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Hello, I'm Matt Smith, Head of Investor Relations for Amdocs. And welcome to our 5G webinar, where the plan today is to discuss Amdoc's role in delivering ubiquitous 5G connectivity in the years ahead.

Before we get going, I remind you that today's discussion will include forward-looking statements, which are subject to the risks and uncertainties outlined in our SEC filings, including those risk factors that could cause actual results to differ from those anticipated. We may also reference financial measures that are non-GAAP in nature. And you can find the reconciliation of these measures to the most comparable GAAP provisions located on Amdocs's Investor Relations website and in our 6-K filings with the SEC.

Now to introduce our speakers for today, we have Anthony Goonetilleke, Group President of Technology and Head of Strategy; and a face which may be newer for some of you, Gil Rosen, Amdoc's Chief Marketing Officer. We also have our esteemed host, Kim Kaupe, recipient at Forbes 30Under30, and Inks 35 Under35 and an entrepreneur amongst other things.

Anthony and Gil are here to share their global perspectives in respect to the evolution of 5G, the expected economic impact across industries, and they'll also walk us through some examples to show how Amdocs is helping to bring 5G to life. After that, we'll be happy to take your questions, which you can ask via the dial-in number provided or over the chat feature on the webcast if you prefer.

So with that, I'd like to hand it over to our host for the day, Kim Kaupe. Kim, thank you very much for being here. Take it away.

Kim Kaupe

Thanks, Matt. And hello, everyone. I'm excited to join you to continue the Amdocs investor webinar series. This time focused on ubiquitous connectivity and the role of 5G. We're broadcasting from the Amdocs 5G experience lab in Dallas, Texas. As Matt said, my name is Kim Kaupe, and I am delighted to be here today with Anthony Goonetilleke. Thanks for joining me, Anthony.

Anthony Goonetilleke - *Amdocs Limited - Group President of Technology & Head of Strategy*

Great to be here, and welcome to everyone online.

QUESTIONS AND ANSWERS

Kim Kaupe

So Anthony, we have a diverse group of attendees today. So I think it would be helpful to start off with a little bit about the company, who Amdocs is, what you do, et cetera.

Anthony Goonetilleke - Amdocs Limited - Group President of Technology & Head of Strategy

Sure. We primarily focus around customer experience, and our customers are the connectivity providers of the world. And we believe that every customer experience should be seamless, should be frictionless. And at the end of the day, connectivity today really powers our society. You can't really do anything without connectivity. And we're really honored to be in this position to serve these customers. We're a company with over 30,000 employees worldwide. We're in over 90 countries, and we deliver products and services. And our technology at the end of the day is really the foundation in delivering this connectivity worldwide.

Kim Kaupe

Which is amazing. So I think that's a really helpful overview. But you mentioned a part of your purpose is to help your customers create these amazing experiences. And I have to assume that, that means more than just a shiny new iPhone. I know you've revamped your strategy in recent years. Can you talk about your approach to that?

Anthony Goonetilleke - Amdocs Limited - Group President of Technology & Head of Strategy

Yes, sure. We've been around serving these like amazing customers all around the globe. And several years ago, we kind of took a step back and we said, what is really the need of the industry in the next several years? And so some of the areas we started to focus on, we clearly saw that cloud was a very pervasive technology that's really taking over the entire world.

Digital experience. We've been talking about it for a long time, but there is still so much to do in this space, to provide a seamless digital experience so that you can do what you want, connect where you want and really provide this flavor of what we call ubiquitous connectivity. Because at the end of the day, I don't care where I am whether I'm at home, whether I'm at work, whether I'm in the mall, I just want to be connected, right? And this is what people expect. And so we work very hard as a company to try and provide this.

One of the other areas that we really focus on is really bringing all of this together with providing network automation around 5G and just helping I'm sure many of our listeners out there have heard about 5G -- it's really it's hard to not read anything today without hearing about 5G. But as this technology rolls out, it really starts to provide broadband to the masses. It doesn't matter where you are, whether in your office, home, we start talking about hybrid connectivity and work from home these days. And really, one of the things we're focused on, again here is to make sure that your experience is always seamless. So it doesn't matter if you're working at home today and working in the office tomorrow or if you're outside your kid's school and you have to connect because you have to get on a Zoom call, we want to make sure you get the best connectivity.

Kim Kaupe

And I have to believe all these major investment areas translate to accelerated growth for Amdocs, correct? I mean I recall you were previously consistent low single-digit growth stock. And the last 2 years, you've had accelerated growth. Do you expect that to continue?

Anthony Goonetilleke - Amdocs Limited - Group President of Technology & Head of Strategy

Yes. And this is one of the things we were very kind of intentional about it. For those of you who have invested in Amdocs and being long-term shareholders, you know that we've been this consistent growth company in the lower single-digit neighborhood. And it was a very intentional

decision to move out of that neighborhood. So several years ago, Shuky, our CEO, kind of said, "Look, let's sit down as we were going into lockdown during COVID and let's figure out how we change the trajectory of our company."

And so we've managed with a lot of hard work and really focusing on the areas where our customers are growing, take us out of that lower single digits, more to the high single digits. Our projection is around the 6% to 10% for the next several years. And we believe that we can sustain this because we believe we have a good foundation. Now we've invested over \$1 billion in R&D to just provide the best products out there in the last several years. And we continue to invest on an ongoing basis because our customers also keep pushing us, right? Some of our customers are the Tier 1 providers globally, not just in the U.S. And there are a lot of demands placed on us, and we're just really happy that we can meet these needs.

Kim Kaupe

I feel like because we're here in the 5G lab, I want to drill down specifically on 5G, just for a minute because like digital, I think we hear a lot of buzz about 5G lately. And I know people are still looking for killer use cases. So tell me, have you found it?

Anthony Goonetilleke - *Amdocs Limited - Group President of Technology & Head of Strategy*

So it's a very good question. There is -- I don't believe there is a silver bullet. There is not one killer use case that someone would go, hey, like, here's the use case that justifies all my investment in 5G. That I don't think that's there. But what is there is just the paradigm shift in connectivity, right? Now suddenly, you can have this democratized version of broadband everywhere. And this starts to generate all sorts of interesting use cases. People talk about the metaverse, people talk about connected devices, IoT devices. As these technologies really start to come together, we start to see a plethora of use cases come together. And we're still in the very early days of 5G.

What's kind of -- if you take a step back, what's really happened in the last couple of years is people building out the infrastructure for 5G. So they're building out the radio networks and things like that, what we call non-standalone 5G. And then they're upgrading their network, what we call stand-alone 5G, and this is where the magic happens, right? So -- for example, you may have a device that needs a certain level of connectivity and you're able to provide it to that device.

So in the back end, you've got to do many things for that, right? So you need to make sure that it's delivered and you need to make sure it's connected. You have a certain level of service. And those are some of the things we're really focused on. And we work with -- we're over here in the Dallas 5G lab, and we work with many, many partners, and there are so many use cases out there, which I'm sure we'll touch on today from agriculture to health care, to manufacturing where you start to kind of layer up on top of connectivity.

And as Amdocs as a company, we really want to be at the heart of all of this, orchestrating it, building the systems to monetize it, to connect it and really help create that seamless experience irrespective of whether it's a consumer or it's an enterprise at the end of the day.

Kim Kaupe

That makes sense, but can you help us understand like what does the opportunity really look like? If most of your work comes when 5G is deployed, I assume it means a meaningful business for Amdocs in the coming months and years?

Anthony Goonetilleke - *Amdocs Limited - Group President of Technology & Head of Strategy*

Yes. I mean like I mentioned before, we've spent so much time. Our customers have spent so much time building out this infrastructure and spending billions of dollars build it out. Well, now it's the time to get that return on that investment, right? So the next several years is really going to be about monetizing it. What are the use cases? How do we sell it to enterprises? How do we connect different communities? There's a lot of talk about rural broadband and access to that. And I know governments all around the world are spending a lot of money. I mean we're probably very familiar

with that happening in the U.S., but we're working with a Brazilian company that's working with some of the smaller Brazilian communities to really give them broadband. So this is an opportunity, I think, for the next several years to start to monetize it.

And 5G and 6G kind of -- I know we're already talking about 6G, right? But they're kind of like dovetailing to each other, right? So if 5G was a paradigm shift, as I mentioned, from 4G to 5G. I think 6G is really going to be a continuation of that, but more about building these use cases, more about these kind of creative minds, driving innovation into these things that can really just reimagine amazing experiences.

Kim Kaupe

Yes. But I feel like most of us see commercial ads all the time talking about switching from provider X for this 5G coverage. How is that possible given the current position along the 5G opportunity curve?

Anthony Goonetilleke - *Amdocs Limited - Group President of Technology & Head of Strategy*

Yes. And so I think we're fairly early on in this trajectory, and that's just in the U.S. But then you start to think of the rest of the world, and they're kind of -- it's like a jigsaw puzzle, right? So if I think of developed Asia, countries like Singapore, South Korea, that are really well advanced and very much on par with the U.S. in terms of how advanced they are. And then very close behind, you kind of have Western Europe and then you have Eastern Europe, South America that is a little bit further behind. So you have -- it's almost the layering, if you like, as people start to come online and people start to connect. And -- so a company like Amdocs, we're kind of looking at the future in multiple slices here, right?

So places like North America, we're very much focused on connectivity. We're very much focused on how do our customers really monetize this technology. Then you start to look at places like Western Europe, where they're just starting to roll out. So we have services that we provide network optimization, network rollout to help you accelerate your 5G rollout, right? And then you get countries like Singapore and South Korea, where they're just leapfrogging. I know one of our customers in South Korea had the Investor Day in the Metaverse, which was really, really cool, right? I mean that may be an extreme use case, but these are some of the things that I would say just start layering up on top.

When you start to look at the spend, the spend for infrastructure is one thing, but the spend for services on how to monetize it is completely another thing. And in order to really realize the benefits of the capital investment, there's going to be an elongated spend for the, I would say, like the next decade at the end of the day because this may be like a utopian kind of goal, right? But if you're a service provider or if you're a company like us, our goal is to connect the world. But it's not just about connecting the world, it's about connecting devices, right?

10 years ago, if you ask me, I had one relationship with the service provider. I had my cell phone, right? Today, my Apple watch is connected to my service provider, right? My car is connected to my service provider. My house -- I mean so my iPad, my laptop. So suddenly, you start to have 4, 5, 6 relationships whereas previously you had one, but now all of these need to be monetized, they need to be orchestrated, they need to be built. And this is kind of where we come in as a company to try and help ease that burden.

Kim Kaupe

Of course. I mean, so I have to ask then, what's in it for Amdocs? Because why are you excited about the curve that's just starting to grow this 5G adoption?

Anthony Goonetilleke - *Amdocs Limited - Group President of Technology & Head of Strategy*

Yes. And so we look at this as part of -- when we kind of gave our growth trajectory of 6% to 10%, as I said, we moved out of this low single-digit neighborhood into the high single-digit neighborhood. This is one of the foundational pillars along with cloud, along with digital transformation, which may be more kind of traditionally what Amdocs did. We've invested very, very heavily in 5G, to build 5G applications, to build 5G systems to really support this rollout of 5G. And so as kind of our customers start to build out stand-alone networks as our customers really start to monetize

it, we feel that there's a great opportunity to really increase our TAM or even our serviceable market because there are all of these other areas that we really didn't play with.

So if you think about Amdocs in the era of 2G or 3G, because yes, we were around during that time, we really didn't do much on the network side during that time. Come 2022, we're in a completely different place. We're helping some of the world's best providers roll out 5G as we speak, right? We're helping people optimize towers as they roll out 5G network cells. We're helping them think of brand-new monetization ideas. We have an eSIM platform. This is a technology that not many people really talk about today. But with the new iPhone, we got rid of that little plastic card, right? We don't need that anymore. So we throw that out the window but guess what that does? That enables almost everything to connect, right?

So I have this little book here. I can put a little chip in there and have that connected, right? So hey, wherever this book goes, you will know where it is. So these are the types of technologies that we love bringing together because we believe that Amdocs -- as a company, we bring the LEGO blocks to the table. And then you can start building these amazing experiences once you start connecting them. To tell you the truth, I don't know what people are going to build in the next 6 months, right? I don't know what people are going to build in the next year. But if we have these components, then we can bring this creative imagination of these amazing creators to the table, both on the consumer and the enterprise and hopefully, we'll have some amazing experiences to talk about.

Kim Kaupe

Well, I feel like the LEGO blocks is such a helpful example of that which is really interesting. So we also have Gil Rosen on the line, CMO of Amdocs. Gil, can you tell us a bit about what we're seeing in terms of trends and activities with your customers around the world?

Gil Rosen - Amdocs Limited - Chief Marketing Officer

Absolutely. We're seeing our customers globally in different stages of the 5G rollout, and 5G is really a tremendous change to the industry. It's not only a promising technology that will kind of change the world. And it's -- if you look and Anthony mentioned it before, it's not just an evolution from the 2G to 3G to 4G, which was just a speed evolution. 5G is really moving from a 2-dimensional network to a 3-dimensional network. The network is not just faster. It has attributes, which enables the service provider to serve different capabilities, not only per service, but per end points. Meaning every device or every application can get a different level of service per the contextual need. That's like a completely new age of personalized network services.

Now in order to do that, the technology that enables that is something that we call slicing. That means that we take the network and we slice it and every slice has a different capability that served to serve a different context. I'll give you an example. A VR headset that streaming a metaverse experience needs a different level of service than an IoT sensor, an iWatch or a video camera. So now with 5G technologies being deployed globally, every single one of these use cases can not only get a different type of network quality, but can be monetized differently based on what is being served.

That is really an entry into a completely new age of services that service providers can do on the consumer side or on the enterprise side. And everything that I'm talking about, if you imagine the billions of devices and applications that are out there being connected and now each one of them is individually served in real time. But this is kind of the long-term vision for 5G. This will take time. What we're actually seeing is that this will, by 2025, 1/3 of the world will be covered by 5G. Of course, right now, we're seeing our North American customers, our APAC customers, Anthony mentioned North Korea -- South Korea, excuse me, South Korea previously, with their very advanced use cases, they are by far leading the way when it comes to 5G deployment. And we're seeing other regions such as Kala and Africa may be slightly behind, which means that this transformation into the 5G age will take time, and we will be with the industry in the different locations where we are basically working with our customers, making sure that they deploy what they need in order to power the 5G network.

Anthony mentioned something very, very important before. It's not just about the change of the endpoint, the antenna, the radio access. In order to allow the logic, which serves the different applications in different contextual needs, you need the entire stack to be replaced or modernized. From the experience side, when you actually design the service to selling it, to charging it, to monetizing it, every single one of the previously, let's

call it, legacy components, which powered 4G and 3G and the networks before, all these component, the LEGO blocks, need to be modernized because 5G inherently is completely differently. This is the transformation that the telecom industry is going through.

And in order to do that, the telecom industry does not only need to evolve on the network side. We're seeing that the nexus, of course, which is basically driving this transformation, is very much connected to cloud technology. So in order to power a 5G network, you need to compute in real time to be flexible, to be scalable, that can only be done when your stack is powered on the cloud. It's not only on the cloud, which gives us the flexibility and scalability.

If you can imagine a use case of autonomous cars or drones where you need the compute and the rendering to be close to the object itself. That means that edge services need to be deployed. Edge is the type of cloud that's close to the end point. So the entire network or IT architecture needs to also transform in order to allow the 5G cases to happen. All this complexity, you cannot manage it in the way that we managed the legacy networks. Legacy networks, the 4G networks and the 3G networks used to be configured manually. You configure the network. And then it was best effort for all the devices or all the endpoints.

With 5G, as we mentioned before, different use cases, different devices. In real time with slicing, with everything that we talked about, the only way to manage it is with AI and big data. So now across the entire stack, you need to insert AI and machine learning models in order to actually automate the entire process. It's not only the automation and the delivery process when you deliver the service, but also the operational side. We're talking about what we call an age of 0 touch operations. The only way you can do 0 touch operations is using AI. So that's another very important technology that is now being kind of implemented in the IT and network stack of the CSPs.

Another very important driver of this constant modernization is what we call the digital transformation we went through as a society driven by COVID. Now everything that we do needs to be able to take place wherever, right, remotely. Even if I'm a critical operational worker, I should be able to work wherever I need, whether it's home or a remote office, which means that the digital touch points that were previously, again, manual or on-site need to be now digitized, whether not only for the operational side, but also the consumers demand digital touch points to be available.

And lastly, as we're entering into the age of the Metaverse also mentioned before by Anthony, the Metaverse in itself represent the next phase of the Internet. And the reason 5G and the Metaverse are so connected is because in order to drive this immersive, rich experience. The only way that can actually happen is with a super fast, reliable, low-latency network. This cannot work on top of existing networks. Now most of the Metaverse, the compelling Metaverse use cases require or talk about multi-users, remote experiences. In order to do that or to make that happen in an amazing way, you need the network to be on a level which is 3, 4x what it is today.

Just to give you an example, a Netflix stream requires 25 megabits per second. A Metaverse stream, if I'm with my VR headset or maybe my AR headset, I would need 100 megabits per second. So it's not only faster -- when I move my head, I need the network to respond accordingly. Nothing happens when I move my head when I watch Netflix. So the network doesn't respond to my movements. With a Metaverse, the network needs to respond to my movements, which requires a super fast and responsive network. And all that can happen when the cloud is being deployed, when AI is being deployed, when everything works seamlessly from experience to network. And the evolution of Amdocs, Anthony talked about where we were when we were supporting our customers in 2G, it's nothing like that today.

When we support our customers into their 5G and further on to their 6G transformation, it's not just supporting them in the network design, deployment and everything that has to do with the physicality of the radio access network, to make that machine work, every part of the LEGO needs to be modernized, again, from the deployment, to the design, to the monetization and to the operations, and that's what we're about.

Kim Kaupe

Gil, I'm glad you brought up these specific use cases because I feel like Anthony brought us up to speed on where we are in terms of the 5G lifestyle and how that intersects with Amdocs strategy. But I'm sure you see a variety of 5G use cases and telecom service providers, big monetization opportunities. So can you give us some flavor about what you're seeing?

Gil Rosen - Amdocs Limited - Chief Marketing Officer

Okay. So let's make some order. So first of all, when you look at it from a bird's eye view, there is, like Anthony mentioned, the plethora of new use cases and many of these use cases are yet to be even thought about, and we're looking forward for them to be rolled out. But in general, first of all, you have to look at it from the consumer perspective and the enterprise perspective. And there is, by the way, kind of a hybrid new segment, we call it the enterprise consumer. And these are the enterprise use cases, which happen in a civilian or consumer environment because many times now at work, we are at work, but we're at home. So this is kind of a new hybrid scenario, which service providers also need to cater for.

When we're looking at the consumer 5G use cases, the fundamental use case, which was mentioned before, which is very important, is the fixed -- is the rollout of fixed wireless access. Fixed wireless access gives service providers the ultimate solution to deploy and to extend high-speed broadband everywhere. Previously unserved areas, rural areas can now be served relatively fast because you don't need to dig fiber in the ground, which is very costly. So we're already seeing that Internet connectivity, high-speed Internet connectivity is reaching these remote places.

In the consumer domain, to continue that, of course, the -- and it has always been the case, by the way, that gaming and entertainment are use cases, which kind of drive the innovation in the industry. And with the new devices, the VR headsets, we're seeing multiplayer, rich VR experiences driving new use cases.

Now going to the other side of the spectrum, when we're talking about the enterprise use cases, here, again, we're seeing a tremendous amount of innovation. To begin with, and I'm just going to talk about the categories, a very interesting category that's now emerging and gaining momentum is private enterprise networks. That gives -- private enterprise networks basically is taking like the entire stack of the operator and putting it on-site with for a specific customer, whether it's a manufacturer or a campus or a hospital. And basically, that enables service providers to give a specific enterprise customer, the entire set of capabilities that relate to 5G without necessarily being deployed in their big telecom stack. And that allows them to serve the enterprise customers with the 5G slices capabilities I mentioned before, of latency, security, high availability for their specific use case. So that's very important.

IoT, also very important. IoT is a category within the telecom space that requires massive amount of connections, meaning 10,000, 100,000 connections of devices in a small area. Previous networks, we're not able to manage these multiple connections simultaneously. It's not with the IoT use case, by the way, it's not necessarily now the high speed. Many times, these sensors just send like a blip, a few megabytes to the network, but managing 10,000 sensors in a stadium that monitor different parameters is something that previous networks were not able to manage. So 5G, again, is very important in order to allow the -- finally the acceleration of the IoT space to basically provide solutions and applications in the enterprise space.

Everything that we talk about, again, requires the entire stack to be modernized. So when you serve a stadium that requires whether it's an IoT setup or maybe a video, high-speed video, rich VR experiences, you need to deploy an edge device or an edge cloud in order to receive the incoming video and to basically distribute it in the network with 0 latency. And all these kind of use cases allow service providers to sit down with every single one of their customers, again, hospitals, stadiums manufacturing, retail and figure out together what are the use cases that can be solved using this new network.

Kim Kaupe

I'm interested to dig into some of these examples. So can you start by giving us a view of who you think is winning the 5G race?

Gil Rosen - Amdocs Limited - Chief Marketing Officer

Okay. So that's -- thank you for the tricky question, and I'm not going to answer who's winning. I think the industry is doing amazing and actually progressing into this new age. It's a very -- we say 5G is kind of a short acronym, but the complexity behind it is unimaginable. Again, I mentioned it's not just changing the antennas on the endpoint, the radio access, as we call it. It's also changing the entire stack.

The industry is exploring different use cases. I can tell you that we're working in the states, for instance, with T-Mobile, Intel, NASA, Dell, VMware in the 5G Innovation Lab in order to explore different use cases. Recently, we did an agriculture use case, where we actually had drones flying over a plantation, collecting high-quality video and using technology of a certain innovative start-up, which is able to process the video in real time. Using 5G, we sent a video to the cloud in real time, something that wasn't possible before where the video was actually analyzed. The results came back in real time, sent to the farmer and the farmer was able to get an overview of the plantation, understanding where they need to irrigate, where they need to actually maybe apply more pesticides.

The results were actually nothing, but it was even -- it was very exciting to see that. Using this information, the farmer -- the farmer was able to use or cut down the use of water by 50%. That's not just like a small percentage of improvement. 5G can really bring use cases, which create a dramatic change in this case to the environment. It's really something that we need to explore further. So that's agriculture.

If you think about health care, we're seeing now remote surgeries taking place. You cannot imagine a surgery taking place where the network all of a sudden stops. This is not Netflix. You cannot have that -- the surgeon wait for the -- for his hand movement to be -- to continue. When you're doing an operation and you're the surgeon on one side and you have a remote patient on the other side, you need to make sure that this network cannot be hacked, that it's real time, that it has 0 latency. And with 5G, we're able to build this, for instance, in a hospital, a private enterprise network, and actually allow these remote surgeries to take place.

We talk about manufacturing. We're seeing now manufacturers create what we call digital twins using the Metaverse or VR in order to actually monitor the end-to-end processes in manufacturing. And everything that previously was done vis-à-vis physical site, which may be required then to stop the production line, now they can actually model that in real time, but on the digital twin side and have 0 impact on the physical manufacturing.

The entire automotive industry is moving into this space. So you're seeing companies like Mercedes-Benz and BMW and Toyota and others actually deploying 5G Metaverse-related technologies in order to help improve their manufacturing process. The opportunities are endless.

I'll give you another example, ports. We're working with the Tacoma Port, and where we're exploring use cases of security, monitoring the containers, monitoring the cranes. Whenever you have moving parts, whenever you have large environments, whenever you require monitoring, 5G gives you the capability beyond any network before because we can actually put sensors, high-speed video cameras have the complementary compute that does the analytics and then provide an end-to-end solution. So I think from an industry perspective, there are so many use cases that are now being deployed. But more importantly, as we deploy the use cases on the customer side, we're also working -- I'll give you an example with our customers. A1 is an example in Austria and Orange in Europe, where we actually checked the capability of the service provider to have all these LEGO blocks which are required in order to make 5G work.

And what do I mean by LEGO blocks? We provide a slice for a specific application and we make sure that, that specific application from the moment we designed it, design the service, put it in the catalog of the service provider as an available service to -- for commercialization. The actual offer itself, the acquisition of the offer by the customer, the activation of the offer by the customer, the real-time operations when the application is actually at work, this entire cycle that is required in order to make 5G work is something that we work with customers across the world, I mentioned A1 and Orange specifically, but it's really -- it's kind of the real heavy lifting that's now been happening behind the scenes in order to make 5G a reality.

Kim Kaupe

So exciting. And I feel like Anthony mentioned before, this idea of making it amazing for your customers' customers. So I have to ask how does that intersect with the adoption and expansion of 5G?

Gil Rosen - Amdocs Limited - Chief Marketing Officer

Okay. So we have -- our tagline is make it amazing. And the real meaning behind it is we have a sentence in our manifesto that goes behind the experiences that make the world say, wow, you'll find us helping those who shape the future to make it amazing. Now that's the manifesto part of

it. The reality is that we are working with our customers to enable them to launch amazing use cases, products and services to their customers. Our technology products and services are basically, as we speak, being implemented with our customers globally, again from APAC through Europe, North America and South America in different stages, but their entire stack needs to actually be replaced and modernized.

When we say make it amazing, it actually speaks to 2 things. First of all, to make all this thing in the back, it's kind of -- we call it this kind of magic to make it work. That's amazing in itself. Making all these components work in concert. It's not just about being a product company that says, "Hey, we have a technology, take it and implement it." Amdocs is the only company in the industry. And this is our unique positioning in the industry that not only creates products and technologies, we implement that, we implement them with our customers to make sure that they work end-to-end. So we're not just a product company or a product and services company. And that enables us to make this magic work end-to-end. That's one part of the amazing.

The other side of the amazing is the impact. At the end of the day, and Anthony mentioned this before, and I mentioned it, I get excited about it when I talk about the farming use case or the hospital use case or the future educational use cases with the Metaverse. That's what connectivity -- that's the value of connectivity to society. If you think about society today without connectivity, it's almost thinking about society today without water or electricity. It's becoming a basic human right. And if it's put to use in an intelligent way, it can bring a lot of value to everyone. Bring education to everyone, bring hospital services, health care services, work. You no longer need to be in Seattle to work for Boeing. You can maybe -- you can be an engineer, aeronautical engineer in Europe. So the entire workplace is changing. All that -- all these changes that are driven by connectivity, 5G, for us, that's what makes it amazing.

Kim Kaupe

Thanks, Gil. Those real-life examples are extremely helpful. It's good to see the reality merging with the possible. So on that note, Anthony, I want to come back to you because at the end of the day, Amdocs has to make money. So how is Amdocs helping make these things possible?

Anthony Goonetilleke - *Amdocs Limited - Group President of Technology & Head of Strategy*

We like to say we like to reimagine the possible. And you're absolutely correct. At the end of the day, building out these networks and there's so much investment that goes into it, the end goal is clearly to make money and to grow this company's revenue. And so we kind of coined this phrase on what we call the 5G opportunity pillars. And I'll kind of run through them a little bit because we are very hyper-focused on these pillars because we believe all of these business use cases, by the way, they apply globally, right? So it's not just depending on which continent you are.

And we believe that the software and technology we bring to bear to serve these pillars really can help our customers. So to start off with, it's all about 5G coverage, right? This is table stakes, right? So you see customers in North America, they call it 5G stand-alone rollout, which basically means that the full 5G capabilities, all of those great things Gil was talking about, will be enabled and you'll be able to access them and you'll have an amazing experience. So we are very much into helping our customers roll out their network, optimize their network, plan their network, dynamically allocate their network.

We were talking with a customer that monitor traffic depending on different times of the day. So they're people coming in from a subway station at a certain time of the day, and then you change the traffic patterns because at lunch, it's not the subway station that's busy. It's the lunch spots, right? So you can dynamically change how traffic moves around.

The second pillar of monetization, and again, Gil touched on this one, is really the industry verticals. Industries are really just grabbing this 5G connectivity as we kind of roll out PEN, or private enterprise networks as we call it, really to create networks that they can control for multiple, multiple reasons. And we started to see very, very interesting applications come out of this, right, for verticals, for enterprises, for manufacturing. And so there is a lot of work that goes into it, trying to help it orchestrate and deliver these services.

The third pillar -- this is kind of like the core one. This is the one everyone gravitates to. These are the consumer experiences, right? These are the ones where people are walking around with the virtual reality headset and the experiences in the cars, and I saw this electric car, the other day had

this massive home theater system, the screen flipped down and you can drive around watching Netflix. I mean I was thinking to myself, you probably don't want to leave the car. You just want to stay there and watch it rather than go into your house. But these consumer experiences are what allows you to imagine what innovation can look like and a lot of innovation goes into that.

Now it may not necessarily be where all of the monetization happens, but it's -- clearly, a lot of the innovation happens in that space.

And the fourth one to us is what we call limitless monetization. We have a platform called freestyle billing. And we use these types of words like freestyle and limitless just to show that the only thing that's really stopping you from doing something is your imagination. So if you think about monetization today, you may have a subscription, which we're all very used to do, right? You may have a monthly bill. You can have prepaid, postpaid. These are, we think are still the basics, right? But then you get all sorts of interesting things.

So maybe, for example, you may be using an application and because you're using it, you get a discount on your phone bill, right? I have a car and my car is connected and the first gigabyte of data is free on my car. And after that, I'll start charging it. So that's bifurcated billing. So there's all these types of monetization opportunities that our platform provides that basically allows people like you or CMOs or other organizations to just reimagine the possible and imagine all of these use cases.

And the last one I would say when it comes to opportunity pillars in 5G is really around the agility and the intelligence, right? All -- as you gather all of this data, how can I provide you a better experience, right? How can I use edge technologies? For example, several years ago when my daughter was younger, she wanted a virtual reality headset, right? This thing was like \$1,500, then a computer wasn't powerful enough. It was another \$1,500 needed a broadband connection into a room, had to get that wired. I mean, all up, it was like \$4,500, right?

The world of tomorrow is a headset with no computer with an eSIM built in it that you have broadband connectivity wherever you go and all of that computing power is processed on the edge. Gil spoke about the use case of agriculture, right? We were processing all of that information on the edge in actually a red barn, for example. So I think the agility in how we do things different, how we move computing power around, how we use intelligence to drive, these, I would say, are kind of the opportunity pillars that Amdocs is really focusing on and hopefully, this will also help our growth trajectory and what we're predicting for the future.

Kim Kaupe

And can you help translate sort of these 5 pillars into real Amdocs products and services? Because when you think about when you're investing and how your portfolio helps meet market needs, like you just mentioned, what does that actually look like?

Anthony Goonetilleke - *Amdocs Limited - Group President of Technology & Head of Strategy*

So we start all of the way right from the start when it comes to design, we help our customers design their network, deploy their network. When it comes to deployment, the planning it, when you deploy it, how you deploy it, all the way to how you orchestrate the network, how you run the network. Gil spoke about network slices, which requires so much effort in the back end. But at the end of the day, we want to make it a seamless customer experience, right? Like our job, I feel like, is the high debt complexity, right? Just -- because consumers don't care about it, right? They're like just connect me and just make it work.

And so our platforms and our technology really masks all that complexity. And that's why digital transformations are very, very important because you cannot have 10-, 20-, 30-year-old legacy systems trying to do real life use cases of what we want to do today. And the last one, which I spoke about a little bit about before is really how to operate this network, how to monetize the network. Clearly, there's been billions of dollars invested in capital investment all around the world. There will continue to be. But at the end of the day, these are public companies. They need to make money, so they need to be monetized. And really, that's what we're here for, just to help them enable them to be able to have them do that.

Kim Kaupe

Yes. And do you have real-life examples of how these pillars look both for you and your customers?

Anthony Goonetilleke - *Amdocs Limited - Group President of Technology & Head of Strategy*

Yes. And I always kind of laugh every time we talk about the Metaverse, it's always like, if I mentioned the word Metaverse, you're thinking Mark Zuckerberg with a headset, walking around a virtual room, right? But the Metaverse is so much more. Think of XR. What I mean by XR, think of a technician. He goes to a plant and all of a sudden, he's looking at a cabinet he's never seen before. But instead of flicking pages on a manual and trying to look things up, there's augmented reality, right, saying, "Hey, this is a HC 420." Here's what you do. Here's where the power switch is, right, or a technician that was there before he has left notes for him saying, "Oh, the power plug is actually around the corner behind it rather than having to have him make a second visit out there."

So these are all of the ways that I believe using 5G connectivity and broadband connectivity, we can start to really mesh with real life and virtual reality. Yes, it's nice to talk about that great virtual reality use case, but I think there's so much more that can be garnered from this, and we're just touching the tip of the surface. Gil spoke a lot about the agricultural use case, right? But again, it's about these technologies coming together. So yes, it's 5G broadband. Yes, it's a private network, but it's edge computing, it's eSIM technology. And you know the cool thing about all of this is all of this becomes software driven.

So when you're a company like Amdocs, we don't necessarily work with hardware, create hardware or anything like that. We're a software company. So the moment something on the network becomes virtualized or become software like we have a part to play in it, right? And so this is why use cases like this, we're very involved. I mean, today, we're here down here in our 5G lab in Dallas, which we opened not long ago. And we have so many partners coming in and out, testing all of their use cases. And some of them have no clue about technology or don't even know how to use it but we bring them into our lab, connect them with some of our great partners like AT&T, T-Mobile, Verizon, U.S. Cellular and get them to try out their use cases, see what it looks like and how we can commercialize it.

We spoke about health care. Health care, I can talk about this for multiple different angles here, right? But one of the really great things is we saw something that we call virtual scrub in where we work with a company called [Proximity] and there's basically someone that can scrub in virtually. So you think -- again, think about the digital divide and health care being democratized. Basically, you could have someone running an operation in Bangkok and you can have someone virtually scrub in from California, right? So you could have the best doctor sitting in, looking in, guiding you, helping you while getting all the vitals on one of your screens while seeing exactly what the surgeon is saying.

So again, we're just touching these use cases. But the cool thing is we are knee deep in the stuff, working with companies that are enabling this stuff, trying to see how connectivity, orchestration, commercialization of these opportunities can really come to bear.

Kim Kaupe

And I have to believe in that example you just gave a surgeon, one being at Bangkok the other being in California. I have to believe that this could also extend to predictive scenarios, too, as well. So someone is looking -- a doctor is looking down a scope and saying, wait a minute, what does that mean? I see something here that can mean a likelihood of X?

Anthony Goonetilleke - *Amdocs Limited - Group President of Technology & Head of Strategy*

Absolutely. I mean one of the use cases that Gil was talking about with the agricultural one, previously, the farmer would say, well, I've done this for 30 years, and this is how I do it. Now you have 8K photo has been taken from drones, they're analyzing the crops in real time, looking at where the soil has the right level of moisturizer -- moisture and really transferring that information to the edge of the cloud, analyzing it. And before he wakes up for a morning cup of coffee, he has a dashboard saying, "Hey, here's what you need to water, here's what you need to do." And so that same amount of intelligence and data can be transferred.

So as a society, if you think of knowledge, right, our traditional way of learning has always been layering, right? So you go to school, you go to high school, you go to university. But when we just talk about AI and you talk about data, it's a matter of growing and learning from each other, right? So we multiply that effect. And we've just launched a data platform that's at the heart of our systems, really that brings all of this data together and provides an output of what you want to look at, but you can slice and dice it from many different angles. And then I think you marry that with someone that's knowledgeable. And I think this is where you progress society and move us forward.

Kim Kaupe

Which is fascinating. And I want to touch on one of the things that you had mentioned earlier, sort of a buzzword kind of going deeper is PEN. So mobile private networks talk to me about why this has been singled out? It feels a bit like cloud was a few years ago, maybe edge more recently.

Anthony Goonetilleke - *Amdocs Limited - Group President of Technology & Head of Strategy*

And so what we see are many enterprises, many companies starting to think about their network differently. Some of our customers start to think about it from the perspective of security, right? They want to be controllers of their own domain. Other customers start to think about it because they want different levels of service in their network. So they may have a robotics arm, for example, that needs a really fast, low latency network and then they have someone browsing the web and the back office that they really don't care about, right, in terms of the level of service.

So the way to control this and the way to manage this is really to have your own private network and be the master of your domain. Now it's not for everyone. But we do see large manufacturing companies, large enterprises start to rethink their network architecture or topology to try and design it a little bit differently. And we see opportunities like this. We see an opportunity. For example, we work with Howard University when they wanted to design and have control of their own network, we work with one of our strategic partners, Samsung, where we deploy the network to the entire school to be able to provide connectivity for all of the students and teachers across all of their campuses, right? And so they can control it, they can manage it. They can decide what happens on their network. So I feel like private networks are starting to come of edge, and we're starting to see them roll out, but there's definitely some great use cases out there for it.

Kim Kaupe

So I feel like you've given us a plethora of examples. We've gone to agriculture, health care, engineering, education, is there anything left to touch on? I think it's exciting times in this world of ubiquitous connectivity. But one of the other things that really interests me is the time and effort of your company and employees investing in ESG-related topics. So does 5G solve or exacerbate the problem when it comes to this digital divide?

Anthony Goonetilleke - *Amdocs Limited - Group President of Technology & Head of Strategy*

Yes. So this is something that's kind of near and dear to my heart. I really think that 5G can democratize connectivity at the end of the day, right? One of the saddest things I was watching a news program during COVID. And we live in Dallas like arguably one of the most affluent cities in the world. And there were 2 kids sitting outside of Starbucks and they were being interviewed. And they said, well, we do not have connectivity in our house. So this is the only way we can do our school work because school was online, right? Like that broke my heart.

And I feel like when it comes to 5G connectivity, we can start to cover these gaps, right? We can start to provide broadband. You don't have to have a fiber line or a coax line running to a house. You can start to light up these cities. People are very focused on rural broadband. And definitely, there's a need for it. And we're working with satellite companies and a lot of providers to connect that. But the problem also exists in the cities, right, in neighborhoods, in our backyards. And I feel this digital divide can really be closed by 5G technology.

Another one of the projects we've worked on is with the school district, right, where they had a set of iPads that were given to kids that basically had full connectivity, no matter if they were at school, at home, and they were able to be connected. So I feel like -- there's definitely an opportunity there. We're working with a service provider out in Brazil, as I mentioned before, with they're powering up small remote communities, right? So

they're running high-speed broadband and all of a sudden, they're powering up villages. And for the first time, they're getting access to broader connectivity, right, broader resources. And so I really feel like 5G takes us that step closer to kind of closing that gap, but it's still left to us to try and make sure that happens and not ignore that.

Kim Kaupe

So I feel like we've talked a lot about what 5G can do for us now, but what about the future? So what should we be looking for? And I'm curious what gets you excited in terms of the potential for this technology-driven growth?

Anthony Goonetilleke - *Amdocs Limited - Group President of Technology & Head of Strategy*

There are many things. I'm a technologist at heart, I'm a geek at heart. I think I have every gadget device you can ever buy in my house. But some of the things as a company that we look forward to, there are things -- there are many things. But things such as ORAN, which is basically what we call Open RAN that allows our customers to use different sets of equipment and mix and match and things like that. And again, this is a technology that's starting to roll out. We're very much engaged with that. We're working with a consortium called TIP, which was founded by Facebook to really disaggregate the network.

And so these things, again, are in innovation stage. But we're also, I would say, if 75% of our investment and our effort in is what's happening today and tomorrow, we're also looking at, well, what's happening in the future, 2, 3 years from now. Web3 is a big thing. We're very involved in. You think of Web3 people are always going Metaverse, crypto. But there is so much more around Web3, right? There are smart contracts, there is security, there is legitimizing connectivity and how you connect from devices. And so we're starting to use Web3 technologies in very, very different ways. And I think we're going to see some amazing use cases come out of this in the very near future.

Kim Kaupe

So Anthony, as we kind of bring this in for a landing, what does this mean on a hole for Amdocs and for the future?

Anthony Goonetilleke - *Amdocs Limited - Group President of Technology & Head of Strategy*

Yes. And so we are really excited. As folks know, we've come in at the high end of our 6% to 10% guidance on a pro forma constant currency basis. And we believe in as we look towards '23 and '24, we're very confident of that 6% to 10% range. We believe we can keep growing as a company because we really feel like we have those foundational pillars really that support our customers, support digital transformation, support the 5G rollout, enable our customers to move to the cloud and at the end of the day, provide amazing experiences and help them grow their revenue. And of course, we are laser-focused on converting this growth into value creation for our shareholders as we look forward to fiscal 2023.

I mean if we take a step back and really just look at this holistically, we expect full year revenue growth to be roughly in line with the midpoint of our long-term target of 6% to 10% in constant currency. And we feel good about this because this outlook is really supported by our record 12-month backlog of nearly \$4 billion as we enter this fiscal year. As seen in our earnings, we also expect our non-GAAP operating margin to be in the new and improved guidance range of 17.5% to 18.1% in 2023. And this is really a result of the benefits of introducing automation and other AI tools we've implemented as part of really an ongoing commitment to operational excellence and drive what we call zero touch operations.

The move to our new campus in Israel will also enable cost savings in the long term. Additionally, we expect strong free cash flow generation of \$700 million this year. The majority of this, we plan to return to shareholders. And this is really consistent with our strategy over the last several years of returning almost 100% of free cash flow back to shareholders. We are well positioned to deliver double-digit expected total shareholder returns for the third straight year. We expect non-GAAP diluted earnings per share growth in the range of 8% to 12% in fiscal 2023. And this also includes our dividend yield of around 2%.

So all in all, it's really a positive story on all fronts as we continue to focus and accelerate on our growth strategy. So as a company, we're very, very excited. We're looking forward to the future and looking forward to just creating some amazing experiences.

Kim Kaupe

I love it. This has been super insightful, Anthony. And I think being here in the lab to actually see some of this in-person and hearing the examples across multiple industries, it really has me thinking about the future and the potential scenarios of connectivity. So it definitely seems like a great growth opportunity for Amdocs and its shareholders. So with that, I think let's move it on to Q&A.

Anthony Goonetilleke - Amdocs Limited - Group President of Technology & Head of Strategy

Let's do it.

Matthew E. Smith - Amdocs Limited - Secretary & Head of IR

So Kim, it looks like you're ready to help me with some Q&A. Just as a reminder to the participants out there listening on the webinar, you can submit a question using the ask a question tab on the webinar page. And Kim, you've done such a great job so far. So I'm going to give you the honor of the first question.

Kim Kaupe

I love it. Well, thank you. And the questions are open. So I'd love to hear from you guys. But Anthony, you're up first. first question.

Anthony Goonetilleke - Amdocs Limited - Group President of Technology & Head of Strategy

All right. Let's do it.

Kim Kaupe

Okay. You talked about 6% to 10% revenue growth guidance for fiscal year '23. But help us to frame that in the context of Amdocs overall market opportunity for 5G as well as other growth drivers of cloud, digital and network?

Anthony Goonetilleke - Amdocs Limited - Group President of Technology & Head of Strategy

So if you kind of like take a step back and think about it, all growth drivers kind of position us to look at a SAM of around \$57 billion over the next couple of years. And if you look at where we are today, we're a \$4.5 billion company, we feel like that gives us a lot of room to grow and expand and really execute on our strategy. And so we feel pretty good about it. We want to keep kind of looking at that SAM and looking at the areas we want to focus on strategically and those are key pillars, cloud, digital, 5G, network automation is what our customers are constantly investing in.

Matthew E. Smith - Amdocs Limited - Secretary & Head of IR

Great. Thanks, Anthony. And by extension, we often talk about our market being sort of 50% the internal IT of the customers that we're looking to serve. So just on that, we've got sort of a question from Tim Horan and Yang over at Oppenheimer, who's sort of asking about outsourcing and the trend towards outsourcing in the industry. And I guess, our customers increasingly looking to outsource their BSS and OSS. And I suppose by extension is 5G and the cloud, is that -- are those trends helping to accelerate this move towards outsourcing?

Anthony Goonetilleke - *Amdocs Limited - Group President of Technology & Head of Strategy*

Yes. Look, I think there is a demand from consumers on agility and about bringing your products to market much faster. But this needs to be done very cost effectively, right? So the demand for outsourcing comes from the fact that they would like an accountability model, right, not just use our products, but our services and deliver it by standing behind it and making sure that you know what you say is going to be delivered is going to be delivered. And that's at the crux of kind of managed services that we've been doing for multiple years in outsourcing.

So definitely, we see an opportunity, especially as kind of the network becomes automated, especially as kind of monetization becomes key, businesses want to focus on outcomes rather than how they run their IT and their systems and things like that and give it to a company like us that does it really well.

Kim Kaupe

Isn't it so fun to watch this (inaudible). I'm loving this. Please keep your questions coming. But Anthony, you're back in the hot seat. We got a lot of questions directed to you. So -- okay. Here's the next question. Given the uncertain global macro environment, are there any signs that carriers are slowing down their 5G investments and deployments? Or is it an opportunity to help them accelerate cost savings?

Anthony Goonetilleke - *Amdocs Limited - Group President of Technology & Head of Strategy*

Yes. Look, I think a couple of things here. The areas that we're focused on are really just crucial. They're so critical to the success of all of our customers, right? So you've had this massive investment in 5G over the last several years. Now you need to kind of bring that business case to bear. You need to be able to monetize it. You need to deploy and optimize your spectrum. You need to move your systems to the cloud and be more agile, right? These demands are not going away. In fact, these demands are going higher because consumers expect a higher level of service, faster throughput, ubiquitous broadband. So the areas we're focusing on are really not negotiable.

So I would say, yes, there may be some discretionary projects that get slowed down or get moved to next year or things like that. But kind of these core things around monetization, around customer experience, around taking cost out of the network and driving automation, just continue to stand firm.

Matthew E. Smith - *Amdocs Limited - Secretary & Head of IR*

Very good. Thanks, Anthony. And Gil, let's get you into the Q&A here over there in Israel. In your presentation, you talked a lot about a lot of great use case examples, but you seem to sort of focus more on the enterprise maybe a little bit more than the consumer. Why do you think the enterprise is the segment, if you like, if the customer base that's going to be driving the use cases going forward? And how should we think about Amdocs' opportunity in that regard?

Gil Rosen - *Amdocs Limited - Chief Marketing Officer*

That's a really good question. So to begin with, the enterprise is the driving force of 5G. And the reason is it's kind of a self-contained, it can be a self-contained use case. If an enterprise deploys a PEN network, that enables them to execute the 5G use case end-to-end without the dependency of the entire telecom stack. So that's why you're seeing different manufacturers and large enterprise, as you know, I talked about Toyota and BMW and Mercedes-Benz and different manufacturers actually already deploying 5G industry use cases. So they're definitely the driving force of 5G.

Also, you have to consider the fact that in these large corporations, we have very capable technology departments that actually understand the potential and are dreaming about these different 5G use cases and are bringing them to life. I think that will cascade also, of course, the consumer domain. Because in the consumer domain, you have also very large corporations, whether gaming companies, media and entertainment companies that also want to bring innovative new use cases to their customers.

So as the devices get more interesting, whether it's the VR or XR devices, they get smaller, more lightweight, cheaper. They connect to the network anywhere, and the media and gaming companies will want to bring those to life, of course, that will create these consumer use cases to, of course, explore. But on the manufacturing side, because you have the 5G stack contained for instance, in a PEN network, that enables more sophisticated 5G use cases to be executed, and that definitely creates a situation where the enterprise segment is the one that's driving this revolution.

Matthew E. Smith - *Amdocs Limited - Secretary & Head of IR*

Thanks, Gil. Very interesting.

Kim Kaupe

Yes. That was really helpful. Okay. Anthony, this one is a 2-parter. Get ready, 2-parter here we go. Okay. Post-COVID, how do you see the adoption of broadband and the opportunity that's presented and playing out for Amdocs? And then sort of piggybacking on that, fixed wireless access was referenced as one of the, kind of, early and important 5G use cases that's emerging today. So how is Amdocs uniquely positioned to enable and benefit from the expected market adoption of FWA?

Anthony Goonetilleke - *Amdocs Limited - Group President of Technology & Head of Strategy*

I mean I think everyone would agree in a post-COVID world, broadband is a non-negotiable, right? Like it's moved up the pyramid, people will rather skip a meal than get rid of broadband. I mean hybrid workforce, working from home, from -- school work, it's a non-negotiable. But we are moving to a different stage now. We're moving to what we call ubiquitous connectivity, right? At the end of the day, it doesn't matter whether it's fiber, coax, fixed wireless in the future, LEO, MEO, GEO satellite connectivity, just connect me no matter where I am, right? Like I was just overseas last week and the -- my #1 concern was making sure I have connectivity. And I think that is the demand.

And so when we build our systems, we try to look at broadband in a very agnostic way because there are still legacy networks, new networks, different types of medium to make sure they connect. The interesting thing about fixed wireless is we're just starting to see the emergence of the adoption of fixed wireless, right? In the last quarter, we saw a couple of carriers come and give some great numbers of fixed wireless growth. Primarily, I'm guessing it's driven by broadband adoption. And I think we'll start to see this trend increase, especially in areas maybe that were challenged before from some of the traditional broadband players.

And so I think -- if you think about this notion of democratized broadband and ubiquitous connectivity, these 2 philosophies will really just drive that adoption. And everything we do from a systems perspective is in the back end to make sure we support it.

Kim Kaupe

Makes sense.

Matthew E. Smith - *Amdocs Limited - Secretary & Head of IR*

Great. And the fixed wireless access question.

Kim Kaupe

The fixed wireless access question, maybe we can just dig into that a little bit more or Gil can dig into it?

Matthew E. Smith - *Amdocs Limited - Secretary & Head of IR*

Maybe Gil...

Gil Rosen - *Amdocs Limited - Chief Marketing Officer*

So I think when you talk about fixed wireless access, I think we're looking at 2 different things. First of all, you have mobile operators that never provided broadband to homes. They just provided wireless service now growing into what they consider to be a new business, which is very important for their growth. And that will definitely also drive competition in the broadband domain, in the home broadband domain, that drives innovation because now broadband providers need to differentiate between themselves.

We, in this case, Amdocs, provide everything from the capability of these wireless providers to plan and deploy and, of course, go-to-market with these new offerings all the way through to managing even the connectivity inside the home. So we have a new solution, which enables what we call home operating system, which basically enables service providers to provide interesting and innovative services in the home. That kind of understanding that the fixed wireless access in the connectivity sense is what used to be in the last 20 years just about connecting now, becoming kind of a place for innovation and competition will create another area for growth for our customers and for ourselves.

The second part of it is more of a -- when we consider the kind of the cultural significance or the society significance of fixed wireless access, connecting remote areas, enabling social services from education, health care to basically everyone, that's the mission of service providers globally, and that definitely will mean that in the next 3 years, a whole new areas that were never connected before will now be connected. Now we have fixed wireless access available that's high speed, intelligent, enabling and supporting mass connectivity. It's not only about the pure connectivity. It's also bringing intelligent, interesting, IoT-based smart X, smart city, smart buildings, smart, you name it, to these places because it's no longer dependent on the deployment of fibers or physical components, but you can do much more via the airway and that's something that will definitely drive innovation and revenues for our customers and of course, we support everything in the back end.

Anthony Goonetilleke - *Amdocs Limited - Group President of Technology & Head of Strategy*

And one of the interesting things that I was just thinking about is we're also starting to see a crossover from our customers, right? So if you look at our traditional cable customers, pick anyone of them, Comcast, Charter, [Altice, DISH] all of them have essentially launched MVNO brands and wireless brands. Now you're starting to see some of the wireless players starting to launch fixed wireless. So you're kind of starting to also see this crossover. That's also a great opportunity for us because at the end of the day, they're both sides are our customers.

Matthew E. Smith - *Amdocs Limited - Secretary & Head of IR*

Great. Thanks. We're going to move to private enterprise networks now and another question actually from Ed at Oppenheimer. Amdocs is only one of a handful of companies authorized to provide CBRS administration services. Can you talk about the way in which this kind of positions Amdocs to support 5G private networks? What is the opportunity, I guess, all the way from sort of the allocation of this batch into the deployment of the operations and so on?

Anthony Goonetilleke - *Amdocs Limited - Group President of Technology & Head of Strategy*

Yes, definitely. I mean we clearly have an advantage because like you said, we're one of the players -- one of the few players that can manage CBRS spectrum across the country. But we also have the software stack that can kind of deliver it and manage it when it comes to private networks. And we work with partners like Samsung to deploy the hardware that's needed. And that's a brand-new opportunity. That's a brand-new market space, a brand-new SAM. We work very closely with our service provider -- our traditional customers to provide the connectivity as needed. And I think that's an area that's just starting to emerge, and we'll see all that more mature.

And the reasons some of these enterprises are going towards it is also very different. Some are doing it primarily because they want to have more control of their network. Others are doing it for security reasons. But at the end of the day, we feel like we have a good solution. With CBRS, we can help you manage a spectrum, and we have the right partner network to be able to provide you the solution almost like a one-stop shop.

Matthew E. Smith - *Amdocs Limited - Secretary & Head of IR*

Fantastic. And maybe, I guess, again, by extension, maybe talk a little bit about the revenue model on some of these use cases, which are linked to PEN? We talked about the apple orchard for example. how much of a project like that were sort of onetime in nature and to what extent is the adding to that recurring revenue stream, which constitutes about 75%, give or take, of Amdocs' total?

Anthony Goonetilleke - *Amdocs Limited - Group President of Technology & Head of Strategy*

The good thing, which probably most of our viewers would know this is we're not just a services company, right? If you're only a services company, you would come, you would do the project, you would move on, but we're what we call a product-led services company. So we will go and implement our products, our platforms, put it into place. And these platforms will then be hopefully be used to perpetuity as they upgrade, as they adopt new features as they adopt -- for example, we have our eSIM platform. So a customer who may have taken our BSS could now take our eSIM platform and add on to it.

So in terms of recurring revenue and ongoing revenue stream, these platforms and products will stay into place. And of course, as they think of new product launches, new service launches, things like that. Of course, we can help them in terms of designing the new product sets, discounts, promotions, bundles, things like that and implementing them on their product. And at the end of the day, what they're looking for is that single point of accountability, right? So I have a great platform. I have services. How do I make all of these work and make the magic happen? And that's kind of what we do at the end of the day.

Matthew E. Smith - *Amdocs Limited - Secretary & Head of IR*

All right. Thanks. I'm going to get you to project out a little bit here on this next question to the extent you want to go there. This is from Kayla Brooks at Neuberger, and Kayla is asking about Open RAN. Is Open RAN here today? Or is it pushed to 6G? And what else do you think will be the hallmark of 6G? Again, we're getting ahead of ourselves here, but maybe you can talk about how a roadmap...

Anthony Goonetilleke - *Amdocs Limited - Group President of Technology & Head of Strategy*

Kayla always ask the tough questions, but it's a good question. It's a very good question. Look, I think people are very curious about Open RAN. There are many experiments going on right now. Many pilots we're involved in because it's really the path for the future, right? Like we spoke about network virtualization 5, 6 years ago. 5G is basically a virtualized network today. In the same way, the RAN space will by default be an Open RAN space when it comes to 6G.

So I think that evolution will happen over a number of years, and there will be small POCs going into full-on rollouts of projects as kind of the network providers get on board in different shapes and forms. I think what 6G brings -- I mean, clearly, 6G is a continuation of the 5G journey. But there are -- even now, I saw something the other day that they're expecting a 100x speed bump from 5G to 6G. And things such as scalability are just starting to be kind of added on to 6G. But I think the flow on -- the focus will really be around monetization, spectrum utilization. 6G, I've read that having some very interesting features around how to use spectrum better, right? Better utilization, which is so key for most of our customers.

Now all of that being said, all estimates say that the first rollouts are going to happen at the end of this decade. So it's not like it's going to happen tomorrow. But people are already starting to think about it.

Matthew E. Smith - *Amdocs Limited - Secretary & Head of IR*

Very good. Excellent. Okay. And I guess staying somewhat futuristic, the Metaverse question from an investor here. There's quite a bit of talk of the Metaverse as a driver for use cases in 5G, can you size the increase in revenue for your telco customers from the Metaverse over the next few years? I suggest you don't emphasize it.

Anthony Goonetilleke - *Amdocs Limited - Group President of Technology & Head of Strategy*

Yes. I mean, we're just going to switch to the Metaverse right now to answer the question. Now look, one of the things we need to keep in mind is when people talk about the Metaverse, the first thing you think about is kind of the Facebook Mark Zuckerberg full on virtual reality. That is one use case, right? But there is a spectrum of kind of, as I mentioned before, kind of the XR, right, the augmented reality use cases, the overlays. Gil spoke about the enterprises, right? So we see many enterprise use cases where customer care, field service technicians, people going up on towers, how they can use this augmented reality on top of, kind of, an XR/VR reality type space to solve real-world problems.

And I think those are going to mature and that's where the monetization is really going to come from. I think all of the attention is kind of the Facebook kind of cool, nice, walk around the room, have a drink kind of space. But the real-world use cases, some of the ones that we've seen have been very, very exciting. Gil. I don't know if you want to add something to that, I know this is one of your kind of pet projects?

Gil Rosen - *Amdocs Limited - Chief Marketing Officer*

Yes. So when you -- as you mentioned, when you talk about the Metaverse, it's much bigger than a team's collaboration over like a virtual table. And when you talk about the size of the market, it's really hard to quantify specifically, but governments like -- for instance, the Government of Dubai, they actually have GDP targets for the growth they expect and they projected in billions and trillions of dollars coming from the Metaverse economy. The Metaverse economy maybe -- should be more broadly referred to as Web3 because it includes also blockchain or related technologies all the way through to the experience, which is the Metaverse XR/VR experience.

And I think across the board, whether it's consumer use cases, gaming entertainment, all the way through to manufacturing. Employment, the ability to employ people remotely and do complex our functions, not just to collaborate on Zoom or do something like we're doing right now remotely but do high-end architectural engineering, manufacturing use cases by collaborating with people and digital models in a way that's not even possible today.

The addition to the economy by these jobs being executed more efficiently by these new technologies being deployed and all the way through, everything can only happen when the network is the right network, meaning 5G and above. And that's something that -- that's the kind of the domino effect that needs to happen. Network providers, service providers globally need to deploy the networks to that, we call it, Metaverse grade connectivity level, which means that they are able to support Metaverse use cases, which is the redundancy, of course, and the responsiveness and the speed and everything related to security, et cetera, et cetera. And then on top of that, the enterprise and consumer applications can then unfold.

And that will, I have no doubt, add billions and trillions to the economies and respectively, the use of connectivity from our service providers, the demand for intelligent, high-speed Metaverse grade connectivity from our customers will grow, and that will bring more revenue to the entire industry. And of course, Amdocs is part of that.

Matthew E. Smith - *Amdocs Limited - Secretary & Head of IR*

Great. Thanks, Gil. I think we've got time for 1 or 2 more questions. So Anthony, I think this one is from you, and it comes from Charlie Erlich over at Baird. When we think about 5G and our capabilities around 5G, to what extent is it helping to kind of open new doors with customers? Obviously, we've talked about Verizon and so on recently, but there's many other new logos as well that we're constantly announcing new programs with and so on. Maybe talk a little bit about how it is sort of a path to growth with?

Anthony Goonetilleke - *Amdocs Limited - Group President of Technology & Head of Strategy*

Yes. Look, it's a big door opener, right? I mean this is really where the focus is. And we sit in a very unique position that we get to kind of be right at the table when these use cases are designed, tested, the POCs. We're sitting here in our 5G lab in Dallas. We have a 5G lab up in Seattle in partnership with T-Mobile and Microsoft and a bunch of others and we're constantly testing different use cases, trying to figure out what works, how it works, how to implement it. So it's definitely a door opener because we can come to the table with this catalog of use cases. We can come to the table with saying, "Hey, here's what works, here's what doesn't work. Here are some price points that you should think about."

So it's not just the technology that we bring to the table. It's the real-world experience. It's the partnerships in terms of all of these companies that are utilizing 5G. It's working with the OEMs, and it's just making sure that all of these work together to deliver value to your customers. So definitely, it's a door opener. It's one of the first discussions we have with our customers. And I think this will continue on for several more years as people try to get the ROI that they've invested into the 5G journey.

Matthew E. Smith - *Amdocs Limited - Secretary & Head of IR*

Great. And I think we've got time for one more here. And Anthony, Head of Tech and in charge of that R&D budget. Can you talk a bit more about -- this is from an investor, by the way, can you talk a little bit more about the incremental resources required to deliver new products and services for customers? And how do we think about that within the context of our profitability going forward and so on?

Anthony Goonetilleke - *Amdocs Limited - Group President of Technology & Head of Strategy*

Yes. So maybe I'll break the question into 2 parts. We -- in the last several years, we've invested close to \$1 billion in terms of R&D because we believe that this keeps us at the edge in terms of innovation, in terms of bringing -- we just spoke about the 5G use cases, bringing them to bear. We now completely re-platformed over the last 4 years, built a cloud-native stack that runs agnostically on all the big cloud providers. So we believe that this gives us a competitive edge over all of the other players on the market, and we believe in this journey. On -- at the same time, we also believe that we should be a profitable company, we should maintain our margins, and we just slightly increased our margins on our last earnings and we believe in that philosophy, and that's not a dichotomy those too.

Now we will find other areas for efficiencies, automation. We have this area, we're investing in called zero touch operations that also drives efficiencies. So we run those 2 things in parallel and don't really run in conflict of each other. I would say, we still believe we're a product-led services company, and this is why customers continue to choose us.

Matthew E. Smith - *Amdocs Limited - Secretary & Head of IR*

Thanks, Anthony. And I think we're pretty much out of time. That was a very informative session. So I'm going to hand you back to you, Kim, and let you wrap this up.

Kim Kaupe

Well, thank you. Thank you to Anthony and Matt for joining me here in Dallas at the 5G lab. And thank you to Gil for joining us from Tel Aviv, it was so good to see you. And most importantly, thank you for joining and tuning in today to join us here and ask all of your questions. If you think of a question that we didn't cover today, you can reach out to Matt and the Investor Relations team, and they will get back to you. I think I speak for everybody here, when I say we hope you have a healthy and happy holiday season, and we look forward to seeing you in 2023.

Anthony Goonetilleke - *Amdocs Limited - Group President of Technology & Head of Strategy*

Happy holidays. Merry Christmas.

Gil Rosen - *Amdocs Limited - Chief Marketing Officer*

Merry Christmas. Happy holidays.

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