Microsoft Ignite: Satya Nadella

Satya Nadella, chief executive officer, speaks for the Microsoft Ignite 2020 event on Sept. 22, 2020

SATYA NADELLA: Good morning and welcome to Ignite, I want to start by saying a big thank you. It's no exaggeration to say that the world came to a near standstill earlier this year, and it's this community gathered here virtually today that has helped the world keep moving forward. From system administrators and security specialists to data analysts and software engineers and professionals across all functions, all of you have stepped up over the last six months to help people and organizations in every country adapt during the most trying of circumstances. Thank you.

As we navigate the response, recovery and the reimagine phases, digital technology is more important than ever. The case for digital transformation has never been more urgent. For any organization to succeed in a world of unprecedented constraints, they will need to empower employees, foster a new culture of hybrid work, engage their customers in new ways, intelligently and virtually, transform products and services with new business models, and optimize operations to keep customers and employees safe and secure. And they will need to take data from one system to use it and to optimize the outcome of another. We call this tech intensity and it's key to business resilience as well as transformation.

Tech intensity comes down to three things. First, how you adopt the latest technology and integrate it into your own organization. Second, how you build your own unique digital capability. All organizations in all sectors of the economy will need a culture where all people are part of the innovation process and are able to learn, test and then act on the hypotheses. And finally trust, both trust in technology, trust in business model alignment. No customer wants to depend on a provider that sells them technology on one end and then competes with them on the other. You've got to get this equation right on all fronts.

The stakes could not be higher. Tech intensity will determine not only what organizations can weather the current crisis, but also determine that they are prepared to navigate future tail events.

Our solution areas were built to enable this, and we are the only company that has a complete technology stack to support both tech adoption and tech capability building, and ultimately increase your own ability to achieve success through digital technology.

Our tech stack offers unparalleled integration, architectural coherence and openness in each layer and extensibility. And in this era of intelligent cloud and intelligent edge, it enables truly groundbreaking experiences.

Let me share one of the innovations I'm most excited about in the evolution of one of our most beloved, most fun and the longest running products. Let's roll the video.

(Video segment.)

SATYA NADELLA: How incredible is that? I have very fond memories of playing Flight Simulator many decades ago now, and I have a renewed sense of wonder and excitement in playing and visiting many of my favorite places, along with others I've only dreamt of exploring. I hope many of you are, too.

But the new Flight Simulator is much more than a game; it exemplifies the power of that full technology stack, from Azure AI to Bing Maps and spatial computing to Xbox, which can come together to create a literal digital twin of the planet, down to the trees in your neighborhood park.

What excites me most is how you can use the same tech stack to transform your business and reach new heights. That's our ambition today, and I will highlight how we are innovating across the stack to make it a reality, starting with our infrastructure.

Azure is the world's computer. We're building every layer, the infrastructure layer, the data layer, the application runtime layer, to meet the real world needs of our customers and embrace openness. And we're removing barriers for anyone who wants to migrate to the cloud, addressing their data, sovereignty and regulatory needs.

We're committed to bringing the power of Azure wherever you are. We have more data center regions than any other provider, now 61 one of them. We're not stopping there. We are taking Azure all the way to the edge from Azure Stack to Azure Edge Zones to Azure IoT. And we're powering a new model of distributed computing, providing consistency across the cloud and edge, spanning identity management, security, as well as infrastructure, bringing computing closer to where data is being generated.

The adoption of 5G accelerates the need for compute to reach the edge and support ultra-low latency workloads. It enables experiences that previously would have been unimaginable across every industry.

In gaming with xCloud, you can stream games in real time and play them wherever and whenever you want.

In agriculture, farmers can take data from sensors, drones and satellites to understand precisely how soil weather and management intersect.

And in manufacturing, businesses can create digital twins' of factories, apply new insights to drive better products, reduce costs and ultimately enable complete lights out operations.

Today, customers around the world are taking advantage of this ubiquitous computing fabric across the cloud and the edge to address their biggest challenges.

Use cases span every industry. Siemens Healthineers is relying on Azure to connect tens of thousands of medical scanning machines to the cloud to monitor them and keep them up to date while addressing compliance issues.

Kenyan startup Africa's Talking is using Azure Arc so that its customers can build communications apps wherever they are, without having to worry about pervasive latency issues.

And just this week, Shell shared how our cloud technology is key to its commitment to a net zero carbon future. Together, we will build new solutions that reduce carbon emissions worldwide.

We're going further, innovating across the cloud and edge to meet customer needs. We first announced Azure Arc at Ignite a year ago, extending Azure service to any infrastructure.

Azure Data Services are now Arc enabled, giving you the ability to run Azure's fully managed data services across multiple clouds, data centers and at the edge, even in a fully disconnected state.

With Azure SQL Edge, we're bringing SQL data engine to IoT devices, supporting data streaming, storage and AI across connected or disconnected environments, really enabling breakthrough industry scenarios.

With Azure Sphere, we're securing millions of MCU powered IoT devices. AT&T is bringing to market a new Guardian device built on Azure Sphere to securely connect devices via AT&T cellular network, bypassing the need for Wi-Fi. And you can see it right behind me here.

And we're not stopping at land -- we are extending Azure from under the sea to outer space. With Project Natick, we deployed a data center 117 feet deep off the Northern Isles, proving the reliability of the world's first full-scale subsea data center. The failure rate was one eighth what we saw on land.

And with Azure Orbital, we are now taking our infrastructure to space, enabling anyone to access satellite data and capabilities from Azure.

Let's go to Hrishi to take a look.

HRISHI SHELAR (Senior Program Manager, Azure Networking): Today, I'd like to introduce you to Azure Orbital, which is a fully managed ground station as a service that lets you communicate with, control your satellite, process data and scale your operations directly in Microsoft Azure.

The National Oceanic and Atmospheric Administration is on the front lines of weather forecasts, warnings and alerts of extreme weather and environmental events affecting an estimated $700 billion of annual U.S. economic activity sensitive to weather.

I'd like to show you how Orbital makes it easy to communicate with your spacecraft by scheduling a contact with a weather satellite. Here, I capture satellite details and radio parameters to schedule a contact.

A key strength of Orbital is our partnership with ground station providers, including market leader KSAT, to provide global coverage. The scheduler presents me with options across ours

and our partner network. We have full spectrum support, up to 500 megahertz, which means up to 10 gigabits per second of data getting processed in Azure.

We've partnered with Kratos and Emergent to offer virtualized satcom modems that take advantage of Azure FPGA and GPU-based acceleration to do signal processing. These software modems are highly flexible and mitigate the need for custom hardware deployment on every mission. Everything is in lock and we're getting data from the satellite.

A key part of NOAA's mission is to provide timely warnings of natural disasters like hurricanes and floods. Reducing latency and making this crucial weather data widely available is an important supporting objective.

Here, you can see NOAA's satellite imagery of the enormous smoke clouds from the forest fires on the West Coast. Knowing where weather patterns are taking the smoke allows the U.S. government, states and tribal partners to send air quality alerts.

We believe Microsoft's innovative services, like Azure Orbital, will provide a range of capabilities and business opportunities that could help NOAA's mission.

Azure Orbital lets you focus on the mission at hand by offloading the responsibility of ground stations. This system, built on top of the Azure global infrastructure and our low latency global fiber network, together with our service partners, empowers you to achieve more with Microsoft.

And now back to you, Satya.

SATYA NADELLA: Thanks so much, Hrishi.

I'm excited to see how our customers will apply the power of Azure Orbital as use cases for satellite data expand in the coming years.

All this computing infrastructure we're building enables customers to collect and reason over vast amounts of data. The variety, the velocity, the volume of data is accelerating. From finance and retail to manufacturing and genomics, petabytes of data are being collected and processed each day.

And as we've seen in recent months, understanding this data in real time is more critical than ever. As scientists race to understand COVID-19 and manufacturers pivot their product lines to keep critical supplies in stock, we've completely rearchitected both our operational data stores and analytics data stores so that they're cloud native in order to meet this urgent need.

The combination of Azure SQL Hyperscale, CosmosDB, Synapse and Synapse Link differentiate Azure. Azure Synapse, for example, is the first and only service that has run all the TPCH queries at petabyte scale. This is the equivalent of putting a man on the moon in data performance. No other vendor has even come close to doing this. We are the only cloud with limitless data and analytics capabilities that can deliver a cloud native data estate for every organization.

And customers are experiencing these benefits. Since launching Azure Synapse a year ago, we have seen a 500% increase in the number of customers running petabyte scale workloads.

Take Myntra, one of the fastest growing ecommerce retailers in India. They've seen hundreds of thousands of new customers each week since the start of the pandemic, fulfilling as many as 240,000 shipments each day during a recent sales event.

Myntra has relied on our analytics services, including Synapse, as well as HDInsight, to scale and handle as many as 450,000 concurrent users and provides personalized shopping recommendations to each customer. That's pretty stunning.

Now let's turn to developers. It's all about dev velocity. We have the most used and loved developer tools, frameworks and platforms to help developers go from idea to code and code to cloud.

With the world's most popular code editing tools, Visual Studio and VS Code, developers are more productive than ever. With GitHub, they can collaborate and build software together. And with Azure they have the best-in-class services to build cloud native apps and modernize existing ones.

The Academy of Motion Pictures has used Azure, .NET and Visual Studio to build their own mobile streaming service, enabling thousands of Academy members to view Oscar nominees and vote for the selections.

Nearly 5,000 developers at Home Depot are collaborating on GitHub to build new customer experiences for home improvement, averaging more than 4,000 commits each day.

And Dick's Sporting Goods is modernizing their developer workflow using GitHub, Visual Studio and Azure all together to rapidly innovate. Teams that previously deployed a few times a month now ship to production daily.

This developer productivity has been critical to helping the retail chain navigate this pandemic. In March, the retail teams received an email on a Sunday letting them know that stores were going to close the next day. By Monday, they had built and deployed the first version of an app with contactless pickup. And by Tuesday, they were already making changes based on customer feedback and data. What a great example of developer velocity in action.

And we're going further. With our new Azure Communication Services, every developer can bring rich communications APIs into their applications across any device on any platform using the same reliable, secure infrastructure that powers Microsoft Teams. Think about this; that means the infrastructure behind Microsoft Teams is now available to developers as APIs to embed in their own apps.

We're also making it easy to add AI to any application, translating breakthroughs from research and data scientists into capabilities for any developer.

We've been doing fundamental research in AI since the start of Microsoft Research, and in the last four years, the breakthroughs we've had in achieving human parity milestones, from object recognition to speech recognition to machine reading and comprehension, have all accelerated. In fact, just last month our teams achieved human parity in image captioning.

These breakthroughs are no longer just theoretical. With Azure AI, we are democratizing them into tools and services for every organization and every industry. We are providing the best cognitive services to bootstrap AI, making it easier to build applications that see, hear, speak, search, understand and accelerate decision making.

Our new Metrics Advisor Cognitive Service helps businesses detect anomalies in their metrics, and new Spatial Analysis capabilities in computer vision help organizations understand people's movements and presence in a physical space, so that they can create applications that can count the number of people in the room or aggregate for traffic in a store, critical in this era of social distancing and contactless shopping. Real estate firm RXR has used these capabilities to monitor occupancy in its buildings. Azure Stack Edge enables these AI models to run on-premise, and with Azure IoT, RXR is enabled to process and visualize the data in real time, using its own line of business applications.

We're also thrilled with the progress our partner OpenAI is making and how they are pushing the bounds of what AI can do. Their new GPT3 model was trained on our Azure AI supercomputer and constitutes a new breakthrough in natural language understanding and generation.

And now Microsoft is providing full access to GPT3 model and enabling breakthrough scenarios for our customers, when safely deployed.

Let me show you an example of what's possible when you combine the powerful language model with a product like Dynamics 365. Let's go to Venessa to take a look. Hi, Vanessa.

VANESSA FOURNIER (Group Product Manager, Microsoft): Thanks. Satya.

Trained on Azure's AI supercomputer, GPT3's natural language generation capabilities produce relevant, intelligible and well-formed summaries and responses, groundbreaking advancements that we are equally excited to leverage as we transform the business application space.

Microsoft's vision for the future of Dynamics 365 is that it will continue to enable better customer employee interactions through its network of connected business applications, with inherent, advanced AI that can understand and act upon all disparate data, processes, policies and interactions occurring throughout your organization.

Instead of executing a predefined workflow, what if AI could truly understand customers' requests with advanced natural language understanding, dynamically creating and executing programs based on knowledge of business processes to uniquely respond?

Advanced natural language generation can then present intelligible and well-formed multilingual responses and troubleshoot technical issues, seeking out the most relevant knowledge and applying reasoning with business context to identify the root cause, say, of a slow dispensing coffee machine.

AI will even request additional data to analyze, like a picture or video, to help formulate the solution and assess current sentiment, lifetime value and patterns of similar customers, presenting only the most appropriate offers and generating quality leads for follow up.

This is a true partnership, with AI continuously improving from human interactions as it generates actionable insights, summaries, suggestions, and automates business operations.

It can do more than analyze IoT data. It can detect anomalies and behaviors beyond threshold alerts to understand the reason a customer is dissatisfied, for example gaining understanding that the product simply doesn't meet the customer needs. AI predicts the best solution. This customer needs an upgrade.

To complete this transaction, policy dictates transferring to the next best or preferred agent with a conversation summary, including sentiment, IoT findings, KB articles, similar cases and suggested remedies. The agent can now simply accept or revise to include an additional retention incentive, say, a discount.

I want to call out that this minor edit is an opportunity for AI to improve, by leveraging reinforcement, learning to explore adding discounts in similar cases in the future. The agent can confirm the preferred transaction and prompt AI to complete by dynamically assembling a program that interacts with various Dynamics 365 apps, in tandem assisting the agent and completing the case with closing remarks and generating standardized case notes.

With AI's ability to learn and act with humans in the loop, Microsoft will deliver an unprecedented change in the way you empower your organization with Dynamics 365.

And now back to you, Satya.

SATYA NADELLA: Thanks so much, Vanessa.

I'm excited about our opportunity here. I know we'll have much more to share soon on how we are planning to deploy GPT3 and make it available to our customers.

Let's turn to what developers are doing with mixed reality. Mixed reality blends the digital and physical worlds, and it takes you beyond the screen to understand the interaction between people, places and things.

And we're expanding our portfolio of Azure Mixed Reality services so the developers can make the entire world their application canvas. New Azure Object Anchors enables developers to build apps that are lying and anchor 3D content to objects in the physical world.

Today, we have the largest ecosystem of enterprise mixed reality applications, with more than 150 applications available to support industry specific scenarios.

Lockheed Martin is using one of these applications from our partner Scope AR to build the Orion Spacecraft. Let's take a look.

(Video segment.)

SATYA NADELLA: It's awesome to see the impact mixed reality can have in a complex project like Orion Spacecraft.

Now, building tech intensity requires collaboration between every type of developer. Power Platform is the bridge between professional developers and citizen developers. More than ever, organizations need tools that anyone can use to drive impact faster. Power Platform gives you low-code/no-code tools to rapidly create an application, build a virtual agent, automate a workflow or analyze data. And we've seen remarkable use cases across every industry as citizen developers are working to address the challenges created by COVID-19.

CBRE, the Nature Conservancy, and State Street, along with a thousand other organizations, have signed on to use our end-to-end Return to Workplace solution to keep employees safe and healthy when they go back to the office.

And in education, schools, including Manitou Park Elementary near me here in Washington state, are using Power Platform to navigate an extraordinarily challenging back to school environment. Let's take a look.

(Video segment.)

SATYA NADELLA: Lauren exemplifies how everyone, no matter their technology expertise, can use Power Platform to have tremendous impact.

But Power Platform isn't just for citizen developers like Lauren. It's a powerful toolchain for pro devs that seamlessly brings together the best of both worlds, a rapid application development platform built from ground up, to tightly integrate with pro dev capabilities of Azure.

And now we're introducing Azure API Management for Power Apps in Teams to give pro developers new options to easily build applications inside of teams.

We're also adding Azure Bot Framework extensibility for Power Virtual Agents to eliminate the gap between local and pro code bot development.

And I'm particularly excited about how we are bringing together Power Platform and GitHub for the very first time. Both pro and citizen developers can contribute to the same repo so they can build apps together instead of stitching apps together.

We're also making it simpler for anyone in an organization to find and analyze data together from within Teams. An updated Power BI app in Teams makes it easier to discover organizational data and collaborate on insights directly within the familiar Teams experience.

Now let's turn to the future of work and productivity. Microsoft 365 is the world's productivity cloud across work and life. It's no exaggeration to say that for those of us who have the privilege of working from home, Microsoft 365 has made this possible.

And for those who need to be at their workplace, including the many firstline workers who have been so critical to keeping our society and economy functioning in the midst of the pandemic, Microsoft 365 has made it easier to connect, collaborate and get work done.

In the U.K., the National Health Service chose Microsoft 365 to empower 1.2 million employees with the latest productivity collaboration tools to deliver better outcomes for patients, especially critical in the midst of this pandemic.

We're collaborating with the NBA to reimagine the game experience, so that fans can feel like they're together from the safety of their home, and players can experience the energy of cheering fans in the arena.

And in Miami, Florida, a florist turned to Microsoft 365 to keep a small business up and running even in the midst of the pandemic.

Let's roll the video.

(Video segment.)

SATYA NADELLA: I just love how Melanie is using Teams as a hub for teamwork and integrating it with all her essential Microsoft 365 apps.

There's no question that the PC has become mission critical during this pandemic across work, school and life to sustain productivity in a remote everything world.

We think about productivity holistically, understanding how someone spends their time, who they work with and what content they create, and use these signals to create value for individuals and their organizations. That's the power of Microsoft Graph and it's the foundation of Microsoft 365. Microsoft 365 is the integrated suite of Graph connected productivity apps and experiences individuals rely on every day.

Windows, Office, Outlook, Edge and Teams, more than 1 billion people now are using Windows 10, and Office 365 usage is higher than ever.

Sixty percent of the time spent on the PC is in the browser, and Microsoft Edge makes it easier to find information at work and protect your organization's data, as well as your privacy online.

Business leaders reported phishing threats as the biggest risk to security since the pandemic started, and Edge blocks more phishing and malware attempts than any other browser. And it's

the first browser to natively support Data Loss Prevention, meaning you can manage and control your organization's data when accessed from Edge.

We are bringing Edge to Linux next month, so we can now use it across every major platform, including Windows, Mac OS, iOS, Android and Linux.

And now let's talk about the future of work. The culture of work is rapidly changing. These past several months have served as the largest at-scale experiment we've seen for remote work. We've been studying this closely to understand the changing nature of productivity and applying these learnings to inform how we build our own products.

We think about the future of productivity through three vectors. We are creating a system of collaboration for every organization. Core to this is Teams, the platform for work. Work doesn't begin and end inside a meeting. With Teams, we are focused on the entire workflow around the meeting, before, during and after. It's the only solution with meetings, calls, chat, content collaboration with Office and business process workflows.

And Teams doesn't just connect people inside the organization. It also seamlessly connects you to customers through video meetings, webinars, remote selling, supply chain and other scenarios. We are adding new video meeting experiences in Teams, along with reimagined workspaces for every collaborator -- remote, in person or on the go. And we are shipping new features each week for both firstline and knowledge workers. Let's turn to Aya to see this in action. Hi, Aya.

AYA TANGE (Product Marketing Manager, Microsoft Teams): Thanks, Satya.

I'm excited to show you the latest Microsoft Teams innovations to help you transform meetings and team collaboration.

Let me begin on this gorgeous new 85-inch Surface Hub 2S, which we're excited to announce we'll begin shipping to commercial customers in January.

Here, I'm going to join my meeting on the Surface Hub using proximity join for my phone, our Surface Duo. I can easily select the Surface as my room audio and join the meeting without ever having to touch it.

Looks like my colleagues here are already using the digital whiteboard. I love that I can use my personal Surface Slim Pen on the Surface Hub. I can also beautify my handwriting using the magic wand.

Our latest meetings innovation is called Together mode, a new meeting experience where everyone is placed together in a virtual shared space, free of grid lines and background distractions. And with new themes, you're able to set the tone for your next meeting by choosing your meeting place.

MEETING PARTICIPANT: It creates a more natural way to interact with my colleagues.

MEETING PARTICIPANT: It also helps me stay focused and reduces fatigue during meetings.

MEETING PARTICIPANT: And it strengthens human connectivity, which is essential, while so many of us are working remotely.

AYA TANGE: Now, there are so many exciting new innovations in Teams. So let me play a short video to highlight some of my favorites.

(Video segment.)

AYA TANGE: Pretty exciting, right? We're also building innovative Teams solutions for firstline workers. Today, Honeywell is using Microsoft Teams integrated with RealWear to bring situational awareness to firstline workers, letting them troubleshoot issues with a hands free, voice controlled experience, while live streaming to their remote colleagues.

And similarly, Suffolk is using the new walkie-talkie feature in Teams to securely stay connected with workers, without needing separate hardware.

Now, this was just a quick glimpse of the exciting Teams experiences that will improve teamwork and collaboration for your organization.

Back to you, Satya.

SATYA NADELLA: Thanks, Aya. I have been relying on many of these innovations extensively during this time of remote work, especially the Together mode and whiteboarding.

Now let's talk about the importance of learning. Moving forward, learning in the flow of work will be increasingly important. Research shows that today only one-third of the employees are encouraged to learn by their managers.

But acquiring new skills doesn't stop when someone gets to a job. You need to build your knowledge capital by learning every day. Just as every company today has a system of engagement with CRM or a system of record with ERP, they will require a system of learning, a continuous feedback loop between the work, skills and learning required to succeed at the task at hand.

People are turning to LinkedIn Learning more than ever to pick up new skills. Later this year, we'll preview a new learning application inside of Teams that will allow employers to integrate content from LinkedIn Learning, Microsoft Learn and other content providers, along with their own learning content, all in one place. The app will allow managers to assign and track learning progress and make it easier for employees to discover, share and engage with learning content in the natural flow of their work, as well as build their own credentials.

Finally, we know that prioritizing employee wellbeing is core to an organization's success. It's important to understand what has been lost, what has been gained through this crisis, and especially the balance between optimal organizational productivity and employee wellbeing.

Productivity just can't be about short-term employee output. In a world where you can easily feel isolated, organizations need to equip employees with the tools to rebuild social capital, focus and stay healthy. And they need to better measure and improve employee engagement using tools like workplace analytics as well as Glint.

The current situation is quite stark. One-third of remote workers say the lack of separation between work and life is negatively impacting their wellbeing. Thirty percent of the information workers and firstline workers say pandemic has increased their feeling of burnout at work.

And video meeting fatigue is real. Video meetings force our brains to concentrate more and carry a higher cognitive load, as you can see in this diagram here. It's one reason we created the Together mode. Our research shows that the brain exerts less effort when participating in a meeting using Together mode compared to the standard grid view.

To help employees adapt, we are bringing new wellbeing features and productivity insights right into Teams. Employees will receive insights tailored to their role, along with recommended actions, making it easier to change habits. A new virtual commute will provide a much needed structure for the remote workday, helping carve out the time for cognitive breathers to have a productive start in the morning and mindfully disconnect in the evening.

And through integrations with apps like Headspace, people will be able to easily tap into the dedicated moments of mindfulness to make the most of their breaks, something which most people say would help them reduce work related stress.

I'm excited to talk to Andy Puddicombe, co-founder of Headspace, about what this partnership means.

Hi, Andy. You have such an incredible story. You're a former Buddhist monk who's one of the world's foremost experts on meditation and mindfulness. It's great to be partnering together.

Mindfulness and wellbeing are something we are seeking during these times. The research on the benefits of mindfulness are so clear, but now it's imperative we have these options in the flow of work. Can you talk more about that?

ANDY PUDDICOMBE: Sure. Hi, Satya. It's lovely to see you again.

Yeah, look, the breadth and depth of research into mindfulness is really so significant now. And even at Headspace we have more than 70 clinical trials in the pipeline. And I think what it's shown is I think traditionally, most people, when they think of meditation, they think of relaxation, we think of clarity. They don't necessarily think how it applies to work. I think the research has shown us that it can not only help us sort of feel less stressed in the workplace, but also to be more focused, to be more productive, to be more creative.

And I think all of that is interesting, but what excites me more than that is more like the holistic approach to this, because I don't know about you, but how I think during the day impacts how I feel at home in the evening, and how I live my life at home impacts the way I perform at work.

SATYA NADELLA: You know, Andy, for those watching who don't have much time, what's the one thing people can do to get started?

ANDY PUDDICOMBE: Yes, I want to reassure people. I think often people are worried they don't have time for meditation or that their mind is too busy for meditation. You can start with just a few minutes a day. And I really mean that, sort of just as little as three minutes, five minutes a day.

The benefit of that is it kind of anchors the mind. It trains the muscle of attention. So it teaches us to recognize when we're getting distracted and to come back to the present.

So let's say, for example, when we get to lunchtime, instead of eating a sandwich in front of the screen whilst answering emails, while scrolling social media, we actually say, hey, you know what, I'm going to take five or 10 minutes just to eat my sandwich.

And in training the mind consistently in that way and taking regular breaks, we can actually experience the rollercoaster ride of life but have a different relationship with it, not necessarily feeling like this the whole time, but actually feeling like we have a sense of calm and clarity throughout our everyday world.

SATYA NADELLA: That's a great piece of advice in terms of framing how you frame the relationship. Thanks so much, Andy. I'm really excited about our partnership and how we can help people reduce stress and practice mindfulness in the context of their everyday work. And it's something that we are very passionate about, and I know you have deep expertise and it's great to come together and partner. Thank you so much.

ANDY PUDDICOMBE: Likewise. Thanks, Satya.

SATYA NADELLA: Now let's turn to business applications.

Dynamics 365 is the world's connected business cloud. Across every industry, everything digital is being accelerated. From e-commerce and smart stores and retail to telemedicine and AI assisted triage in health care and e-sports and virtual events like this one, we've seen years of digital transformation in mere months.

The way people interact with businesses is fundamentally changing and there's no going back. Just take customer service. By 2022, 85% of the customer service interactions will start with self-service, up from 50% earlier this year on retail, where one of every five dollars were spent online last quarter, the highest ever.

Dynamics 365 is helping organizations in every industry bring their customers and their businesses together, so that they can meet this rapid change and digitize every aspect of their

operations. From customer insights for personalized customer experiences to Dynamics 365 Commerce for omnichannel retail, to Dynamics 365 fraud protection, Dynamics 365 is the only AI-powered business cloud that enables customers a 360-degree view of their business to unify data and unlock insights so that organizations can take action.

And the combination of Dynamics 365 and LinkedIn Sales Navigator enables more effective remote selling, mission critical for business to business customers. These capabilities are helping organizations build digital resiliency.

We've seen an increasing number of organizations turn to mixed reality to keep employees connected with experts, even when they're physically apart. Mercedes-Benz is using Dynamics 365 Remote Assist to help technicians across its U.S. dealerships service increasingly complex vehicles and improve customer service.

Chipotle is using customer insights to generate a customer profile, pulled from multiple sources, so that they can personalize digital marketing campaigns.

BNY Mellon is using Dynamics 365 to help its investment managers build strong relationships with their clients.

And we are helping customers like Walgreens Boots Alliance switch from legacy systems to Dynamics 365 to transform with a 360-view of their business.

We're going further in some of the most critical areas of the organization in today's business climate. And over the next six months, we will introduce hundreds of new capabilities across Dynamics 365. Let me briefly highlight a few, starting with customer service.

Customer service teams today need to offer multiple lines of always-on communication. We're bringing voice to Dynamics 365 customer service, natively built and seamlessly integrated with Azure Communication Services, so organizations can offer multiple channels to better serve the people who depend on their products and services.

And new capabilities in Dynamics 365 Supply Chain Management help customers keep critical processes running, even when they're disconnected from the cloud, and provide real time inventory visibility.

When you step back and consider the digital transformation taking place today and how entire industries are being transformed in mere months, two in particular stand out: health care and manufacturing. We are bringing together the power of our entire stack to help organizations in both industries adapt.

Let's go to Stephanie to show us how manufacturers are applying digital technology across their operations, from top of the funnel commerce to digital manufacturing and supply chain. Let's take a look.

Hi, Stephanie.

STEPHANIE DART (Director, Product Marketing, Dynamics 365): Thanks, Satya.

In response to major disruption of supply chains and shifts in customer demand, manufacturers are looking to build more agility and continuity into their businesses. And that's what we're helping companies like Unilever, use data from sensor equipped machines to build digital twins that allow them to simulate changes in their factory. This gives them the agility to reconfigure their factories to make new products.

We're also helping manufacturers like Majans use data from IoT enabled devices on the production floor to quickly resolve quality issues. Dynamics 365 Supply Chain Management transforms the real time IoT data into actionable insights so Majans can operate at maximum efficiency with minimal downtime and reduced waste.

In an industry where talent was already in short supply, leading manufacturers are turning to technology that adapts to their changing workforce. This is why Kruger is using Dynamics 365 Guides and HoloLens 2 in their paper mills to provide handsfree, step-by-step holographic instructions to help them simplify the complexity, improve onsite safety and eliminate costly errors. It creates a seamless interface between the physical and virtual world, closing knowledge gaps for a workforce that has a wide range of skills.

In the U.K., a consortium of manufacturers formed VentilatorChallengeUK to produce medical ventilators to meet spiking demand. With a limited number of experts on hand, it's important to scale the ones that you have, even if working remotely. Using Dynamics 365 Remote Assist and HoloLens 2, they were able to capture the highly specialized ventilator production process to train and upskill the consortium's new workforce in multiple manufacturing sites across the U.K.

The digital factory of the future is no longer just a physical location. Remote or onsite, in the cloud or on the edge, only Microsoft, through the breadth and depth of solutions we offer, can make the factory of the future a reality today.

Back to you, Satya.

SATYA NADELLA: Thanks so much, Stephanie. The digital factory of the future that we've talked about for so long is here today.

Similarly, in health care, we're seeing organizations bring together compute, data and AI to accelerate the COVID-19 response, from testing to therapeutics to vaccines.

Speed, agility and collaboration have never been more important, and we're bringing together the health care specific capabilities of our tech stack to enable a streamlined and coordinated patient and clinical experience across the care continuum with the Microsoft Cloud for Health Care, our first industry-specific cloud.

The Microsoft Cloud for Health Care acts as that single healthcare specific platform, so all members of the care team, as well as the patient, can access the right information at the right time.

With the Cloud for Health Care, providers like Cleveland Clinic and St. Luke's Health Network will be able to deliver experiences like this, while supporting industry specific compliance and interoperability requirements.

St. Luke's has conducted more than a hundred thousand virtual visits with Teams over the last six months, which has been critical to their COVID-19 response.

Let's roll the video.

(Video segment.)

SATYA NADELLA: Thank you, Douglas and Rita, for all you do for your patients like Curtis.

There's one more area of our stack that underlies everything I've talked about today, identity, security, management and compliance. It's a strategic priority for every organization, and the shift to remote everything has only increased the need for an integrated Zero Trust architecture that reduces both cost and complexity.

We're the only company that offers integrated end-to-end capabilities across identity, security, management as well as compliance. We analyze more than 8 trillion security signals each day. This massive signal generates insights that fuel security innovation across our platform to protect customers, including both largest of enterprises, as well as small businesses, that are often most vulnerable to attacks.

Let me briefly share a couple of examples. In New Jersey, the state court system has conducted more than 36,000 legal proceedings virtually since the start of the pandemic, crediting capabilities like Data Loss Prevention across Microsoft 365 with helping it meet its compliance requirements. It has been so successful that New Jersey is now planning on conducting many legal proceedings virtually even post-pandemic.

In Japan, Komatsu is relying on Microsoft Information Protection to protect its most sensitive data. The equipment manufacturer needs to send CAD files and other sensitive documents to various vendors across the global supply chain and use Microsoft Information Protection to share this IP, rely on roles-based access and time limits.

And in Canada, a family owned producer of potatoes is using our AI powered capabilities to block threats. Potato farms might not seem like a typical candidate for hackers, but consider that the security of our food supply is one of the most critical pieces of infrastructure in an economy.

And we're expanding our capabilities. In identity, we are applying AI to stay ahead of the growing sophistication of attacks. We perform real-time risk evaluation on 30 billion authentication requests and retrain the algorithm daily to protect user accounts. For example, we

are able to detect and block nearly 80 million password spray attacks each day in which the attacker tries a common password like Password123 against a long list of usernames.

We're going further, working to create an open, decentralized identity system that is independent of any central authority or tech company even. Military veterans, for example, are already piloting these capabilities to jumpstart their careers. Veterans can now store their verified service record and transcript in a digital wallet on their phone, which they can share directly with the university or an employer. Universities can validate it in seconds and never have to store the sensitive data. Veterans can add verified credentials to their LinkedIn profile to helping them stand out in opening up new career opportunities.

In security, we are taking our existing protection capabilities across your data estate a step further, bringing together all of the threat protection capabilities across Azure and Microsoft 365 with the Defender brand.

The new Defender capabilities include coverage for Android and iOS and multi-cloud protection for SQL Server. Defender complements Azure Sentinel, our cloud-native SIEM, giving our customers a no-compromise combination of both depth and breadth of SIEM and XDR from one vendor.

In device and data management, Microsoft Endpoint Manager monitors and manages all your devices in a single console, natively integrated with our security, identity and compliance solutions. And new tools like Endpoint Analytics offer proactive remediation of issues before they disrupt end users.

Finally, our compliance manager allows you to scale your compliance to meet increasing regulatory requirements. It has more than 150 assessments, all out of the box, for regulations like GDPR. And you can continuously identify and assess risks and create custom assessments for unique needs. This tech stack contains your building blocks to drive digital resilience and transformation for your organization. We know that the broad economic growth is dependent on building that tech intensity across every industry and every sector of the economy, in every country.

And as we consider the opportunities and challenges facing the world today, we have an enormous responsibility to ensure that the technology we build benefits everyone on the planet, including the planet itself. Our purpose and actions must always be aligned to help solve the world's challenges, not create new ones. This is what grounds us in our mission to empower every person and every organization on the planet to achieve more.

For us, achieve more has four important attributes. First, we must ensure that this economic growth is inclusive for every country, developed or developing, every community, urban or rural, every business, small or large, every worker, firstline or knowledge worker, and every person, including the 1 billion plus people with disabilities.

Second, we must build trust in technology and its use, spanning privacy, security, responsible use of AI and transparency.

Third, we support the fundamental rights of people, from defending democracy to addressing the systemic racial injustice and inequity around the world.

And finally, we must protect the most finite resource, the planet, by working towards a more sustainable future. In fact, just this week we announced our commitment to be water positive as a company by 2030. That means we will reduce our water use intensity as much as possible and then ensure we replenish more water than we consume across our business.

I'm energized every day by how so many of you are seizing this opportunity, applying technology to address some of our biggest challenges. One example I want to leave you with is UCB in Brussels, which is using Azure in their pursuit of a COVID-19 moonshot.

By harnessing the power of digital technology together, I believe there's no limit to what we can achieve for the world. Thank you all so very much. Enjoy the rest of Ignite.

(Video segment.)

END