Microsoft Annual Shareholder Meeting

John Thompson, Satya Nadella, Amy Hood, Brad Smith and John Seethoff November 30, 2016

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Please welcome John Thompson, Chairman of the Board of Microsoft Corporation.

(Applause.)

JOHN THOMPSON: Good morning and welcome. I'm John Thompson, Chairman of the Board of Microsoft. To those of you here with us today at the Meydenbauer Center in Bellevue, Washington, as well as those of you listening online, we welcome you to our Shareholder Meeting.

We're streaming live today on our Investor Relations Website. We strive to make this meeting as inclusive as possible, and we're excited to offer our shareholders an opportunity to participate and vote via the Virtual Shareholder Meeting. Our Board values the ongoing feedback we get from you, and we value the thoughtfully expressed and diverse opinions you provide us as we try to create real value for you, our shareholders.

I would like to share with you the presenters and the structure for today's meeting. I will be joined by Satya Nadella, our Chief Executive Officer; Amy Hood, Executive Vice President and our Chief Financial Officer; Brad Smith, President and Chief Legal Officer; and John Seethoff, our Deputy General Counsel and Corporate Secretary.

John will address the business portion of the meeting; followed by Amy, who will review Microsoft's financial results; and then Satya will talk about how Microsoft is uniquely positioned in this era of massive digital transformation.

Following his remarks, we'll show you some of the new devices and productivity offerings as well as examples of world-class cross-platform experiences. Then we will have plenty of time for Q&A.

But first, let me address or attend to some of the formalities. Broadridge Financial has been appointed as the inspector of election for this meeting. The inspectors are located at the reception table in the lobby. Most of you have already voted by proxy and your

proxy votes have been tallied. If you are a shareholder of record or a beneficial shareholder holding a legal proxy from your bank or broker and you want to vote your shares now or change your vote, ballots are available from the inspectors that are at the reception table in the lobby.

Filling out a ballot and giving it to the inspectors will revoke any earlier proxy you gave. If you are a beneficial shareholder with a voting instruction form, you also may submit those forms and use the computers at the reception table to cast a new vote. The polls are now open and will be open -- or closed, I'm sorry, in a few moments following the presentations of the business matters of the meeting.

As Satya said in his letter to you, we're proud of the progress we made over the past year, and equally excited about the opportunities ahead for our company. Over the past year we've built momentum in each of the ambitions while investing in our future and positioning the company for new growth.

We also remain committed to a strong corporate governance framework and routinely evaluate your governance practices to maintain strong accountability, shareholder rights and transparent policies. Acting in line with Microsoft's commitment to best practices in corporate governance, the Board is proposing changes to Microsoft's articles of incorporation that would reduce the percentage of shares outstanding required to call a special shareholder meeting. We believe this step is in the best interests of our shareholders.

Another significant development has been refining our executive compensation program, which continues to evolve to better align to Microsoft's ambitions and reward the operating team for long-term business success.

We received favorable feedback from our investors on the new incentive compensation arrangements that tie more directly to performance or specific performance metrics. The program has been developed and incorporates performance elements linked directly to the results of our three strategic ambitions: Reinvent productivity; build the Intelligent Cloud; and create more personal computing.

The members of our Board of Directors reflect our continuous evolution as we bring together the most diverse board the company has ever had, creating a balance with different backgrounds and points of view. Now I would like to introduce the members, the independent members of our Board of Directors who are here with us today.

First Teri List-Stoll is a member of our Audit and Governance and Nominating Committee. Mason Morfit is a member of our Audit and Compensation Committee. Chuck Noski is the chair of our Audit Committee and a member of the Governance and Nominating committee. Dr. Helmut Panke is chair of the Regulatory and Public Policy Committee and a member of the Audit Committee. Sandy Peterson is a member of the Regulatory and Public Policy Committee. Charlie Scharf is a member of the Compensation and Governance and Nominating Committee. John Stanton is chair of our

Compensation Committee and a member of the Regulatory and Public Policy Committee, and Padma Warrior is a member of the Compensation Committee.

Welcome to all of you.

Also here with us today are Steve Sinwell, Chris Weber, and Stacy Janiak, representing Deloitte and Touche our independent auditors.

And now I'd like to call the 2016 Annual Shareholder Meeting to order. I'll be serving as the chair of the meeting and John Seethoff will serve as the secretary. As chairman of the meeting I've adopted an agenda that will govern the order of business and the rules of conduct for this meeting. Copies of the agenda and the rules are available at the reception table outside the meeting room. The rules of conduct also govern the Q&A session.

John, please report the notice of the meeting and proxies received and present the matters to be voted on.

JOHN SEETHOFF: Thanks, John, and good morning everyone.

This morning I'll walk us through the short formal meeting and then, as John said, you'll hear from Satya and Amy, followed by a Q&A session. The notice of the meeting and Internet availability of the proxy materials mailed by Broadridge Corporation beginning October 18th, 2016. It went to all shareholders of record as of September 30th, 2016. As a result the meeting is being held pursuant to proper notice. Proxies representing more than 88 percent of the approximately 7.8 billion shares of the company's stock that are eligible to vote have been received. So a quorum is present and the meeting is duly constituted and will proceed.

This morning we have five management proposals and one shareholder proposal for shareholders to consider. They were all described in the proxy statement. The first item is the election of directors. The following 11 people have been properly nominated by the board. William H. Gates, III, Terry List-Stoll, G. Mason Morfit, Satya Nadella, Charles H. Noski, Dr. Helmut Panke, Sandra E. Peterson, Charles Scharf, John Stanton, John W. Thompson, and Padmasree Warrior. The board recommends a vote for each of the directors on the ballot.

The second item is an advisory vote to approve compensation of the company's named executive officers disclosed in our 2016 proxy statement. The board recommends approval of this proposal. The third item is a ratification of the company's independent auditor, Deloitte & Touche, for Fiscal Year 2017. The board recommends approval of that proposal.

The fourth item is the approval of the amendment to Microsoft's amended and restated articles of incorporation. The board recommends approval of that proposal.

The fifth item is the approval of the French subplan, under the 2001 stock plan.

Finally the sixth item is a shareholder proposal on enhancements to proxy access. The shareholder proposal and its supporting statement are set forth in the proxy statement. The proposal has been submitted by Mr. James McRichie.

I recognize Mr. McRichie's representative Mr. Bruce Herbert with Newground Social Investment for a period of three minutes.

BRUCE HERBERT: Thank you.

I am Bruce Herbert of Newground Social Investment and I stand on behalf of Jim McRichie to move Proposal Number Six for Proxy Access. In response to shareholders Microsoft has made substantial progress when it adopted a form of proxy access that made amendments to its bylaws. However, though headed in the right direction, what Microsoft implemented is a decidedly limited form of proxy access that only allows 20 shareholders to form what's called a nominating group.

Despite Microsoft's assertions to the contrary a limit of 20 is entirely unworkable, because it sets the share threshold at stratospheric levels. To illustrate this the Council of Institutional Investors, CII, whose members control over \$3 trillion in investment assets examined its members holdings and somewhat shockingly they discovered that in the vast majority of cases even if 20 of the very largest shareholders, public pension funds, were to aggregate their shares they still could not meet the extraordinarily burdensome criteria set by Microsoft.

So in light of this, we will gently say shame on Microsoft for appearing to embrace reform, but then setting levels that unobtainable. The company's policies are neither practical nor in the spirit of the national movement to democratize and enliven board representation through proxy access. Thus, the most important amendment requested by this proposal is to raise the limit that Microsoft has set on the number of shareholders that can form a nominating group. Similar to an SEC rulemaking that was passed but subsequently suspended for a review this proposal suggests that any number of shareholders be allowed to form a nominating group.

In closing, as everyone knows, appearing in the proxy is not the same as winning a seat. All nominees need to be exceedingly qualified and must receive a majority of the votes cast. Proxy access is designed to breathe new life into the board election process by driving competition, creating accountability, and boosting shareholder value.

Therefore, please cast your vote for Proposal Number 6, Proxy Access.

Thank you.

JOHN SEETHOFF: Thank you, Mr. Herbert.

The Board recommends a vote against the proposal for the reasons stated in the company's proxy statement.

The discussions of matters for shareholder consideration is now closed, and the polls are also now closed.

I'll share with you now the preliminary voting tabulation. First, each of the 11 nominees on the ballot to become a director are elected with over 98 percent of votes cast to serve until the Annual Meeting of Shareholders and until their successors are elected and qualified.

Proposal 2, the advisory vote on executive compensation has been approved by more than 95 percent of votes cast.

Proposal 3, ratification of the company's intended auditor, Deloitte & Touche, has been approved by over 98 percent of the votes cast.

Proposal 4, the amendment to our amended and restated articles of incorporation has been approved by a majority of shares entitled to vote, and more than 99 percent of votes cast.

Proposal 5, the French sub plan under the 2001 stock plan has been approved by 95 percent of votes cast.

Finally, the shareholder proposal on proxy access enhancements was not approved.

We expect the post the details of final voting results on all these matters on our Investor Relations Website later today. We'll also report the results in a Form 8K which will be filed with the Securities and Exchange Commission within four business days.

With that, we've completed the formal portion of the meeting, and the meeting is now adjourned.

Let me hand the stage over to our Chief Financial Officer Amy Hood.

AMY HOOD: Thanks, John.

Hello, everyone, and thank you for being here or watching online today. I'm going to briefly recap our past fiscal year results and then cover our progress so far this year.

Last year was pivotal in our continued transformation. And we executed well and finished Fiscal Year 2016 with \$85.3 billion in revenue. We aggressively pursued new addressable market opportunities and growth areas like commercial cloud, hardware, search and gaming.

We transformed our sales and go to market engines to be more agile and further unified our internal organization around One Microsoft. It enabled a richer connection to the voice of the customer and our partners. And we completed 17 acquisitions across security, productivity, developer tools, gaming, and analytics to reinforce our capabilities in those key growth areas.

We balanced our investment in innovation with a continued commitment to shareholder returns, increasing our total cash returns to \$26.1 billion, up 12 percent from last fiscal year. And in September we announced an 8 percent increase in our quarterly dividends. We remain on task to complete our \$40 billion share repurchase program by the end of this calendar year, and announce a new \$40 billion share repurchase program.

Now, a few highlights from our business in the past year. The Microsoft Commercial Cloud continued to gain broad-based consumer and customer adoption with revenue and user growth across our services. And in response to customer demand, we introduced services and features across Office 365, Azure and Dynamics 365, and areas like security and in analytics. And our Office 365 consumer subscriber base grew to more than 23 million with our rich Office applications available across multiple platforms and multiple devices.

Now let's turn to our Windows business. This past year we delivered Windows 10 and reinvented one of the most popular and successful operating systems with over 400 million commercial and consumer devices upgrading to Windows 10, we opened new avenues of economic opportunity in areas like search and in gaming.

And we made a commitment to search profitability and achieved that goal, Bing was profitable for the full fiscal year. In our gaming business we grew our Xbox Live monthly users to 49 million. And in our devices business we prioritized category innovation with Surface, which ended the year with more than \$4 billion in revenue.

Now just a few comments on our current fiscal year. First, we updated key investor metrics. We added three new financial metrics to help on our financial reporting results and provide transparency into our progress against our key strategic initiatives. The new metrics are: commercial cloud growth margin percentage; total gaming revenue; and Windows commercial products and cloud services revenue growth. In total, we now have 20 regularly disclosed metrics that reflect the evolution of our business and help our investor community track our performance trends.

Second, we had a strong start to the year in Q1, exceeding our expectation across many of our businesses. Customers continued to adopt our commercial cloud services and we, again, saw increased user engagement in Windows' ecosystem with key services like search and gaming.

And looking ahead, our innovation roadmap and disciplined investment enable us to expand our addressable market opportunities and continue to position the company for growth. We believe the highest shareholder value is created by investing in our future, creating new scenarios that move us closer towards empowering every organization and person to achieve more.

With that, please join me in welcoming our CEO Satya Nadella.

(Applause.)

SATYA NADELLA: Thank you, Amy, and thank you all for being here today and watching online. We greatly appreciate your commitment as shareholders of Microsoft. This last year has been a year of solid progress at Microsoft as well as with our customers and partners. For us everything we do starts with our mission. Our mission is to empower every person and every organization on the planet to achieve more.

We're a company that deeply cares about both people and the organizations people build. We think about our impact globally. In fact, my own story would not have been possible but for the democratizing force of Microsoft technology reaching me where I was growing up.

But perhaps what is most unique about our mission is our focus on our customers and our partner success and what they can do by building on our technology. I've had the opportunity to visit nearly 20 countries over the last year from Indonesia to Ireland, from Egypt to New Zealand. Every place I go I see first-hand the impact we are having in large businesses with entrepreneurs, in public sector, with students and people pursuing their dreams and passions.

Take Volpara, a New Zealand based startup using our cloud to apply data and analytics to early detect breast cancer or Land O'Lakes using digital technology and Microsoft Cloud to advance sustainable agriculture in family-owned farms, or the Al Amal School in Georgia where I saw teachers using the familiar Office tools to provide access to education for students of all abilities, celebrating their achievements is what really drives us.

We empower people to get more out of every moment creating, collaborating, learning, and gaming, and being mobile and staying secure. As I travel and talk to customers, one of the most profound changes that's happening in the world today is that every organization is becoming a digital organization. That means that they're moving from just consuming technology to creating digital technology.

At Microsoft, we enable organizations to digitally transform, to engage customers, empower employees, optimize operations, transform their products and business models. Whether it's Boeing or Rolls-Royce, businesses want to empower their employees with analytical and predictive power. They want to transform their products and business models and their entire industries.

At the heart of this transformation is a new technology of artificial intelligence. By 2025 our society will produce 180 zettabytes of data. In fact, we're running out of words to describe the number of bytes we're generating. Our role is to ensure that the data is not just an exhaust, but it's converted into actionable, helpful insights and intelligence.

As computing becomes more ubiquitous converting data into ambient intelligence that can fuel digital transformation is at the very core of our innovation agenda. The work we're doing today in AI across all our businesses positions Microsoft as a key partner to everyone wanting to harness the power of this new technology. In fact, AI is already working on your behalf to predict and automate tasks in many of the products you use today. So handwriting recognition in Windows 10, the facial recognition in Windows Hello feature, voice recognition of Cortana, language translation in Skype, and the input recognition and the Swiftkey keyboard on your iOS or Android devices.

What makes our efforts unique, though, is how we take these AI capabilities that we built for our own first party products and democratize the access to them to customers and partners to find solutions -- build solutions to the biggest challenges in healthcare, agriculture, finance, government, every sector of our economy and society.

With that as the backdrop, now let me briefly expand on the progress Amy shared against our three interconnected ambitions. I'll start with reinventing productivity and business process. With both Office 365 and Dynamics 365, we are helping individuals and teams manage their scarcest resource, that is time. Across devices and in organizations of all sizes, we're helping to change the nature of work. More than 85 million monthly active users of Office 365 Commercial rely on Office to get stuff done, including leading companies like Macys and eBay, Fortune 100 companies like energy leader Epsilon, and Liberty Mutual Insurance have chosen Office 365 to help make their employees more productive and secure.

Later in our demos, you will see how we're making people more productive by bring cloud-powered intelligence to the familiar Office applications you use every day. We also think about teams of people, and what they can accomplish together. Office 365 is that universal toolkit that empowers individual teams as well as entire organizations with the broadest platform for creation, communication and collaboration in the market today. We're also removing the barriers between productivity, collaboration and business process applications.

We integrated our best in class productivity tools with Dynamics 365 to transform how people work across finance, sales, marketing, manufacturing, customer service, and positioning us to compete and grow our share in this very large market.

Lastly, we have the opportunity to connect the world's professional cloud and the world's professional network with our pending LinkedIn acquisition.

Now let's talk about our growth in the Intelligent Cloud Platform. Microsoft Cloud is winning significant customer support. Our Commercial Cloud annualized revenue run rate exceeds \$13 billion, and we remain on track to achieve our goal of \$20 billion in Fiscal '18. Azure revenue has grown triple digits over the last seven consecutive quarters in constant currency. And more than 60 percent of the Fortune 500 now have at least three of our cloud offerings.

From Day One we architected our cloud to give customers choice. Microsoft offers customers a trusted, global, hyperscale public cloud and two hybrid computing platforms to meet their real world needs. Our high value services enable organizations of all sizes to build their own digital capability and applications using IoT, advanced analytics, machine learning, and AI.

We continually improve our global infrastructure across many dimensions and customers are experiencing the benefits. We have expanded our data center footprint to 38 regions across the globe. We are leading in security, privacy, and compliance. Azure is the most trusted, most compliant cloud with 49 certifications, more than any other cloud provider.

Our U.S. government cloud has the highest number of certifications in the industry. And the increasing richness and sophistication of our intelligent services and enabling scenarios that simply were not possible and driving new growth. Across industries companies like Daimler Trucks, Uber, Lowes are using Cortana Intelligence and other Microsoft services to transform their businesses and build powerful new offerings for their customers.

We're also creating new growth opportunities with a cloud that is open to all developers. It might surprise you to learn that Microsoft is one of the biggest contributors to open source today. We are bringing SQL Server to Linux. We have open sourced many parts of the .NET platform, which has gotten great amounts of activity in the open source community today. We also joined the Linux Foundation Board. Finally we are building Azure as the world's first AI supercomputer. Researchers at Virginia Tech are already using Azure to accelerate genome sequencing. And we are just at the very beginning of the possibilities of advancements in AI and what they can bring about to customers.

Now let's talk about how we're transforming Windows 10 and the ecosystem of devices in our pursuit of our ambition to bring about more personal computing. We continue to make progress on moving people from needing to choosing to loving Windows. We now have more than 400 million monthly active devices on Windows 10 and we are focused on offering new experiences to deepen our engagement with these users.

Our focus on security has helped drive a 3X increase in Windows 10 enterprise deployment in the last six months, including the U.S. Department of Defense, as well as Accenture. Customers experience the benefits of AI every day with Windows 10 Cortana Search Box, with over 141 million monthly active users and almost 13 billion questions asked to date.

I've talked about how we can -- how we are building Windows to be an operating system designed around you and your mobility, not just your device, one that pushes the boundaries on input and output modalities, enabling people to write, speak, see, touch, and experience computing in new ways. With the Windows 10 Creators Update we are empowering the creators of the world to unlock their ingenuity with new computers and new computing.

With Surface Studio we are creating a new category that transforms your desk into a creative studio. We are birthing a new medium with Windows Holographic and HoloLens, where you move from 2D to 3D, from 3D objects to holograms and from holograms to completely mixed reality. These new experiences are generating enthusiasm for Windows 10 and the new forms of creativity and expression that it can unleash. And this holiday you will see the widest range of Windows devices ever from our partners, so you can be both creative and productive.

In gaming, Xbox One has been the number one selling console in the United States for the past four months. And Xbox Live fans have enjoyed more than 20 billion hours of game play on Windows 10 PCs and tablets. And I'm excited that we are bringing Minecraft into the classroom as a platform for learning to empower more students from all backgrounds to unleash their creativity and equip them with the skills needed to be successful in the future jobs.

In closing, I want to reflect on the progress we have made in our cultural transformation over the past year. The most important job I do as CEO is to curate our culture on a daily basis. With a mission to empower every person and every organization on the planet to achieve more, we must strive to reflect the people we serve. That's why diversity and inclusion is a foundation of the culture that we are building. Diversity has many dimensions. And we think about it broadly, including accessibility, veterans, the representation of women and ethnic minorities, the LGBT community, and many more.

We took further steps this year to hold ourselves accountable, tying a portion of each of our senior leadership team member's compensation to diversity progress, adding new training to help employees practice inclusive behavior and making advances in diverse representation in our university hiring programs.

These are important steps, but we need to do more, both at Microsoft and across our industry. And I've always said that each one of shapes the culture through our mindset and our behaviors. We will continue to embrace the growth mindset and listen to learn, from each other, from our customers, our partners, from the world in which we operate, and to make Microsoft a place where everyone can do their best work.

We will focus on designing and building products that our customers love and that are accessible to everyone and built for each of us. Beyond that I'm optimistic about our future and the role Microsoft can play in spreading economic opportunity more evenly throughout the world, helping to create a bigger, brighter future for people across the socioeconomic spectrum. When we build a culture and an organization that includes and empowers everyone, we will generate new growth and deliver long-term value to you, our shareholders.

Now I would like to invite Shun to the stage to show how our innovation comes to life in some of our new products, devices, and services. And then we'll move to Q&A.

Thank you all very much.

Shun.

(Applause.)

SHUN GREWAL: Thanks, Satya.

Good morning, everybody. This year, we introduced two new additions to the Surface family, Surface Studio and Surface Dial.

Surface Studio has a beautiful 28-inch, higher than 4k display, with 13.5 million pixels of true to life color and clarity. At just 12.5 millimeters thin, it's a powerful and innovative device that brings a completely new experience to creators.

The zero gravity hinge allows you to effortlessly turn your desk into a studio. Look at how easy this is. It has the perfect amount of resistance, and I can position it with just one hand.

And Surface Dial introduces a brand new type of user input that provides a truly uninterrupted experience. The dial works contextually and in different ways with different apps.

Here in Sketchable I've imported a picture of a leaf, and I can use the dial as a palette for my pen so that I can adjust the color on the screen just by moving the dial with my left hand. In a single stroke you can see how truly powerful this tool is.

This is Mental Canvas, a graphical design app that's opening new opportunities for artists.

Surface Studio is the perfect device for creating sketches like this 3D sketch of Grand Central Station.

Surface Studio is also great for architects and engineers. In Blue Beam I can use split screen zoom to navigate the map on the left side, zoom on the right side, and edit in that particular area.

Breakthroughs in interactions such as gesture, gaze, voice, and pen are making computing so natural, so personal and predictive that it no longer feels like computing at all.

Hey, Cortana. Open PowerPoint.

CORTANA: Sure, here's PowerPoint 2016.

SHUN GREWAL: Cortana's my personal digital assistant. She's built on Microsoft artificial intelligence, and is available on over 400 million Windows 10 devices, and has over 100 million monthly active users.

We're also using AI to accelerate our investments in Office. I'm going to show you how easy it is to create a beautiful PowerPoint presentation with just six clicks.

Here's a slide with a quote from Teddy Roosevelt. When I insert a couple images on the slide, you can see how PowerPoint uses machine learning to improve the design process and automatically chooses a variety of different layouts for me, without me having to do anything.

Think about what it would have taken for me to create this slide. I would have had to crop photos, format text, change shapes. I really would have needed the precision of a mouse.

Now anyone can use this tool to create professional looking slides with very little physical effort, something that would be great for users with mobility and vision impairments.

We're focusing on accessibility and the needs of people with disabilities, and have found that these features can make everyone more efficient.

Last year, we showed you learning tools in OneNote, which was an add-in that helped people with learning differences like dyslexia or cognitive disabilities. Dyslexia affects 3 to 7 percent of the population, and up to 20 percent of people may have some degree of symptoms. So what was once a product add-on will soon be fully built into Word to help everyone.

Reading View now has a tool to sustain attention and improve reading comprehension. Separating the syllables can help with word recognition. Increasing the text spacing will shorten each line to reduce the visual crowding. Changing the page color can assist with limited visibility. And Word can actually read content out loud to me to help me retain it.

WORD: Daring Greatly, it is not the critic who counts, not --

SHUN GREWAL: Now, these improvements in accessibility extend to content creation and communication as well. We're extending our proofreading tools to improve the recognition of common patterns of dyslexia and phonic misspelling.

Here the word "approximately" normally would have returned no suggestions, but now Word recognizes it and suggests the correct word.

Here even though the word "affect" is spelled correctly, it's still identified as an error, and suggests the correct word based on context.

Now, some words look similar but have different meanings, and being able to see the synonyms can help choose the correct one. And if I'm still unsure, being able to hear the word out loud can make a world of difference.

WORD: Contiguous. Synonyms. Adjoining.

SHUN GREWAL: Our goal is to help people write more clearly and effectively, and the use of plain language can help make writing more understandable to everyone. The phrase "large in size" can simply be written as "large." "Give consideration to" is more easily read as "consider." And it also suggests the use of inclusive language. So this should read as "People with disabilities."

Now, these tools together really lower my anxiety about writing, allowing me to focus more on my ideas than misusing the words.

Now I'd like to introduce you to one of our experts in accessibility, Ann Taylor.

Good morning, Ann. How are you?

ANN TAYLOR: Good morning, Shun.

Good morning, everybody. In my role as a Senior Supportability Program Manager I work closely with the various engineering teams across our company to help ensure that our products and services that we deliver are accessible to people with disability.

Today, I would like to demonstrate to you how I stay productive using our own platform.

Now, since I am blind, I use screen reading technologies to access information on my PC. I'm using Narrator today. What's Narrator? Well, I'm glad you asked. (Laughter.) Narrator is a screen access program included in Windows 10 that will read content out loud to me.

And here's how it sounds like.

(Computer voice.)

ANN TAYLOR: Oh, well, I listen to the speed at a higher rate. So I will slow it down for today's demo.

COMPUTER VOICE: Speed decreased to 70 percent, speed decreased to 65 percent, speed decreased to 60 percent, speed decreased to 55 percent.

ANN TAYLOR: By the way, Narrator and Windows are not the only areas of investment in accessibility at Microsoft. We invest in accessibility to improve our products and services across platform and across devices.

Next, I would like to show you how the work that we have done to improve accessibility in Office empowers me to stay engaged with my colleagues every day.

Here I have a Microsoft Word document open. I will use Narrator to read the content.

COMPUTER VOICE: Blank. Comment. Editor assists you with the finishing touches by providing an advanced proofing and editing --

ANN TAYLOR: I not only hear the content, but I also heard that someone has commented on this text. I want to know what was the comment, basically who said what. So what I will do here is I will do alt-R.

COMPUTER VOICE: Alt-R selected. Review tab item, alt-R.

ANN TAYLOR: I press N.

COMPUTER VOICE: Ken wrote the comment. Editing.

ANN TAYLOR: Now, Ken has a comment for me. Let's find out what he says.

COMPUTER VOICE: Cap Ann. Can we use this phrasing?

ANN TAYLOR: Ann, can we use this phrasing? Well, absolutely. Ken, if that's what you want to use, I'm cool with it. (Laughter.)

So I'm not going to do shift-F10.

COMPUTER VOICE: Shift-F10. Menu item. Copy.

ANN TAYLOR: Arrow down.

COMPUTER VOICE: Keep text only. Reply to comment. Menu item.

ANN TAYLOR: Reply.

COMPUTER VOICE: Ann Taylor comment. Editing.

ANN TAYLOR: Type "Okay."

COMPUTER VOICE: Okay. Enter.

ANN TAYLOR: I just replied to Ken's comment.

This is one of many examples of the work that we have done in accessibility areas. And there's still more to do. Our customers are counting on us. And as we pursue accessibility as one of the major priorities, we will keep delivering relevant, impactful

technologies like this one, technologies that will empower people with disabilities to do more, to achieve more, and to be independent.

By the way, did you like those keyboard shortcuts? If you do, you can use it if you don't have your mouse handy.

At this point, I would like to turn the podium back to Shun, my colleague, and I thank you very much for listening. Shun?

SHUN GREWAL: Thanks, Ann.

ANN TAYLOR: It's all yours.

(Applause.)

SHUN GREWAL: Thank you.

So accessibility is a priority, as Ann just showed you. She was using Word, and that's just one of the many Microsoft apps that we're continuing to build accessibility on across platform.

Our goal at Microsoft is to deliver consistent experiences that extend to whatever device you happen to be using. We're driven by the mobility of the experience, not the device.

Every app on my screen here was made by Microsoft. And some of these are also available on Android and Windows. I've got my personal digital assistant, Cortana, the best of communications, Skype, and all the Office productivity applications. I have Word, Excel, PowerPoint, and I have OneNote pinned to the bottom, because that's my personal favorite.

But the app that I use most on my phone is Outlook. I use it all the time. It drives my productivity throughout the day, and it keeps me connected no matter where I am.

Now, we find that users actually spend on average about 24 seconds inside Outlook on a mobile device. And our goal is to make those 24 seconds as productive as possible. And it does that in a few different ways.

For one, it actually consolidates all of my inboxes in one place, so I can access messages from different e-mail addresses at any time.

And we all use e-mail differently. I love that Outlook personalizes the experience for me. I can set it so that when I swipe one direction, it deletes a message, and when I swipe in the other, it marks the message as unread so that I can go back and read it thoroughly from any device.

It uses visual cues to communicate information like this flight confirmation, this coffee chat invite, or this flagged message for follow up. I can even check in or RSVP directly from my inbox.

Outlook intelligently prioritizes my inbox by looking at the content or people that I interact with most often, allowing me to focus on my most important messages in my focused inbox. Less important messages are still easily accessible but are simply out of the way.

For me e-mail is extremely important, but it's my calendar that really keeps me on task. And we've done some incredible work in the calendar app, which has made it more visual and connected than ever before.

Like my e-mail, my calendar pulls in from multiple sources, like Wunderlist for my sports team, like the Rutgers Scarlet Knights, or from Facebook.

Events now automatically get icons that associate with the type of meeting so at a glance I get a visual identifier of what that meeting will be, whether it's the gym, coffee, going to get lunch.

As I type out the name of this new meeting, you can see that the icon changes, depending on the context.

Now, not only is it great at scheduling appointments for myself but Outlook also does a great job of taking into account my coworker's availability. So when I go to schedule a meeting, I can be sure to pick a time -- 2:30 works -- for everybody.

Now, Outlook uses AI to help me manage my inbox, but now let me show you how we're bringing AI to photography.

Microsoft Pix is an intelligent camera app that automatically optimizes settings so that anyone can take better photos, especially of people.

Let's be honest, it's hard to capture the perfect picture, right? Sometimes people's eyes are closed, they're moving or the lighting isn't right.

Pix works to capture a burst of photos, both before and after I press the shutter button, and then uses all the data from those photos to give you one perfect shot.

Let me show you an example. Here's a picture that I took of my -- well, here's a picture that Talon took of me earlier today. And when I hold down the "compare" button, you can see the image that he actually captured where my eyes were closed. That's what he captured at the moment that he hit the button. This is the picture that Pix generated using AI, and taking all the data from those photos.

Pix can also sense motion, and it creates short, looping video clips called Live Images when it recognizes interesting movement.

Here's a picture from Thanksgiving when my aunt was making gravy on the stove. You can see the steam moving on top of the pot.

Pix allows me to enjoy the moment instead of struggling to capture it. And since I have my photos automatically backed up to OneDrive, I can access all of them from any device.

Everyone gets 5 gigabytes of cloud storage when they create a Microsoft Account, but with an Office 365 subscription this increases to 1 terabyte. That's a thousand gigabytes. You can think about that as 300,000 pictures or a million documents.

Now let's shift gears for a moment here and talk about something that's been really exciting in stores. A little over two years ago, we acquired Mojang Studios, the makers of Minecraft. Minecraft is a game that is loved all around the world by people of all different ages. It provides an immersive experience that allows for learning and adventure in a 3D world.

Since joining Microsoft, Minecraft has grown to new heights. In just the last two years, Minecraft sales have doubled. Over 100 million copies have been sold, and over 40 million people worldwide are using it every month. It's added millions of new members to the Xbox Live ecosystem, and over 50 billion views of Minecraft content have occurred online in just the past year.

As we look to engage with fans in all the ways that we can, we recently launched Minecraft Education Edition, which is a collaborative and versatile platform for learning.

Teachers can use Minecraft across subjects to encourage 21st century skills, like creativity, problem solving, and computational thinking.

The game has become a true cultural phenomenon, and is only continuing to grow. We've recently added VR, artificial intelligence applications, Hour of Code tutorials, and we are just getting started.

Now, I've shown you a few of the ways that we've innovated in 2016. We've talked about new products, artificial intelligence, accessibility, cross-platform experiences, and Minecraft.

And we're really excited about gaming at Microsoft, and we haven't forgotten about our hard-core gamers. It's been a great year for gaming with the release of Xbox One S. I'm going to leave you all with a video to show you a little more. Thanks for your time, and enjoy the rest of the meeting.

(Applause.)

(Video segment.)

CHRIS SUH: Good morning. My name is Chris Suh. I'm the head of Investor Relations for Microsoft.

I hope you enjoyed seeing a glimpse of the exciting new products and services we're bringing to our customers around the world.

We're not going to move to the question and answer portion of today's meeting. I'd like to invite our speakers back out on the stage to join me for the Q&A.

I'd also like to introduce Brad Smith, Microsoft's President and Chief Legal Officer.

Across the room we've set up four microphone stands, stations. If you'd like to ask a question, we'd please ask that you make your way to one of the mics.

Also I have members of the IR team -- please raise your hands -- who are at each of the stations, who can assist or answer any questions you may have.

Okay, while we set up and make our way to the mics, I'm going to start actually with the first question that was submitted from our virtual shareholder meeting.

So the first question is around our cloud progress. "Microsoft seems to have made great progress in the cloud this year, and moved to the cloud computing. Can you tell me a little bit more about the progress, and in particular how you feel about your competitive positioning?"

SATYA NADELLA: Yeah, overall I feel very good about both the progress and the long term technology architecture path we have chosen, and what that translates into, which is in terms of product differentiation and competitive differentiation.

If you look at it, we are not building one cloud service, we are building a complete digital transformation cloud platform for our customers, which has infrastructure elements, which has the application or SaaS services elements, as well as client devices.

In fact, one of the most used cloud services that we have is the Windows Update cloud service. And now, of course, we're adding even Advanced Threat Protection and security to it.

But at the core of our cloud momentum is growth in Azure as the true hybrid cloud platform, because we don't think of our servers as legacy. In fact, we think of them as the edge of our cloud, whether it's Windows Server or SQL Server.

One of the other exciting areas of progress in the last year has been the application platform, both on top of Azure and Office 365. So if you're using something like Power Apps, you can start building rapidly applications as a customer.

Office 365 itself is something that we've grown new capabilities like voice, the new Microsoft Teams product. We are very excited about what that does for our customers.

And perhaps the biggest change in the last year has been Dynamics 365. I mean, it completely changes the game, I believe, in business applications. It's more modular, it's more modern, it's more price competitive. It speaks to the needs of customers going forward.

So the combination of Azure, Office 365, Dynamics 365, is pretty unparalleled when you look at it based on our competition and what customers want.

CHRIS SUH: Great. Okay, let's start with microphone number one, please.

QUESTION: Thank you. And to think of it, I could have stayed home today and had a root canal. (Laughter.) I wouldn't miss this for anything.

Anyways, my name is Ken Copley, Capital Executive. I've been a shareholder since 1991.

First of all, I'd like to congratulate and commend you on the job that you've done, the entire Microsoft team, just a great job.

To frame my argument, let me just pose at Microsoft the business model is software and hardware development, and the segments of market that we're serving is the enterprise and the consumer.

We've already established a strategic goal of every person and every organization loves using a Microsoft product or service.

This is a tough goal to accomplish when we occasionally create frustration in our users.

Let's look at Bill Belichick, for example. I can't think of a better ambassador for Microsoft. He's a user with demanding expectations, and to many, many people he personifies excellence. But we want to develop a market, one way not to do it is to get the user to destroy a very important product on TV out of sheer frustration.

Now, we can issue a press release and stand behind the product, and it's a good product, I'm using it right now, but the damage has been done to the Microsoft brand.

Let's learn from the frustration of users like Bill Belichick, let's parse the complaint, and let's figure out what he's really trying to say. In this case he identified certain relationships that are critical in really creating a satisfying user experience.

We have to accept responsibility for building the Microsoft brand and protecting it.

We must assume greater relationship control in the critical services necessary to create genuine customer satisfaction. We can do that through an acquisition strategy. I know you guys have already got one; you practice it a lot. But the objective is to achieve organizational control. We can achieve organizational control by A) maybe buying just 51 percent of the organization, or even less, if we develop shareholder alliances.

Let's look at the LinkedIn acquisition. You bought 100 percent of it for \$26 billion. Great acquisition. But what are we really buying on that? We're buying the people, we're buying the intellectual capital of an organization. In this case it includes Reid Hoffman and Jeff Weiner. We're talking about letting it operate as an independent organization, yet we roll it into the bureaucracy of Microsoft. And I don't mean that negatively. All organizations have a bureaucracy.

However, there's an alternative structure to making these types of acquisitions, one that would conserve a precious resource, in other words our investment capital. It will achieve organizational control but it will maintain an independent equity float of the target organization.

If we do that, we can leverage the structural benefits of an acquisition like this. For example, we could create ownership incentives throughout the organization.

QUESTION: What's your question?

QUESTION: I'm making a presentation. (Laughter.) Hey, it's okay. I hope it's okay.

Anyway --

CHRIS SUH: If you do have a question, Mr. Copely.

QUESTION: Can I finish this or is it too time consuming or what?

CHRIS SUH: I think out of respect for time for the other questioners, it would be great if you go to your question.

QUESTION: Okay, well, here it is. We've got \$143 billion in investment capital within the organization. Eighty-four percent of it is in cash and U.S. securities. In my opinion, the portfolio is structured as if we're an organization in retirement. I can understand the human element of retirement planning, but, my goodness, gracious, why not put it to use? Why not imagine the organization as a 20-year old but with the collective wisdom of humanity? And if we do that, we could get into and make equity investments in organizations. I'm not talking about empire building or anything like that, I'm talking about developing deep strategy operating relationships with organizations so that we can build.

But in time constraints I will shorten this, and I'll just step back and I'll say, can we consider other uses with the portfolio?

BRAD SMITH: I will say before turning to Satya, as someone who's lived here for 20 years, that is the most passionate statement I have ever heard in greater Seattle on behalf of the New England Patriots. (Laughter.) But I think there was a question there.

SATYA NADELLA: I would say a couple things. One is as part of your comments around quality and making sure, for example, in the case of the use of Surface in the NFL, one of the big variables is, in fact, the Wi-Fi connectivity on the sidelines. And so, for example, thinking about quality not just of the device but the end-to-end system which has many, many variables, this is a very, very good point, and that I think is capability that we need to keep building, we need to take ownership, take responsibility for it. That's well said.

And now I forget all the other comments you had, but quality is something. We definitely are at a completely different frontier in terms of how the frequency with which we are upgrading and updating and adding capability. But that doesn't mean that the quality can regress. We are learning, improving, and getting much better at it. And so keep pushing us. My inbox is always available to any one of you, if any issues with Microsoft products, and you'll have our commitment to keep getting better.

AMY HOOD: And maybe I'll just briefly talk about how we think about different structures in order to gain both alliances, as you've discussed, but also continue to further help customers as really the focus we have.

Whether it's acquisitions in their completeness like a LinkedIn or the 17 others that we completed last year, or whether it's taking small stakes and making investments, we've actually started an MS Ventures fund, which has been really a terrific asset to us to build great connections globally to a startup community as another terrific use of that capital base.

We've done some really large alliances that take advantage of our capital structure, including being able to do big and ambitious projects with companies like Adobe or SAP to build on our cloud.

And so I think obviously we're open to anything that furthers our ability to achieve our mission, including of course using the balance sheet to execute on that.

CHRIS SUH: Thank you. Let's move to mic number two, please.

QUESTION: Thank you. Let's see, what was my question? (Laughter.) No. Oh, who am I? I'm Karen Prince. I live in Kenmore, and I'm happy to be a Microsoft shareholder with my husband.

My question is, I need help. We had Windows 7 and now we have Windows 10. It was upgraded. I do not understand how the photos work, and do you have a program of tutoring where somebody can come help me in my home or somewhere? I am completely -- I don't know what has happened to my photos. It used to be one place and now -- I need help. That's it.

SATYA NADELLA: Absolutely. In fact, right here I think there are folks from our store here, and they should reach out to you and make sure we book an appointment and really help you sort of understand Windows 10 and the migration from Windows 7 to Windows 10.

And also the new capabilities. We hope you will get to use a lot of the new capabilities of Windows 10 and the cloud services that go behind it, for example photos, and hopefully you'll get to enjoy that, and without the pain of having to learn a lot of new things.

QUESTION: And I'd like to get to know Cortina, too.

SATYA NADELLA: Cortana, yeah.

JOHN THOMPSON: Cortana.

CHRIS SUH: In fact, Kristin, will you please follow up with Mrs. Prince and make sure she gets help with that.

BRAD SMITH: For those of you who live nearby or are watching who live anywhere near a Microsoft retail store, you can go online and book an appointment. And the kind of question you asked is exactly the kind of question that customers walk in every day. Or you can book an appointment for free, and people will work with you.

And so we won't actually be able to drive to your home, but if you can get to one of our stores, and obviously there's one within a short walking distance of this very building, you'll find people who are just terrific and enjoy working with you.

CHRIS SUH: Thank you very much. Let's take a question from mic number three in the back.

QUESTION: Hi. My name is Art, and I'm from Bellevue, originally from Brooklyn, New York, as you can tell.

So I'm just going to do something a little bit different than what's been said today. Talking about climate change, global warming vis-à-vis the IT sphere of influence, I would like to hear the views from the folks on the stage, and possibly from some folks in the front row, regarding how the businesses like Microsoft in the IT sphere can transition the intelligent young generation from cubicles and computer surroundings, and yes even street corner societies, to a needed niche in natural surroundings.

The environmental activists who want to see a clear future ahead need to collectively solve the planet's needs with earth's dirt under their fingernails, with handheld PCs in the mix.

So let's go to settings, system, customize our world.

BRAD SMITH: I would say two things. First, your question really frames very well the broadest challenge for us in the IT sector, which is how do we help our customers around the world contribute to a world that is more sustainable. So we are actively focused on that. We're still in very early days, in all honesty, but we have actually work ongoing to think about how we can help use artificial intelligence and the like to work with all of our customers around the world.

But then I think stepping back from that, we also have a very important responsibility in terms of our own use of energy. If you look at Microsoft today, or if you look at Facebook or Google or Apple or Amazon, the companies that have a lot of data centers, our data centers around the world already consume as much electricity as a small state in the United States, more than North Dakota, more than Vermont.

And so what we've committed to as a company is a set of principles that will be transparent about our energy use, will devote our R&D energy in part to become more efficient in our data center electricity use, and perhaps most importantly that every year we will increase our use of renewable energy.

So, for example, we announced earlier this year that already on a global basis 44 percent of the electricity that we consume in our data centers comes from renewable energy, meaning either wind or solar or hydro. We've committed that we'll reach the 50 percent threshold by 2018, we'll reach the 60 percent threshold early in the next decade.

Just two weeks ago, we announced the largest wind purchase that we've ever made. Our data center in Cheyenne, Wyoming will be entirely run on the basis of wind power. And in addition, we're making additional electrical resources available to the grid so as to reduce energy costs and promote energy efficiency for everybody who lives around Cheyenne.

So we'd be the first to say we have so much more to learn in this space, so much more to deliver in terms of opportunity for our customers, but we definitely are committed to taking this on with a real sense of conviction.

CHRIS SUH: Great. Thank you for the question.

Let's go to mic number four, please.

QUESTION: Buenas dias, board of directors, chairman, my fellow stockholders. I'm Jane Garcia, and I'm from the great comeback city of Detroit. And it is coming back. (Applause.) I just wanted you all to know that.

And I'm here basically also because I sit on the board, and we own the stock from National Sayer and their affiliates, and we've been a partner for many years, where you gave up some Microsoft information, and we appreciate it. And what you do globally is wonderful.

My concern only is that -- and I sit here National Sayer -- is that as we look forward to the urban areas, which the majority if minority when you talk about Detroit, Chicago, Dallas, and some of the other areas that do not have the infrastructure and the educational aspects, as I deal with that daily, that we do some more partnerships, because we have some very successful ones, and we look at that, because as we grow into the next century, whether it's skilled trades or the data or computer analysis, that we need to look at those programs, and that we need to look at as we do not leave people behind, specifically minority students in urban areas. And I work very strongly and very hard every day with that kind of situation in a city like Detroit.

So as you look forward, and I know you do a lot of that, but maybe -- and this is my first meeting so I thought I'd bring it up -- that we look forward to that situation where we can create some things for the next generation, that we do not leave specifically minority students behind, a generation that could be lost.

Muchisimas gracias.

BRAD SMITH: I'll just say a word on that. Actually two weeks ago I was in Milwaukee, close to where I grew up and had certain similarities to Detroit. And what I would say is we are very focused and need to keep doing more to make these kinds of educational opportunities around digital skills more accessible, I would say both in urban areas and in rural communities across the country. We're focused on doing that. One of our best programs is called Technology Education and Literacy in Schools, TEALS. This is where Microsoft employees and others go team teach in schools.

This week we have people teaching in 161 schools in 18 states and the District of Columbia. We're reaching over 6,000 students. But the point that you made I think is the one that we actually are thinking a lot about. How do we ensure that we're doing a great job of reaching more girls, for example, and exposing them at an early age to coding and computer science and digital skills? How do we reach more people in the minority community? And we know we need to do more.

This coming month as we get to December the country and the world will have the so-called Hour of Code. We're the largest sponsor and financial donor to the Hour of Code and Code.org. That now has over 150,000 teachers across the country and around the world using these materials to teach coding. So we're doing more and we're going to keep at it.

QUESTION: Our organizations across the network to continue, and we already have a partnership, but mainly we just need to expand it more. Muchisimas gracias.

BRAD SMITH: Thank you very much.

CHRIS SUH: Come back to mic one please.

QUESTION: Hi, I'm Dana Vance from Seattle. This is actually a question for Microsoft or from Microphone 1. I'm interested in your vision for the consumer, not the business. I have an original Windows Phone and a Microsoft Band, and when I recently got an e-mail about Microsoft Pics, I thought that looks pretty cool. I'll see if I can look into it. And then it said, available for Android and iOS, not available for Windows Phone. And then you comment about Outlook. So I go to Windows Store and I type in Outlook, and there's no Outlook App that I can see. So I'm wondering what -- and then the Band has just kind of disappeared. I'm wondering what's the guiding vision that's happening with these kinds of things that happens to the average Windows user? And I go into the Microsoft Store.

And one last other comment, the thing that's kind of making me hesitate about a Surface or a Surface Book is the lack of ability to change the battery. I have an old laptop, HP laptop, and after four years the battery goes and I replace it. I still have a valuable device that works. Am I supposed to spend \$3,000 or \$2,000 every three years as the battery conks out? That's just another issue that I think the hardware people should look at.

Thank you very much.

SATYA NADELLA: Thanks for that question and also the comments.

First, as far as our vision for consumers and enterprise. First of all, I don't think of these as separate markets. I think about users, people, and their devices. The basic construct that we think about architecturally and technically is that it's not about just one device, it's about all the devices for the person. In other words, whether it's the app or the operating system, we want to build it for the person across their devices.

For example, your comment about Outlook. Outlook, interestingly enough in the context of the Windows Phone is the mail client, you don't need to go look for another client because it's built into the phone. Whereas, in your own operating systems, the camera will have the smarts, you don't need a separate application. You will not need another separate mail program. When we control things silicon up, that's how we will integrate those experiences.

But when we are on other people's platforms, because that's the basic construct that we have, which is we will not only build for you devices that are unique and differentiated with our software capability on top of it, whether it's Surface, or Surface Studio, or HoloLens, or the Phone, and also make our software applications available on Android

and iOS and other platforms. And so that's what I think is needed in order for Microsoft to help you as a user get the most out of our innovation.

QUESTION: Thank you.

CHRIS SUH: Let's go to mic number two, please.

QUESTION: Thank you. My name is Jim Pierce, I'm from Bothell. I'm a long-time Microsoft fan. I turn my business using your software. I own a Microsoft Windows Phone and I use it 18-hours a day. I've heard that you're stepping away from mobile. Can you calm me down and tell me where your future, what your vision is for mobile?

SATYA NADELLA: So our overall approach, again, to the previous question is, we think about mobility broadly. In other words, we think about the mobility of the human being across all of the devices, not just the mobility of a single device. That said, we're not stepping away or back from our focus on our mobile devices.

What we are going to do is focus that effort on places where we have differentiation. If you take Windows Phone, where we are differentiated in Windows Phone, it's manageability, it's security, it's Continuum capability, that is the ability to have a phone that, in fact, can even act like a PC.

So we're going to double down on those points of differentiation. In fact, the HP X3, which came out recently, is perhaps a great example of a differentiated device built using the Windows Phone platform, and that sort of points to the direction. We will keep looking at different forms, different functions that we can bring to mobile devices, while also supporting our software across a variety of devices.

So that's the approach you'll see us take. We're not stepping away from supporting our Windows Phone users. But at the same time we are recognizing that there are other platforms in mobile that have higher share and we want to make sure that our software is available on this.

QUESTION: Thank you.

CHRIS SUH: Okay. Let's go to question number -- or mic number three, please.

QUESTION: Thank you. Bruce Herbert, again, and I have a question, but first I have a celebration for Dan Bross, who is the person who has been the head of business and corporate responsibility and is retiring now after 18 years. And Dan, now speaking on behalf of the sustainable investment movement, every single one of them, Dan has been an excellent, a thoughtful and very courageous partner and we so celebrate his service to this company and to sustainability as a whole and encourage the company to continue that sort of activity and perhaps enhance it.

So my question actually is in behalf of Amnesty International who is curious and saying end-to-end encryption is now recognized as a key safeguard to protect the privacy of users of instant messaging and video calling applications. And it's already been deployed on the most popular services. So given Microsoft's very strong commitment to privacy, has the company considered deploying end-to-end encryption on its Skype service?

BRAD SMITH: Two thoughts, first, thanks for the feedback about Dan. He's worked in a part of the company that I'm responsible for and we absolutely are committed to not just sustaining, but continuing to build on the kinds of progress he brought to us. We are definitely focused on expanding end-to-end encryption for Skype and we've already been expanding it for a variety of other services. I will say this, though, one thing that we try to encourage the folks at Amnesty International to just think about in this context. We do want to make end-to-end encryption available as a feature in more of our services and at the same time there are certain features in certain services that, frankly, are not necessarily compatible with end-to-end encryption.

For example, if you use a product like Skype to interact not with one other person, where you can encrypt the message or a call and I can send it to you, but in fact have interaction with lots of people at the same time, you move to a fundamentally different model with client-server based computing and it is not possible to do that with technology today and end-to-end encryption. So mostly we would ask people to think about how we all move forward, increase encryption availability, and also recognize that we will want to give people the option of using features other than encryption and that will at times involve informed choices that consumers get to make.

CHRIS SUH: Thanks.

Let's go to mic number four.

QUESTION: Thank you for the segue. My name is Scott. Along the lines of cybersecurity, security and authentication, what is Microsoft doing to bring uniformity across all the platforms to where when one needs to authenticate something there is an accessible, available system that's consistently agreed to by all of the services within Microsoft?

SATYA NADELLA: That's a great, great question. And there's two sets of things that we're doing. One is to make sure that there is a service that can be the keeper of the truth when it comes to users and their credentials, so that you can authenticate against it. And in that context we have made tremendous progress. It's Azure Active Directory, which can sync with your on-premise Active Directory and form that basis, not only for all of the Microsoft services, whether it's Windows devices or Office 365, Dynamics 365, but also all the other SaaS applications that you may be using. So we are making rapid progress on it.

Now there's a second side to it, or there's an additional element, which is to be able to attest your logging, your authentication and then authorization into the various services

across all the devices that you may be using. You may use your phone; you may use your kid's computer to login sometimes at home, or what-have-you. But we need to know that it's you. And that is where we are now adding additional factors, so the second factor authentication, whether it's SMS, or whether it's voice, or what-have-you.

So the idea that you will have to authenticate using a second factor sometimes creates a little bit of friction, because security is more important than just seamless login, especially if it's not your device that has the certificate. So that's the place where both users have to know what's the device through which they can have seamless access, where will they value the second factor, because it's about securing their data, those are the things that we are working through and I believe one of our core, what should I say, efforts to get customers to deploy is this modern infrastructure for identity management and authentication so that you can have single sign-on across all of the services, and really multi-factor authentication for real security. So that's the sort of vision that we have and that's something that we're even trying to practice inside of Microsoft.

QUESTION: This is where I'm stuck right now trying to authenticate something within the Microsoft system and the only authenticator they're offering me is an SMS or voice, to a phone number that they keep telling me they don't like. I've contacted customer service numerous times. The last time this happened, a number of months ago, I went down to the local Microsoft Store, I worked through it with them and was told, oh great, now we've solved the problem and in the future here's the Microsoft authenticator that you won't have to go through this again.

I'm now months later and I'm having to go through it again. And I just refuse to go down to the Microsoft Store again. So I want an authenticator to be able to move through this current place where I'm stuck, that's not an SMS message or a voice message or you agree to use the phone number I'm providing.

SATYA NADELLA: That's right. The authenticator should work the way you were told at the store, and we should have someone work with you even today and fix that and see what the issue is, if it's the same phone number it should work. So we should go figure out what -- troubleshoot your issue.

CHRIS SUH: I appreciate all the questions. Unfortunately, we only to have time for one more. So let's go to the last question here, mic number one.

QUESTION: I'm Katherine Neuweiler, I'm from Arvada,, Colorado, and my question is what investment is Microsoft planning to make for public schools.

BRAD SMITH: For public schools, great question and I first want to thank you for asking it. Having come here for something like 15 years I think you're the youngest person to stand up and ask a question. So it's a pleasure to have you. (Applause.)

We're really focused on investing in public schools in three ways. First there's our business, I mean our education business is a fundamental part of what we pursue as a

company. So we work with schools as customers. Satya has certainly been encouraging us all to focus on how we do a better job of providing a suite of services and hardware and the like to schools that will really improve learning opportunities for students. So that's number one.

The second is our philanthropy. We do invest in programs to support students in public schools around the country. I talked a little bit about those programs before. And so we see that as something that adds to what we do in the core of our business.

And the third is really using our voice, together with others in our industry typically, to champion the causes of public schools. We're very interested in making sure that, first, students today in every school in this country, and frankly around the world, have the opportunity to learn the skills that are going to enable you and your peers to succeed in the decades ahead. And in many cases that involves learning new things.

But second, we're really interested in working with public schools. We're actually enthusiastic about the work that Governor Hickenlooper is driving in the State of Colorado to launch new apprenticeship programs in Colorado. We've talked with companies that are already working there. We have a sales office in Denver. We think that there's a lot of opportunity to create new ways for students starting in high school in the United States to connect with what they'll need to learn to go on and get great jobs, whether they want to go on to a community college or a four-year college, or just go straight into the workforce.

And so as much as anything else, we see this as a moment in time where in Colorado, in Washington, and other states there's an opportunity for the business community and the nonprofit community and schools to really come together and innovate.

And I'd actually say from my perspective, you happen to live in a state where there's a lot of exciting innovation and we're trying to learn more from Colorado ourselves and think about what we can do both to support things there and here in Washington, and in other states across the country.

QUESTION: Thank you.

CHRIS SUH: Thank you.

Well, this concludes our Annual Meeting this year. We thank you for joining us today and, of course, thank you for your investment. We look forward to seeing you at future meetings.

(Applause.)

END