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Shareholder/Analyst Call

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AL

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Presentation

AL

Good morning, everyone. I'm Al, your AI assistant for the Lumen Analyst Forum. We're so excited to have you with us today. So let's dive right in. Please join me in welcoming to the stage Lumen's Senior Director, Analyst and Consultant Relations, Claudine Ruscetta.

Claudine Ruscetta

Hello, and welcome to the 2025 Lumen Analyst Forum. For those I've not met before, I'm Claudine Ruscetta, Senior Director of Analyst Relations here at Lumen. It is so great to see so many of our industry analysts here in person. And I'd also like to extend a warm welcome to those joining us virtually from around the globe, listening into our main stage presentations. I also want to thank you for taking the time out of your busy schedules to be here with us this week. Your insights, your engagements, your partnerships are invaluable to Lumen.

Our theme for this year's forum is the trusted network for AI. Over the next 2 days, you will hear how Lumen is executing on a bold strategy, building out our physical network, cloudifying telecom, strengthening our financial foundation and charting a clear path to growth. We'll also provide an early look at some of the technology products we're pursuing to meet the enterprise demands of the AI era. When we last gathered, we introduced you to a company in the midst of a transformation.

Over the next couple of days, you'll see just how far we've come. We have a very engaging and informative program lined up for you. Just a few housekeeping items. As you can see in your agenda, we'll start off each morning with keynotes from Lumen's leadership team. And at the end of the keynotes, we'll bring all of our speakers back up on stage for a Q&A session.

By now, you should have downloaded the app. If you need any help with that, please let us know. That will house your afternoon agendas for your one-on-ones and breakouts. And we also encourage you to join the conversation online. Please follow Lumen and our incredible presenters on social media. You'll find the QR code on your table that will link you directly to all of their profiles for easy access. Feel free to capture and share moments from the day, the week. Please just tag our corporate social accounts and use the #LumenAR.

And finally, before we begin, I'd like to take a moment to read the forward-looking statement. Today's presentations contain forward-looking statements, which are based on current expectations, assumptions and projections about future events and business performance and include, among other things, statements about our strategy, transformation initiatives, product development, market opportunities, financial outlook and operational plans. These statements are not guarantees of future performance and involve risks and uncertainties that could cause actual results to differ materially from those expressed or implied.

We undertake no obligation to update these statements, except as required by law. Please refer to our most recent SEC filings for a discussion of the risk factors that could affect our business. Thank you again. Looking forward to an amazing couple of days. And so now let's get started. Thank you.

[Presentation]

AL

Please join me in welcoming to the stage Lumen's CEO, Kate Johnson.

Kathleen E. Johnson
President & CEO

Are you as pumped as I am? I doubt it. I have been looking forward to this moment. It has been a minute. We have a lot to catch up on. So thank you for taking the time. Welcome to the Lumen Analyst Forum. We are going to be sharing so much with you, and I'm going to do you all a favor and give you a little cheat sheet. Three things to look for in all of the presentations over the course of the next 2 days. Number one, this company is playing to win. And we're not being subtle about it in any way, shape or form. It's very different than the old ways of legacy telco of playing not to lose, protecting the revenue, and it's very focused on leaning in and building a growth company. You'll see it in every presentation.

The second thing is this transformation, it's not a program. It's not an initiative. It is a fundamental reboot of a company that's delivering value that's incredibly disruptive to an industry that's needed innovation for a long, long time. And our transformation is rooted in innovation. And that's very special because what it's doing is it's bringing more value to customers, and it's restoring our

ability to have pricing power in a market that's been commoditized and it's giving Lumen the control point at the most important time in networking during the greatest shift of technology in our lives.

Thirdly, and finally, and this is really, really important, we can talk all day long about transformation. We can use fancy words. We can do all the marketing spiel. But if it's not showing up in the financial results, then it just doesn't matter. And what I need to make sure we all are rooted in is this notion of we've been very clear, restore free cash flow health, restore growth to EBITDA and then pivot to revenue growth has always been the journey.

We have done the restoration on the free cash flow side. We have guided EBITDA growth in '26, thanks to 2 things: modernization and simplification, taking cost out and an organic growth engine that we've been building that's adding to that shift. And today, we're going to give more clarity as we have been talking about over the course of the past month, about restoring business segment revenue growth by 2028.

It's a company that's been in decline for a long time, more than a decade. And here we are 3 years in, and we're calling the ball. So it's a super exciting moment. Thank you so much for sharing it with us. Thank you for that. I'm pretty sure our team started that one, but I'm okay with it.

So all right. So let's talk about transformation, the elephant in the room. I'm sitting here in front of many industry analysts whose job is to write about and research transformations of all kinds. And what you have told us and taught us is that 80% of them fail, right? They're complicated. They fail for all of these reasons: wrong leadership, wrong mission, bad funding, bad change management, bad program management, too much risk, too little risk. The list is really, really long.

So what gives us the confidence to say, we're going to transform this company from a legacy telco to a modern technology infrastructure company and reposition ourselves as a trusted network for AI. What gives us that bold aspiration and the confidence that we can do that? It's a couple of things. Number one, the common denominator of all successful transformations is the right assets at the right time. We've got the best fiber network. I'm a little biased, but I think we can actually prove that out.

At precisely the right time, multi-cloud and AI, the biggest technology boom in the history of mankind, can't operate without fiber. And that's a really important point for us and something that we're leaning into. The second thing, and I think this is really important, by definition, any company going through a transformation is an underdog. If 80% of them fail, that means only 20% win. And when the odds are stacked against you that high, you're, by definition, an underdog, right?

Well, guess what, underdogs are special. They have a certain mindset. They're driven by passion, not glory. And we have built a team of the most amazing leaders that have that underdog mindset. They're driven by the passion to transform an industry, not the glory of sitting someplace where it's easy to grow. And our dream to disrupt the industry and deliver new value and to power the AI economy, it's conceived really by Dave Ward, our CTO and Chief Product Officer. He designs the dream.

We got Ryan Asdourian, our Chief Marketing Officer. He storytells and amplifies the dream and breaks it down so that all of us can really understand it. Chris Stansbury, this guy has transformed the financial position of Lumen, an incredible executor, and he's funding the dream for us. Ana White, our Chief People Officer, I've never seen anything like this.

We are very, very passionate about our culture. It's rooted in playing to win. We focus on team trust, transparency and a few other behaviors that are critical for driving transformation success. And somehow, she has made all of that tangible throughout our company. All of our processes, all of our moments are rooted in transparency around that culture. And Mark Hacker, the newest kid to this team, General Counsel, I don't know how he did it, but he's showing the company that legal and compliance can help you go faster.

It can help you show up in just the right way for customers. Ashley, our CRO, she sails on the dream, and she knows how to build scaled engines to drive revenue growth, machine-like. That's how we're winning in NaaS, by the way. And Kye, Kye has got the awesome responsibility of actually making it physically true every day out in the field, making sure our physical and digital dreams are coming true for customers and providing the value that we think they are.

Wes, he's not going to be here today because he's one of the masterminds of the Mass Markets transaction, selling fiber-to-the-home to AT&T, and he's focused on making sure that transaction goes through flawlessly, and we're super grateful for his leadership, by the way.

This team is different. Underdog mindset, passion for transformation. And together, we see a deep need. And that's probably the third really important common denominator is, is there a problem that you can solve? I talked about assets at the right time. What is the

problem that we're trying to solve? CIOs are on the hook to deliver insight at the speed of thought in a sea of complexity. That's a huge problem. AI is driving data proliferation.

Users, apps and data are everywhere. Great news is there's a choice for customers. 1 cloud, 3 clouds, 5 clouds, a bunch of data centers at the edge on-prem, you can put your data and your apps anywhere and your people are geographically dispersed. But if you have to deliver insight wherever they are in the most cost-efficient way, that choice becomes a huge amount of complexity and you need partnerships, companies to actually deliver the goods to make it easy.

By the way, the ecosystems in networking for decades have been taking advantage of that emerging complexity and just taxing the system with no value. And Lumen is changing all of that. Our vision is to remove the friction, collapse the layers, unlock the speed, deliver secure and cost-efficient solutions because there's money there.

We can actually grow this company by focusing on solving that problem, and that's exactly what we're doing. Just look at the cloud spend, it's going through the roof, more data in the clouds. And by the way, if it goes in the cloud, it's got to come out of that cloud. Data centers proliferating everywhere because there's a race for GPUs. By the way, all those data centers need to be connected, just like all those clouds.

And then you've got customers saying, "Oh my gosh, this data is going through the roof, what do I do?" And there's an emerging part of the overall total available market for connectivity, around $15 billion that's growing very rapidly that says how can we quickly move data in any one of those combinations, cloud to cloud, data center to cloud, prem to cloud, et cetera.

I'll spend money to do that. And that's the available market we're going after. We're already making progress in it as we're going to share with you today. Before I go and start talking about our mission, vision and strategy, I need to set the context for what we've done. We've done an incredible amount of work in the 3 years that we started this journey, nearly 3 years. And this slide depicts the big moments in the first 18 months of that journey. I started, we started building a team. We had to cut the dividend. That was an incredibly tough choice.

We restructured the balance sheet that was unbelievably difficult and complicated. We divested from Europe to focus on getting healthy in the United States. We established a clear North Star for the company, which was important for us all to rally behind where we were trying to go. We launched a cultural reboot with Dare to Lead. And then we did this little science project. And we said, while we're doing all of these really hard things, let's go see if customers value really quick, secure and effortless experiences and networking. It was a science project, a bit of a hobby, a toe dip in the water, if you will.

And when I look at this slide, the team presented it to me and said, we think you should start here. I was like, what it doesn't tell the whole story. There was so much going on underneath. We were simplifying the ecosystems. We were building the scaffolding for program management. We were setting things in motion to build an organic growth engine. None of that's on that page. None of it. What you see on that page are the moments that the world saw. And if you recall all of those headlines during that time, they were pretty rough. This is a very dark time for this company. we're underdogs. We got this, and we use the underdog mantra.

Actually, Geno Smith, former quarterback of Seattle Seahawks in his upset victory against Russell Wilson was in a post-game interview, and he said something really important. And those who are giggling, maybe you know what I'm going to say because I say it all the time to myself. When the world writes you off, don't write back, ignore the haters, dig into the work, play to win and focus on executing.

And that's what we did. And guess what happened? Boom, we shot out of a cannon. Right after that restructuring, we knew what was going on underneath the hood. We struck a deal with Corning, made a very lengthy commitment on a significant portion of their production because we knew it was going to be required to deliver on about $8.5 billion worth of contracts, which we signed in 4 months.

We started breaking records on that new infrastructure, which was fun because we got noticed. So this legacy telco, sleep a little thing, all of a sudden was named one of America's most innovative companies by Fortune. We then struck a deal with Google to re-architect and provide value with direct fiber access on-ramps to the cloud an industry first and then 2 more moments during this time, which were really defining for us.

Number one, we sold our fiber-to-the-home assets to AT&T, a massive delevering moment for this company after we execute it. And we surpassed 1,000 enterprise customers on that little science project that we started, validating that, in fact, our declaration that we are an enterprise company was exactly the right thing. That's where we need to put our focus and our money. We're chasing that $15 billion, and we've got a hell of a head start.

All of this together -- this is our momentum. And momentum is special because it's another common denominator of successful transformations. You get that ball rolling. Objects in motion stay in motion. losing companies keep losing, winning companies keep winning. We were losing. The intervention, the exogenous impact to stop that is our play-to-win strategy and our transformation, our science projects, our deals. And here we are.

We have strategic clarity. Everybody knows this is our focus on the enterprise. We have financial freedom, which is pretty remarkable given where we came from. We have a very healthy balance sheet. Chris is going to talk about that. Some of the graphics in there really give you an idea of where we were versus where we are today and where we're going to be after the close of the transaction.

And then finally, we have an innovation engine. And it's pretty remarkable because it's pumping out intellectual property, that's pretty exciting. We're going to talk about that and actually make an announcement on that today. And it all started with the North Star. I was with the company for a week, and I said, what's our strategy? And they said, we need a new one. We're just going to jump right to it. And I said, great, get the top 10 performing VPs and SVPs, put them in a room for a couple of weeks. I sat with them and I said, you have a clean slate.

Let's pretend, you've got nothing to worry about what's the company that you build based on the assets that we own and our North Star was born. And the remarkable part of this story is that this North Star hasn't changed since they set that ball in motion in December of '22. They said, look, we can unleash the world's digital power by focusing on what we do best, which is connecting people, data and applications quickly, securely, effortlessly. Obviously, the quick, secure and effortless is something we really need to work on in telco all up, but particularly at Lumen.

And that became our mission statement. That's what we're here to do every single day. We established 5 core customer solution areas. We cleaned out a lot of the portfolio, got rid of a lot of the stuff that didn't make any sense. We were kind of spreading our bets across everything instead of declaring majors and focusing where we know we can win.

We still have more work to do on that, but it's a remarkable amount of progress. And we conceived of a digital platform providing connectivity fabric, the ability to kind of permeate and show up everywhere and interconnect the world in an elegant way. We're very focused on delivering value for our customers, delightful experiences for employees, happy employees, drive happiness with customers. We know that for sure. And we're going to restore revenue growth, profitable revenue growth to our shareholders who deserve it.

The whole thing is culture-driven. My first day, I told the company, we're going to rebuild this company from the people up. And we have every single day, very focused team trust, transparency and then all of the behaviors that are common denominators of successful transformations, clarity of our communication, a growth mindset. I need everybody to be able to make a mistake and know they can come in the office the very next day with their head held high because they're learning from it. They're not ashamed of it.

And of course, customer obsession, something that's important, and it's driving all the innovation that Dave is going to talk about in just a little bit. And this is our long-term vision. We have work to do to construct this company, but this is who we want to be, a digital network services company that delivers ubiquitous universal connectivity to enterprises. Obviously, high bandwidth, low latency, secure, resilient and intelligent fiber solutions are what we do, and we want to deliver digitally and on demand.

There are a couple of words that really -- they deserve our attention. Ubiquity is key. That's being everywhere. We've been focused on on-net. We need to be available everywhere, and we have a plan to do exactly that. Universal, what the heck does that mean?

Remember that choice I talked about, data centers, clouds, on-prem at the edge. We cover all of the combinations of connectivity. We're the only company that does data center to data center, data center to prem, data center to cloud. We got it all covered. And not only that, we're innovating and driving new architectures to make that connectivity higher performing, more secure than anybody else in the world.

This is the company that we're building. It's our vision, and we've got a really, really tight strategy to deliver on that vision. Three parts, you're going to hear about them all day today. The physical, which is continuing to build out the backbone for the AI economy. On the digital side, we're building a digital platform to cloudify and identify the entire experience with our fabric.

And the third piece, which is relatively new, we've conceived of and started delivering against a connected ecosystem that drives even more value for customers and technology partners and Lumen shareholders, which we're excited about. We're going to keep on modernizing and simplifying the company. It's just what we do every single day, and we're ahead of our cost takeout plan as a result of it.

And again, we're going to continue to nurture the way that we come together, the culture of the company. Brené Brown wrote a new book called Strong Ground. And in the very first chapter, if you only read 23 pages of it, she likens the culture of a company to the core strength of an organization.

Okay. So if your core is not strong, you're just going to have injury after injury. And we have been developing our core strength for 3 years, and I'm really proud of that work in case you can't tell. Let me dig in just really quickly to a couple of these things. The physical network, this is our booyah moment, okay? We've got something that nobody else can replicate: great coverage, unique routes, state-of-the-art technology, equipment and fiber. We've got a long lead.

And what's most exciting is we're dramatically expanding the physical network, all powered by these partnerships with the hyperscalers. No more feel the dreams building. We're building what everybody needs, which is super exciting. Kye is going to take us through exactly where we are on this. We're ahead of plan, which is super exciting, and he'll talk more about exactly what that means.

Digital. When I first started talking about cloudifying telecom, I got a lot of tilted heads like what are you talking about? I come from a world of tech. And in tech, we cloudified the world more than a decade ago. It was hard. There was a lot of structural change in the industry that we had to drive as a result of it. But basically, we said, okay, let's have density of innovation around infrastructure and let's let companies do what they do and kind of let the technology companies deliver the technology innovation and security for them.

But the network got left behind, right? Network is the same as it was in 1990. Okay, maybe not, Dave, don't get mad at me. But basically, there hasn't been a lot of evolution around the core pieces of networking to keep up with cloud. There's an asymmetry there. And we're basically promoting networking to the world of cloud. Dave is going to talk a lot about the second generation Cloud 2.0 and how we're skating to that puck where it's going, right?

We're going where the future is. We're not waiting for it to happen around us. And in legacy telecom, there are a couple of things that really, really matter. There's like this point-to-point analog static mindset where you have linear cost pinned to revenue. You can't get cloud economics because one port carries one service and it sits on one infrastructure. And we're changing all of that with our digital platform.

Our NaaS capabilities provide cloud economics. So a fabric port can carry thousands of services, not only first-party services from Lumen, but third-party services from our partner ecosystem, which is incredibly important because now we can drive scaled revenue growth with declining marginal cost, cloud economics.

What's more is we've been selling IoD, Internet on-demand into our on-net buildings, maybe 100,000, 110,000 buildings around the country where NaaS is enabled. Soon, we will be releasing Internet on demand off-net. Why is that relevant? It's relevant because instead of having a total available market of 100,000 on-net buildings for NaaS, we will have more than 11 million buildings available for this service.

What's the magic that makes that happen? It's a couple of things. Lumen Connect is the management console for total life cycle management. Remember, a lot of that's available today, and we still have a lot of work to do to integrate to have one common experience, but the view is a single pane of glass to manage your networking needs, fire up any port with any service anytime, anywhere, on-net or off-net.

And a big piece of the enablement of that, we're going to announce today, it's called Project Berkeley. I'm not allowed to say any more than that because Dave Ward will get super pissed if I do. But I will tell you that it's game-changing. There's a ton of intellectual property. It provides the control point for Lumen, and we're very, very excited about what it means to our disruption path.

When you get more than 1,000 enterprise customers on a digital platform, you now have an innovation engine that you can model and scale for growth. And that's what we have. And a good indication that this is real is these are the logos of the companies, big brand names that are willing to stand side by side. By the way, this is just a portion of them. We couldn't fit too many more on the slide or you wouldn't be able to tell who they are.

But when companies stand side-by-side with you, say, you can use my logo and I'll tell the story of the great experience that I'm having with your capabilities, you know you're on to something great. So we're excited about that. And I think I was reviewing over the weekend with the team, hey, give me some of the feedback that we're getting from customers, and they use words like it's simple, it's instant, it's elegant, it's innovative. And that's one of the major signals that tells us we're on the right path. That's what gives us confidence that we're going to deliver this transformation and return the company to growth.

The final piece, the ecosystem, what the heck does all this mean? Okay. We've got customers connected through NaaS platform. We've got all the data centers around the country connected, right? And we've got the hyperscalers connected. We have a rich, connected ecosystem. So where is the value? Very simply put, we are giving technology partners value by taking the long pole of design and delivery and provisioning of networking out. And our vision is to make it instantaneous. So what is that value to a technology partner? We say, "Hey, we can actually accelerate your time to consumption," because that's the metric that everybody cares about.

Microsoft wants the fastest path to consumption of their cloud. Commvault, fastest consumption of their cloud solutions. And traditionally, the buying is done totally separate, the architecture is totally separate and you get your cloud solution selected and you decide you want to deploy it and then you start working on that networking piece of it and you figure out how much bandwidth, what's the performance and speed, where is my redundancy? And then they say, well, that's going to be 6 months. In this vision, what we're doing with customers, we're making a huge amount of progress. Ashley is going to talk about some of these partnerships that we've already formed.

We're saying we're going to bundle a Lumen validated design for this cloud solution and make it available in digital marketplaces. So when you're ready to buy it, you're ready to deploy it from a networking perspective. We are no longer the long pole in the tent. And that's defining because it accelerates time to value for everybody, for the customer, for the technology partner and for Lumen because we've got what nobody else has got, a quick, secure and effortless digital experience integrated with those partnerships.

Super exciting. It extends our reach because we have technology companies selling this on our behalf, and it bolsters our conviction that we are the right company with the right assets at the right time. Let me wrap it up. I told you 3 things: Number one, we are playing to win, and we're not being subtle about it. We're leaned in. We're focused. We're making bets. We're learning, we're pivoting as we need to, and we've got momentum.

Number two, we're innovating to disrupt, and that's what's driving the transformation. It's not a program or an initiative or a fly-by-night thing. It's very real. And you're going to hear all day long about the innovation that we're bringing to market already. The intellectual property that this company is delivering is super exciting.

And finally, financially, we are restoring growth to the business segment of this company by 2028 with margin expansion. And that's our story. I hope you engage with us, ask tons of questions, please. We're here over the next couple of days to make sure you get your answers and dig in with us. So let's get to it, and thanks for the time.

AL

Up next, we're thrilled to welcome Lumen's Chief Financial Officer, Chris Stansbury.

Christopher David Stansbury
Executive VP & CFO

Good morning, everybody. Good afternoon and good evening for those on the East Coast and around the world that are listening in. I've got one job to do here this morning, and that is to draw a firm, solid line between the past and the future. because for the 3.5 years that I've been at Lumen, there's been this dark cloud about the finances of the company, the balance sheet. The balance sheet was the only conversation, and we're putting that to bed today.

But before we do that, I want to take a step back, and I want to talk about why. And I want to talk about why that conversation still exists today. And it exists today because it's the playbook for enterprise telecom, except for right here.

So if you look at what happened, if you go back to the '90s and early 2000s, literally billions of dollars were deployed to build new fiber networks. Supply eventually outstripped demand and the industry was plagued by a lack of scalability, right? Everybody had these fixed assets. There wasn't a lot you could do with it. So what did that do? They put price pressure. It was commoditized.

So people started selling on price. Oh, well, that's not too good. But the network was still inflexible and static, and it wasn't evolving for the changes that were taking place around it. I mean just pause for a second. Does anyone in this room think that the network today is what a network engineer would design to support an AI multi-cloud world? I don't think so. We got here by accident. And we got here because of this.

So revenue started to fall as prices fell, margins fell. Companies started to consolidate. That's the answer. I know we'll go buy each other. We'll get that next layer of efficiency. We'll scale that way. We'll outrun price deflation by consolidating, except that didn't work. And so what happened? All right? We got a lot of cash, but we're not going to invest it because this thing is moving down into the right. We're not going to innovate anymore. And the innovation was stifled.

So the cycle just kept repeating itself, right? How many of these companies had dividends, still have dividends today? They are a prisoner to the dividend. Oh, wait a minute, we got to pay the dividend again. I know what to do. Let's go raise debt. Money is cheap. Let's do that. Leverage rose, right? It just continues. It's a terrible, terrible cycle. And that is why enterprise telecom has a bad wrap.

But that is not the rule book that we're playing by anymore. Now I'm going to talk about this in more concrete terms and using Lumen as an example. But before I do, I'm a car guy. And my childhood idle was Ayrton Senna. And this is a quote that I shared with the Lumen management team when we kicked off dare to lead in February of '23.

And the quote is pretty simple, right? You can't overtake 15 cars in sunny weather, but you can when it's raining. It was raining. All right? $20 billion in debt, almost half of it due in 1 year. Time was running out. This quickly became affectionately known as the middle finger chart. All right? That's what we were up against. It was staring us right in the face. And analysts, investor analysts, some of you were writing our obituary. So time was of the essence. It was existential.

The crazy thing though, that is not represented on this chart, if you look at the management team that Kate shared with you earlier, outside of Kate and myself, everybody showed up after this. They ran into the fire. And they ran into the fire because they saw the tremendous opportunity that this company had and the assets that it had and the ability to transform telecom.

So from there, we got into a bit of a situation with our creditors and the creditors were concerned. And that was in the news, and that was the cloud that was hanging over our heads. And this is where we were starting kind of at the end of '23. The deal wasn't done yet, a lot of debt outstanding, $20 billion in debt, leverage above 4x, $1.2 billion in interest expense. And then we did a thing.

We did the largest out-of-court debt restructuring in history, and what that allowed us to do is it bought us time. It bought us time. It pushed maturities out. We still had a lot of debt. Leverage rose because EBITDA is still declining. And really importantly, we had to pay a lot to get that flexibility. $1.4 billion a year in interest expense.

December of '23, not yet 2 years ago. And then we renegotiated the debt. And with the renegotiation, we knew we had an opportunity with PCF. And that's why we did it. I cannot tell you how many times Kate and I got asked the question, why don't you just file Chapter 11? Why don't you just do what everybody else does in telecom, consolidate with somebody else, write it all off and start the clock again? Again, the old playbook, right, drive scale through consolidation. We said, no, there's a better way. There's assets here that have value, and we're going to monetize them.

What happened? Within 6 months, really within 3 months of signing that deal, we signed our first $5 billion. And within 6 months, it was $8.5 billion. And that allowed us to start to chip away at the debt and to refinance things and to start to get to a more normal maturity curve. Leverage is still increasing because we're chasing the declining EBITDA, interest expense is starting to come down. And if you play the clock forward, with the sale of the consumer fiber-to-the-home business, we significantly delever. We go from over $18 billion in debt to $13 billion. Our leverage falls below 4. And roughly 2 years after negotiating the largest out-of-court debt restructuring in history, we're cutting our interest expense in half.

So this isn't about Lumen's balance sheet anymore. This isn't about playing by the old rules. This is about where we're going, and everybody else can keep playing the game the old way. That's giving us a huge advantage today, and we're going to take it.

So we have financial freedom. We're on a path to return to business segment revenue growth in '28. Kate talked about that, total Lumen in '29. We see EBITDA stabilizing next year and inflecting and starting to grow. We're investing what we need to. And we're going to get into that in great detail today. We're focused on execution and the word I love the most on this chart, optionality. There's lots of things we can do. And by the way, we're not going to get it all right every day. One of the biggest attributes of this company is its ability to adapt, to be nimble to adjust to trends and realize where we've messed up and pivot.

We have optionality now. We've got a balance sheet that actually works in our favor. We can invest in our future. We can continue to delever. And at the right time, if there's an asset that we can acquire that would further that strategy, we can do that, too. And if none of that's available, guess what we can do. We can buy back stock. Those words haven't been spoken inside the Lumen in years.

Now what we're doing isn't anything new. Kate talked about that. This is connectivity. It's security. It's Ethernet, IP ways in VPN, but we're selling it differently. It's Ethernet on demand. It's VPN on demand. It's a different way and a more flexible way for customers to upgrade their networks and meet their needs in an AI multi-cloud world.

Now I'm going to repeat some of the slides that Kate showed. But if you look at the strategy, I do want to get into these in a little more of a financial view. The physical layer, it's so important. I'm going to share a slide with you in a second because that is our enduring competitive advantage. No one else has what we have. And that's why no one else participated in that $9 billion so far. I don't know of anybody that wouldn't want $9 billion. They didn't because they couldn't. We can.

Kye is going to talk about our unparalleled network expansion. Dave is going to talk about the dramatic, and I mean dramatic reduction in cost that we can bring customers, which gives us pricing power. Ashley is going to talk about the connected ecosystem and our key to market growth as we go forward by leveraging technology companies who need our network to make their products better. And Ana is going to talk about how the culture ties all that together. It's the foundation of everything we do.

We're customer #1. We're doing this to ourselves before we take our products to anybody else, and we're learning as we go. Now we've shown this slide a number of times in earnings. This is what's important. These assets, Kate talked about no more field of dreams build. What gave us this opportunity was a field of dreams built. And it happened 26 years ago. When Level 3 put conduit in the ground all over the U.S. And at the time they put that in the ground, they thought they would get maybe a dozen strands of fiber through each of those conduits. Kye is going to talk about the fiber count that we can pull through today. It's dramatically higher.

So this is immensely scalable. We can rip and replace. We can take advantage of empty conduit, which is what we do with the hyperscalers. And we still have lots of capacity left. We're basically quadrupling our intercity miles, and we still have enormous capacity left. No one else has this. You want to level the playing field in the enterprise landscape and you're a competitor Lumens, you better start now. It's going to take years, and it's going to take tens of billions of dollars to level the playing field.

Now what all this means, and Kate touched on this earlier, is as we move through this, you're going to see a lot of things start to change in our financial situation. The digital and ecosystem layers really provide scalability. That fabric port, I can't say much more than that because, again, I don't want to steal Dave's thunder. That changes everything. It's not one set of infrastructure for one service. It's one set of infrastructure for infinite services. That's scalability. Oh, wait a minute, the only way you can scale enterprise telecom is by consolidating ROM. With that, we see a path to revenue growth. We see margins expanding in the range of about 20%, so get us into the mid-30s as we go forward.

Free cash flow, we talked about, we've addressed that, and we address it further with the sale of the consumer fiber-to-the-home business, freeing up $1 billion a year in CapEx. And capital intensity will fall. We think that once the PCF builds have completed and by the way, that's not really a fair comparison because we get paid upfront for those builds. It's not really cash that we're financing. But even if you throw all that into the mix, we think our capital intensity is going to be about half once those PCF deals are done.

So now let's last slide, talk about revenue. We have historically, over the last 3 years, talked about grow, nurture and harvest when we talk about our product portfolio and a way to give some level of visibility into what's going on with revenues. This is a simplified view of that. It's really where we're going to start going. And it's quite simply saying what's strategic, what can we grow and what's legacy? What's gravity because that's reality. And I think the important thing here is that if we were talking about grow, nurture harvest, on our last earnings call, that grow bucket is almost half of what we sell today, almost half of our revenues.

When you look at it through this lens, which is pretty much the same thing, it's taking some of that nurture bucket, the pieces that can be delivered digitally and moving that into the strategic. Over half of what our revenue is going to be next year is in that strategic bucket. So for the naysayers, yes, the legacy is there. You can see it. It's the blue line down into the right, but don't forget the orange ones.

It's not about us trying to inflect gravity. Those things are declining. They're great assets. They provide a lot of cash. They allow us to invest in our future. They are not our future. Our future is a strategic products, and that's what we've got a path to grow. So super excited you're here today, super excited that we can share our vision and innovation with you. Now let's get to the really fun stuff. Thanks.

AL

Now let's hear from someone who keeps things running smoothly across Lumen. Our EVP of Enterprise Operations, Kye Prigg.

Kye Prigg
Executive Vice President of Enterprise Operations

Good morning, everybody. Hope you're all well. Huge pleasure to be here with you all today. I joined Lumen 2.5 years ago. I met Kate and Ashley and a few other executives, Chris, and I was just blown away by where they wanted to take this company, what they wanted to do with this company from rebuilding the culture, rebuilding the networks, the technology. It was so, so exciting for me. And then Kate asked me the question, would you run into the fire with me? And here I am. And we're still running through the fire.

I run operations across North America. What we do is we look after the planning, the design, the deployment, the management, professional services and the service assurance of all of our networks, looking after the network day in, day out, making sure the network is available, offering the amazing services to our customers that they've come to expect from us. Today, I'm going to talk

about how we're setting the place -- sorry, how we're setting the pace, how we are leading the industry when it comes to building the backbone for the AI economy. I'm going to start by sharing a short video with you all that we call the big build.

This video was filed over the last few months, and we what we're doing with this video is construct that's going on. It's going on all around us as we speak, thousands of people engaged across the country doing this. And so I hope this brings to life what we do day in, day out here in operations.

[Presentation]

Kye Prigg
Executive Vice President of Enterprise Operations

So just to put it into perspective, one of those shelters, which we call the double shelter, would fit in probably about half of this room. You'd be lucky to get 2 of them into this room, right? So I hope that kind of gives you a view of the kind of scale that we're talking about in terms of the construction effort that's going on. So this is our network. This is our crown jewel. And importantly, as you heard from Chris, there's a lot of capacity in this network. There's additional ducting in this network. This is a unique network in the United States in that it gives us everything that we need, all the ingredients that we need to be successful as we build this new backbone.

The network is resilient. It is low latency and it is hyperconnected. And you'll hear from Dave and the team just how hyperconnected this network is and how we're going to make it even more connected as we go forward in the future. The network once built, and you can see, obviously, we're building the fiber infrastructure at the moment, will be controlled by digital experiences. And again, you'll hear from Dave and the team on exactly what those experiences are and Dave will bring them to life. And that's incredibly important because it is game-changing for our industry.

So data volumes, it should be no surprise to anybody in the room, just how quickly data volumes are increasing due to AI. By 2030, we expect 19, 20x growth in data consumption, which is mind-boggling. It's a huge amount of data. That data will need a lot of fiber in the ground. It will need a lot of technology to move around the country into data centers, out and between data centers, hyperscalers and so on and so forth.

But it also changes how we build the networks. You heard Chris talk about if we started with a clean sheet of paper, would we build the network in the same way that it is constructed today? And the answer to that is we definitely would not. We would build it differently, and that's what we're doing, right? So the networks of today are not the networks of the future, right? We need more distribution. We need more locations connected to the network. We need much more fiber in the ground, and that's what we're doing.

So our solution is PCF or custom fabric. I like to think about this as your network, your way. You can choose the ingredients. We have all the ingredients to be successful. If you're a hyperscaler that runs a large global network, you know what you're doing in terms of lighting up the fiber, you know what you want, you know where you want it, and we will work with those hyperscalers to construct in the way that they want.

Other customers, they want us to do everything for them, soup to nuts. They want us to design the network. They want us to build the network. They want us to integrate the network, and then they want us to operate the network as well, right? So in operations, we provide all of these services from the design services through the deployment of these networks and all the way up to the operation and maintenance of the networks as well.

So how did we go about building the foundation of the AI infrastructure? So just like with the network build, we started with a clean sheet of paper. We recognized very early on that this was such a huge undertaking to deploy $8.5 billion of network infrastructure that we were not going to be able to do that with our traditional way of working, and we would just overpower the teams that we have in place.

So we started with a clean sheet of paper, and we built a brand-new team from scratch. We developed new processes. We developed new tools. We made sure we instilled a new culture into that team in our ways of working, not just our ways of working within the team, but how we show up with our customers and how we show up with our vendors or our partners as well in the field, right? So we've instilled that culture into how we work end-to-end.

We also built a massive ecosystem of partners. So coast-to-coast, we work with the biggest and the best companies in the United States to bring this to life. We have thousands of people out in the field day in, day out who are deploying these networks, and we work very, very closely with them as we do that. And importantly, as we built this, we needed national scale, but we needed local knowledge, okay?

When you think about permitting, you think about what's happening in individual municipalities across the country, we needed that big scale to do this, but we needed that local knowledge as well. So we went and we made sure we built that through the way that we approach our permitting. We've built dedicated teams and specialists across the country that can help us with that.

We established the team in 9 months. So from start to finish, 65% of the people in the team are new to Lumen. So we took, of course, a lot of extremely good people from Lumen into the team, but then we went out and we found the very best people in the industry to come and join Lumen. And so many people wanted to be part of this. It was actually amazing for me to see how many people wanted to be part of this coming in from the wireless industry as well as from the wireline industry and other industries as well.

So we've been able to build a world-class team. Deployment is underway, and it's going really, really well. We have already deployed 3,000 miles of fiber, and we're ahead of target. And we've built 144 shelters or ILAs. So 144x this room, if you think about that in terms of the scale that we've built. And we have 145 more under construction right now. So it's going really, really well. The team is performing as we expected and so are our partners out in the field.

The other thing that we're doing is we're making sure, of course, that we have a world-class operations to operate this network, that our infrastructure is capable of managing this AI backbone. This is the AI backbone for the economy. So of course, we are implementing AI systems to manage this network, right, that will enable us to very, very quickly understand the root cause of something to effect repairs in record time and so on and so forth. So we're building that layer on top of this through our service assurance teams.

So we're also building on top of all of this infrastructure, a number of very important things. And this is the enabling infrastructure for what Dave is going to be talking about when he's up here after the break. We've built something called rapid routes. So this is mass scale waves built across the country, right? So you see that map on the left-hand side. We started this project 6 months ago. And 2 weeks from now, it will be complete. All of those blue lines will be filled in. What this wave network enables you to do is to light up customers within a matter of days.

Previously, what would happen is customers would order a wavelength service, call it a 10 gig, 100 gig, 400 gig, connection from A to B. And if we didn't have the capacity there, we would have to go and deploy that capacity. And we'd have to visit all of the shelters. We'd have to do all the work necessary to line all of that up. It could take months to do so. With this system now in place, we are able to do that in days. And we've already lit up the first customers last week, we lit up a customer coast to coast in 3 days. So very, very pleased to see that working.

There's more routes being added daily. Yesterday, we added El Paso to Stratford, and we also added Denver to Dallas. And as I said, within 2 weeks, this map will be completed. Phase 2 has already started. So we will be adding more and more routes in Phase 2. So as we go into 2026, the first half of '26, this map will look completely different.

Actually, we're adding almost the same amount of routes again. Then we come into data center expansion, which is closely linked to metro expansion. So as we go into the metros, we are rebuilding our metro access networks. So we're moving away from the legacy metro networks that we have today into metro networks that are capable of delivering 100 gig up to 400 gig to the premises.

So a customer will be able to go from their premises of choice all the way into the cloud, hyperscalers, cloud to cloud through the multi-cloud gateways that we're also deploying in these metros, and they will be able to do that digitally. And so these projects are all well underway. The data center expansion, the metro expansion, all goes live by the middle of December. So the teams are working on this right now.

Then we go into the next phase, which we don't have in here, but there's a Phase 2 and a Phase 3 as we obviously roll out this technology into more and more metros. So this just shows you where we are today on the PCF rollout. Here's the shelter deployment and here's the network overpool, as we call it. So in total, 23,000 miles is underway at the moment across 73 different routes and 553 shelters that we need to deploy. 144 shelters complete, 145 in construction. And we've almost completed 3,000 miles of fiber overpull across 26 routes. This is as of today.

Towards the end of this year, we will be at 289 shelters complete, which will be 52% of the scope. Things are moving so fast with our hyperscaler partners that they need everything that they ordered from us quicker and quicker, basically. That's my day-to-day phone calls. Can you do more? Can you go faster? It's unbelievable really. And so we are pushing as hard as we can to get the infrastructure out there because without these shelters, you can't light the fiber. We can get the fiber in the ground.

And what we're seeing is the consumption of the fiber in the ground is growing more and more and more. Whereas previously, it may have spent a couple of years in the ground, it may only spend a few weeks in the ground before being lit now. So our customers are also lighting up and consuming the fiber in the ground, I would say, at a record pace.

We will hit around 4,000 miles of fiber deployed by the end of 2025. And we're also working very, very hard to set ourselves up for 2026. Here's the 2026 plan. We want to be at 15,000 kilometers -- sorry, wrong country, 15,000 miles. I still do that. Still do that. 15,000 miles by the end of 2026 with 30 routes completed, 35 routes in construction. So you can imagine what comes live in '26, we have to start in '25. What comes live in '27, we have to start in '26, right, because the effort to do this is extreme.

And then 2027, we want to be at 27,000 miles completed and all of the shelters that are in the current scope completed, and we are expecting more shelters to come into the program. Here's just some pictures just to bring to life a little bit more on the video that we looked at. We have the ILA deployment. What you can see there is a double-wide. So these are built in South Dakota in Sioux Falls. We set up a dedicated factory with one of our vendors. It's a huge facility, and all they do is make these for us. They make them, they ship them to our locations.

We have to, of course, install the concrete pads, all of the peripherals, the generators, the batteries, the rectifiers, all of that kind of support infrastructure. Then the heavy machinery comes in, the cranes and so forth and places the ILA. And then they are literally bonded together into one unit on the site. So as they're bonded together, they're weather-proofed and so forth. And these are generational investments in that they will last a very, very long time, made from reinforced concrete.

Then we have the network overpool. It sounds easy. It's not easy. The teams sometimes have to dig up. They have to repair conduit and so on and so forth. And so there's a lot of heavy construction going into that. And then, of course, we have new routes being constructed as well, right? So we have to take our network to the location that the hyperscalers or the data centers or sometimes, of course, our enterprise customers, we have to take it where they want it, right, which involves building new routes as well. So we're heavily into the new route construction, and you see that ongoing right there.

Kate mentioned or Kate or Chris mentioned Corning. So of course, we have a very, very strong partnership with Corning. And we've worked really closely with them to develop new cable technologies because we wanted to get the maximum amount of fiber into the conduit that was already existing that we could.

And traditionally, these networks have been built with 432 fibers. Sometimes you would get up to 864, but we knew that we needed to go higher than that because the demand was so much. And of course, overpoolls and all of the construction is expensive. So you want to get as much in the ground as efficiently as possible. So working with Corning, we developed a new 864 cable and 1,152 and a 1,728-count cable that are all now ready for deployment, and they're going into the ground.

Corning also set up a dedicated facility just for Lumen. We take a lot of their global capacity coming out of that facility in Hickory, North Carolina. The fiber itself is a game-changing design, and I have some samples here. And in the break, I'd be happy to pass samples out, so you can actually touch and look at the fiber and answer any questions about how is it constructed and why is it special.

So I'll be available in the break to show you that. And so yes, working with Corning has been great. They've ramped up production. You can see some examples here. The fiber comes to us in spools. We then have to lay it out in a figure of 8 configuration. And in the top left-hand side there, you can see the machine that actually blows compressed air into the conduits and blows the fiber through the conduits.

So we're playing to win, and we're just getting started. It is so exciting to be here right now as we build this new backbone across the country, and we bring it to life. The teams are up and running. As I said, I'm very, very proud of the team that we've built, the expertise in the team, the culture in the team is absolutely fantastic. The infrastructure is real. As you can see, we're out there. We're building it. It's coming to life.

We're ahead of schedule with what we're doing. We're getting the fiber in the ground. We're getting the ILAs built, I would say, in record time. And important for me is that we're gaining momentum. So momentum in these programs is really, really important. When you start, it takes time for things to gel, for processes to come to life, for tools and systems and people to get to know each other, and then you get the momentum.

And then it takes on a life of its own. And I feel like we're there already. This has now taken on a life of its own. Those teams are day in, day out racing to get this done, and they're getting it done in record time. And we're very, very proud of what everyone is achieving out there. Okay. So thank you.

AL

That wraps up the first part of our morning. Time for a quick break, stretch, recharge, and we'll see you back here soon.

[Break]

AL

Welcome back. Hope you had a chance to recharge. Before we dive back into the sessions, we've got a quick video we'd love for you to check out.

[Presentation]

AL

Let's keep things rolling. Please welcome to the stage Lumen's Chief Technology and Product Officer, Dave Ward.

David Ward
Executive VP and Chief Technology & Product Officer

Hey, everyone. As you just heard, I'm Dave Ward. It's great to see so many long friends, long-standing friends in the audience here. We've had a joined career over the years, building the Internet, building out cloud, and now we have -- we're at a point in time. We're at a point in time where what we thought of as the Internet architecture is actually fundamentally changing. So I've been -- I came to Lumen about 1.5 years ago. I know Kate, it's only been 1.5 years. It seems longer. And one of the greatest things happened to me in my career the employees that are on my team and the employees on Kye's team and everybody's team said, Dave, if you're going to change something, change everything, don't just make small incremental product changes, technology changes, and Kate and Chris back that up with an investment and actually backed it up bringing the customers with their use cases and their needs. And that's what I want to talk to you about today.

We heard a ton of cool stuff from Kye. We saw pictures of giant creams and tractors putting fiber in the ground, but Kye's network is built to run my software. And my software is built to sell Kye's network because we only have 3 products. Telecom is a very simple business. We sell connectivity, we sell speed, and we sell services. But the point of my story today is that we want to talk about how that Internet architecture is changing from cloud 1 to cloud 2.

When I talk to you about the rise of the -- and the economic implications of what's happening in our industry, how -- what we're building, how we're building it and then how we're going to provide value to our customers. So this is really post cards or maybe concessions from a bit finger. And that's what we're going to talk about today.

Now I'm going to throw some figures at you. I'm going to throw some technology at you. But I'd like to treat this talk really just as an introduction to this topic. We have one-on-one time later today. We've known each other a long time. I'd love to talk to you more about this. I'll be publishing a short white paper. And if you know anything about my blogs, this one is going to run about 22 pages where I want to explain in depth and in words what I want to introduce today. So networking in the networking industry finally is getting the word out, about the changes in the AI economy. Almost all the discussion has been around chips and around data centers and about power. But what you can see on this slide, there will be as much investment in networking as there is going to be in power to build the AI economy. And that's a critical piece because as much as the $9 billion of deals that we have and all the fiber that's going into these new locations, and I'll talk about that in a moment, our customers need to be able to get access to it. So connectivity, where we're connected; speed, why that's critical, and then how we're going to deliver these services.

So what's driving this? And I have to admit, a lot of this is a shared history that we have as an industry. I'm going to start with the second one. This notion of legacy networks. We've got a long career building MPLS, VPNs and traffic engineering and headers on tops of encapsulations on top of extension headers. None of that is relevant in the AI economy.

Second, cloud -- the cloud as we know it today, took about 10 to 15 years to become the de facto standard of where IT, SaaS and other services are located. This revolution is going to take us about 3 years. And that's what's fundamentally different on the transition from 1 to 2. The economic opportunity and the investment is unparalleled. Last time we saw this, in fact, it was 25 years ago, when we were building the Internet architecture as we know it today. But the Internet architecture and the protocols and the way that we run that network is not fit for purpose anymore. And telcos of the past and service providers of the past absolutely missed the ability to provide services and accelerate the adoption of Cloud 1.0, and Lumen is not going to make that mistake for Cloud 2.0 because we are in the brief case. We are in the middle of these deals, and we're building the products to bring our enterprises and make them relevant in the AI economy.

But what this means? There is an architectural shift and a corresponding technology shift, a new way to think about enterprise networks. There's absolutely completely different way to build enterprise WAN networks in particular. And then we really have to get beyond the notion of a flat Internet, and flat technology to get to cloud. There's waves in fiber, there's ethernet, and there's private IP, and we're going to have layers of services and control of these different layers, and that has not been seen before. More than just

waves on demand, Ethernet on Demand and IP on demand, instead, it's a way to control bandwidth, latency and redundancy for specific workloads and workflows, which is what's required for the AI economy. And let's talk about that for a moment.

To make sure we're all on the same page. Our work and your work combined together shows that we're going to go from about 240 million square feet of data center space today to 1 billion square feet of data center space by 2030. There's an insatiable demand for the Internet, and there's an insatiable demand for data centers as well. And this isn't all hyperscalers, and I'll show that in a moment. But what we know is that data centers in the U.S. today are at about 98% occupancy. They are full. There is a constant need to construct.

And as you can see from 2024 to 2030, just by the amount of construction of data centers themselves, there has to be connectivity for there to be value. And as Lumen has said before, in particular, for anyone to have an AI strategy, you need to have a cloud strategy, you need to have a data strategy and you have to have a network strategy. And so here becomes -- and the lower box here becomes the location of the enterprise IT architecture in the immediate future. So connectivity and where we connect to, that's what Kye is specializing in. And at the right speeds, we are absolutely at the tip of the spear with 400-gig speeds, pushing out 800 and 1.6 terabit channels, concatenated circuits or ports can't come fast enough, and let me tell you why.

Just looking at the ability to move a petabyte over a 10 gig to 400 gig circuit moves from 222 hours to 6 hours. Now why is that important? Everything in AI is feeding the GPU. GPUs are not economically viable unless they're at 100% utilization constantly. So therefore, it's feeding the data into the data centers and feeding the data into the GPUs. So if you go in rent or start an AI workload and you have a 10-gig link, and a training is a petabyte, you are paying for 222 hours of idle time just to move your data into that cloud. Where you connect, how fast you connect and how you can control that bandwidth is what is critical in this economy.

To make it perfectly clear, when you look at the middle part of this chart, the cost to move a 10 gig just using a simple measure of $0.02 per gigabyte. $431,000 over a 10-gig link, just to load your traffic -- sorry, to load your training into that GPU. At 400-gig, 40x less cost to load that GPU training. So the point here is, if you want to start running AI on demand and you want to be able to take advantage of this -- we have 400 gig today, it immediately shows the need to get to 1.60 as quickly as possible for this economy. So we can build single 400 gig links, we can lag them together, create equal cost multipath. We have all sorts of ways to get the bandwidth that is needed available with today's technology. But as Kye described his metro builds, we're building that with equipment that can immediately upgraded to 1.60 access links, links to data centers and links to hyperscalers. Now this is all on petabyte scale.

The size storage we're talking about for AI training is in exabytes, multiply all this by 1,000. It then becomes very, very clear why, where we connect, and how fast we connect will drive the economic value of those data centers and really drive the AI economy for our enterprises. So there's an insatiable demand that we see in our pipelines from Ashley and in Kye's builds to immediately get utilize all of those fibers that are in that cable that Kye has outside that you may have seen and why Kye is doing so much construction. So if we're going from just to make sure it's perfectly clear, earlier in my career, we'd be putting 144 fibers in a particular cable. Kye is now at 1,728. Those are 50-terabit fibers. So all of a sudden you're understanding how much bandwidth you can take 50 terabit and then understand how many 400-gig waves is in that. We're talking about hundreds of thousands. And what I'm trying to tell you through this economic slide, this slide on the economics is that it is what's required to take advantage and create economic value out of the AI economy. So we will continue to construct and we'll continue to build to the gigawatt multi-hundred megawatt and all the data centers that are out there.

Now to put this in perspective, this bar chart shows hyperscalers, colo and neoclouds and their construction over an immediate period through 2028 in which we see a massive surge. We talk about this in the industry quite a bit and the CAGR of that growth is 66%. Now as we look '28, beyond '28 to 2030, we see the CAGR is at 17% and the data center construction at 17% CAGR matches the CAGR of real estate power, water cooling servers, et cetera, that are also growing at 17%. So my point here is that we have immediate line of sight between now and 2028. We understand that 3 years after that, and that the industry is going to -- the industry will hit 1 billion square feet of data center space spread roughly in thirds across hyperscalers, colos and NeoClouds. So this is the fundamental economic shift that's happening in our industry, and this is the new core of the Internet.

We know today that Northern Virginia, half of the Internet traffic, as we know it today, goes through Northern Virginia. With this amount of investment in this movement, of traffic, of data, of workloads, of jobs into these data centers, we know this is the new core of the Internet. It's not just consumer services. And Lumen is the only company going after this cloud core and the only one that's won as many deals with hyperscalers, data center operators and neoclouds to build the fiber there. So I'm extremely happy that all my competition is chasing SIM cards because this is the Internet. This is where enterprises are going. Sorry, was that wrong? Okay. Let them chase SIM cards. I want the Internet. And that's just for connectivity and speed.

So how does this then change the macroeconomics of what we know about cloud 1 to cloud 2. So we already know that every hyperscaler has cloud regions throughout the Continental U.S. But when you take a look at the construction and you take a look at

these colored dots of where most of the data centers are being built. You see a densification in and around urban areas. That's not surprising. We see a massive amount of diversification based on real estate power and water and Kye is building the fiber. We're building our own routes. We're building it in partnership with power companies, with data center companies, et cetera. And again, the flatness of that WAN into 3 distinct strata, edge, data center interconnect and hyperscaler back-end fabrics. So therefore, all the construction Kye is doing, where we're connecting, absolutely critical, and we're the only ones building to this space.

So Cloud 2.0, extreme bandwidth and low latency required. We can debate where inference is going to happen. It can happen in an edge cloud. It can happen in a neocloud. It can happen to a hyperscaler because the distance of those routes is incredibly small due to the diversification of the locations.

Second, as Kate mentioned, data center to data center, data center to cloud, cloud to cloud, et cetera, that data center interconnect is the new Internet core, the expansion into these AI regions, which we can hypothesize, which in my world view will occur, that will have AI regions, just like we have cloud regions. And so those AI corridors that we're building to become massive economic value and become the new cloud regions of Cloud 2.0.

Now distributed on-ramps. We've talked about this a couple of times. What this means in essence, and we announced this with Google, and we're working with others is that we are building on ramps into the cloud, into the hyperscalers and into the neocloud and with data center operators away from the current carrier-neutral facilities. There are 17 locations in the Continental U.S., where multiple carriers come together. This is there historically because that's where we exchanged voice traffic and long distance traffic across carrier, those became the on-ramps to the Cloud 1.0 that we know it today. They're out of power, they're out of space, and they're in the wrong locations of the network topology to be relevant for the AI economy. So we're building with hyperscalers, data center operators and neoclouds an inter mesh, pre-lit of tens of terabits of capacity, intertwining our backbone with theirs. So our backbone becomes the backbone for all the enterprises to get to the hyperscalers and neocloud, pre-lit driven by digital platforms and now becomes the new on-ramp to the cloud and becomes fully distributed around the continental U.S.

And key for me in this transformation is enabling a fully programmable Internet. And I don't just again mean IPV4 and the swap of the Internet that we know it today. What is changing is that we can control bandwidth, latency and redundancy between data centers and cloud on demand. So you can take that 400 gig pipe, and you can carve up 100 gig goes to Amazon, 100 gig goes to Google, 100 gig goes to Azure, et cetera. And you can rearrange it all tomorrow on demand. The digital platform becomes critical, and I'll describe that in more detail. But that network as a service is absolutely critical in the Cloud 2.0 economy because enterprises can't predict the partners will have tomorrow, where their data is located, how much traffic is necessary between where the AI workloads will be and how much traffic is necessary to be immediately created to move that data to those workloads. Therefore, this leads us to the conclusion that a notion of VPNs or static point-to-point must evolve into a fabric in this backbone of controllable bandwidth, latency and redundancy. So these elements of Cloud 2.0 don't exist in Cloud 1.0, and don't exist in the protocols and features and products that have been delivered by legacy telco and this is what we are building.

As we've mentioned several times, and I want to build this up for you, ecosystem, physical network, and digital platform. Physical network where we connect in the speed, digital platform are going to be the services that we create and the ecosystem are the outcomes that we want to deliver for customers. And you're going to hear quite a bit about that over the next couple of days. I'm going to save the technology partners for Sean Alexander's talk. And I'm going to focus on the hyperscaler and data center operators because data center operators have their own backbone, they need to connect to other data centers in cloud, and the #1 question is, how do I get my customers to my data center? And I want to answer that question shortly. This partnership with the hyperscalers and data center operators as our ecosystem partners and the intermeshing and the creation of a unified fabric between our backbones and locations, fundamentally different architecture than exists today on the Internet. And we are out in front with those partnerships.

So on the platform itself, the digital platform, as we know it today, from being in a network-as-a-service like manner has to evolve and change. And it's evolving and changing because the ability for our customers to design, price, order, provision and assure out of one platform becomes the critical mechanisms in which the enterprises keep control, keep the design of their network, but have the ability digitally to be able to manage and assure that their workloads are happening.

So this move with Lumen Connect, what we were as a NaaS company now moving into a platform company and cloud native becomes a critical, critical move for us as a company and exactly what our customers are demanding. And when I say on the design piece, back to what Kate mentioned, design not only what's on net to Lumen, but also design off the net any carriers access to be able to build these constructs.

And so last, on the physical network side, picking up work Kye left off. What becomes -- what you can see on the left-hand side is an example of Cloud 1 shows some point-to-point between data centers, prem and some cloud, relatively static can be rearranged, hub and spoke like nature of MPLS VPNs, gateways all over the place.

Moving to the vision of Cloud 2.0, showing this with illustrative data center operators and services is that fabric. I don't need to think about where my bandwidth is going. I've got a notion of fabric in my network and the fabric ports that I'll talk about in just a second. These enable me to flexibly rearrange at any time, my connectivity. And just as an example, we see our customers having on average of 36 different data locations to run their enterprises. So this means that we need to create on-demand data clouds for our customers, you build that with a fabric. They need to connect between multitude of data centers that have been chosen throughout the history of the company and a multitude of cloud partners, switching that bandwidth, defining latency, defining redundancy on demand across just moving their data, let alone the transformation to adopt SaaS, whether it's their ERP, CRM, whether they're also bringing in Workday, Autodesk, whatever the case might be.

Selection of storage partners, Snowflakes, S3 to Wasabis and again, this is just for conversation, all of IT has moved into the cloud. But without a fabric, you're stuck with static, hub-and-spoke, point-to-point, connectivity, that is not flexible enough to make that transformation or meet the partnerships and outcomes that our enterprise customers want to hit.

So what is absolutely key about the vision that we have for our digital future? Our customers keep control, they keep the ability to design their connectivity and their business foundation based upon their connectivity architecture. But they don't need to own, manage or operate any of these assets. To be perfectly clear, do-it-yourself is dead in Cloud 2.0. There is no core value to an enterprise or intellectual property to get out of owning managing operating assets. This is what Lumen does. But what has never been seen in a VPN or managed service offer is the ability for the customer to design and control it themselves, full power to define their enterprise in design and our ability to deliver all of this connectivity and services with Lumen Connect. And you get something that looks like this picture, which is an example of everything connected to everything, on demand, changing bandwidth on demand, and only paying for what you use, and usage-based billing. So as we're transforming our products in our portfolio that my friend, Dave is going to talk about next, we're transforming the back end of Lumen as well to be able to incorporate all of these new features that legacy telco had never had before.

Kate mentioned this, but I want to reiterate this. The big change is a way that we think about delivering services in our network. So the notion of multiservice ports has been built by a number of system integrators for a very long time. But Kye and I had not deployed multiple services over the same port in the history that we have together. So a fabric port, single physical port, multiple services on top, services that I'm talking about, access to the Internet, site-to-site connectivity, voice connectivity, storage and archive connectivity. Certain amount of bandwidth going to any 1 of the 3 hyperscalers, certain amount of bandwidth going to my ERP and CRM, these become the new units of services and the value that we're creating for Lumen and creating for our customers.

Everyone of these services, ethernet, IP, private IP, the customer can design and control. How much bandwidth now? How much bandwidth tomorrow? Is it very latency-specific? All of that can be controlled by the customer through these fabric ports. And it gives us a future-proof nature of being able to roll out additional services on top of this. So for Ashley, incredibly easy mode to sell, get a port on our network, get a number of ports, build the services you need, build the enterprise that you want and build it with the assurance and the capabilities to match the workflows that you have in your enterprise and then this can scale. And it can scale massively because we're using industry standard building blocks to be able to get this done.

So all that sounded fantastic. And we know that we've got a legacy telco problem. We have lots of customers on our legacy products. And all of our enterprises want to be part of the AI economy. And want to be able to get to this new cloud infrastructure. So how can we transform and enable enterprises to transform to Cloud 2.0 without missing a step. Let's watch this video.

[Presentation]

David Ward
Executive VP and Chief Technology & Product Officer

So many of you have known me for a long period of time. And you probably can imagine what's underneath this on top of this pedestal. And what I'm about to show you has not existed in the industry before. It has -- there is no system integrator that has built the ability to transition and migrate an enterprise between different connectivity. There is no one that has ever built something that is controlled by a cloud data platform, and this is Project Berkeley.

The smallest router I've ever designed in my career. But perhaps the most powerful because it doesn't just fling bits. This front panel allows for connectivity, copper, fiber, Ethernet, LEO, fixed wireless access, 5G. It is the only one with a Swiss Army knife as a front panel. And this is control. Let me step forward, so you can read about it, too. This device on Lumen's network and across any other providers access network can virtualize the underlay and deliver all the services that I just described to you from our digital platform in Lumen Connect.

So all of my other service provider partners, maybe competitors, all my service provider partners in the industry, I now run the services on their network. And we connect this back to Lumen's backbone. And therefore, all customers on the Internet have the ability to take advantage and become part of the Cloud 2.0 AI economy because we can connect any form of legacy access and turn that into modernity. Already built zero-touch provisioning platform, digital control through Lumen Connect, to be integrated and sold through hyperscaler marketplaces and a full ecosystem possibility. Let me put this down for a second.

So SD-WAN and SASE great ecosystem partners of ours. But SD-WAN and SASE has a massive problem. Their tunnels over the swap of the Internet. How are tunnels over the swap of the Internet going to be viable in the AI economy, they're not unless those tunnels are pushed into bandwidth latency and redundancy controlled virtualized underlay from Project Berkeley. Security built in, MAX sec device security as well, fanless, hardened and a full portfolio of options of speeds and feeds to hit the market cost points. The value we're bringing full digital twin of the enterprise. We have a full replicant understanding of exactly what's going on on this device running out of our cloud.

Zero-touch provision, as I mentioned, Kye's technicians and hopefully soon just somebody in a brown van delivering a box. We'll hand this box to a customer, 2 cables, power and their access, finds itself immediately out of Lumen Connect. So this becomes our fabric port on-prem. So we're the only provider to have the ability not only for data center to data center and cloud and cloud to cloud, but now prem to cloud, prem to data center, prem to prem with full bandwidth, latency and redundancy control, and I can -- and to make sure it's clear, the reason we can do this is because we have a digital platform using a programmable device to create a programmable Internet in addition to the dynamic routing protocols that we know.

There is no system integrator building this device. There is no other network that's going after enterprise business services and cloud core like we are. So we had to build it ourselves. And the team we have in engineering and the innovation that we've been able to accomplish has been astounding in such a short period of time, fewer truck rolls, easier to use, easier to sell and that is how enterprises get to the AI economy.

So I'm going to summarize this portion and then wrap up for a second. The programmable fabric that we are building in the Cloud Core is now the core of the Internet. High-speed secure connectivity where we connect, Kye is proving that out and hitting all his dates, and we're going to continue to be in partnership with hyperscalers, data center operators, data center construction companies, neoclouds to build the network to connect them together. API-led and activation in hyperscaler marketplaces, enterprises now can buy the outcome and the network can deliver it through Berkeley and what we have across our network.

Safe, redundant, reliable, Kye continues to build the most reliable network in the industry in the Continental U.S. and a single platform of Lumen Connect to design, price, order, provision and assure. So without these, without any other provider going after this space, we are fully going after being the enterprise on ramp to the new AI economy. So to build this up, building the physical network now for us includes everything on-net to Lumen and everything off-net of Lumen because we can provide those services.

Next, sold a different way, directly plumbed into the hyperscalers and data centers and with new on-ramps distributed around the country, all run by Lumen Connect. As we build up, you can see where the data centers are being constructed. Now you can see where Kye is constructing his network, and we can have full design and control for enterprises via the digital platform, attached to all the major cloud vendors and all the data centers that are being built. And linking those data centers into the AI regions that are emerging in the U.S. These AI regions now become the new commercial nature of the Internet core and something we all need to track as an industry.

As we build up these on-ramps and you can see there are now redundantly within every one of the AI regions and AI region interconnect, this becomes new pricing capability and new pricing and offering that we're hypothesizing is going to emerge in the market. And then the ecosystem space. As you'll hear from many of our ecosystem partners, those that are doing cyber recovery, those that are doing storage, UC, CRM's ERPs on and on every single SaaS player or those that are building cloud natively. We can see an emergence of subsegments of the economy that are fully within cloud, that Sean and our Lumen validated design offer that we'll talk about in just a second, we can now build outcomes for our customers with our technology partners, utilizing our backbone and our on-ramps, to provide a fully new and different value proposition to our customers. So this is a target that we want to go after.

So this might sound a little harsh or maybe a little cheeky, but Enterprises will be defined as leaders or laggards in this economy. Those who adopt the architectural shift, take control of the design of their own enterprise, who they partner with, how they connect, how they transform, how they construct and how they take advantage of AI, you're either on the journey or you're falling behind. So the enterprises that are going AI native, cloud-first just isn't enough anymore. And now is how do you utilize the cloud. How do you match your workloads wherever they may be located with your data, wherever that may be located with a partner that you're going to use to train it. You must have a programmable fabric to do this. We know that everything is headed towards exabytes of data being transferred and of extreme low latency built into the network. So we're changing incredibly fast. And then Cloud Core.

I think I've said this a number of times now, but it's incredibly important to realize the core of the Internet is now the core of the data center interconnect between all of these sites. And the full flow of customer experience being digitized and identified is the path forward for design, price, order provision and ashore.

So I thank you all very much. I'm extremely happy to introduce Project Berkeley to you. And just a quick introduction to the vision that we have at Lumen for how to fundamentally change and positively disrupt the business of being in the Internet. Thank you.

[Presentation]

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We're excited to hear from Lumen's Vice President of Product Management, David Shacochis.

David Shacochis

I believe the industry term for that is an interstitial and that was a banger. I have to say. Hi, everybody. My name is Dave Shacochis. I am very fortunate to be the member of the product management team here at Lumen that gets to build a bridge between that vision that Dave Ward just laid out, our vision of a Cloud 2.0 future. And then a lot of the great detail we're going to be getting into this afternoon, the rest of our product management team inside all of the different breakouts as we start to break down the near-term parts of our road map and what we're planning. But this is going to be a little bit of a longer-term view that hopefully stitches those 2 things together. So a lot to get through.

Let's begin. A great place to begin as it usually is, is with the voice of our customer. So it was a great place to start. Our customers and their views and experiences have been central to shaping our priorities and what we're investing in and the way we execute. And through all these conversations, we're seeing these clear signs in the market get validated. First is this idea of growth in data and the way the customers are experimenting with AI, connecting all the different sources of data that are important to their enterprise. It's a big fuel to this surge in data center connectivity.

And over the next few years, our customers are telling us that their data center interconnect, their cloud interconnect is going to surge by over threefold. But what they're also telling us is that, that surge in consumption, that surge in usage, that surge in cloud connectivity needs to be managed in the same way that they can manage all of the cloudified data center and software that they're connecting to. And so they're telling us 8 and 10 of them when we asked them to give us this feedback they're saying, look, give me a single pane of glass, I need to be able to control my cloud network in the same way that I control all my cloud resources.

And we're also seeing a shift in the way that customers think about sourcing and integrating the way they buy certain services and technologies, there's a huge growth in enterprises buying all sorts of software and hardware services and starting to include other value-added services from public hyperscale marketplaces and from other different sourcing portals. So making sure that whatever we're delivering to the market, whatever we're delivering to support this surge in connectivity can also tie into the places where customers want to source things where they want to manage things and how they want to configure that together. And so this is all driving the way. Our road map is planning out. So let's dive in a little bit to how we're prioritizing and bringing that to life.

You've heard a lot about the 3 pillars to our strategy. When we think about what needs to be true for those 3 pillars to be successful, there's really 10 main building blocks that's spread out across each of these areas that we're going to get into in a little bit more detail. So the first pillar here is our physical network. Really where cloud-first topology and ultra-high speed received significant investment from Lumen and I think you've heard a lot of examples about how that's taking place. As Dave talked about, Cloud 1.0 is more of a flat wide area networking contract where cloud was really more of an afterthought, sort of bolted onto that entire strategy. But what Cloud 2.0, and that age requires is a much more diverse range of networking venues of hyperscaler on-ramps, of data center operators and a lot of the neocloud players that are starting to build ultra high-density data center environments, as well as ultra high-density processing units and GPU farms to be able to add on to a much more complex hybrid cloud landscape that customers have ever really had to deal with before. It also requires the ability to scale to handle, as Dave was talking about, that exabyte scale of data transfer, scaling to 400 gig and 800 gig and beyond for all the different AI innovation vectors that customers and enterprises are starting to explore. They know they need data on more than just one cloud.

The second pillar here is really our digital platform, and this sort of breaks out into 2 distinct levels of innovation here within Lumen. First, we're thinking about how customers engage with Lumen. How customers are looking for that design, price, order and implement service capabilities at their fingertips with the ability to have granular control and being able to be sourced and activated from all the different delivery channels that matter to them. But customers also want composable services across the cloud connectivity, whether that's Internet services or security services or private IP services, real-time communication and all the different types of partner services that they can integrate their onto any singular network port. And so that for Lumen really means an exercise in disaggregating

a lot of what used to be very siloed delivery services into a much more flexible model that allows customers to interact with their network, design and create new forms of bandwidth flexibility.

And the third pillar is really around our connected ecosystem. We believe that by 2030, our customers won't just buy connectivity from Lumen. They're going to be buying solutions that optimize that underlay network with value-added technologies from a whole range of over-the-top partners. And that resulting co-selling and co-marketing motion is what we're going to break down even further here over the course of the next couple of days to talk about how we're innovating with partners and accelerating our innovation to not just be what Lumen can go create but what we can co-create with our friends.

So that's -- those 10 building blocks that we're facing out there, there's a lot to keep track of. There's a lot to do. And so we're laying out our road map really here in terms of a tech radar view that takes those 10 building blocks, and capture some near-term and long-term deliverables across a number of time horizons. So it's like a radar, right, where Lumen is at the center of that radar. The inner ring is the closest near-term time period, right? This is the next 12 to 15 months of Lumen's innovation. You're going to hear a lot more detail about what we're planning in that range in the breakout sessions.

But as priorities and dependencies and the -- as road maps evolve and shift and customer requirements start to shift and change, we know that in some of these further out time horizons that road map is going to get reprioritized. And we're going to be always keeping that sort of north star view of what's the ultimate end goal inside each of these 10 building blocks. So what we're going to do next is break down this radar view across those 10 building blocks. And across these 3 pillars, to define what our strategic innovation is looking like across the physical network, the digital platform and the connected ecosystem.

So let's start off with the physical network and our road map there. Our first pillar is the physical, the backbone that lays the foundation for Lumen's growth. We're designing this cloud-first topology, and we're pushing high-speed connectivity to enable future-proof connectivity at any scale. But the core of this is that fabric port that Dave was mentioning before, introduced here now in the physical form as Project Berkeley. It's the port that enables customers to build multiple services on top digitally and multiplex those together on any user network interface.

On top of this, we're expanding our reach into new data centers. We have a huge data center expansion plan going on as part of our network build. So incorporating new cloud on-ramps, AI on ramps, as Dave mapped out in his section, really focusing on the new topology and the new footprint of Cloud 2.0.

As our customers start continuing and migrating all these services to cloud, they're going to need more direct to cloud connectivity and on-ramp. So we have some more direct connectivity pathways that are on our road map as well. And we're committed to serve over 90% of the on-ramps in the U.S. as part of our near-term product road map.

We're also introducing some really interesting and powerful features across some of Lumen's core services that render the physical network under greater control for our customers such as services like wavelengths. We're introducing some new automated wavelength design and quoting pieces, and we'll have a little example of that over my shoulder, and we'll pop up a couple of examples like this that give you -- that illustrate how much of this road map is already ongoing, previewing some features and things like our ability to go and digitally purchase wavelength blocks via self-configured processes for site selection and payment terms and things like that, we want to unlock the ability for our wavelength customers to engineer low-latency paths for specific use cases such as AI inferencing, we get a lot of interest in fast and fast provisioning wavelengths from our financial services customers as well.

In the longer term, we want to move to even faster bandwidth. So as Dave was talking about, scaling to 800 gig and 1 terra and beyond, secured with next-generation optical encryption for some of the advanced persistent threats that exist out there around encryption at the physical layer. So we're not just adding capacity here. We're taking our services and we're making them more programmable, resilient and secure. So there's a lot more to cover here. You're going to hear a great breakout of the infrastructure -- the infrastructure breakout later on this afternoon led by [TJ. Bahit and Todd Ganeser], and we're going to get into a lot of the details that's going on in our physical network investment. But the main takeaway, the net-net, that were the backbone of Lumen growth and the ability to go at the right topology and the right speed is the key of everything we're delivering here at the physical network.

Shifting to our next pillar, it would be easy to start off with that physical layer and start saying, okay, layer 0, layer 1, layer 2, let's just climb the OSI stack. But there's an important time out that we think about when we talk about our strategy, and that is all of the digital elements we need to add into our road map to be able to enable product -- from a product agnostic standpoint, all the fundamental building blocks we need, remember, 80% of our customers are telling us we need to see this in a single pane of glass where everything is integrated together. So we have full control of our network. And that's why we're converging everything into Lumen Connect.

You may have known this in the past at Lumen as what we called our control center portal but the Lumen Connect is the updated digital experience that customers can use to design, price, order, provision and assure everything from one place. So some critical

principles to Lumen Connect. And so it's going to be a redesigned API ecosystem to be more developer-friendly and consistent. But for those interactions that are going to be API Fed, we're integrating and making sure that those APIs are designed to work with all the different commercial channels, whether those are cloud marketplaces, or tech distributors, or even in the future of some interactions from more Agentic AI policies that are taking -- that are management tools that are taking action against the network based on their own defined policy.

So customers can tap into Lumen Connect from whatever tools and whatever investments they're already making. And finally, it's a unified experience that can be rolled into a single pane of glass across different products and services. And I'm really excited and happy to show you a little bit of a preview about how Lumen Connect is going to start to change that experience. It's a converged user experience based on modern design that helps users quickly browse, compare solutions, select the right one for them and give them a lot of powerful tools to track not only network performance, but also spending patterns.

So there's a lot of FinOps tools and FinOps capability that we're loading into Lumen Connect that allow our customers to take a look at some innovating commercial offers that we're planning like such as volumetric billing, right, buy a terabyte of bandwidth anywhere across the Lumen network, and you can use that from a number of different services that again, you can multiplex through your existing fabric port investments in all your locations. We also have some exciting features coming up around digital twins and taking all that telemetry to allow customers to simulate and test changes within Lumen Connect and roll those out to optimize performance and change management. But the net-net around Lumen Connect is that it's a key driver and 1 of the foundational building blocks for how our customers are going to interact with the Lumen platform from wherever they are on their tools landscape and on their user experience environment.

So the project -- so here's the rest of the product road map, right? We've talked a little bit about some of our physical infrastructure products, and there's a lot more that Lumen offers across a wide range of customer solution areas.

Let's start off with connectivity. Our connectivity products are evolving and modernizing, they're becoming much more composable over that idea of a multiplex user network interface in a single fab report. We're enabling frictionless activation across fabric connections at Layer 2 and our emerging services like multi-cloud gateway at Layer 3, which really allows customers to maximize their control over anything that they can reach across any fabric port across any on-ramp, across any enterprise gateway.

And if customers are going to be able to scale those workloads across hybrid cloud designs, expand premise, data center and cloud. Now of course, in the longer term, we're looking at models where customers can use and define their own enterprise on ramp. So much like a cloud has a defined on-wrap pattern, we see enterprises starting to explore with the reemergence of an extranet pattern where a private pool of bandwidth can be used for your supply chain or a private pool of bandwidth can be used for a multiparty AI experimentation around a set of shared data that one company is bringing to bear. Another company is bringing another ingredient to that data solution, and they want to share all that, but they don't want to throw it all over the public Internet, they want to be using private exchanges and private extra nets in order to fuel that innovation.

So a lot going on in the connectivity space. We're also listening to our customers. And our customers are telling us when they see opportunities inside of Lumen Connect. We have a feature here or an example over my shoulder, our recent feedback from one of our major service -- Ethernet services customers wanted to take what they were already running inside ELAN and they said, what would this look like inside Lumen Connect, we would really appreciate the ability to support dynamic Ethernet bandwidth changes and some self-provisioning capabilities, but we're already heavily invested in 1 of your existing products, we were able to go and modernize that product and launch it inside Lumen Connect for faster turnups and attachments to Fabric port.

Now on top of the connectivity layer -- in the connectivity layer, there's a whole lot more to cover there. Chris Morrow is going to lead a great breakout session delving into everything that's going on inside of our connectivity strategy, and I'll cover that customer solution area extremely well.

We have other services in the portfolio here that we're adding in. On top of the connectivity layer, we're working on attached services like bare metal computing services and GPU clusters running inside the Lumen network at the edge. This is going to enable new inferencing patterns and workload designs where customers can optimize their layout inside of the Lumen network at closer to the edge and closer to digital interactions. Jeff Sieracki is going to be leading an infrastructure breakout all around our edge computing portfolio, and that can be something for you all to look forward to and learn a little bit more about where we're playing there.

Another area of our product road map is all around the real-time communications sector. In real-time communications is really powerful. It's one of the critical areas where Lumen has competitive advantage in terms of all the telephone numbers that we have in inventory, all the different capacity that we have on different types of voice and peering networks. And we're starting to introduce some really exciting features inside Lumen Cloud Communications, right? This is our suite for on-demand voice control. And the

example showing here, we're doing some telephone number assignment and telephone number porting and LOA workflow is really starting to become part of the Lumen Connect platform that drive longer-term feature benefits.

We're also starting to build out a road map around unified communications and our contact center services. And some of those real-time communication innovations, which is really where the enterprise is telling us, that's one of the first killer workloads that they're starting to see in the AI space. How do I interact with my customers better? How do I drive better engagement with my clients? How do I automate that and keep that cost efficient? How do I do that with real-time communications? This is an early area where Lumen's network is tying that together. And so there's a great connectivity -- there's a great communications breakout that [Jamie Coach and John Evans] are going to lead later on today. They're going to dive into this full road map in a lot of detail.

And the final part of our product road map here is really around security. The Lumen Defender suite we have in place today can already detect coordinated attack behavior from some advanced persistent threats, working across the Internet. They can oftentimes identify those attack vectors at earlier stages before those threats are weaponized or even recognized by a lot of common endpoint tools, but that's all stemming from the threat intelligence that is mined from Lumen Black Lotus Labs threat intelligence. So that Defender suite will continue to evolve. We're doing some fun and interesting things inside the Lumen Defender over my shoulder there where we're starting to take not only the proactive blocking policies that are inside of Lumen Defender, but then adding in Agentic AI to support how customers can dive into the data and interrogate the data about what happened in that event. What was that attack? What was the bad actor? What geography were they coming from? These get more free text interrogations that you can take, and you can go start downloading all of the data Lumen has within its Black Lotus Labs database and be able to share that with customers in much the same way that they would ordinarily do with a human SOC analyst, we're going to have that as an AI feature of Lumen Defender.

A lot more exciting things that we're doing across the security portfolio, and there's a great breakout led by Susmita Nayak and [Craig Dabrio], that's going to cover the security road map in a lot more greater detail. But the net-net is that there's a lot of innovation that we're driving across everything inside of the core of our network. These are all going to be composable to our fabric port, and they're all going to be controlled within Lumen Connect.

And so the final point we'll touch on here and the final point of our tech radar is all the things that we're doing inside of the ecosystem. And you've heard that word a lot ecosystem is a bit of a pet peeve word of mine. Sometimes find people use ecosystem is just a cooler word for system. I think there's power in that biological metaphor. An ecosystem exists when things surprise you. An ecosystem exists when things kind of cross hatch and pollinate. And you can -- you never know maybe what's going to come out and what's going to grow out of an ecosystem and you can be really thrilled and surprised that some of the growth -- and so I think that biological metaphor is powerful because you need certain conditions for a biological ecosystem to grow. You need to right soil, you need the right water, you need the right nutrients.

Lumen is creating the right conditions for a technology ecosystem to thrive with some of our validated configurations, an organized program that helps create service wrappers and define customer outcomes along the way. So we're looking at a range of different technology partners. You're going to hear a lot more about our strategy for not only building and fostering that Lumen validated design program and the technology ecosystem that we're building up consciously inside of our road map. But we're also -- you're going to hear about that from Sean Alexander and Ethan Bloch a little bit on Day 2. You're also going to hear more from Ashley about how we're adapting our go-to-market and our co-selling motion as we start to work with different ecosystem partners that have built something that deeply integrated with the Lumen network and evolve that over time as we start to build that as a much more important and vital part of Lumen's innovation strategy, where we don't have to go and build everything. There's a lot that can emerge from our connected ecosystem to drive growth of our network in the future.

So you've seen this diagram before, and this is the narrative arc, right? The narrative arc of our road map is really going to enable us to take a journey from where we are today to a future state where connectivity fabrics enable the future of AI innovation in the enterprise. At the physical layer, we're expanding topology or upgrading speed across key metro areas and key data center locations, all across this landscape of the evolving state of Cloud 2.0, achieving 400 gig connectivity and beyond.

On the digital end -- on the digital experience end, we're evolving from a simple online inventory view where we are today to true digital interaction, where customers can provision and purchase services on the Lumen platform and also through API integrated catalogs and hyperscaler marketplaces. In the product layer, we're progressing from configurable on-demand connectivity that we have today to some more innovative multi-cloud solutions and service fabrics with advanced programmability and routing control. What's powerful about this diagram is it starts to speak to individual pools of bandwidth that can be configured for customers, well, whether you're running a multi-cloud workload that runs in a data cloud for the data layer is running a specific type of GPU in a physical data center. You can create a multi-cloud data fab -- multi-cloud application fabric to run that workload.

You may be thinking about creating a back net that's going to link together your corporate data center that's going to link together your customer premise, it's going to look together all your cloud workloads and perhaps AWS and you build yourself a data protection fabric for that pool of bandwidth that you can slice off and make available in those locations.

And to the point we're making before around how customers are starting to think about really innovating in the -- with AI in the area of customer engagement and real-time communications, those can be complex, but they're probably going to be best served by a private pool of bandwidth that can go and link to your contact center personnel at your premise with the hosted contact center software and may be powered by something like Genesys, that's running in a colo, and then being able to tie into some of the inferencing services from speech recognition players like Twilio or tie into CRM data that's running in the cloud with Salesforce, doing that over a private network, an AI call center fabric is sort of the value and the vision of what we would perceive there all across our product portfolio.

So why don't we finish where we started, which is with our customers, and you're going to hear a lot more about this in this whole program we get from getting feedback from our customers from Lori Garcia a little bit more tomorrow. But our customers are continuing to tell us that what we've started doing here, what we're building in terms of our overall strategy is really resonating for them. Nearly 7 and 10 leaders are telling us that their current networks cannot handle AI demands in the world of Cloud 2.0. When we paint this vision for them, they tell us that things need to change. And they all agree, 95% of them agree that AI-ready networks are going to be essential to the strategy that they're already planning. Multi-cloud is really already the vast default for our customers. And so enterprise teams want a simpler, more flexible cloud-based way to connect and manage it all. And that's exactly what our road map is delivering.

The physical upgrades for typology and speed, the digital experience upgrades the provision through multiple channels and that composable product layer that brings a programmable multi-cloud networking and service fabrics together with a growing ecosystem of partners that benefit through Lumen validated designs over the top. So in short, customer demand is pulling us forward and our road map is being designed to meet this moment.

So you've heard a lot of exciting things today around our technology point of view, but let me close here and we'll just summarize it up. First of all, we really believe the demand is real. Our voice of the customer and external research tells this consistent story. Enterprises are moving towards Cloud 2.0 and need an AI-ready network to get them there. And thank you to a lot of the analysts in this room as well who have helped us validate that strategy to be true, and we're excited to talk more with you about this over the course of the forum.

Second, we're absolutely not starting from 0. We have a deep and a hard-earned network building experience that Kye talked a lot about, that builds a backbone that very few can match. And we're upgrading that for the next decade to be able to react to and evolve with the changing shape of Cloud 2.0 and that overall footprint in topology. And finally, on top of all that foundation, it's a pretty clear differentiated product strategy that converges our services into a common user experience with an API-first model that supports multi-cloud architecture, cloud distribution channels and Agentic tools. The demand has proven. We think the foundation here is really strong and our commitment is certainly real. Lumen is playing to win with this product road map, and that's how we're going to become the trusted network for AI and the real enabler for Cloud 2.0. Thank you.

[Presentation]

AL

Now let's give a warm welcome to Lumen's Chief Revenue Officer, Ashley Haynes-Gaspar.

Ashley Haynes-Gaspar
Executive VP & Chief Revenue Officer

Hello, hello, hello. Good afternoon. I am absolutely thrilled to be with all of you this afternoon. And I think I am what's standing between Q&A and lunch. So let me start here. Most weekends, I enjoy going on hikes with my husband. Any hikers in the room? Yes. Oh, I love it, my people. Hi. I love the way it makes me feel especially after the rain. I love the way it smells, which happens like rain and smells. Pacific Northwest, that's where I live, happens a lot. We pick a trail. Usually, the harder, the more complex, the more technical, the better. It's a metaphor. I think for the type of work that I enjoy, it's why I'm here at Lumen. I love transformations, but that is not the point of the story.

The point of the story is that if you have ever hiked -- you know that the forest isn't just scenery. It is a living system. And the roots underfoot really form this incredible network, and it is complex, and it's critical. And Kye described our network as this root system.

But roots alone don't make a forest. The trunks give it shape, and it gives it strength. And Dave showed us how our digital platform really is the trunk, and it is simplifying decades of complexity, really making our growth possible.

But the canopy is my favorite. Because the canopy is where the magic happens. It's the branches that reach out, it's the connection and it's the extension and it's the scale of the forest, and that is our ecosystem. It is linking cloud and edge and enterprise and partners, and it is how we unlock growth for our customers and for industries. And every part of the forest depends on the others, roots feed the trunk, trunks support the branches, the branches connect the system as a whole.

And we are building the connected ecosystem that is more than the sum of its parts because the world is changing faster than any particular technology, company or platform can keep up with on its own, and sustainable growth and success now depend on the ecosystems that we build together because growth today is not about owning everything. It is about connecting everything. And at Lumen, our connected ecosystem is the key to our growth engine. And we believe it is the 3-way intersection between customers, partners and innovation, and it is the place where the next generation of business value will be unlocked to provide the intelligent infrastructure, scale and trust for the AI era.

So the future is not built in silos. It is built in network. So today, I'm going to share how we are building and how we are connecting this ecosystem, really linking the cloud, the edge, the enterprise and partners to unlock growth for this next generation. So let's start with the opportunity that's in front of us. You've seen this. Kate referenced it. Dave, who was just on stage, talked a little bit about it. Demand for cloud, data and AI is growing faster than most enterprises can keep up with today. And there are 4 key dynamics. The first is that the global cloud market is on track to hit $1.1 trillion by 2030. That is not incremental growth. It is a full scale shift in how businesses run their infrastructure.

Second, for Lumen, it means a $15 billion addressable market, and that is where we are focused. Third, we know that infrastructure has to scale. In the U.S., we expect 1,600 new data center site expansions by 2030. These aren't just buildings. As Dave mentioned, these are the backbone of the AI economy. And they all need intelligent, high-capacity networking, which is exactly what Lumen delivers. And fourth, 85% of customers say that AI is going to drive bandwidth and cloud demand. And we know that AI is not just another workload. It is the force that is reshaping how enterprises think about connectivity, how they think about scale, how they think about security and how they think about performance.

So the opportunity is huge. The demand is real, and this is where Lumen's growth strategy comes alive. We are showing up where growth is happening with the infrastructure, the digital platform and the ecosystem that customers need to win in the AI economy. So every customer I talk to says the same thing. Data growth is relentless. Bandwidth heavy, latency-sensitive apps keep rising, and legacy networks are not built for this kind of scale. About 70% of U.S. leaders say their networks can't support AI, and 95% say that AI-ready networks are mission-critical.

This is our call to action. Customers need partners who can help them make that leap, and this is our opportunity. We also know multi-cloud is the norm. 92% of enterprises are doubling down on it. But managing workloads across cloud and on-prem is getting harder, and moving data securely and seamlessly is a growing challenge. This plays directly into Lumen's strength, programmable cloud integrated infrastructure. And at the same time, customers are facing budget pressures. They have patchwork fixes to outdated systems, which only make it worse, and they're driving up costs and creating inefficiencies. So what customers are asking for are connected solutions that cut costs, reduce complexity and help prevent that vendor sprawl that is happening across their organizations. They also want faster deployment. They want faster ROI, and they need to optimize both budgets and performance, and that's why our connected ecosystem approach deeply matters.

So customers' needs are clear. We're at an inflection point. Modernization is not optional. It's essential, and enterprises need a new path forward, one that removes bottlenecks, simplifies operations and makes the economics work. That's where a connected ecosystem matters because it's not about adding more bandwidth or another cloud provider. It is about partnering with technology leaders to drive joint customer success to expand our reach, together. It's about delivering scale, speed, efficiency, security and resiliency for the AI era, and it's about reducing total cost of ownership for customers while enabling innovation.

So you've seen this page a few times today. What I'd like to do is unpack it a little bit for you and talk about what it means from a commercial perspective. This is the connected ecosystem model, and it's about building more than connections. We are linking data centers, technology partnerships, hyperscalers and enterprise and public sector customers. And this shifts us from a network provider to a growth platform. For customers, this means less complexity and faster time to value and confidence that their workloads can run anywhere securely.

For Lumen, this means we're not going it alone. We are monetizing our central role in this era of AI connectivity, and our connected ecosystem partners are helping us deliver stronger solutions with expanded reach. So how does it work? When we look at data centers,

we are expanding our Connectivity Fabric in every major data center, and customers are getting instant software-driven access. And it's not just connectivity, it's a digital marketplace inside the data center.

When we look at tech partners, this is all about partnering to deliver integrated best-in-class solutions. Customers want answers. They don't want complexity. This makes it easier for them to buy, deploy and scale integrated solutions in the backup, recovery, data, AI and security space. We're also partnering with every major hyperscaler, making it available -- making on-ramps available directly in their marketplaces. And that means that customers can connect workloads to the cloud instantly with none of the legacy friction. And customers are at the center of everything that we do, and we are helping them to adopt multi-cloud and that's really simplifying how they buy, how they consume and how they grow.

So the breakthrough value of Lumen's multi-cloud and NaaS solutions is real, and it's immediate. Customers tell us that this is the fastest way to connect to multi-cloud environments. And it's all about speed, it's all about reliability. It's all about scalability, and there are no longer barriers, and they can provision connections in minutes and not days. And this is what happens when you put customers at the center and deliver solutions that work at the speed of business.

So the connected ecosystem is not about theory. We are proving it in practice, and we are building for repeatability, and we are doing that through Lumen-validated designs. We are testing with real customers. We are learning fast, and we are scaling what works. This is how we are delivering solutions that create measurable business value for customers, for partners and for Lumen. Every test that we do strengthens the ecosystem. And by codeveloping with partners and with customers, we are building a platform that stays ahead of the AI and multi-cloud era.

And when a solution delivers, whether it is one-click data center connectivity, it's AI at the edge or it's seamless multi-cloud access, we can take it wide, we can take it fast, and we can take it with confidence. And this is how we win, moving quickly from pilot to repeatable growth. We're not just connecting data centers or connecting clouds. We're connecting enterprises to new revenue to lower costs and to the agility that they need in the AI era.

Now you might be saying this all sounds great, Ashley, how do you make it real? I'd love to do that. We are partnering with Commvault to tackle some of enterprises' toughest challenges that they are facing today. If you don't know Commvault, you're about to meet them. Commvault is a global leader in backup recovery and ransomware defense. And together, we are delivering solutions that are protecting data and keeping businesses running safely in this AI-driven space. We chose Commvault in this partnership because their platform delivers real results. It's air-gapped vaulting, multi-tiered recovery and automated ransomware defense.

So to share more about this partnership, please join me in welcoming Pranay Ahlawat, their Chief Technology Officer and leader of AI. While you come up, we're also going to roll a quick video to introduce Commvault. So come on up.

[Presentation]

Ashley Haynes-Gaspar
Executive VP & Chief Revenue Officer

Okay. Thank you so much for being here. I appreciate you.

Pranay Ahlawat
Commvault Systems, Inc.

Of course.

Ashley Haynes-Gaspar
Executive VP & Chief Revenue Officer

Okay. So Pranay, when you and I were getting to know each other a little bit, we spent some time talking and you're spending time with enterprises all day every day. I'd love for you to share with us a little bit about what you're seeing.

Pranay Ahlawat
Commvault Systems, Inc.

No. And so Ashley, I think a lot has been said already. So this is a hard question because now I have to think of smart things to say beyond what's already been said. But at least from our vantage point, I think there are 3 things that I think we see increasingly. First, I think we've all talked about multi-cloud, 95% customers being hybrid and multi-cloud. On average, a typical enterprise has more than 100 to 200 SaaS applications, depending on what source you want to look at.

But I think from our vantage point, 3 things. First, scale has exploded. So when we are actually backing up data right now, it's very common for us to see petabyte, sometimes exabyte data storages, exabyte scale data storages. And we currently have customers that actually have S3 buckets with billions of objects, 1 of them had 60 billion objects in 1 bucket. So scale is continuing to go up. And if you think about the modality of modern applications, a typical microservices-based application might have more than 12 to 13 databases. So the scale has definitely become an issue.

The second thing which I think it was implicit in everything that was mentioned is cybersecurity. So if you think about cybersecurity, the volume of ransomware attacks has increased between 100% and 127% year-over-year. It's hard to actually think in compounding growth, but it's a lot. It's a lot. We are looking at 287 reported ransomware incidents per day.

Ashley Haynes-Gaspar
Executive VP & Chief Revenue Officer

That's incredible.

Pranay Ahlawat
Commvault Systems, Inc.

And I think that's growing every day. And the funny thing is when you juxtapose everything that AI is doing, we think the velocity of that is only going to go up. And the third point that I think is worth mentioning is regulation. So regulation today is a $2 trillion problem for the industry. And if you think about regulations like DORA, they actually ask enterprise customers to build isolated recovery environments outside of cloud and in different data centers.

So the net impact, the net impact if you sort of squint your eyes and see how architectures are evolving, large enterprises today actually need to move large amounts of data at scale between cloud and between on-premises and cloud. And I don't think it's enough just to think about, of course, we would like to think Commvault can do it all. But the fact of the matter is that the underlying network substrate is equally important.

Ashley Haynes-Gaspar
Executive VP & Chief Revenue Officer

Yes, that's really incredible. And I think it's a perfect setup for why we've partnered. So I'm curious, from your vantage point, what makes Lumen such a critical partner for Commvault?

Pranay Ahlawat
Commvault Systems, Inc.

So I mean, first off, I just want to thank everyone from Lumen. Lumen has trusted Commvault with their own data protection. So that means a lot. It's not something -- it's a huge privilege for us. So thank you for that. But I mean, beyond that, I think this partnership makes sense because we deliver 3 things that customers really want. So the first is better economics. I mean with Lumen's programmable NaaS and IP VPN on demand, we can actually provision network capacity on demand so customers can only pay for what they use. I mean, that's huge. When you're actually moving data -- when we are actually moving data, we know predictably how much data is moving, what time that we are moving it. So having the ability to do that is huge.

Second is scale. So we use a bunch of bulk data transfer circuits, Lumen Cloud Connect. But the idea is when you're actually moving huge volumes of data into air-gapped vaults, having the ability to do that predictability is huge. And the third is security. So the network itself has things like segmentation and encryption built in. And with Commvault sort of encryption at the data layer, customers can be confident that what they're moving is actually secure.

And unlike hyperscalers, hyperscalers are super optimized for their own environment. I think Lumen and Commvault together, I think we deliver true multi-cloud resilience for customers.

Ashley Haynes-Gaspar
Executive VP & Chief Revenue Officer

I totally agree. And I know that we have been working together on a Lumen-validated design or an LVD as part of our connected ecosystem strategy. So why is that model so powerful from your perspective?

Pranay Ahlawat
Commvault Systems, Inc.

I think it makes a ton of sense. But I think -- by the way, I'm a consultant, so I always tend to speak in 3s, but I think the...

Ashley Haynes-Gaspar
Executive VP & Chief Revenue Officer

I like 3s.

Pranay Ahlawat
Commvault Systems, Inc.

To me, the most obvious reason is it's customer-first innovation. I don't think we're doing science projects. The fact is that Lumen-validated design actually is sort of based in customer case studies. And our first LVD together was actually scaling this model in Lumen's own environment.

Second, I think it's tested at scale. So if you think about what we did at Lumen, we had 72 scale-out nodes, HyperScale X nodes, 6 different data center regions, 20,000 hosts. I mean that's the kind of rigor that I think enterprise customers actually expect from us. And then third, I think you've mentioned this before, and it's adaptable. It's not a onetime thing. The beauty of this model is that it's not a one-off. We can actually take this and apply it over and over in multiple sort of architectural modalities.

And the value proof has been amazing. I mean, we achieved roughly about 90% savings in Lumen's operational costs, $3.5 million in savings. And by the way, recovery time got cut from days to hours. So it's huge. And Ashley, I think it's worth mentioning that forward-leaning companies like Worley are also engaged in this model.

Ashley Haynes-Gaspar
Executive VP & Chief Revenue Officer

Yes, they are. And the work that we're doing together at Worley is already showing results, and I think it's really exciting. So if you all aren't familiar with Worley, Worley is a global engineering services firm. They specialize in the oil and gas space mostly, and they face the challenge of moving enormous data sets across multiple geographies. And when they move these data sets, sometimes it would take days to move them. And that is not hyperbole. It drove up cost. It drove up complexity. It drove up risk.

And with our edge infrastructure and global reach and our pay-as-you-go simplicity that you've been hearing about today, combined with Commvault's unified data protection and ransomware defense, we really helped Worley build a cyber-resilient multi-cloud architecture, and it moves data faster. It reduces job failure, and it simplifies operations for Worley. And that means real-time enablement across multiple locations with lower risk and better compliance. And this is better together in action. And Lumen and Commvault is working together to solve for speed, to solve for scale and to solve for security in this multi-cloud world.

Pranay Ahlawat
Commvault Systems, Inc.

Yes. I couldn't agree more. I think Worley is such a good example, 45 different countries. And like you mentioned, enormous complexity. I mean, historically, managing that sort of complexity means you're actually taking on a lot of risk. And I think using Lumen's global infrastructure and Commvault's cyber resilience platform, I think Worley has really transformed its cyber resilience posture. And together, I think we're delivering world-class cyber resilience at better economics. So very happy for that.

Ashley Haynes-Gaspar
Executive VP & Chief Revenue Officer

Yes. Pranay, thank you so very much for joining us. And thank you so much for being an incredible partner.

Pranay Ahlawat
Commvault Systems, Inc.

Thank you.

Ashley Haynes-Gaspar
Executive VP & Chief Revenue Officer

Okay. So clearly, the right partnerships help to unlock growth and unlock possibility. Thank you, Pranay. And the right talent and the right tools help to make it real for every single customer. And we are doing that by transforming our sales model by combining AI with human talent, each playing to its strengths to drive outcomes at scale. So we deeply believe at Lumen that AI is an enabler. It is

not a replacement for our commercial talent. And our sales force and business development teams remain at the center of everything that we do from a commercial perspective.

We are strengthening our core sales motions with our account executives and our customer success professionals while adding new capabilities through alliances, specialists and business development to support this connected ecosystem discussion. And at the same time, we are building a world where AI agents are helping to handle repetitive behind-the-scenes tasks like lead qualification and pipeline management and quoting so that our teams can focus on things like high-value customer engagement. This means more time for relationships, more times for solutions and better outcomes, and this is how we create deeper growth opportunities.

And what we know is that AI is a force multiplier and it helps us engage in thousands of accounts without losing that human touch. And by 2026, this hybrid model that I'm talking about of human talent plus AI is going to give us the muscle and the agility to win inside these commercial motions. You might be saying, Ashley, that sounds great. How are you making it real? We have launched Lumen's AI Lab. And AI Lab is a dedicated team that is waking up every single day. It is responsible for turning our AI strategy into business outcomes for our commercial teams. The lab is the engine to modernize how we sell, and it's where we move from buzzwords to measurable impact.

Here are a couple of examples. The first is we are taking 14 legacy B2B commercial systems, and we are bringing them into 1 single sales force engine. It means less time toggling between tools and more speed from lead to order. We are also deploying agents to help with the heavy lifting. They are doing things like targeting, execution, routing and support so that sellers can focus on relationships and closing deals, which is what they do best. We've also codified 19 use cases into repeatable playbooks through AI-supported motions like buddy agents, smarter targeting, intelligent workflows and automated tasks.

And what's important for you all to know is that the AI Lab is not just about technology, it is about giving our people more time with customers, more time to deliver solutions, to drive predictive cost savings, to drive stickier revenue and to drive faster time to purchase. And here's the proof point. Lumen has been invited to join a highly selective research program, 1 of 12 companies, and we are the only telco. And this research program is exploring the future of work. And it's at the intersection of AI-powered, human-led, agent-operated. And this isn't just research. It is a validation that at Lumen, we are building the future of commercial innovation and commercial workflows, and I'm deeply excited about it.

So we've explored how a connected ecosystem expands what's possible for our customers, for our partners and for our teams. And when you look at the results, smarter cloud economics, streamlined experiences and new growth, you see the impact of every part working together. So if I bring it back to where we started, nature and forests have the ability to adapt, to stretch, to be agile and to find new ways to thrive, and our network, our platform, our ecosystem are all doing the same, each supporting each other and making the whole stronger. That is what building a connected ecosystem delivers. It expands and optimizes how customers use our network, turning it from infrastructure into a growth engine. It elevates the customer experience, making it simpler, smarter and more valuable. And this is how we deliver value, create momentum and set ourselves up for what's next.

This is the start of something bigger. This is our moment, and I couldn't be more excited for what's ahead. This is the era of connected growth, and it starts now. Thank you.

[Presentation]

AL
We're opening the floor for a Q&A. If you've got a question for our morning speakers, just raise your hand, and we'll bring a mic your way.

Question and Answer

Kathleen E. Johnson
President & CEO

All right. Gang is all here. We're ready to go. What you got?

Jeremiah Caron
GlobalData UK Ltd

I'm Jerry Caron with GlobalData. Thanks very much for that. It's brilliant so far. Also, congratulations for making it all the way until almost 12 before mentioning Agentic AI. My question actually goes -- actually threads throughout all of the different presentations, but all the way back to the first couple on strategy. And it has to do -- what are the big assumptions that you're depending it on? What conditions have to occur for you to reach this revenue growth that you've outlined as part of your strategy and as part of your financial plan? I have 1 in mind, but I'd like to hear what are your thoughts on that?

Kathleen E. Johnson
President & CEO

Can you share yours? I'd love to hear it.

Jeremiah Caron
GlobalData UK Ltd

Yes, sure. I think 1 of the things that we've been -- at GlobalData have been studying quite a lot the last couple of years is the timing of this acceleration of demand for enterprise AI. And I think there are definitely still questions around that timing and what -- and all that, that will then dictate down the chain, including the network demand. So that's one. It seems you're heavily dependent on the timing of that to reach the targets, the dates that were put up in the CFO presentation, for example?

Kathleen E. Johnson
President & CEO

I think that's a great one. I think there are many at the macroeconomic level that are not in our control. We are assuming there's no massive exogenous shock on rates or things like that and that the conditions that we've seen are going to persist. We would need to obviously change our call if we were to see some shocks and impacts to it. But that's normal course of business for planning period, much as planning a turnaround.

I'd love to kind of focus on 2 different pieces. One is the assumptions from a technology perspective. And the second are the assumptions from a financial perspective. And then if we've exhausted your curiosity there, we can move on, or we could explore other areas.

Jeremiah Caron
GlobalData UK Ltd

Just a little context. I'm not an AI skeptic by any means. I'm an enthusiast. But having lived through the Internet bubble and see what happened there, it was all about timing. Everything that we thought was going to happen did actually happen. Is just that the timing, wasted a lot of money in the interim? So any...

Kathleen E. Johnson
President & CEO

Yes. So first of all, this is a long-term transformation, right? And we talked about 3 phases of the AI economy, the hyperscalers connecting all the data centers, enterprises starting to use inferencing and then AI talking to AI and the rings that Dave eloquently pointed out are forming already. And quite frankly, things are happening a little faster than we thought. But economically, the assumptions that we have are based on what we see happening in our core business, the growth rates that we have on our organic platform today and the legacy decline rates that we have already been experiencing. So there's really no big leap of faith assumptions, but I'm going to turn it over first to Chris to kind of validate and maybe share some more, and then Dave.

Christopher David Stansbury
Executive VP & CFO

Yes. So the assumptions that get us to an inflection point in the Business segment in '28 and total Lumen in '29 is exactly what Kate just said. All we're doing is taking market growth rates or decline rates and applying them to the existing portfolio. And then we're laying in about $600 million of digital revenue associated with these new initiatives by the end of '28. So not heroic assumptions. And candidly, 1 of the reasons why we separated today from an Investor Day is we're still learning. The unit of economics for Lumen is quickly going to become that Fabric port that Dave shared with you. How many ports per customer, how many services per port, how much revenue per service per port. That's learning that we're getting a lot of data on now. And between now and February, we'll lay out what those economics are for each of the layers in the system, the physical, the digital and the ecosystem.

So for now, the placeholder is the assumptions that I shared, but there is a range of outcomes. But I think the starting point in terms of what we're committing to today is based on some pretty conservative assumptions.

David Ward
Executive VP and Chief Technology & Product Officer

So on the technology side, a number of the pieces that Chris just described are within our control. Our ability to move our existing physical ports that we've already deployed, convert those to Fabric ports and then all of the new construction that Kye is doing for data center expansion, right now, we don't have access to that TAM because we haven't built Ethernet and IP at scale into those locations. So Kye hitting his dates, the development team hitting the platform dates to be able to enable that, for us, that's very good news because we can unlock known market with known customer base and go and approach that wallet share.

So a couple of other things that are really important for us for timing to hit Kye's pieces are 1 thing that Kye touched on and I want to reiterate, the rapid routes and the pre-deployment of waves, that's fundamentally decreasing the amount of time it takes to install a wave service. The digital platform, rinse and repeat for Ethernet and IP, that is decreasing our time to revenue to new points. And so as Kye keeps rolling those pieces out, and we keep rolling out the platform, I think those are some of the fundamental technological pieces that have to continue to happen in time. And then as we hit Project Berkeley, hitting that in '26 and scaling that up with -- and capturing first-mover advantage, I think those are some great ways to continue to add on top of Chris' strategic growth curve.

Kathleen E. Johnson
President & CEO

Commercial and public sector, different rates of change and readiness. So do you want to talk about that, Ashley?

Ashley Haynes-Gaspar
Executive VP & Chief Revenue Officer

I'd be delighted to. I think to your point, when we think about AI, we tend to naturally have a bias, at least I do, to go to the hypers. We have a tendency to go to corporations and to enterprises. But the reality is, I think that there is equal appetite in the public sector space because it's about national competitiveness.

So I think 1 of the things that we continue to evaluate, and we continue to partner with the public sector space on is what does AI mean to them? And how does Lumen continue to partner in that space? And I think that is an important part of our growth strategy as well.

Kathleen E. Johnson
President & CEO

How did we do? Okay? More questions.

Camille Mendler
Informa UK Limited

Camille Mendler with Omdia. So I love the passion. And I don't really want to call you an underdog. I prefer phoenix, potentially. But my question is...

Kathleen E. Johnson
President & CEO

Very messy, but...

Camille Mendler
Informa UK Limited

What is the range of flight to you? And by that, I mean, I noticed that you used Omdia's traffic revenues and traffic for AI, which is great, but our projections are global. And I'm just not sure from today's conversation, whether you are a provincial U.S. player or a global service provider because you've not spoken about a tricky thing for enterprises, which is sovereignty. And managing sovereignty -- I'm not saying, by the way, the U.S. market is a shabby one to operate in. But I'm just trying to figure out who indeed you are, at Phoenix?

Kathleen E. Johnson
President & CEO

Yes. I think it's a great question. And 1 that we have a very strong point of view. So first of all, the numbers that you saw today for the available markets we're going after, they were U.S. members. And we believe we have a right to win and that we are already demonstrating success. And success breeds success, momentum is an asset, and we have it. So that's great.

What I think is really important is the vision that Dave Ward brought to life today about a digital platform haloed around our physical network is something that's incredibly important because what we decided to do was focus on winning in the U.S. but also building a platform that can easily scale globally. Because if you have the ability to interconnect digitally, then you don't always have to own the assets in order to monetize connectivity period. We know that, right? And so what we're doing is really taking a giant leap forward in our own ability to create a global fabric. First, by getting healthy and focusing on the U.S., where we can win and just with that and grow, but serving multinational corporations that can expand globally by having partnerships around the world.

Our connected ecosystem, it's not just about technology companies serving U.S. customers. This is about technology companies serving customers globally and partnering with telecommunication companies who have the ability to interconnect with us, and we're already doing that and we have so much more to say, but we can't yet.

Dave, do you have anything to add that you're allowed to?

David Ward
Executive VP and Chief Technology & Product Officer

That I'm allowed to. So the global telecom market is also shifting where it is becoming ecosystem partnerships as well, and the integration of our partners' NaaS platforms as -- and that actually works globally as well. That is a very interesting way that we're now, as an ecosystem and a community of service providers actually focusing ourselves, but still providing global reach through these partnerships. So that ecosystem, as Kate just mentioned, you understand when Lumen sold much of its international fiber sold it to very specific partners that we partner very deeply with. And whether it's us speaking to this or you see this at organizations like MEF or Amplify Now or others, that integration of those NaaS platforms is providing that accessibility and in the U.S., whenever any one of our partners wants to get to the U.S. into these AI data centers and all that we described, they need to partner with us. And then for our reach, we need to partner with them. And so I think it's actually a very healthy expansion and extension of what's happened in the telco market. In particular, because we can also look at the history of many global networks and their global services arm that has not been either overly profitable and incredibly expensive for any individual company to actually take on.

Gary Barton

Gary Barton from GlobalData. I think you set out so far today an excellent vision for the future of what the Lumen network looks like. And that -- I can see how that scales, how you grow the business. But you also mentioned about the margin aspect as well. I'm just wondering if you could say more about that because there's an aspect that you can automate the network, but that has a sort of diminishing returned aspect. There's only so far you can go with efficiency. So where does Lumen play because we heard that sort of self-build is dead. So is there more room on the professional services side because a lot of this building these AI networks for enterprises, they don't have the skills necessarily understanding to understand how they build that. And is there more of a role for Lumen in that what we have more?

Kathleen E. Johnson
President & CEO

Yes. We announced as much of a 20% expansion in margins that we're planning on executing over the next 4 to 5 years based on two things: Number one, modernization and simplification is taking cost out, okay? So we're an amalgamation of many firms. We had 4 networks, and those networks, each -- we call them color, there was all the different colors and they had ecosystems with applications supporting them. And we're going after that technical debt pulling out the cost and delivering a more efficient Lumen. And that's finite. There's only so much that you could do there. What's not finite is the revenue growth side. We've built an organic growth engine called NaaS. We also have private connectivity fabric, which is growing. And on a deferred basis, just the $8.5 billion

or $9 billion that we've already closed this $400 million of deferred revenue exiting '27, that revenue growth curve particularly with a fabric port, which can support thousands of services on one piece of hardware delivers cloud economics. So we're having a declining marginal cost for every new service provision on top of this fab report. So revenue goes like that, cost goes like that. You combine cost out with that revenue curve and you've got yourself margin expansion. Chris, how did I do?

Christopher David Stansbury
Executive VP & CFO

Perfect. I mean, I think the fact that people are consuming these things digitally and self-provisioning means no truck rolls. So right there you have an expansion in gross margin. And what the model doesn't really contemplate when we make the comment around margins is the operating leverage we can get when a legacy enterprise telecom business pivots to the future and actually starts to grow because the rate at which OpEx will grow, will be less than the rate which revenue grows. So there's lots of pathways to drive that, but the single biggest unlock is the fabric port and the fact that truck rolls don't have to exist to deploy services to customers.

Kathleen E. Johnson
President & CEO

And I think, to your earlier point, Chris, is really important. This is an extremely reasonable plan. It's a path to growth. We have to execute a lot of things and there's a lot of complexities, but we didn't contemplate operating leverage improvements in that plan yet because we need to sort of learn about the Cyberport rollout and how we're going to do it, how quickly it can happen, et cetera. There's also this notion of we don't build into the plan, these really large PCF deals that we do either. So the combination of some of those things make the upside even more exciting.

David Ward
Executive VP and Chief Technology & Product Officer

So Kate, I have one more that is a little bit deeper into the layers of the network that Kye and I've been building, and it's moving to a routed optical network at our metros, away from [indiscernible] rings and hub-and-spoke, I have been quoted by a colleague of yours, as I said in the conference that rings are for marriage, but not for networks. Routed optical network does allow us to route the photonic signal within the metro area and not be constrained by a specific physical topology. This is unlocking order of magnitude reduction in the cost to deliver a bit, so now not only do we have the largest network with highest capacity, but we actually have the most efficient physical topology and logical topology by reconstructing it away from the past in legacy technology to a routed optical network.

Gary Barton

My other concern with that is just that sort of marketplace approach, we've seen service providers attempt that approach, and they usually plateau that there's usually a lot of interest, and you talk to the initial enterprise as you take up that approach, and they're super key because it's the way they want to do it. But then for the mass market of enterprises, it's not necessarily they want to buy services. So I just wonder whether some of the growth assumptions within the NaaS marketplace approach may not pay out, there's probably more of an opportunity in the U.S. than there is, say, in Europe for it?

Kathleen E. Johnson
President & CEO

Possibly, but also our growth assumptions are quite modest. In what we're seeing right now is an acceleration of growth and the connected ecosystem monetization capabilities are quite remarkable. But what we've contemplated in the model is just further reach of NaaS without some of these other interesting models like embedded services and fees on subscriptions of other technology services. When we start to add that in, it gets exciting, but we haven't in the model of where we turn to revenue growth in the business segment in 2028. Again, it's a path. We're chipping away at it. We're doing quite well. And we're excited about that moment because after more than a decade of decline, having that growth moment on the horizon is pretty darn exciting. So, next question?

Christopher David Stansbury
Executive VP & CFO

Just really quick, too, and I think this is an often forgotten fact. Our starting point today is roughly half of our business. Half of our revenue today is growing. So the starting point isn't a legacy telecom that is just now getting to this and we rely on all these things that we've talked about today to get us to growth. The foundation is very strong today because we are already far, far ahead of our competition. Our rate of decline. We don't like to be declining, but our rate of decline is half of theirs because the strength of that foundation is so strong. So that's our starting point. And that's what makes all this more conservative.

Unknown Analyst

[indiscernible] from IDC. Look, you guys are clearly a company in positive in transition and in positive transition in terms of what you were and what you -- versus what you are now.

Kathleen E. Johnson
President & CEO

You can say that again if you want.

Unknown Analyst

So I'd love your perspective from all of you with Kate, especially you, when you look back from 2022, when you joined it today, what was the thing you thought would be hardest about the transition and turned out it wasn't. And then what would you like to do over run in terms of like maybe we should be moved too faster, we can move too faster.

Kathleen E. Johnson
President & CEO

My first earnings call was pretty horrendous. So I'd love to do over on that one. But that was just a rookie kid with bright eyes about the future, and I didn't realize how negative the sentiment was against the company, because I saw an asset with an opportunity, and I couldn't understand why nobody else saw it. So that was my bad. I understand I got a lot of explaining to do between then and now about what it's going to take to capitalize on that opportunity.

I think the biggest surprise for me because it's something that -- we could talk Phoenix rising from the ashes, we could talk under dog when you're in the middle of the transformation sitting side by side with messy negative sentiment and a business that's on the decline like that, I have enormous negative capacity. I can do it all day long because I have a passion for driving the disruption in the change. And I can say, oh, yes, this is hard and disappointing and overwhelming and disconcerting and all that stuff, but look at this thing, getting 25,000 people to that same place was our biggest challenge. And I renamed myself from CEO, the Chief Hope Officer, so that we could galvanize the people to come with us to gain the momentum that we have today. It's essential to our culture that Ana has helped us inculcate in everything that we do. But I would say, that's probably the biggest line. I'd love to hear Ana from you and Kye maybe for you the biggest surprises.

Ana Maria White
Executive VP & Chief People Officer

Yes. My biggest surprise might be a surprise to you all. It was debt. And I don't just mean financial debt, I mean technical debt and culture debt. So I look at it from a technical business and a people perspective, it was a lot of debt, and I have never had that level experience in that. And that was a surprise, but the other surprise on the positive side of the coin for that one, when you bring in exceptional leaders that are not only deep, deep domain experts, but great business leaders and lead a culture that you really aspire to, miracles can happen.

Kye Prigg
Executive Vice President of Enterprise Operations

Yes. I would say the 2 things very similar. The technical debt that we faced. I came to Lumen from the wireless industry where, as you all know, you go through the Gs, the 2Gs, the 3G, 4G, 5G, you're continually refreshing the estate, right, the radio networks, the core networks, and all of the systems around. And that wasn't the case here at Lumen. Kate talked about the colors. We have so many colored networks. All of those different networks have their own legacy systems, for example, inventory, we're carrying 19 different inventory systems. So you can imagine that our people when we're doing something, they have to operate in all of those different systems to try to work out what they're doing right?

And so that was one of the hardest parts was kind of getting my head around all of this legacy and then developing a plan with the team here of how are we going to move that forward, what investment do we need. And it's taken a couple of years, but we've broken the back of that problem, and we're well underway on the transformation. We now have a colorless network, right? So we are able to have one method of provisioning, one method of planning across the whole country, for example, has taken a lot of hard work.

The other thing for me was the culture, right? So without having the right culture in place, you will never be successful with transformation. And when I arrived at Lumen, I can tell you 100%, we did not have a good culture. We weren't talking to each other. Well, we were, right? But maybe our teams weren't talking to each other. And even within the teams there were silos. People weren't sharing things. There was a blame game. People weren't willing to take risk because they didn't want to get blamed and so on and so

forth. And I think outside of all of the technical things that we've done and the amazing products, which, by the way, we would never have been able to do without having that culture in place, it would have been impossible. The single biggest thing we've done as a team is reinvent the culture and instill that into each and every individual. That is the biggest thing. It's not something we talk about enough, but for me, that was the big one.

Unknown Executive

Kate, if I could just a little different spin because I'm the newest guy on stage, I've been here 5 months. So my surprise has been pleasant in 2 really important ways. One is the realness of the culture, the consistency throughout the organization. It's not just this team on the stage. I was -- I fell in love with this team, and that's why I'm here because I believe we're going to do one of the greatest transformations in tech history. I believe that. I was part of that at Motorola Solutions where I was for 22 years, and I know what that looks like. But falling in love with this team was one thing. In 5 months, I see throughout the organization. That's one. The second one is, I am so energized by my team, which is legal and public policy, embracing the notion that they all play a role in enabling growth that they're not just risk mitigators, that they're not just playing not to lose. They're playing to win in roles that aren't traditionally maybe that mindset. And so that's been really exciting for me and energizing.

Kathleen E. Johnson
President & CEO

Ryan, only voice they haven't had so far on stage.

Ryan Asdourian
Executive VP and Chief Marketing & Strategy Officer

I think the underestimating what is possible with the power of the people, the silos of when I came in, I've been here about 1.5 years, understanding what we were working in, I would say, in the marketing team and then putting that in a place where the marketing team got infused with literally every single leader on this stage. That was a transformation in itself. But then getting people to understand what the needs were of the teammates with the needs of customers getting to a place to become customer obsessed. I don't think -- I think I can say confidently that generally the telco industry has not been customer obsessed. They've been tech obsessed and moving that forward more Gs and more Gs. We are spending every single day and every single moment asking what isn't it for the customer? How is it going to transform. And I think -- you saw that through all of our presentations, there's the technology, but it's the customer and the outcome at the end.

Craig Robinson
International Data Corporation

Craig Robinson, IDC. This is a question for everyone because I think a picture is worth a thousand words. Raise your hand if you've been with Lumen more than 3 years. It's amazing.

Kathleen E. Johnson
President & CEO

Chris, how long?

Christopher David Stansbury
Executive VP & CFO

3.5.

Craig Robinson
International Data Corporation

It's fascinating. So you've done a huge path of transformation with just basically changing leadership. And I just Google to make sure my brain was functioning and I said, name any companies that Lumen has acquired in the last 3 years and it couldn't come up with any. So my memory is good. With cost of capital coming down and I cover security services, but I think it's broader than this. We're starting to see some consolidation. It's actually happening quicker than I thought. So that's bad on my part, I'm not recognizing that before. What would it take for you guys to make a major transaction without finance yell and educate?

Kathleen E. Johnson
President & CEO

Well, I'm usually the one that yells in finance, but just to be clear, more money, please, Chris. I usually call them Christopher though when I'm asking for money. So I think it's actually really important to recognize the phases of our transformation. We have gone from dark days not so healthy. And we have a light at the end of the tunnel, but we have a lot of work to do to get out of that tunnel, and that is the AT&T transaction, which sets us free from a leverage perspective. That delevering is important because it opens up the aperture for investors to contemplate going long in Lumen who might not otherwise. And we don't want to disrupt that. That's an incredibly important benchmark for us.

That said, we have a really sort of nice outlook on free cash flow. We do have more in the pipeline on large deals that would also generate free cash flow. So the question is what would I do with the dollar of cash. And we are a deeply disciplined executive team. One of the most disciplined I've ever worked with, and I love that about us. And that is that when the dollar is considered for spend, actually he has got to tell me that there's a there, there that she's got a who want Dave has to tell me that it's feasible the first time, not the tenth time. And Kye has to say, hey, the physical reality of this makes sense or it doesn't make sense. And so we actually look physical expansion, digital experience, connected ecosystem, stock buyback, more debt pay down or acquisition.

And when you start to acquire companies and integrate them in, it has to fit in with this vision of if a fabric port becomes a unit of measure and instead of one service, we can grow many services, we start to unpack and say, what if that Project Berkeley capability came prepackaged with voice, with IOD, with 3 cloud on-ramps, with Lumen defender, et cetera. Just plug it in, if you could plug in the Ethernet cable, you can make that thing work as long as you have fiber in the building already, no matter whose network it is. And you can pre-provision all those services from Lumen. But what if there's a second part of that story, where now I can provision 5, 6, 7, 8 third-party services embedded in our network that we can monetize. You start to have a really interesting set of capabilities. If an acquisition of a really fancy service fit into that vision would be very interested. We look at them all the time. We have regular dialogue about it. But I want to make sure that acquiring the next new service is always contemplated against some of these other adjustments for that next dollar of cash that comes in the door.

Ray Mota
ACG Research

Ray Mota from ACG. I'm glad I came into this because normally I was like not interested. I'm going to hear the same old story. It takes whatever to build a service and very risk averse service provider. So it was actually good because the common theme is a transformation. And I do see the people because every time I talked about service provider. I'm like, you need new blood, you need new people to think differently. So it's very exciting to see people 3 weeks, 2 weeks, a few months. So I think that's a very important part of it. But one of the things I wanted to talk further is, I like the vision of moving from this traditional telco to a techco, right, and you're building like Project Berkeley and all that. But how are you going to be able to support some of the supply chain of this product because now you're incurring the support and all those things were traditionally a vendor supports that and making sure you maintain the margins for that side of it?

Kathleen E. Johnson
President & CEO

Yes. It's great. I'm going to let Dave talk to that for just a second. I just want one point of clarification because ever since I got here, everybody is like you're trying to be a technology company. You're trying to be a techco. There's a lot to be said for a technology infrastructure company. That's who we are and it's critical infrastructure. So we are legacy telco that has decided to declare a measure in enterprise technology infrastructure. We're super proud of our role in the building out of the AI economy in a multi-cloud world, and Project Berkeley is an incredibly important part of that. And we've contemplated your question in a big way. Dave?

David Ward
Executive VP and Chief Technology & Product Officer

So Ray, the device itself, there's now an entire industry of secure, reliable and safe ODM partners to build this device. We believe we can control that supply chain. It's origin a manufacturer, et cetera, because the device, although it has high capabilities, it's not the most sophisticated device that has been built. That being said, the piece of hardware is itself really interesting, but the fact that it's managed from the cloud and the fact that the service has been abstracted away from the network that it's attached to, virtualizing that underlay, that's really the key piece. So go back to answer your question directly. I think the thing for us to watch the number of options and the usual portfolio and hardware proliferation which just happens and really focusing in on exactly what the market wants to buy, the number of ports, the price point. Just as an example, by EBIT -- sorry, Ray, even though it has a Swiss Army knife on the front and does infinitely more than any other network interface device built out there, we still are able to build it at less than half the price of a single service, single flavored network interface device from a current COTS supplier. That in and of itself shows that, that part of the industry is ripe for disruption. If cost manufacturer SI actually was to pick up the manufacturing of this device, that could

be okay, Ray, because really what has to be on top is that software layer. Now us now in Lumen now having a device that can be sold through multiple channels and sold globally back to answer the question before over anyone's access network, that's super interesting.

Christopher David Stansbury
Executive VP & CFO

I just want to add, you heard Kate say earlier also about being a disciplined leadership team. I think the root of your question is also it's a different business model. That discipline that you will find throughout this entire stage and our teams that all support, that is one of the critical pieces that gives us the confidence to get into this in a new way, as Dave said.

Irma Fabular

I am Irma Fabular with Gartner, and I'm responsible for all of our industry tech end markets. So I'm curious, Kate and Ashley, so I think there was a question related to adoption of AI and some of what's going on in the public sector. There was a recent announcement of your partnership with Palantir. So I was just wondering if any of the calculus that you have this Palantir, right, we all know is huge from an AI perspective, also national defense or U.S. defense and also from a Department of Homeland Security, where a significant number of budget is being allocated by the U.S. federal government. Could you comment on that?

Kathleen E. Johnson
President & CEO

Yes, sure. We've been critical infrastructure for the United States since our inception, and that relationship is continuing to grow in a really exciting way because connectivity is important for the competitive nation. I think healthcare, education, defense, security, all of it depends on being connected, and that's what we do. We also have great relationships that have evolved over time. The Palantir partnership, there are several different angles to it.

Number one, we have a profound appreciation for the capability that Palantir brings to us, and it's been an enormous part of our cost takeout strategy, and we're continuing to lean into it, and we'll continue to do so. I think additionally, Palantir has recognized the power of our vision and is bringing that story to their customers, which, by the way, are without a doubt, a large number on the public sector side, but also on the commercial side as they continue to grow and expand. And it's a better together story. So we do serve joint customers, but I obviously can't go deep into which ones.

We got one back here and then a couple up here.

Unknown Analyst

[indiscernible] Casey from ISG. Kate, thank you for the presentation this morning, all of your team. It's obviously have the passion. So congratulations getting the right people to help you do what you want to do. I'm curious about your science experiment 1,000 clients do more experiments. That seems like the right thing to do. Of those 1,000, how many were your existing clients asking you to do it? And how many were you doing? And of the new, what was it that attracted them to come on board?

Kathleen E. Johnson
President & CEO

I'm going to let Ashley bring this to life, but the science experiment was -- remember in early days. And it was -- we were looking at what is the organic growth play here that we can lean into that we know would accelerate. And we did not have the full story that Dave shared with you. We just didn't have that yet. We were dealing with some other pretty existential prices at the company. We went after classic digital adoption math, and that's really important. There's this propensity for any company, especially a big one like ours to say like revenue, revenue, revenue, revenue. And then you chase any revenue dollar, it all looks the same, but the truth is revenue dollars are very, very different.

When you're launching a digital platform, you have to go for adoption. If you're ever going to get to real revenue growth with double-digit scale rates and that's what we were after. And I called the 1, 10, 100,000 math, like let's talk about getting that first customer, okay, now let's go get 10. Okay, now let's go get 100. What's the commercial motion that needs to change? What's the pricing sale that needs to change? What feedback are we getting? What's the road map need to look like to get the next hundred, the next 1,000, the next 10,000? We got 1,000 in 18 months from GA. That is a very big deal. If you think about any digital start-up, they said they had 1,000 enterprise customers on their platform within 18 months, you'd probably make an investment in that company.

I will tell you that today, we have far more than 1,000, but we're not releasing the number yet because we're sort of contemplating what are the right numbers from a customer adoption perspective, a fabric port adoption perspective, any service adoption perspective.

And we don't necessarily have all of that. A lot of these customers are new. Some of them are long-standing ones. We have some sweet spots and mid-markets with partners, and I'll let you bring up the life.

Ashley Haynes-Gaspar
Executive VP & Chief Revenue Officer

Yes, I'd be happy to. Thank you so much for the question. In a prior life and a prior company, one of the things that I learned was how to drive deep commercial engines with system like precision through organizations. And I learned that at Microsoft, which is where I came from. And if we look at seller participation and product releases, new product releases inside Lumen, before this leadership team came on the scene, it was single digit. So you would have a -- your average seller, you do have single-digit sellers selling the new thing that was available when the new thing was available. Right now, we have 85% of sellers that are eligible to sell NaaS have actually sold NaaS. And the way that we run the engine is we actually measure at the behavioral level, how many people have had the first conversation, how many people have gotten to that second conversation, hey, have you gotten to the third? Have you closed the deal? And by running with precision at that behavioral level, we can actually learn a lot as we run this experiment. How long does it take to go from first to second conversation? If it falls out, where is it falling out. Why? Are there geographic patterns? Are there industry patterns? Are there customer size patterns? And then how do I build a better, smarter engine based on what I learn around that new logo acquisition. And then when a customer buys a second time, how long is the average purchase time to that second purchase. And how do I -- how I learn from that and how do I scale that? So what's been so fun about this experiment has been understanding the data at the behavioral level so we can build smarter engines into the question that you asked earlier about the assumptions and what's in the model. We're running additional experiments in these things that we're calling test harnesses and other areas of the business where we're trying to get really smart and learning around things like multi-cloud and NAV together and data center and expansion together, which I'm happy to talk about when we're on a break, but it's more of these experiments at scale where we're picking areas, we're going deep, we're measuring at the behavioral level to see what we can learn, figure out what the formula is and then we scale it.

Kathleen E. Johnson
President & CEO

Yes. 35% of customers come back for a second buy in less than 100 days. And that number is much lower for some segments as opposed to others. We don't necessarily understand why yet. Number 1 piece of feedback from those customers, #1 piece of feedback from our 1,000 customers, please bring NaaS off-net. So we are very excited about our opportunity to go chase those 10 million or 11 million buildings offnet because our customers have told us that's the #1 thing they want from us.

Ashley Haynes-Gaspar
Executive VP & Chief Revenue Officer

It's about to get a really fun.

Kathleen E. Johnson
President & CEO

I don't know if Kye is thinking, men that's a lot.

Scott Crawford
451 Research, LLC

Scott Crawford, S&P Global 451 Research. Thanks for the shout out to fellow, Palantir as of last year. It's really a provocative question as far as acquisitions go. And looking at your strategy around -- so I cover security primarily. Looking at your strategy around your overall offering and security specifically, Defender looks really interesting, but there's a lot of fertile ground and very close adjacencies. So it was mentioned -- Sovereignty was mentioned earlier. You talk about appealing to .gov customers. They need data privacy and some very strict controls over that. And if we're talking about enabling a network for AI. We have seen about 12 acquisitions of security for AI companies just in the last year, 5 of them just in September alone. So my question to you, Kate, is just to pursue that acquisition question, when should we be thinking of Lumen as a potential acquirer as opposed to someone like Cisco picking up robust intelligence or Palo Alto Networks picking up Protect AI. When should we consider Lumen in that mix? Because your position architecturally makes a ton of sense that sort of technology interfaces between the enterprise and the foundation model provider. And your role in that seems very, very integral to that.

Kathleen E. Johnson
President & CEO

So I'm going to give you the business model and the business discipline answer again, and I'm going to ask Dave to comment on this. But first of all, thank you. We are very excited about the ways that we can, oh, fabric port, how shall we monetize thee? And they answered our -- sorry, my parents were English teacher. So I like to bring Shakespeare into the story. So basically, we have an incredible number of opportunities. You know what a big opportunity is for us, to properly monetize Black Lotus Labs, which is our security muscle. And we haven't done that. We have some announcements on the horizon that we're really excited about. Where we're going to take advantage of what's already on the truck in a big way with broad scale, and I'll stop right there before Ryan gets mad at me.

So yes, this is a space where we need to be great and bold, and I want to use what's on the truck first. Secondly, when I have $1 coming in, I'm constantly going to look. Is Jon Yourkoski, in the room? Jon Yourkoski is our Head of Business Development. Extraordinary gentlemen who has led a lot of the refi work that's been done in the exchanges and the cleanup of the balance sheet also just happens to have serious M&A muscle. And he is looking and working to look across the industry to constantly scan for the thing that makes sense. So we're not going to leave anything unturned. But if Dave says, I got to have it, then Chris and I and Jon and others really need to see that, that is the place where we should the next dollar and we're confident that it would meet our criteria and our -- the promises that we are making to our investors. And I didn't say I promised, because I promise Mark. What I meant was the intent and the commitment to pursue that path to promise. Is that better? All right. Thank you. And so that's important.

Now to get -- if you think outside of the context of Black Lotus Labs and into some of the things that you're mentioning, Dave, if you want to bring any of your thoughts? Because I know you have passion in this space as well.

David Ward
Executive VP and Chief Technology & Product Officer

So in this particular space, Kye and I have been really focusing to meet a need that actually has that our customers are asking for, which is fully modernizing NOC/SOC. And so what absolutely will be following our ecosystem partnership play to be able to bring in best-of-breed and what our customers. The tools they want to use. But to your point, there's not an industry definition yet or just there's merely a collection of new entrepreneurs that are working on defining what is an AI sock. Now traditional NOC and SOC to run traditional network firewall encryption and other security services, that means a full modernization, number one. But to bring in these additional tools, like you were watching that space. I truly hope it doesn't become the incredibly fractured security market and security technology that currently exists. It probably will to a certain degree. But just the consolidation into the major players we mentioned and others to have a fully modern NOC/SOC. Because if you follow the story that I told this morning, design, price, order, provision, assure, you can have a design service, a provision service and a managed service. And that managed service for NOC/SOC and then AI SOC, I think it's a fantastic growth opportunity into the future.

Christopher David Stansbury
Executive VP & CFO

I'd tell you a carrier though, with a turnkey service catalogue or that sort of thing, very convenient pricing directly in front of the customer. That's really powerful.

Kathleen E. Johnson
President & CEO

We couldn't agree more. We couldn't agree more. I'm so glad we're talking about this and not our balance sheet problems. This is so much more fun for us. Thank you. And keep the ideas coming. Okay, last one.

Unknown Analyst

S&P for Hockland Research. Speaking of off-net, I noticed in the slides, it looks like NeoClouds are in the 2027 plus net kind of time frame. What do you see as that ecosystem of AI players? And what are your priorities in bolting them up to your environment?

Kathleen E. Johnson
President & CEO

Let me start with Dave and then if anybody wants to add.

David Ward
Executive VP and Chief Technology & Product Officer

So new clouds are here now. They are building. What's really interesting about NeoClouds is that there is a very long tail of investors and people who are trying to build data centers and NeoCloud data centers. Two things that we're watching very heavily. The track

record of those that are building -- building multi-hundred megawatt and gigawatt data center parks, there are really only a few out of the dozens emerging that can secure the power, that can secure the water and secure the real estate. Those we're paying heavy attention to, and that's where -- that's where Kye is building to.

As we see continued consolidation and acquisition and partnerships recently announced, in fact, yesterday, those are the ones we're going to build too first. It's really interesting for me to say this that long tail of dorbs who are receiving $100 million at a shot from PE and other investment firms to go build data centers, those aren't the ones necessarily that we can really have high confidence that they're going to fill in that CAGR gap that I mentioned through to 2030 and beyond.

So Kye, the planning team, the architecture team are with scrutiny making sure that the projects are viable, there's funding behind it. There's an anchor tenant because as Kye and Kate have already mentioned, we can't just build into corn fields. And hope that a data center will arrive, we have to have absolute confidence that the project is going to succeed, and that's a very few limited number of players at this time.

Kathleen E. Johnson
President & CEO
Well done, Dave. Thank you. I just want to wrap it up. First of all, wow, thank you for your engagement, and thank you for being here and investing the time. We are playing to win. We are innovating for growth. And we have a path to the financial turnaround that we promised you 3 years ago, and it's in our line of sight, and we're executing really, really well. We have a list of assumptions, they're conservative. And there's definitely upside, but there's always risk and we're managing through it well. I have to tell you, and this is personally we couldn't be in a better place in the care of these leaders. This is a fabulous team, and I'm excited for Lumen in our future. So thank you, and see you at lunch.