentioned, with Network as a Service, we are expanding our addressable market opportunity by about \$120 billion over the next 5 years, totaling \$460 billion in 2026. We expect continued growth in mobility, which will still represent the majority of our total opportunity. As we push into new markets, the bulk of the new growth is expected to come from nationwide broadband and MEC and B2B solutions. In total, this is a massive opportunity that will continue to grow beyond the planning horizon.

In summary, we have a clear and consistent strategy. We have built the best portfolio of assets, and we are redefining the industry with our robust partner ecosystem. No other company in our industry has such diverse paths to revenue growth, and Verizon will lead the 5G economy. We are excited by the possibilities and hope you see why. Thank you all.

Now let me invite Kyle to the stage to share details of our progress today and the plans we have for our network. Thank you.

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**Kyle Malady** - Verizon Communications Inc. - Executive VP & CTO

Thank you, Rima, and welcome all. It's good to be here this morning. Thank you for your time.

Listen, so as you've heard Hans and Rima talk about our multipurpose network and our network as a service strategy, I'll focus on how we've architected our network elements to be flexible, resilient and cost-effective in support of the multiple business use cases we have. Our global network and technology team focuses on 4 pillars. We build the networks -- we build the world's best networks. We deploy the world's best systems.



We drive operational and financial efficiencies, and we develop a world-class culture and team. These 4 pillars are the foundation that positions us to deliver on our Network as a Service strategy and underpin the 5G economy.

Our world-class multipurpose network strategy utilizes 4 foundational elements to drive advanced capabilities and marketable services: core, fiber, RAN and technology. And we have a differentiated approach and service offerings for each of these. I'll dive into each of these areas, illustrating where we are in development according to our stated plans and how we'll support the different business units and our 5 vectors of growth while being good stewards of capital and operational expenses.

It starts with our converged core network. We've built it to allow customers choice at the edge for both wireless and fiber and to support both consumer and business use cases. This is part of our end-to-end Intelligent Edge Network vision. The goal is to provide flexibility to build differentiated services and leverage web-scale economies. Unified transport and multiservice IP edge let us serve different use cases efficiently and at scale. Deploying these capabilities creates highly efficient network that lets us reduce both routers and transport equipment while providing massive amounts of capacity for traffic growth. And we plan to have a 93% reduction in edge routers and a 90% reduction in transport network elements. Fewer transport and IP devices decreases our operating costs and drives greater resiliency and reliability.

We're ahead of schedule in our Intelligent Edge Network transformation. In 2017, we said we'd migrate all of our systems to the iEN in the next 10 years. It's been 5 years and most of the build has already been completed, and most of the CapEx has already been spent. In fact, we're already seeing significant efficiencies as well. The work we've done so far has translated into over \$1 billion in cumulative benefits.

We started virtualizing the command and control part of our core network years ago. We use Verizon-owned and operated web-scale platforms and have worked with our vendors to virtualize our network elements. This allows us to drive efficiency and also allows functionality to be distributed throughout the network with latency in mind. The result is best-in-class latency. We choose to own our own web-scale platform and core network elements because we believe owning them allows us to identify opportunity and scale faster as well as future-proof of our network. And moreover, virtualization provides the underpinning for a 5G stand-alone core and will also extend to the cell site as the foundation of our virtualized radio access network deployment. In fact, we're a global leader in vRAN. And I believe, currently, we have the largest vRAN deployment in the world. Our vRAN deployment will further increase efficiency and improve performance of our network.

Now let's turn to the next element, fiber. We continue to invest in our own fiber for multipurpose use cases for our business units. We have aggressively connected our cell nodes to our own fiber. We're building out fiber in our LEC footprint and in 69 new markets outside of our LEC footprint. And as a result, we've ended 2021 with 45% of our cell sites connected to our fiber assets, and that's up from 36% the previous year. We expect to increase that in 2022 to about 50% of our cell nodes. Owning and operating our fiber to the cell lets us scale transport easily and cost effectively and improves our reliability. And owning our own fiber becomes even more cost-effective as the data usage grows. Our competitors who lease most of their fiber will incur greater and greater cost going forward. Additionally, Fios continues to be a growing service due to our industry-leading performance and reliability. In 2021, we increased Fios open for sales by 481,000 homes and businesses. This year, we're planning to increase open for sale by another 550,000 homes and businesses.

As I just mentioned, owned fiber gives us the ability to scale and improve performance. We expect backhaul requirements to increase 10x current levels over the next few years. We are already upgrading our backhaul from a 1 gigabit per second service to a 10 gigabit per second service to support our new spectrum holdings. Increasing the backhaul bandwidth will let our mobile and fixed wireless access customers take full advantage of our peak speeds. And owners' economics enable cost-effective upgrades within our CapEx spend. Additionally, owners economics benefits Verizon by about \$300 million per year, and we expect these benefits to grow over time.

We are also in a unique position in this respect because of our early start with our fiber builds. Fiber to new locations is pivotal both in and out of footprint. However, upgrading our existing copper plant to fiber in footprint is also very important to us. We have upgraded 4.5 million circuits off of copper and on to fiber. And at the same time, we've converted 36 central offices to all fiber, retiring the copper plant entirely in those locations. And we are seeing annual operational savings of about \$180 million from this program. And this figure will continue to grow as we convert more and more customers and more and more COs. The savings are in part driven by a reduction in technician dispatches and maintaining the network and supporting customers. Additionally, we see savings because of energy from converting the copper to fiber.



Lastly, and as Hans noted, our infrastructure build is a critical component of bridging the digital divide. With the recently passed infrastructure bill, including support for fiber build projects, we're looking for ways to accelerate our network transformation using these funds.

Now the next major component of our multipurpose network strategy is the RAN or radio access network. We have been very busy over the last few years acquiring spectrum and building it out. You know about our low-band spectrum. We use it for 4G LTE and 5G nationwide service. We added 5G using millimeter wave a few years ago, and we're seeing eye-popping growth in usage, which I will address a little bit later on. Our network now includes C-Band and CBRS as our mid-band layer. We've covered 100 million POPs with fewer cell sites than we expected in C-Band. And as we have said from the beginning, C-Band is the beginning -- is being added to our existing 4G infrastructure grid, which makes the deployment very, very efficient. And performance is exceeding our expectations. I'll talk more about C-Band performance in a minute.

The new layer we will deploy is the satellite layer you see on the bottom of the slide. Our announcement with Kuiper last year will give us additional coverage that is complementary to our Network as a Service strategy. We expect to test Kuiper service in 2023. We see satellite as providing coverage extension for rural broadband, remote connectivity and remote global enterprises. We have a unique advantage with best-in-class spectrum across all layers of this model, and this model will give us market opportunities no matter the use case.

I know C-Band has dominated the news recently, but it's important to note we see millimeter wave as a differentiator. We've deployed millimeter wave in dense urban areas over the last couple of years and now have more than 33,000 sites on the air. The usage growth on the network illustrates why the spectrum is so important to us in terms of capacity in dense urban areas and why we maintain our commitment to the build. Average daily usage of millimeter wave usage is up 856% from a year ago. So that's right. We've seen nearly a ninefold increase in usage over last year. More impressively, the percentage of wireless usage on millimeter wave in millimeter wave coverage areas is now nearly 10%. And in fact, some cities like Houston, Atlanta, are over 15% of 5G usage is on millimeter wave.

Our best area in terms of 5G millimeter wave connections is in Boston, where 42% of 5G connections are on millimeter wave. Millimeter wave is vital to our 5G plan to support and scale usage in dense urban areas. Right now, it is available on nearly 30% of our customers' devices as well, and that will continue to grow.

And now the topic I've been waiting to talk about, C-Band. Our team worked tirelessly to get the first 46 PEAs up and running despite the headwinds of supply chain issues, COVID, FAA concerns and the like. We are off to a fast start, and we are seeing better-than-expected performance. Peak speeds on just C-Band alone are reaching nearly 1 gigabit per second, the theoretical max for 60 megahertz of spectrum. But in reality, when we aggregate existing bands of LTE, our customers are seeing well over 1 gigabit a second in many cases.

Right now, on sites where we have deployed C-Band, we are seeing more than 30% of overall traffic leveraging this spectrum, even more than we had anticipated. And 12 million unique users have already experienced C-Band since we launched it a couple of months ago. This has not only given our customers a great experience on the C-Band, but our LTE bands are freed up, and we are seeing better performance on those bands as a result as well. The massive capacity of C-Band leads to more opportunity across the board. We currently have 60 megahertz of C-Band spectrum deployed. And when we get access to all of it, we'll average 161 megahertz per market. This is more than double our sub-6 spectrum holdings before we had the C-Band auction.

And when we get access to the second tranche of C-Band, it will be supported by our current cell site radios, which have the ability to support 200 megahertz a piece. That means we won't need to do another hardware upgrade, leading to a decline in capital intensity.

Speaking of capacity, on any wireless network, you look for new opportunities to take advantage of underutilized capacity and support new revenue streams. A typical hourly distribution of mobile traffic is shown on the chart behind me. Our current mobile customers utilize our network a lot during the day, but utilization decreases in the evening and at night. Conversely, fixed wireless access usage patterns are skewed to the right and later in the day. This phenomenon allows us to use our capacity for more hours of the day, leading to an improved utilization. Putting it all together, we're taking full advantage of the network at times of the day supporting different use cases.

There's also a little known secret about 5G efficiency gain really driven by the evolution of antenna technology that's been built into the 5G spec. Our 5G Ultra Wideband network delivers greater than 1.8x more bits per hertz than LTE. In other words, our 5G spectrum is passing 80% more

information in the same amount of spectrum. And we have more room to increase this to 2.3x in the next 2 years. This gives us even more spectrum capacity to handle both fixed wireless access and mobility growth. So the bottom line is this: the massive spectrum, complementary usage patterns of mobility and fixed wireless, along with increased 5G bits per hertz, allows us to be more capital efficient in the face of significant usage growth. This is the main reason I'm excited about the opportunities in front of us. We are in a great position in terms of end-to-end capacity in our network.

When I met with you last year right after the C-Band auction ended, we said we'd cover 100 million POPs with C-Band and 15 million homes with our fixed wireless access offering by the end of the first quarter 2022. That plan seemed pretty ambitious at the time, but our team beat the plan by more than 2 months. Today, we cover more than 100 million POPs of C-Band and 30 million households with our fixed wireless access product. And we will cover nearly 2 million businesses with 5G business Internet. The team continues to work on ways to accelerate deployment so more customers can leverage this great advancement.

Last year, we also said our goal was to cover 175 million POPs by the end of 2023. We now plan to deliver about 175 million POPs by the end of this year. The team has great momentum, and we are continuing our aggressive pace of our rollout. And as I mentioned before, C-Band is covering better than we anticipated. This is the fastest rollout I've ever been a part of. We'll give more than half of the United States population access to our 5G Ultra Wideband service this year.

We are sticking with our guidance to cover at least 250 million POPs by the end of 2024... for now. Additionally, we plan to continue our aggressive pace of adding fixed wireless access coverage throughout the build cycle, reaching our existing target of 50 million households and 14 million businesses by the end of 2025. Our accelerated 2022 time line will provide additional opportunities for Tami and Manon and will allow them to amplify their efforts.

Now let's transition to technology. I mentioned MEC earlier, and Tami is going to go into that in more detail as she comes up here and talk about our partnerships and our plans. But from a technology perspective, we are the undisputed leader in MEC, and we'll continue to widen our leadership as we move compute to the cell site and closer to end users. We're also exploring new ways to support our enterprise and developer customers. We plan to leverage our iEN to connect customers to multiple cloud environments as enterprises need to integrate many clouds for multiple providers.

Additionally, we are working on private MEC and private networks and deploying in-building systems. We are working with our web-scale friends to bring compute to the enterprise and develop platforms for enterprises to manage all of this. And we're able to help enterprises navigate the growing need for hybrid applications, those that require both public and private compute capabilities and multi-cloud management. We will unveil a multi-cloud network platform to help our customers working across multiple clouds with cloud-specific network designs and cloud-specific protocols. Additionally, we're working on an edge service platform that lets customers work with any edge cloud environment. No matter which cloud provider they work with, they can access and interact with Verizon networks and devices and experiences in a common way.

So now let's talk about how we continue to evolve our 5G service offering. We're working to enable and expand our 5G core to support nonstand-alone and stand-alone modes. This flexibility will allow us to pick the best network core for a customer's particular need. As we start to deploy the first stand-alone 5G core later this year, we will add new services on top of the network that will continue to fuel the 5G economy. We're actively seeding the market with 5G stand-alone capable devices and SIM cards as we speak.

In June, we'll start moving fixed wireless access accounts onto the 5G core, allowing us to work with our partners to test. We are in early days of implementing stand-alone capabilities that we are making great progress with our partners on this front as well. Also, we are beginning to optimize the macro network to move mobility traffic onto the 5G core in 2023. These moves will allow us to support network slicing use cases.

Network slicing is a great growth area for us, and we are working with key players in the industry to be able to take the concept and operationalize it in a way that both our business units and our customer groups can sell. Slices can be created for use cases like AR/VR, IoT, vehicle automation, manufacturing and industrial needs. And the performance and security characteristics of that slice can be tailored to fit the specific use case. Along with customer benefits, the 5G core delivers immediate cost benefits both in the application and platform layer.

In addition, the evolution of the business and residential Passive Optical Network, or PON, will provide customers with more bandwidth, higher speeds and greater reliability. We expect to be able to provide speeds from 2 gigabits a second all the way up to 10 gigabits a second with symmetrical upload and download speeds. This will provide options for customers on a superior network, a superior multipurpose network. We recently announced our multi-gig offer in New York City. To be able -- to enable this service, we upgraded our network from GPON to next-gen PON 2. Consumers and businesses will both benefit from the upgrade, including added reliability.

We are also excited by the traction we are seeing in IoT. We've built our network assets to support a variety of IoT use cases. We have a unique network capabilities that make us an ideal IoT partner, including network coverage, low latency and a market-leading IoT platform in ThingSpace as well as cloud integration and digitization. So 2 years ago, ThingSpace was limited to just the United States. Now we've expanded in North America and into Europe, and we expect to be into more than 30 countries by the end of this year. Tami will talk more about IoT business a little bit later.

So in closing, we are demonstrating strong network leadership by creating competitive advantages in our core, transport, radio access network and with new technologies. In 2022, we will continue to aggressively build out our networks in order to support our brand promise and our customers. We are laser-focused on growing end-to-end network reach and scale to support multiple use cases on our networks.

C-Band is just starting. We will use scale, technology and owners' economics to deliver this efficiently. Our platform design gives us a sizable advantage in reliability, a differentiated approach in the market and the ability to scale with reduced CapEx intensity. And all of this is supported by the best engineering team in the business. Tami, Manon will show you how we are taking our network leadership position to drive our business results.

So thanks again for being here. And now I'm going to pass it over to Tami.

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**Tami Erwin** - Verizon Communications Inc. - Executive VP & CEO of Verizon Business

Okay. There is nothing better than following Kyle when he talks about the incredible work they've done in the last year. Thank you, Kyle and team.

Listen, it's wonderful to be back here with all of you again as we share how we are powering the next phase of digital transformation and as we explore the unlimited possibilities ahead for Verizon Business. As you heard Hans say, the 21st century infrastructure is mobility, broadband and the cloud. And there is no better example of where it all comes together than with Verizon Business. With Network as a Service as the foundation and C-Band as our accelerant, we have built multipurpose networks to meet our customers' evolving demands, and we have the right assets in place to move faster. We've transitioned from technical proof of concept to commercial scalability, amplifying our paths to revenue growth.

Today, we're proving out our strategy, supported by the knowledge that we are our customers' choice for their transformation journey as evidenced by our strong market share position and consistent wins across the board. We continue to build on our strong leadership position, and we are expanding into new growth categories. Our market differentiation is unmatched in terms of scale and capabilities. And we know that now is the time to unlock the power and potential of our network and services to help our customers reimagine the future of their business and fuel the 5G economy.

We are the market leader across every wireless customer segment we serve. We hold 44% share in B2B wireless postpaid from global enterprise to public markets and despite our competitors' best efforts. And in the fourth quarter of 2021, we delivered our best wireless win share in more than 2 years. We expect to maintain that position in 2022 and beyond and have a strong momentum at our backs, with 5G expanding the market opportunity. And in the broadband market, we have nearly 50% market share in our B2B Fios footprint. As we move out of footprint and with the recent expansion of 5G Ultra Wideband, we've seen a very strong start to fixed wireless access and mobility sales.

Important to our discussion today is the fact that Verizon Business plays in 3 of the 5 vectors of growth. So let's talk about our accelerated paths to revenue: 5G Mobility, nationwide broadband and MEC and B2B solutions. Across these 3 vectors, we see more than a \$90 billion addressable opportunity, and we're poised to win. This is strengthened by our ability to provide end-to-end offerings to customers, enabling us to drive revenue growth.

Let's start with 5G mobility. Our wireless market leadership founded on reliability and performance is a strong foundation from which we will drive accelerated 5G adoption. 5G adoption continues to outpace 4G as customers accelerate their digital transformation journeys. Our baseline for overall 5G phone adoption in 2021 was 18%, and we expect to see it jump to 80% by the end of 2025. As the 5G adoption curve grows, we're also seeing continued growth in our step-ups to premium unlimited plans, and we're accelerating our service revenue growth with a suite of above-the-network products like Business Mobile Secure, One Talk and Unified Communications.

Now let's move to nationwide broadband. Our business Internet offerings deliver performance, reliability, low latency, throughput and security that surpass the needs of our customers. We're talking about primary connectivity for every customer segment we serve and customer optionality in more and more places. This makes us not only competitive with the traditional broadband space but also gives us owners' economics for SD-WAN. At the same time, it opens the door to new markets that require the choice, ease and mobility that traditional cable companies can't offer. Think about the needs of COVID-19 testing sites on the street here in Manhattan, a food truck on a university campus or construction sites across the country. The ability to have your connectivity come with you to multiple locations without sacrificing performance or reliability is absolutely groundbreaking.

We have roughly 50% market share within our Fios footprint, and we expect to be the insurgent out of footprint, ultimately driving high share across the country. Add to that the millions of customer relationships we have on the mobility side and expanding 5G Ultra Wideband coverage, and the path to accelerated growth becomes very clear.

In 2021, we expected to finish the year with 100,000-plus total FWA customers, and we did just that. Today, we have 2 million businesses covered with our recent C-Band launch. And by 2025, we expect to have nationwide 5G Ultra Wideband coverage with more than 1 million subscribers and with 14 million businesses covered with fixed wireless access. It's clear we are well positioned to drive a step change in growth. And given our position, we're set to further our industry leadership. We've moved to a commercially scalable model, and I want to share with you just a few examples of where we're solving customer pain points. For small businesses, making it easy to get mobility, broadband and security solutions all in one place is an important differentiator. As we continue to increase our FWA footprint, there's a strong growth opportunity for Verizon.

For market-leading enterprises like AutoZone, we've deployed FWA connectivity solutions in locations throughout the U.S. to meet their expansion needs. And we're seeing the same in public sector and public safety. Last year, Verizon Frontline, which brings first responders reliable technology in critical moments, proudly deployed expanded network resources to just over 700 communities across the country. Our track record in this arena has led to big wins and new use cases like with Motorola Solutions, where we are enabling real-time situational awareness, cost savings and improved public security across transportation, public safety and more. The capabilities enabled by our 5G network give us confidence to retain and grow our leading position in the public safety market and create great outcomes across the nation. We couldn't be more proud to be the partner of choice for first responders.

We have all the right tools in place to ignite our nationwide broadband path to growth. And as the #1 B2B mobility provider, we have a massive customer base to sell into with a lower cost of acquisition and a much better experience than delivered by traditional broadband providers.

Now let's move to our third vector of growth, Mobility Edge Compute and B2B solutions. Last year, we said the demand for Mobile Edge Compute unlocks an addressable opportunity across private networks, edge compute and enterprise solutions that is forecasted to exceed \$30 billion by 2025. Our expectation remains the same, and we have seen rapid ecosystem development, making us feel bullish about future growth.

First, let's start with IoT. Last year, we added 10 million incremental machine-to-machine, LTE-connected devices and delivered double-digit connections and revenue growth, supported by a comprehensive suite of products beyond connectivity. Today, we have a \$1.5 billion-plus IoT business, including our fleet portfolio. And we expect to deliver double-digit growth in connections over the next 5 years. Specifically, we see significant growth across opportunities like manufacturing, health care, supply chain, utilities and more. We're enabling semiautonomous control into the next generation of the utility grid for major brands like Honeywell while also powering immersive digital media and merchandising solutions for partners like Cooler Screens. We've also moved aggressively to capture new growth opportunities in the electric and autonomous vehicle category with the likes of disruptors like Neuro and Audi. These partners and customers each benefit from Verizon's speed and infrastructure necessary to enable the future of autonomous driving.

Finally, let's talk about network cloud and edge computing capabilities. Last year, when we were together, we had one partner in the cloud ecosystem, AWS. Today, we are the first-and-only player in the market partnered with all 3 major cloud platforms: AWS, Microsoft Azure and Google Cloud. These unparalleled cloud partnerships afford our customers optionality in terms of who they want as a cloud provider for private, public or hybrid edge compute capabilities. As a reminder, we recognize revenue in 2 ways. In the public MEC model, we share revenue with our partners. In the private MEC model, we own the direct relationship with the customer.

Let's take a deeper dive into each of these. For public MEC, the development of the ecosystem has seen great progress in the past year in terms of 5G-enabled devices, the doubling of public MEC sites and new applications and solutions, all amplified by the radical expansion of our 5G Ultra Wideband network. As the industry embarks on this journey, our key differentiator will be the ability to seamlessly integrate public and private MEC into hybrid multi-cloud solutions that give our customers ultimate optionality, something only Verizon can deliver as the leader in this space.

Now let's move to private MEC. Private networks are the gateway to private MEC capabilities and solutions, and they are delivering fundamentally game-changing customer outcomes, including revenue growth, new customer experiences and cost savings. This private 5G technology provides completely dedicated edge compute infrastructure, ultra-low latency at the premise, higher levels of security and deeper customization.

As we enter 2022, this is the year of scale and growth. We are in market with Ericsson and Nokia, and we're seeing strong demand for commercial deployments. With our superior network and industry leadership, combined with the global \$10 billion market opportunity, we're seeing momentum in these types of solutions with our customers around the globe. From sports arenas, including last month's Super Bowl, to university campuses and health care facilities, to up and down Main Street, we're powering incredible connectivity. And we are in a great position to drive the market to accelerated adoption of private networks.

Let me give you a great customer example that sits at the heart of the global logistics and supply chain where this capability is having enormous impact. Today, we're pleased to share that we're expanding our deal with Associated British Ports. Last April, we deployed our first international private 5G network, powering one of the U.K.'s busiest ports with a secure, low-latency private network. This deployment not only addresses the immediate problem of loss of on-site data communications as a result of poor WiFi, but the advanced capabilities of private 5G to enable the use of new technologies such as real-time analytics, IoT and machine learning.

And on the public sector front, we have a great partnership with the Department of Defense and Marine Corps Air Station Miramar. Let's take a look at the video.

(presentation)

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**Tami Erwin** - Verizon Communications Inc. - Executive VP & CEO of Verizon Business

A big thank you to major Steve Harvey and the team at Miramar for helping us accelerate innovation and co-creation.

Now as we think about how to accelerate our offerings to an expanded customer set, we're excited to announce a new cost-competitive turnkey, on-demand private networking solution with Celona using CBRS spectrum for smaller deployments. This private network solution benefits small, mid-market and enterprise businesses that want to deploy a private 5G network quickly that is built on a cloud-first architecture, has plug-and-play ingredients, the ability for future network slicing and AI-powered network orchestration. Along with our full suite of networking and edge compute solutions, Verizon Business is poised to scale private networking capabilities to customers, large and small.

In parallel, we are scaling our above-the-network offering. Today, we are in market across manufacturing, video production and streaming, analytics, automotive and venues, with more coming online every quarter. These are game changers that power incredible advances for businesses. And what is most exciting is how this all comes together: IoT, private networks, MEC and B2B solutions.

Let's take a look at how our technology is transforming manufacturing.

(presentation)

**Tami Erwin** - Verizon Communications Inc. - Executive VP & CEO of Verizon Business

Okay. Listen, Verizon is creating this market. We're developing new use cases that will fuel an inflection point of growth in 2023 and beyond. Overall, we are uniquely positioned to serve our customers and attack the \$30 billion MEC and B2B solutions market with end-to-end implementation, seamless management of private networks, edge compute, including hybrid and enterprise solutions. Underlying our growth is an accelerated business transformation and customer experience program. This year, we are rounding out year 3 of our transformation journey to simplify the business and customer experience with a strong focus on digitization. Today, we've realized outstanding program benefits in cost-out and revenue growth attributed to new customer and revenue acceleration, enhanced experiences that have been a key accelerant and increasing our NPS and business simplification and cost controls that offset wireline headwinds that are being experienced industry-wide. All of this work supports our 25% EBITDA margin ambition.

In the last year since we were last together, Verizon Business has moved from technical proof of concept to commercially scaling our 3 vectors of growth while maintaining our industry leadership. We sit at the epicenter building the 21st century infrastructure on behalf of customers around the globe, and you can't underestimate the power and potential that comes with that position. Anchored to Network as a Service, we are fueling the 5G economy and accelerating our path to growth with many ways to win the market. We have the assets, products and above all else, the team to be the partner of choice for our customers because at the heart of it all, we work every day to serve our customers, providing them with great experiences and enabling transformational outcomes.

Thank you so much for being here today. And now I'd like to bring Brady back up on stage. Brady?

**Brady Connor** - Verizon Communications Inc. - SVP of IR

Okay. Lots of great stuff so far. We're going to do this. We're going to take a 10-minute break. And then when we come back, Manon, the Head of our CEO -- Head of our Consumer Group, is going to lead off the presentation. So 10 minutes, back in your seat. And just a word for administrative stuff, we're going to post the slides at the end of the event. So I know you guys are all taking notes. The full information package will be posted at the end. We'll see you back in 10 minutes.

(Break)(presentation)

**Manon Brouillette** - Verizon Communications Inc. - Executive VP & Group CEO of Verizon Consumer Group

What a great spot, I hope you liked it. So welcome back from the break, and good morning, everyone. I'm very pleased to be here this morning with you to share what the consumer group has delivered since our last Investor Day. And to show you everything that sets Verizon apart from the rest of the industry. But first, I'm new to a lot of people in this room. So let me share a couple of things about me.

What's defined me throughout my career in telecom is developing strategy that makes the most of technology, turbocharged growth and amplified customer centricity while focusing on operational excellence. I joined Verizon at a pinnacle moment, where everything is coming together. In fact, Verizon is a leader in mobility across premium and value segment and is poised to become a national broadband player. You'll hear more about the new choices we can bring to customers across America. And importantly, what that means for growth and profitability.

In 2021, we executed against our strategy in a big way. And today, we are a stronger business from what you saw 12 months ago. Let me explain how. First, let's talk about TracFone. We now have full market coverage to address customer needs across all segments of prepaid market through a diversified portfolio of brands. We are very excited to have TracFone join our family. It is a game changer for us, for them and for customers. With TracFone, we have new tools to drive profitable growth to compete in the market and to drive significant network savings.

Secondly, we took a big step towards becoming a nationwide broadband provider with C-Band launch. We have a huge opportunity ahead of us, to expand our footprint outside where we are with Fios today.



Finally, we are broadening customer relationships connecting everyone, everything, everywhere. Mobile Internet on the go, broadband in the home, mobile hotspot in your vacation rental. And with our direct-to-consumer platform strategy and strong content partnerships, we go well beyond providing connectivity. In 2022 and beyond, we will continue to double down on our strategy and amplify our vectors of growth.

Hans outlined the 5 vectors of growth and Verizon consumer benefits from 4 of them. But before I go into discussing those vectors, it is important to understand how we are different and stronger than any player in the market with our go-to-market approach. Our commercial model builds on a tremendous foundation, our brand equity and Network as a Service strategy.

Being one of the largest direct-to-consumer platforms, this foundation, combined with our omnichannel capabilities, enables us to bring unique offer to the market, choice of innovative product and services, choice of channels to interact with us and flexibility. Every customer being different, their needs change over time. Our ability to personalize through choice and flexibility serves them better. But importantly, it allows Verizon to drive incremental growth to maximize customer yield through lifetime value management at a line and an account level. And this is our winning formula on which we capitalize across each vector of growth.

Let me explain how. The first vector is 5G mobility. The strategy with this vector is to move more new and existing customers to premium unlimited to take advantage of 5G ultra wideband and to generate more value for Verizon through ARPA growth.

At the core of this strategy is our mix and match construct, a unique offer in the market. It offers flexibility and efficiency. This allows us to continue to innovate and add value to customers based on their evolving needs and change in the marketplace.

Earlier this year, we introduced Mix & Match 4.0 and the exciting new offerings. Let me highlight a few: Expanded 5G ultra wide band; unlimited premium with data with no cap; the most hotspot capacity offered by any carrier and ultimately, six entertainment subscriptions. So depending on customer interest, these features can be selected based on Mix & Match tier preference, plus customers can get 50% off 5G home. I'll come back to that later.

Now let's talk about our disciplined approach to customer acquisition and retention. With Mix & Match, we are accelerating the migration of our base from metered to unlimited and unlimited to premium unlimited. We are also writing better business as the higher percentage of new customers and through directly onto premium unlimited.

We do this in 3 ways: first, tying our promotional offers to premium plans, thereby matching higher offers to our highest paying customers. This creates better stickiness, which reduces our expense to upgrade those customers; second, differentiating ourselves in the market with exclusive premium partnership, reducing our dependency on subsidies and promotion; and finally, personalizing and targeting offers taking a more sophisticated approach to the market than competitors.

These actions allow us to write better business, maximize yield, drive up lifetime value and create loyalty. No one in the industry does this as efficiently as us nor at the scale we do.

Through our premium exclusive relationship, we have a track record as one of the largest direct-to-consumer platforms in the United States. We already manage millions of content subscriptions across entertainment and gaming. Today, this is predominantly based on our mix and match inclusions and add-ons with content providers like Disney+, Hulu, ESPN+, Discovery+ and others.

Our experience has led us to 3 key insights: First, there is a pent-up demand from both programmers and customers for effective discovery of content; second, there is a subscription management pain point with a number of digital services that consumers engage with and the confusion of promo roll offs; and third, consumers want to use their subscription on any and all device. We are going to solve that.

So today, I'm very excited to announce the new offerings for our customers, +play. +play is a groundbreaking platform exclusive to Verizon, that will allow customers to seamlessly discover, purchase, manage some of their favorite subscriptions across entertainment, audio, gaming, fitness, lifestyle and more, all in one place. +play builds on the amazing content we already offer our customers through leading premium services like Disney+, Hulu, ESPN+, Discovery, AMC, which will all be featured in the new offering.



I'm also very excited to announce Netflix among a long list of amazing new partners like Peloton and the concert live stream platform, Veeps, part of Live Nation. +play is a direct-to-consumer platform that will give our customers access to the best content and experiences built on the best network.

And further strengthen our strategy of giving customer choice, choice of connectivity, choice of device and now choice of content and digital services, all managed in one place. With this choice, we plan to significantly increase the number of subscriptions customers will purchase through Verizon by 2025. This will generate a new revenue stream and will help further increase the loyalty of our customer base. We will begin trials for +play at the end of this month, testing the platform with a select group of customers and partners with a commercial launch later this year.

So what does this all mean for tangible growth? Last year, we shared guidance on 3 key drivers underpinning our growth plan. 5G postpaid found penetration of 55% by 2023. Premium unlimited mix of approximately 50% by 2023. ARPA growth of 2% CAGR through 2023. I'm pleased to say that we are tracking ahead of these expectations.

In 2021, we achieved 34% of 5G postpaid phone penetration, 33% premium unlimited mix in postpaid and 3.3% year-over-year growth in ARPA. These results give us the confidence to raise our outlook for 2023 and extend guidance through 2025 for these key growth vectors.

So we expect 5G phone penetration will be over 60% by 2023 and greater than 80% by 2025, the fastest adoption of new technology for any G so far.

Premium unlimited mix will be approximately 55% by 2023 and approximately 70% by 2025. And ARPA will grow over 2.5% CAGR through 2025.

Our reported retail postpaid ARPA includes connectivity and product revenues. 2/3 of the forecasted ARPA growth comes from premium mix improvement and FWA and 1/3 comes from product. We are confident that we will drive growth in this vector in 2022 and beyond.

Let's now turn to our second growth vector, nationwide broadband. Kyle talked about the power of 5G we unleashed with C-band and how we shot through our target of 15 million homes to cover 30 million homes today.

Our goal for 2025 remain the same. We will reach 50 million households with fixed wireless access. And today, we're already delivering gigabit peak speeds. In addition, we expect to extend Fios open-for-sale to 18 million. We have a big opportunity to become the nationwide broadband provider in the U.S.

Let's take a look.

(presentation)

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**Manon Brouillette** - Verizon Communications Inc. - Executive VP & Group CEO of Verizon Consumer Group

What an exciting future. As you just saw, we have a go-to-market approach that resolves many customer and industry pain points. This unparalleled experience will be amplified by unparalleled value, which is disruptive to the industry. No exploding bill at the end of promos. No contracts. No force bundled with linear TV. Simple and quick self-install, which is a game changer because it will reduce cost to activate for us.

And 50% off on Internet, if you also have a mobile premium unlimited plan with us. This value will drive for customers, also drives value for Verizon. Happier customers, longer relationships using our multipurpose network and driving more revenue, but importantly, driving more margin.

This scaled execution, unique experience and differentiated value means we can reach more homes than ever. We ended 2021 with more than 6.5 million home broadband subscribers. By the end of 2025, we anticipate 11 million home subscribers across Fios and FWA. Another important aspect is that we have the lowest wireless churn in the industry. Additionally, we know the more engagement we get from customers by taking multiple and higher-value products with us, the more satisfied they are and the lower the churn is.

Let me highlight a couple of examples. Customers that have an active content subscriptions with us have 16 basis points lower churn and significantly higher NPS than those that don't, thanks to premium unlimited. Customers that have a premium unlimited plan and broadband subscription with us, have 34 basis points lower churn than those that don't. So based on those insights through our customer-centric and coordinated approach to 5G mobility and nationwide broadband, we plan to significantly grow our joint account customer in 2022 and beyond.

Our next broad vector is the value segment. So let me introduce you to our game-changing acquisition of TracFone and their important mission, coverage and access for all. TracFone is the leading player in the value segment. It generates approximately \$8 billion of revenue annually through several brands. It serves 20 million customers, of which 13 million are already on the Verizon network. TracFone has unmatched scale and scope of distribution with a network over 90,000 retail and indirect locations. So we are the #1 prepaid provider.

With TracFone brands visible and Verizon prepaid, we can meet all customer needs in the prepaid market. And with SafeLink, we are also addressing the digital divide. Together, we unlock significant value. Verizon scale and scope brings TracFone network owner economics which drive significant synergies as we migrate customers to the Verizon network.

New innovation like the power of 5G and economies of scale and scope for devices and other products, TracFone operation model brings expanded distribution, deep presence in multiple communities and unique knowledge on operating multiple brands with agility.

Together, we are positioned to take advantage of any pre-to-post opportunity as well as post-to-pre migration in an economic downturn. With our diverse portfolio of value market brands, we expect to grow faster than the market at 3% CAGR, translating into improved EBITDA margins for the value market, especially as we migrate customers to Verizon network.

Our final growth vector is network monetization. We continue to create great pathway to network monetization with our Network as a Service strategy. We have a strong strategic relationship with the MSOs and also continue to expand our wholesale business with new brands. This is a pure revenue stream without any significant cost-to-serve component layered on it. And we are open for business and ready to engage with any potential strategic partner.

So we have discussed consumers' 4 vectors of growth, which contribute to our top and bottom line. Similar to what you heard from Tami, VCG operates in a customer-centric business model and a track record of achieving transformation targets. Our business transformation program focuses on simplification, solving for customer pain point and disciplined reinvestment. As one example, by digitizing our core processes in 2021 alone, we shifted approximately 50 million calls through a digital solution and serviced customers more efficiently, better customer experience, lower cost to serve, strong margin. But there is even more ahead.

As we look forward, we will continue to double down on this model and leverage our digital and omnichannel capabilities at scale. By focusing on customer and serving customers based on their engagement, preference and intent, we will continue to drive efficiencies, generate savings and self-fund our growth. It is a self-propelling model, that is a key enablers to the vectors of growth expectations from ARPA growing over 2.5% CAGR through 2025 to 11 million home broadband customers by 2025.

In closing, we have a winning strategy. We have multiple paths to grow and we'll scale efficiently through our platform. We lead in all customer segments with a diverse portfolio of brands. We are disrupting the broadband market nationally with 5G home. We can personalize offers with agility and nimbleness. And finally, we will continue to drive operational excellence through our customer-centric model. So I'm very excited about the future and how well positioned we are to win in the marketplace. So thank you very much.

And I will now let the floor to Matt Ellis. Thank you.

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**Matt Ellis** - Verizon Communications Inc. - Executive VP & CFO

Good morning, everyone, and so good to see you and to see you in 3D. We've already shared a lot with you today. Our Network as a Service strategy gives us a unique position supporting 5 vectors of growth. We also talked about how we will execute on our go-to-market strategy and monetize

our network investment in multiple ways as we power the 5G economy. I'll be bringing all of that together to show how these strategies and actions will drive our financial performance in the years ahead.

And the path ahead of us is built on the momentum we created last year. We acquired over 160 megahertz of C-band spectrum and the team went right to work, achieving 100 million POPs covered almost a full quarter ahead of schedule. Our M&A work further accelerated our Network as a Service strategy as we closed the TracFone acquisition and the Media Group divestiture. And we met these major milestones while also delivering on all of our financial targets.

As we shift into 2022, our focus turns to scaling our C-band deployment, expanding our ultra wideband reach so that more consumers and businesses can experience our 5G leadership, whether on-the-go, at-work, at-home or anywhere else.

I am confident that our history of execution and delivering against our targets will result in another great year for Verizon. It starts with accelerating revenue growth, and we'll discuss the building blocks of how we deliver 4% service and other revenue growth in 2024 and beyond. We are focused on driving -- delivering profitable revenue growth driven by our network assets with scale from multiple revenue sources.

Together with continued focus on expense management, we plan to improve operating leverage in our business, positioning us to grow EBITDA at or above top line growth. After we exit 2022's peak investment year, we expect our adjusted EBITDA growth combined with the capital efficiencies Kyle discussed to translate into higher cash from operations, lower CapEx and strong free cash flow. And with the strong free cash flow growth, we're confident in our ability to continue to deliver on our capital allocation priorities, which includes consideration of buybacks prior to achieving our target leverage ratio. We'll discuss that in more detail later.

So our 5 vectors of growth built on our Network as a Service strategy uniquely positions us for success. No other company in our industry has such a diverse path to revenue growth. We exited 2021 with good wireless service revenue growth and momentum across both our consumer and business segments.

2022 is off to a great start with the launch of C-band, which accelerates and amplifies the growth prospects of our 5 vectors. It's the momentum and opportunities with our 5 vectors that drive our service and other revenue growth outlook.

As communicated during our Q4 earnings call, our 2022 guide calls for approximately 3% organic revenue growth. And as our 5G network scales, our revenue opportunities scale as well. Growing our millimeter wave cell sites and increasing C-band POPs covered not only provides a better customer experience, but expands the addressable market of our growth vectors.

We're already seeing proof points of the benefits of 5G expansion. We're pleased with our early momentum and the demand for our 5G Ultra Wideband phones and plans as well as the demand for fixed wireless.

With the addition of C-band, we expect to deliver over 150,000 fixed wireless net adds in the first quarter, that's double our 4Q performance. That's great momentum to start the year. And we intend to keep the momentum going on the back of continued 5G network expansion across 2022 and 2023. And by 2024, with an expected nationwide 5G ultra wideband footprint of more than 250 million POPs will be able to expand the growth opportunities as the 5 vectors collectively drive 4% growth.

That 4% growth is being driven from gains within both our consumer and business segments. Each business unit benefits from multiple growth vectors, with the net result being an expectation of approximately \$124 billion of service and other revenue in 2025. We anticipate our largest growth vector over the next few years to be 5G mobility, which includes ARPA and subscriber growth within our postpaid customer base.

Nationwide broadband is our next largest vector benefiting from our 5G rollout and gains in fixed wireless as well as continued growth from Fios. MEC and B2B solutions are expected to contribute materially to our growth story as gains here will help to more than offset continued pressures within the wireline space. The value market and network monetization vectors round out the contributions to our growth. Let's go further into the individual vectors, starting with 5G mobility.

We see tremendous growth opportunities within our mobility business benefited from the expansion and adoption of 5G. For consumer with over 91 million postpaid subscribers, it's important for us to have the ability to sell additional products and services into our base. And while growing our base and bringing in new accounts will continue to be important for us, consumer ARPA will drive the largest share of revenue growth over the next few years, growing an expected CAGR of 2-plus percent through 2025, excluding the impact of fixed wireless.

5G helps to drive premium unlimited penetration as subscribers with a 5G device at 2.5x as likely to take a premium plan. On the business side, Tami and the team continue to drive revenue through customer growth as they build upon their leading market share. 5G adoption and higher premium mix will be important drivers for our business segment as well.

Overall, we see healthy growth within 5G mobility from ARPA and volumes. We believe this will both benefit from our national broadband expansion as well as contribute towards the success of our broadband growth.

And reliable connectivity is more important now than ever before, and our portfolio of world-class assets positions us to be the broadband provider in the U.S. Our momentum in broadband has never been better. We just wrapped up the best year of Fios broadband net adds since 2014 and are starting to scale fixed wireless households covered and subscribers. Interest in fixed wireless has been broad-based from consumers and businesses across urban, suburban and rural geographies as well as existing Verizon mobility subscribers and new to Verizon customers. This broad interest, combined with the quality, reliability and consistency of the product gives us the confidence to forecast 4 million to 5 million total fixed wireless subscribers by 2025.

In addition to the growth in fixed wireless, we plan to continue to invest in Fios through both expansion within the ILEC footprint at over 500,000 new open for sale per year as well as the NG-PON2 technology, which allows us to achieve symmetrical speeds of up to 10 gigabits per second. We expect these investments will help grow the Fios Internet base to approximately 8 million subscribers by the end of 2025.

Overall, we see tremendous growth opportunities as a nationwide broadband provider with the ability to sell into a majority of the locations across the country. And we see great margin opportunities here as well. Both of the Fios stand-alone Internet mix growing from 40% today to well over 50% by the end of 2025 as well as within fixed wireless. With our mobility first network build-out and owner's economics, the incremental cost to serve fixed wireless subscribers is very low, enabling strong EBITDA growth as well as providing broadband choice and additional value to millions of customers.

Our third vector of growth is mobile edge computing and B2B solutions. You heard Tami discuss the exciting potential in this vector. We are the wireless market leader across all business customer segments and look to grow those customer relationships and create new ones as we work with companies to accelerate their digital transformation journey.

5G will help accelerate and amplify our opportunities here including within IoT. We had over \$1.5 billion of IoT revenue in 2021, and we expect to drive double-digit connectivity growth through 2025 with strong demand across all verticals.

Public MEC will also benefit from the expansion of 5G coverage and adoption. We're extremely bullish on the MEC opportunity and made great strides with several key partnerships as well as opening up additional MEC sites.

We expect Public MEC will continue to scale in 2022 with more significant revenue contribution starting in 2023 that we believe will ultimately drive approximately \$1 billion of growth by year-end '25.

And on the private side, we are scaling and growing private networks, which serve as the gateway to private edge compute capabilities and solutions. There's tremendous opportunity in private networks and applications, and we're in a great position to drive the market. Overall, the team exited 2021 with strong wireless commercial success and is poised to carry that through to 2022 and beyond.

Our fourth vector is greatly enhanced by having TracFone as part of the Verizon family, and we are now the #1 player in both postpaid and prepaid markets. This business fits perfectly into our Network as a Service strategy and helps round out our go-to-market approach. There is a lot of opportunity to grow this business and to bring additional value to the customers served. The investments in 2022 that Manon spoke to will help

us to grow overall TracFone subscribers over the long term even after absorbing some of the near-term pressures and any potential friction in migrating current off-net subscribers onto our network.

Offering true unlimited plans, something that Trac was not positioned to do as a reseller will help not only wins -- not only with subscriber trends, but to also continue the ARPU growth that the business has been seeing. The ability to bring additional value into this space, whether that's unlimited plans or even fixed wireless will help us to drive subscribers and ARPU gains that we expect will generate more than \$1 billion of growth through 2025.

And to complement the revenue growth and further drive EBITDA gains, we have synergies within the business that we expect to start realizing over the next 12 to 24 months. Currently, more than 6 million TracFone subscribers are on competing networks. Migrating customers, combined with other synergies such as device purchasing, is expected to generate annual EBITDA benefits of approximately \$1 billion once the migration is complete. The revenue growth opportunities in this space, combined with the TracFone synergies have us very excited about the value market.

So the 5 vectors of growth provide a diverse and balanced path to top line revenue. And at the same time, we're also enhancing our industry-leading cost structure to drive profitability. Over the last few years, we've been building out our intelligent Edge network, a single investment with multiple purposes and edge access options. This enables new revenue streams off of a single investment, helping to improve our ROI.

This represents the essence of the Network as a Service strategy in which we add more subscribers, services and usage onto our networks. Our Intelligent Edge network is complemented by our OneFiber buildout, which now has over 52,000 fiber route miles as we approach the conclusion of the core build.

This investment in our own fiber connectivity provides us with material benefit that others in the industry cannot match, including more flexible product offerings, end-to-end performance and quality control as well as improvements in our cost to serve. We estimate that we saved approximately \$300 million of access costs in 2021 due to cell sites being on our own fiber. And ultimately, as the OneFiber program matures, we expect annualized access cost savings to approach \$1 billion by 2025.

Quality of revenue matters, the contributions from nationwide broadband, including both Fios and fixed wireless access, premium penetration gains and business solutions will all contribute to operating leverage. These actions will be complemented by our continuous cost reduction activities. And in turn, that will contribute to growing EBITDA at or above the pace of revenue growth.

And along with the attractive EBITDA growth, our ability to improve our capital efficiency as we exit the C-band investment phase is expected to drive meaningful free cash generation in the years to come. 2022 is expected to be our peak investment year for C-band with \$5 billion to \$6 billion of dedicated capital spend. After the \$10 billion C-band accelerated spend ends in '23, C-band will be part of our business as usual CapEx.

Starting in 2024, we anticipate total CapEx to be approximately \$17 billion as we benefit from the execution of our strategy. The C-band investment we are making now and the shift in traffic on to 5G means a significant reduction to the 4G LTE capacity build.

And as previously mentioned, our core OneFiber build is winding down as we have completed a majority of the markets and more than 75% of the overall ramp miles with the expectation that the core build will be completed by the end of 2023.

And lastly, our virtualization efforts, along with the benefits of our Intelligent Edge network will also be materially complete by the end of 2023. The reduction in capital across these 3 investments, 4G LTE, OneFiber and iEN is expected to generate approximately \$3 billion of savings by 2024, which will help fund the ongoing C-band activity.

The anticipated lower CapEx dollars, combined with our revenue growth translates into a lower capital intensity, going from historical pre-pandemic ranges of 13% to 14% and more recently in the mid-teens down to sub-12% levels. Needless to say, this positions us with strong free cash flow growth from here on out and to execute on our capital allocation priorities.

And that strong cash flow is evidenced by our ability to have a peak investment year in 2022 with our C-band spend, yet still maintain our leverage ratio of 2.8x. With the C-band investment, we expect free cash flow to be lower in 2022 than last year. And we would expect that 2023 free cash flow to be between \$20 billion and \$22 billion and expanding in subsequent years, further strengthening our balance sheet.

While our target leverage range continues to be 1.75 to 2x, the strong cash flow offers up some additional optionality when it comes to our capital allocation priorities.

The order of our capital allocation priorities remains the same. Our first priority, investment in the business remains most critical to best position us for long-term sustainable growth. Our second priority is our commitment to the dividend, which we have increased now for the 15th consecutive year and expect to put the Board in position to continue this trend.

Our third priority is to have a strong balance sheet, which we just discussed. And for our fourth priority, given the anticipated adjusted EBITDA growth and cash generation of the business, we believe that we can start to consider share repurchases when leverage ratio reaches 2.25x. At this level, we believe we are well positioned to achieve our leverage target while enhancing our returns to shareholders.

So before I hand it back to Hans, I want to summarize the reasons why we are so excited about our future, and it can be summarized in 4 key points: One, we have a clear and diverse path to revenue growth of 4% for 2024 and beyond. The expansion of our 5G network serves to amplify and accelerate our high-quality revenue growth opportunities.

Two, our network build affords us owners' economics in the industry's leading cost structure, allowing us to bring on incremental revenue at attractive margins, resulting in EBITDA growth at or above revenue growth.

Three, our capital intensity. We've been very deliberate with our CapEx investments and how we build our network architecture. 2022 is a peak investment year and we're poised to see lower capital intensity and lower CapEx spend as key programs wind down, and we realize more efficiencies. And four, we will consider share repurchases at 2.25x net leverage.

It's an exciting time for Verizon. Our diverse growth opportunities, combined with our unmatched set of assets and proven track record of execution positions us for great success.

Now back to Hans.

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

Thank you, Matt. Thank you. Thank you all of you for being here today, and I will not do any summary of this, but I hope you got a feeling for the things where -- and actions were taken in the last 3 to 4 years, how we've redefined Verizon. Putting the Verizon Intelligent Edge Network in sort of the base, putting the Network as a Service on top of it and then having the 5 vectors of growth, which leads to the financial commitments and our excitement over what we can deliver on top of that.

That's basically as you see all the action we have taken the last 3 to 4 years to put us in this position where we have redefined where we go and the market we're addressing, which is far larger than we have ever had before.

That's what we try to tell you today. Hopefully, you got the same excitement that I have and my management team have. And of course, now you are, of course, super eager to ask your question, which we'll let you do.

First, we will just bring in a couple of chairs so my team members can sit on them. So chairs, please, and they are coming. Wow, things are working here.

Yes, yes. And then when the chairs are up, I think we're going to be joined by all my team members that's been speaking today. So team members come up and here they're coming.

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**Unidentified Company Representative**

Hey, how are you doing.

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

And Brady and his team will have the microphones and go around and -- we are ready to rock and roll. Oh, there are hands up. I'm surprised.

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**Brady Connor** - Verizon Communications Inc. - SVP of IR

The good news is we have a lot of time.

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

Yes. We're going to get to everyone so everyone will have a chance.

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**QUESTIONS AND ANSWERS**

**Brady Connor** - Verizon Communications Inc. - SVP of IR

We're going to go from left to right, first. So we're going to go, John Hodulik with the first question.

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

Sounds good. Again, thank you guys for all the information today. On the EBITDA growth faster than revenue growth, I mean, can you go through some of the buckets in terms of the cost savings that get you to there? I mean I can call out the access savings from the fiber deployment going from \$300 million to \$1 billion. But are there or other areas that you can pin point where you can drive that EBITDA growth?

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

No, great question. And of course, I mean, we -- remember, we talked about the \$10 billion program that we finished and all of that. That doesn't mean that we have stopped to do cost efficiencies. And you heard both Manon and Tami talking about what they are doing in the transformation. All that transformation is taking out cost because we're putting platforms that can serve much more and we get scale of economics. And of course, then we heard what we're doing in the area of Kyle where we've really try to see that we are unifying as much as we can in the network. It's a lot of cost, of course, embedded in networks that has built over is more than 21 years, over 102 years that we are now sort of defining kind said, we'll come pretty far way. So it's a cost element, and I will ask Matt to comment as well. It's a cost element or we can take out costs. And then you have the leverage element as well because more business we're getting on top of it. I mean if that's the MVNOs or the Tracfonos, we can basically staying with the same team and the same structure. And that's why we're so excited on the broader market here. So it's a 2 component.

But Maybe, Matt, if you want to add something to that.

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**Matt Ellis** - Verizon Communications Inc. - Executive VP & CFO

Yes. No, Hans. I think you hit on the key points. And certainly, cost is an important component of it, John. But as Hans said, it's also the operating leverage, whereas we drive the revenue growth, the network efficiency work. You've heard Kyle and Hans talk for a few years now about what



we're doing with Intelligent Edge Network. We gave you some information on the benefit of having owners' economics in our own fiber. The benefits we've already seen and those benefits growing. And there's other cost benefits too. As Hans said, we finished the \$10 billion program last year. We don't stop with that, and we'll continue to do that. So the EBITDA growth is a combination of the operating leverage on the revenue side and the benefits that we continue to drive on the cost side both from just regular cost but also the essence of the business model we have and the owner's economics that we have on our network that we think makes us unique to others in the space.

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**Brady Connor** - Verizon Communications Inc. - SVP of IR

Okay, great. We're going to go left right, left right. So right is, Brett.

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**Brett Feldman** - Goldman Sachs Group, Inc., Research Division - Equity Analyst

If we look at those 2025 fixed wireless access subscriber targets, I think it represents something like 7% of the number of households and businesses you'll be covering that's clearly well below the 40-plus percent penetration you've achieved with your Fios service. I was hoping you could expand upon who you see as the most obvious target market for those homes. What would you hope to see to maybe have a more ambitious penetration target? And if you're willing just to think longer term without putting a time frame on it, where do you think the penetration potential could be?

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

It's a great question. First of all, I think Matt had it in his remarks. I, clearly, between households covered and our penetration is always a lag in between that, and we saw that on Fios as well. So I think your calculation might be a little bit skewed when you just divide those 2.

But anyhow, when we see on our fixed wireless customers coming in today, they use it as Manon and Tami as the primary because we see how much usage they are doing. So that's clearly the customer segment we are addressing. If it's in business or consumer doesn't really matter. But clearly, that is a primary broadband subscription.

On top of that, we see, of course, we call them new and new new. We see new customers that already is a wireless customer that see a great combination with the offering we have. And then we have new news. The ones that actually doesn't even play with us today either on broadband or on the wireless. And they -- the new one and new new, those are the majority of the customers coming in right now. So clearly, we see that being -- and then on top of that, of course, our business side has the same opportunity. But before I'm going to hand it over to Manon and Tami to talk a little bit more about it, I think what is really exciting for us, we have been on to this for a while. We designed the network. We understood the RF engineering. We understand the building. We have devices. We come with new devices, we're in the cadence, we're in the scale, we know UX. So clearly, this work we have been doing with the design principles 4, 5 years ago, self set up, that's going to be short, simple. All that is happening right now. So we are really excited, and we just give you the numbers that, okay, this is what we're aiming for. But we always have higher ambitions internally, of course, but -- that's what we have right now.

But Manon, you start?

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**Manon Brouillette** - Verizon Communications Inc. - Executive VP & Group CEO of Verizon Consumer Group

No. I think that 2 things I would probably add to what you just mentioned when you're seeing new new and new. I think that the very important thing is that today with FWA, it enables us to attract, we know as a fact about 30% of those customers had no relationship with Verizon before. So what the team is focusing on is that when we activate them to broadband, we have to activate mobile at the same time since they don't have mobile with us. So it's a huge hook for us not only to grow broadband but to grow mobile as well. So we no longer rely only on the switcher pool doing that.

So another point to add to what you said, today, we are attracting customers that were with MSOs with cable, and that were with our competitors. So it's a real replacement of a broadband product. So it's not areas where they have no connectivity. It's really urban and suburban, so we see a real potential. And to Hans' point, I think that next year, we will revisit the guidance if we feel this year is the big year. Since we have the C-band, so we want to measure everything. And what we see so far without revealing any number, it's really -- I'm very happy. I could just say that I'm very smiling. So all things good.

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**Brady Connor** - Verizon Communications Inc. - SVP of IR

Tami, why are you smiling as well?

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**Tami Erwin** - Verizon Communications Inc. - Executive VP & CEO of Verizon Business

Yes. I'm smiling as well. A couple of things that I think are really important for business. This is truly a business Internet product, Day 1, Day 2 capability. So we're using it as a primary. Think about having 44% of the wireless share today, the expansion of that portfolio for primary broadband use across all 3 of the segments. The other component that we're super excited about is as customers accelerate their virtualized networks, we now have owners' economics on broadband outside of our footprint. So today, when I deploy SD-WAN, I have to do that on somebody else's broadband. Now I have owners' economics with true broadband, much faster to deploy, and so we really love that capability because it allows us to go faster.

And then the third one is we can play where cable can't play today. So you think about whether it's a construction site, whether it's a mining location, whether it's a new business that doesn't yet have Internet, we're able to play where cable can't play. So 3 very, very important. And then, of course, we always do backup, but that's not new. These are new new use cases that are driving the revenue growth.

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

And you just put it in perspective. It's the reason why we build so much fiber because we can handle all this. Of course, that was the OneFiber project. And think also about what we wanted to create with optionality, optionality for our customers. Ultimately, the trend is clear in the market. Customer wants optionality when it comes to content. They want optionality on how they have their broadband. All that we're playing into. We can play on conversion. We can play on non-conversion. We can play with streaming services, with +play or whatever or we can play without it. That's really what we are creating. We're creating something that nobody else can create and we have had in the works for several years. And now we are here today, and Matt reported out the numbers for this quarter, and this is a start.

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**Brady Connor** - Verizon Communications Inc. - SVP of IR

All right, we're going to go, let's see, Phil, next.

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**Philip Cusick** - JPMorgan Chase & Co, Research Division - MD and Senior Analyst

For maybe Tami and Kyle, as you think about the advantages and disadvantages that you have versus another fixed wireless 5G enterprise player, somebody who's trying to come in with a 5G-only product, maybe give us not just a softball of what your advantages are, but any disadvantages that you need to address versus somebody who's going to come in as a 5G enterprise player?

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

I'll start and I'll pass it over to who wants to start from there. I would say, remember, the 4G era and the 3G era that there was a lot of attempts of doing stand-alone fixed wireless actually. It was a reason because the economics doesn't really make it for a stand-alone. And that's why we built

a multipurpose network that actually have the same technology from the data center to the edge of the network, and then we have different type of access points. That's how we built it because we knew we would get owner's economics on it. Stand-alone fixed wireless access is really much harder as a stand-alone than if you have the whole network and the scale that we have. So that was a design principle from the beginning, but you probably have more answers.

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**Kyle Malady** - Verizon Communications Inc. - Executive VP & CTO

Well, that's a great question. I mean I'm thinking that through. I don't honestly see a disadvantage. I mean -- we just -- with millimeter wave years ago, nobody thought that would work. It's working great. Now we have the C-band assets. We have this stuff in the middle, and now we're working on the -- on Kuiper and filling in all of the different holes that we would otherwise have that we couldn't fulfill. So I feel we've got a great game plan. We've been executing on it for a while. And I think our strengths of scope and scale and the leadership we have in technology, the resources to be able to go out and build this and build it fast, I don't feel I have a disadvantage in any way at the moment.

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**Tami Erwin** - Verizon Communications Inc. - Executive VP & CEO of Verizon Business

Yes. Maybe I'll just pick up from a commercial standpoint. When I think about fixed wireless access and my ability to compete, I don't have very many businesses that are saying, "Just give me broadband." They want core connectivity, they want security, they want managed networks and they want applications and solutions on top of that. And I can effectively do that today with my broadband capability. And I'll give you one very specific competitive advantage I think I have. If I'm deploying broadband today, I assume I'm deploying it for SD-WAN today, if I need broadband from a cable guy, they've got to dig up the parking lot. It takes me 6, 8, 10 weeks to get it deployed. Today, I can drop an antenna on the top of the Walgreens and deploy immediately, bring up an SD-WAN or virtualized network in 24, 48 hours, I can integrate it into the broader network as a service and managed services. So I can see their end to end, not just connectivity but platforms and solutions. And as we're talking to businesses, even small businesses, they want to know that they have the full suite of products and capabilities. But I like my odds.

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**Brady Connor** - Verizon Communications Inc. - SVP of IR

Okay, we're going to go right. Okay. Simon?

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**Simon Flannery** - Morgan Stanley, Research Division - MD

Kyle, on the C-band and the fixed wireless footprint, you've accelerated the overall C-band pop coverage. The 30 million going to 50 million is still pretty consistent. Can you let us know the path to 40 million and 50 million? And what about the past 50 million, you said a number of times doing national broadband, but between the 2, you're at about 70 million homes. And the big question around capacity and your ability to go toe-to-toe with fiber, you're obviously in a unique position having a strong Fios product already. But long term, what's the capacity of your network to handle that?

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

You take that, Kyle?

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**Kyle Malady** - Verizon Communications Inc. - Executive VP & CTO

Yes. I mean the first -- we set up our plans and we gave you guidance on that last year. We've been able to accelerate, like I said. So we got to the 100 million quicker than we thought. Our next goal is the 175. We're -- we have the resources, we have the people, we have the money. I have the equipment. And we're out there, and we feel good about making the 175. But we've also set up optionality for the future to do more quicker as well. So -- but the first goal for us is get to this 175. We're going to keep expanding as quick as we possibly can. Hans and Matt have given us the

wherewithal to have the capital and be a little fungible with it, so I can spend what we can spend, which -- there are some issues in the supply chain at the moment, not really affecting us because we thought it ahead of time. But we're just going to keep going. And then hopefully, we'll be able to beat it. And then hopefully, we'll be able to come back with even more aggressive targets and ideas as we go forward.

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

Yes. And my ambitions -- I hear your question, I understand it as well. And of course, our aspiration is clear. I mean, there are practically no issues for us to be nationwide. We just need to take in the steps we're doing. Remember how long it took us for creating the Fios footprint, that's the competition we have. That's how long we've taken for them. We are doing 50 million households in a couple of years, but there's nothing stopping us there. I think that's the toll gate we have right now. And as always, Kyle and the team always have higher ambitions and higher targets from us. But this is what we have right now. And the good thing right now, now we're scaling. I think '22 is going to be a very important year for us where we are scaling this -- remember, business is super important and consumer. We're scaling for both of them. And I think I say it too many times, but this was the deliberate strategy from the beginning. And now you start seeing it. And as the C-band is going further out, we also thought through the ecosystem of devices. There are so many things you need to think through here in order to be able to deliver a superior product with high quality for our customers. And that I feel really confident that we have done. And we have learned over the years, we have talked about fixed wireless access with you guys, and now it's just execution mode.

And somebody asked me how my work has changed the last couple of years. I mean the first 3 years, 4 years as the CEO and Chairman, we did a lot to restructure the company. Selling Verizon Media Group took a time, buying Tracfone takes time. We have all that in-house right now. We spend time on the execution and refining how we're going to deliver products and solutions like fixed wireless access. You should be in our governance meeting and we're only thinking about how do we do superior, how do we even do better. That's sort of the DNA in Verizon. And yes, that's where we are.

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**Brady Connor** - Verizon Communications Inc. - SVP of IR

I think we'll start to sort of having Simon in our governance meetings.

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**Simon Flannery** - Morgan Stanley, Research Division - MD

On the capacity, just your ability to handle the terabit (inaudible)

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

Yes, it's really a good question. I think Kyle said it. But remember, we designed all the network for all these 5 vectors of growth. And we're just traction on all the capacity we have. I mean how much millimeter wave were used and how much C-band are using. There's no carrier gauge yet. So -- and everything has been designed so we can handle all the things we're talking about today. But we can do even more with the capacity we have.

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**Kyle Malady** - Verizon Communications Inc. - Executive VP & CTO

No, we have -- I mean, if you take a look at all the connections on our mobile network, I mean, we have over 150 million, 160 million connections. And now bringing all this end-to-end bandwidth, whether it be in the iEN or in the RAN within spectrum. We have the capacity to handle 1 million fixed wireless access, 4 to 5 million over time. I mean I feel very good where we are in terms of capacity. It's not a problem for us like it was 20 years ago when we only had limited amount of spectrum. We have a lot of spectrum. We've cracked the code on millimeter wave for the densest urban areas, which is always the problem. And our core is really robust and getting more robust. So -- and I feel good, and we'll keep doing it. We'll keep building it out. We'll put more capacity as needed. So these guys can go sell.

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

Yes. And I can only -- and maybe I shouldn't say it too many times, but just the deliberate strategy with millimeter wave with the cost per bit we can do that. We have almost 1/3 of our customer having a 5G phone with millimeter wave today. And the way we can use the densest areas where the most traffic is using millimeter wave, it's just enormously important for us, bringing the cost a bit and also unleashing all other spectrums for indoor penetration or C-band penetration, whatever it might be. So again, we're standing here today with a lot of things we have done in the last 3 to 4 years, and we have proof points for them. We have shown that we can execute on them. So yes, I feel good about it.

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**Brady Connor** - Verizon Communications Inc. - SVP of IR

Next up, coming over here to Dave.

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

People are waving a little bit further back as well as you know, but this -- we have not moved anything, Brady, you're just standing there.

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**David Barden** - Bank of America

This question is on the business side -- and maybe it's for Tami or maybe it's for Matt. But I think we understand the monetization engine for consumer pretty well, it's x dollars per month times x subscribers, and that's how we make money. I think the thing that I trouble with is how we're making money in business. Tami, I heard you earlier this week talk about the ASU biology department and the Phoenix Suns and today, you talked about ADP. How are we making money? Is it seat licenses? Is it a return on a capital investment per project? Is it per gigabyte? How do we make money on the business opportunity?

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

We'll let Tami answer. But let me start. I mean in the business to business, there are several different components, of course, of the business. I mean you heard about the wireless component, how well we're performing there. I guess that's pretty clear how we monetize our wireless and then we can add on top of that. Then, of course, we are creating a market for the mobile edge compute. We're first in the world with all cases, we are leading how we're actually doing this. But what we need to think about is business to business models. You sell projects, you take responsibility from the beginning to the end, the products inside. Of course, public is a little bit different as Tami said. But other than that, think about it as new technology transformation where we can do build, operate, transfer or build, operate, manage that solution and there are a lot of things in there. As you will do in a normal business to business today. And we have just created new opportunities because we have a totally new shiny object with this mobile edge compute that nobody else has, which transform and give more efficiency and more performance than anything else. So I understand it because it's more facets than talking about consumer. But clearly, if you build the platforms we have today, you have different ways to monetize and different business models you can do it.

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**Tami Erwin** - Verizon Communications Inc. - Executive VP & CEO of Verizon Business

Yes. So let me just pick up from there. I think one of the things that is really fundamental to how we're addressing this market is the work that we did 3 years ago to be very surgical about how we address small and medium business customers and their product requirements, how we do and deliver from global enterprise and then how we deliver on behalf of the public sector. And the 3 vectors of growth for us really drive mobility and continuing to take share. I'm the share leader in every segment I serve, and I continue to take share. I expand the wallet then in FWA and broadband anywhere to allow me really to take core connectivity, deliver platforms and applications and then solutions. And that's where I really like the vector of growth about private networks, edge compute and then applications and solutions. So specifically to your question, how do I make money? There are several ways I do that in the network and edge compute. And I can come back to those examples, but I have not only a network and a

revenue component for the initial install but I have monthly recurring service revenue from the networks that I deploy. Just like networks I deploy today on the wireline or the wireless, I have monthly recurring service revenue.

I add to that then the work that we do around edge compute and how I charge for edge compute. And I won't get into the specifics and talk a little more on the breakout in terms of kind of edge compute. Remember, it's different for public than it is for private. So in private, I bill the customer directly, I own that relationship. In public, it's a rev share model. So I have the ability to monetize it in a couple of different ways. And then as we go up the stack and build applications and solutions, I make money there as well. So you take that whole \$30 billion that's addressable through private networks. Those are moving very, very quickly right now to commercial scalability. Then it's the edge compute, public and private and then it's applications and solutions. You start with IoT today. So you pull all that together, and there is a very strong path to monetization.

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**Brady Connor** - Verizon Communications Inc. - SVP of IR

Great. Let's see. Let's go over here. Craig?

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**Craig Moffett** - MoffettNathanson LLC - Co-Founder, Founding Partner & Senior Research Analyst

A couple of questions on broadband. One, Matt, I think you said 40% of your footprint today is Fios-enabled and you would go above 50? But did I hear that correctly? Because it seems like there's...

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**Matt Ellis** - Verizon Communications Inc. - Executive VP & CFO

40% of our Fios base today is Internet stand-alone rather than triple play -- and then we expect that to increase to more than 50% over the time period by 2025. So you taken customer base has taken the bundle, obviously, with cord-cutting, where you've got the cost -- content cost comes out at the same time. It actually improves the overall margin profile of the Fios business.

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**Craig Moffett** - MoffettNathanson LLC - Co-Founder, Founding Partner & Senior Research Analyst

So where I was going, though, is because there's so much appetite it seems in the market from so many other providers to take their fiber-enabled footprint to very, very high percentages of their footprint. Given how much of your footprint is dense and aerial, do you consider actually going faster and doing even more with Fios?

And then if I could just add one more. Tami, we've talked a lot about the fixed wireless broadband and the way you take share. But I was really interested in some of your comments about the way you actually grow the market and the new segments that get beyond thinking of the world as there's one house or one business per subscription, but there actually may be new opportunities, whether it's COVID testing vehicles or construction. Can you just talk about how large you think the growth in the TAM can be for the fixed wireless market?

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

Craig, just let me start and then I will let Matt and -- so first of all, I think a great question. I mean, clearly, we're going to expand as much as we can on Fios. You heard all the numbers, we're increasing again this year, how many open for sale we do. We have a great market share and a superior product in the ILEC. We're going to continue to do that. We're really committed to it. And then -- our fiber strategy outside ILEC is, of course, then doing the OneFiber that Kyle talked about because then we're going to have a fiberized network for everything else we're doing with fixed wireless access. So we will not hold back on Fios at all. We have had a conversation about it. We think we are really in a good position with Fios both in business and consumer. So we'll continue with that. Matt?

**Matt Ellis** - Verizon Communications Inc. - Executive VP & CFO

Yes. So look, I think absolutely, we'll continue to expand Fios footprint. It's an interesting conversation has evolved over the years in terms of the value of doing that. We've always felt that it's important. We're up to 16 million homes covered today, or homes and businesses. Over the next 4, 5 years, by '25, that will be over 18 million. So we're going to do more than 500,000 premises a year over that time period. And in addition to doing that, you get cost savings as well, of course, as you take copper out and -- and obviously, the maintenance on that becomes a lot easier on the fiber side. So absolutely, there's path to continue to accelerate the Fios growth. We're happy with the pace that we described today. We think that creates a lot of good opportunities for us to sell into, but we'll obviously keep looking at opportunities that come along.

**Kyle Malady** - Verizon Communications Inc. - Executive VP & CTO

Nothing to add to that. I mean it's perfect. But fundamentally, we picked fiber a long, long time ago. And now we're seeing that we're able to upgrade that and still use the money we sunk in 20 years ago, right, because we can just upgrade the electronics and continue to push the technology up. So to Matt's point too, it also helps us in 2 ways. It allows us to drive more revenue, but it also allows us to take out the old equipment, the old copper stuff and get people on new things. So we're going to keep moving.

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

Tami, opportunity?

**Tami Erwin** - Verizon Communications Inc. - Executive VP & CEO of Verizon Business

Let me just pick up and define as I think about FWA, Craig, I think about a huge expansion opportunity of the relationship I have with the customer today. With my relationship with mobility, as we begin to talk to customers about broadband, we're not only selling pure broadband replacement, we're moving into new categories of growth where, quite frankly, cable isn't playing because of the mobility play. So whether it's construction, whether it's COVID testing, whether it's -- people are taking that capability and moving it from site to site. So it's giving them a different application for high-speed data throughput.

And then the third one, and I've talked about it is owners economics for what we're doing with virtualized network. So we can go much faster on behalf of customers and how they do that. And as we have the conversations, it's amazing to me how many more and more applications are opening up. I think we've got tremendous upside. When I look at my growth this year versus last year, it's incredible momentum that's there.

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

And you just think about it, we're in the first half of the ecosystem. I think Kyle talked about it. We are today just having a private network all the time. I know you're going to have private core, you can actually just add in and then you put SD-WAN, you can have your own network. We have enough spectrum we can dedicate to this. So there are so many new layers you can just add on to this -- and yes, and we just started with it. So we feel that we have a compelling -- yes.

**Tami Erwin** - Verizon Communications Inc. - Executive VP & CEO of Verizon Business

I think having C-Band and millimeter wave and we've been working this with millimeter wave now the ability to go much faster and accelerate and amplify the learnings from the last year and have a truly a business Internet application and solution is really exciting.

**Brady Connor** - Verizon Communications Inc. - SVP of IR

Okay. Walt, you've been patiently waiting in the front row here. First in the building.



**Walter Piecyk** - *LightShed Partners, LLC - Partner & TMT Analyst*

Matt, I think you said you're going to start buying stock back at 2.25x leverage. So should we just assume that once you get to 1.75x, which is the bottom of the range that all incremental free cash flow will be plowed into the stock?

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

I can start, Walt. First of all, we have still capital priorities clear. I mean, first of all, invest in business; second, put our Board in a position to continue to grow our dividend, then paying down debt. And then on the share purchase, as Matt said, we will start considering when we get to 2.25x because given how quickly this goes, we're then going to start considering that. That's where we are. We will start by 2.25x.

**Matt Ellis** - *Verizon Communications Inc. - Executive VP & CFO*

Yes, we said we will consider at 2.25x to your other question, our long-term target is to be within that range, not to go outside the bottom end of the range below 1.75x.

**Walter Piecyk** - *LightShed Partners, LLC - Partner & TMT Analyst*

(inaudible)

**Matt Ellis** - *Verizon Communications Inc. - Executive VP & CFO*

You should expect us to -- when we get to the point where we're in there to be -- our expectation to be in the middle part of the range and maintain that as we go forward. And so we'll consider we get to 2.25x. We essentially did that 2, 3 years ago as we saw the leverage coming down towards the target range. And we got down to 2.0x, but we also said, but we have auction coming up that we think is going to be rather material. So we said, okay, so this isn't the time to do a buyback for a year and then have a large transaction like that. So that's why we say we'll consider when we get to 2.25x. We're not aware of anything major as we think about the timeline out there, unlike previous -- last time we knew there was going to be this big auction coming up. So we'll see where we are but it's great to have the conversation and it's a reflection of the fact with the strong cash flow of the business we generate, we're in a position to have that conversation.

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

I just want to say one thing, which I should have said probably before, is that one thing that enables us, besides that great sort of the cash flow and all that is, of course, how we have re -- or changed our balance sheet profile last year with all the things that Matt and Scott Krohn's team have done with the interest rates. So we are in a total different situation when it comes to interest rates, even though our debt is much higher because of the fantastic work. This puts us in a total different situation than 1 year ago and 2 years ago when it comes to our balance sheet. So that's why we also can consider it. So of course, it's a great work on the cash flow that we will all generate, but it's also the way we have actually done a profile change of our debt structure and our interest rates.

**Unidentified Analyst**

I was hoping for some more context on Plus Play. So I guess some prompts for you would be -- you talked about driving loyalty. What would drive loyalty with that service? Does that include volume discounts for customers when they purchase apps and how comprehensive does the offering need to be to be effective? And do you have all those services lined up? And I guess the last prompt would be, are you doing anything that you think competitors can't replicate?

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

On the Plus Play, I will ask Manon to -- because she and her team has been working for this quite a while. And this as she said, comes from customer interaction. What we have learned from the Disney+ discovery+. And remember, we're unique on those models. Now there -- these models are spreading in the rest of the world, but many of the sort of bundles we have, they are exclusive for us because that's how we set it up. And in order for anyone to work with us and use our fantastic direct-to-consumer, that was a prerequisite for us. So we need to differentiate with what is bundled in and what we see in the Plus Play. But clearly, the Plus Play is just another way for us to monetize our platforms that we have scale that nobody else has. Instead of owning content, we actually can be the distributor of choice of it. That's how we think we're thinking platforms designed from the beginning.

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**Manon Brouillette** - Verizon Communications Inc. - Executive VP & Group CEO of Verizon Consumer Group

Yes. It's a very deliberate strategy. Working with Mix & Match since 2019, I think, or even before I came in. We just realized that, that was a great tool to reduce churn, as I was mentioning in my presentation, when they use their inclusion, the churn is way lower, their satisfaction is higher, ARPA is better. So we realized there were many benefits from the business standpoint. And when we look at the future of connectivity everywhere, what we want to do is how can we recreate the access to diversified portfolio of entertainment, of digital activities, in a way that we break with the old linear TV model, but we play in that area because there's consumption that is happening. And since we are the largest D2C platform, we should be part of that. So that's really a deliberate strategy.

And what we really like about that is it's really success based. So no revenue, no cost because it's a rev share with all the partners. And to your last -- the last portion of your question, as Hans said, there's multiple exclusivity in that Plus Play platform. But we don't want to stop only with exclusivity. Every deal we close, make sure there is something more for our customers without revealing anything, it's a really great value for our customers. So we really feel we can play a big role in there, and it will increase ARPA, it will reduce churn, improve NPS not only for mobile but for broadband as well because this experience can be enjoyed on your big screen, in your TV in your living room.

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

And put it into the trend again. I'm trying all the time that we thought about the trends. The trend is clear. All brands that have service subscription want to go direct-to-consumer.

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**Manon Brouillette** - Verizon Communications Inc. - Executive VP & Group CEO of Verizon Consumer Group

Correct.

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

But the biggest cost they have is going direct to consumer. That's the biggest cost they have. We already have the platform. So again, we play with our strength and play with the best partner in the world. I think it's the reason why Disney+ came to us and only with us. It was not by coincidence. So this is what we are leveraging in our model. And if you ask, can somebody replicate, it's going to take some time. I can tell you because I started with this for years ago in this model, and it's not only saying, "Hey, come on to our platform." The platform that Kyle is building for Manon with the IT capabilities, the UX and all of that and actually knowing how to monetize this for our partners and getting value for our consumers. That's something that takes time.

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**Manon Brouillette** - Verizon Communications Inc. - Executive VP & Group CEO of Verizon Consumer Group

Totally. And I think you mentioned, is there a lot of players in there? We don't want to name everyone today. Of course, -- as you know, we like to do good marketing. So follow us every week, every month, and you'll see. There's going to be a lot of players out there that are with us.

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

So we get excited here.

**Brady Connor** - Verizon Communications Inc. - SVP of IR

Okay, Brady. We're going to do 2 more. One from Sandeep and one from Tim.

**Sandeep Gupta** - Barclays

A couple of questions. One for Hans. Hans, you said that your incremental cost of delivering 5G to the home is de minimis because you're going to have infrastructure in place. But your current broadband pricing doesn't really reflect that. So how should we think about the broadband pricing as you get into 2024 and 2025?

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

How you should think about the broadband pricing 2024? I think that we can have a very good premium on a broadband. Remember, it's a premium product. On the fiber side, definitely. On the fixed wireless access, we do the work on seeing that we are optimizing for our customers with the bundle. So that's what we do in consumer. But of course, if you are a new customer to us, you're going to have a premium for our broadband even though fixed wireless access. So that's on the consumer side. Then on the business side, you have an ongoing model for businesses with broadband that we have had for a long time. So I'm not sure how I should describe.

**Manon Brouillette** - Verizon Communications Inc. - Executive VP & Group CEO of Verizon Consumer Group

Yes. I think that today, the pricing you see in FWA is an attractive pricing because we want to be disruptive and make sure that people will consider us. We've been in multiple markets only talking about mobile. Now they have to wake up and say, "Oh, this Verizon can be my broadband provider." So we are in that mindset today. And I would say the good pricing exemplify when you join your product. So that's the strategy here. But the way we look at it, it's the high-quality products. So far, what we received as a feedback just gives us more confidence that this pricing will go up. We're here to maximize yield but we're also here to grow customer base. So it's a soft play between those 2 levers. But I mean, we are looking at that every day making sure that we'll capture as much as we can.

**Tami Erwin** - Verizon Communications Inc. - Executive VP & CEO of Verizon Business

Yes. Hans, I would just add on the business side, we price differently by segment, depending on the application and the use case. And then we're able to bundle that with things like security, like BlueJeans, like UCaaS solutions that really then provide a comprehensive solution, not only in connectivity, but on winning above connectivity, which is a common theme you're hearing today on how do we really monetize and continue to deliver value to the customer by segment.

**Brady Connor** - Verizon Communications Inc. - SVP of IR

All right. Last question from Tim.

**Tim Horan** - *Oppenheimer*

Great presentation, by the way. I have about 30 questions, but I'm going to give 2 to Kyle. One on fixed wireless, one on MEC. Kyle, Fixed wireless, do you think where you only have millimeter spectrum and can you sell a decent amount of fixed wireless services? And would you getting subsidies for the government, I'm not sure how much you've studied that, would that help? And then on MEC, can you help us understand a little bit the differentiation between yourself and what AWS is doing outpost and others? Is it a combination of millimeter with C-band at the MEC strategy for private MEC?

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

Kyle, if you start and Rima might answer a little bit on the outpost.

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**Kyle Malady** - *Verizon Communications Inc. - Executive VP & CTO*

So fixed wireless access. I think C-band is going to allow us to accelerate what we said and amplify what we have. We'll be able to get the C-band spectrum out there more broadly. Millimeter wave, like I said, is still very, very important to us in the really dense areas, but now C-band allow us to amplify and get out there a lot quicker. And I'm excited because we're getting this great response from customers on only the first 60 megahertz of the spectrum that we bought. When we can bring -- and you have to remember, in some cases, we have 200 megahertz in a lot of places. So we'll be able to bring this on and we'll be able to continue to really push the envelope of technology and what we can do with wireless and that's what we're really excited about as engineers.

Now on the MEC front, listen, I look at this as we've been codeveloping this with our web partners and the web scale partners, and really great partnerships with all the web scale partners to bring this to bear. Now what we see from our side, certainly, there's outpost that can go in a location and they also have local zones and other things like that. But we're bringing the compute inside our network, which brings benefits in terms of latency, security and functionality and optionality.

And I know, Rima, maybe I'll pass it over to you, been working on a lot of different use cases, et cetera, with Tami's group to how we can leverage this, which gives our customers something really tangible they can use in the factories or in their businesses.

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**Rima Qureshi** - *Verizon Communications Inc. - Executive VP & Chief Strategy Officer*

Yes. So as Kyle said, this is part about building the ecosystem, which we have been doing for a while. And AWS, Azure, Google Cloud Network, they are integrated into the network. And we want to have access to the capabilities that AWS brings not only on the compute side or Azure or Google Cloud, but also the developer ecosystem. And then what we bring is the connection to the network, the mobility and all of the customers. And if we talk about the customers and the ecosystems that we're creating, we're working very closely with customers and looking at the use cases that will open up new sources of revenue in mobile edge compute.

And you think about robotics on the manufacturing side, there's a lot of interesting use cases that we are looking at on manufacturing, overall supply chain. And we will, in some cases, let the developers develop that or we will develop those things ourselves. And I just came back from Barcelona, we were showcasing a lot of the tech that we have developed ourselves that would leverage our network that leverages the compute platform from our partners, and we provide an overall solution that is available for sale, and that is all part of the ecosystem that we create, and it is joint revenue share.

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

And just coming back and trying to put it on the vision we had from the beginning and Rima was part of it and the whole team was part of it. We try to find where we have value-added where we can have partners. And it's clear that this was a work which Kyle, me and Rima started when it

comes to design, the software that is needed to make the mobile edge compute first with AWS. But again, we try to find where we have something to bring to them and they have something to bring to us, and we do something. And it's a clear strategy. It's a clear creating the Plus Play. It's a clear strategy when it comes to content partners as well as in the mobile edge compute. In order to monetize our 5G in areas that we probably didn't do in 4G for many reasons. So I just want to highlight that it's not by coincidence that we have this set up with that now Tami is taking to the market on mobility compute or what Manon is taken to the market with Plus Play or with the streaming services. We design like that, the whole system, the whole network, the whole IT system is designed. And we still have work to be done. So it's clear on that. But clearly, we have come very far from the sort of the initial vision we have of building the network as a service, the Verizon Intelligent network and the 5 vectors of growth.

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**Rima Qureshi** - Verizon Communications Inc. - Executive VP & Chief Strategy Officer

Can I add something, Hans?

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

Yes.

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**Rima Qureshi** - Verizon Communications Inc. - Executive VP & Chief Strategy Officer

So think about it in a way that actually we are sitting. We start by imagining what is new. We architect it. We build that ecosystem and then we build it and then we monetize it. We did that with fixed wireless access, we are doing that with MEC, and we will do that with the new use cases as they come out. So that's not...

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

Yes. And the same goes for Metaverse that we talked about today. In the same way, we start Rima, Kyle building, and then we're going to monetize both in consumer and in business over time. That's how we work all the time to see that we're getting the right value out of the investments we've done and seeing that we produce the financial performance that Matt and I feel very responsible together with the rest of the team. They feel really committed as well just you know.

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**Brady Connor** - Verizon Communications Inc. - SVP of IR

So we're good, Hans?

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

We're good now.

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**Brady Connor** - Verizon Communications Inc. - SVP of IR

We're good. Thanks, everybody, for participating. It's been a great first half of the day. We've got lunch planned, and the slides are going to get posted on the IR website, so you'll have all the access to the information. The rest of the day is interactive. And it's your time, we're going to do lunch and then we have a breakout sessions. So let's have a great rest of the day.

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

Thank you, guys. Thank you.

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