

09252017 Ignite Technology Keynote Kirk Koenigsbauer

**Microsoft Ignite  
Technology Keynote  
Kirk Koenigsbauer  
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**ANNOUNCER:** Please welcome Microsoft's Corporate Vice President, Kirk Koenigsbauer.

(Applause.)

**KIRK KOENIGSBAUER:** Wow. There's a lot of you here.

Good morning, everybody. I want to first start by thanking you all for being here. It's a big investment of time to come here, to learn about our roadmap, and our goal today is to make sure this session and all the sessions this week are going to be as valuable as they possibly can.

We're also grateful for your ongoing feedback, whether that's in the tech community, through user voice, through the engagements you got with your local Microsoft teams. All that's just so, so important to us, so thank you, and please, please keep it coming.

This year, I'm excited to be back to talk to you about this vision around this idea of the modern workplace. Through all our customer engagement we see a new culture of work emerging, and IT is playing a huge role in the digital transformation.

Our strategy is to support you by really focusing on two key things. First, it's delivering experiences that delight your end users, allowing them to be creative, to be productive, and to be collaborative. And second, it's delivering those experiences on a platform that provides the lowest TCO, the highest levels of security and the most flexible management infrastructure that we can for you. And that's our promise, and that's what we're really going to focus on over the next 90 minutes.

We're going to spend the majority of the time in the products doing some demos, we've got some folks from our product teams here to talk about all the cool stuff that we've got coming, and then we also have two special guests, executives Jeff Monaco and Cate Gutoski from GE, who are going to talk to us about their transition on this digital journey that they're making at GE.

It's a great lineup, so let's go ahead and jump right in.

Where I'd like to start is talking about this context of a modern workplace. While all companies are unique and all companies have their own identities, we're seeing common trends affecting the culture of work and employee expectations of what a modern workplace ultimately provides.

This is being driven by globalization, by competitiveness, certainly technology trends around cloud, around artificial intelligence, around mixed reality, around mobility; all of these things are disrupting industries and changing the way work is getting done.

But another big driver is the demographic shift that's happening in the workforce. By 2020, millennials will account for over 50 percent of the workers in the workforce. And these workers seek a more collaborative work style, they've got a greater sense of purpose in how they think about work, and really a deeper connection to their company's mission.

For example, let's take a look at the open workspace movement. Historically, people kind of went to the office, they sat at their desk and they got their work done. But today, people are asking for more touchdown spaces where they can easily interact with one another. They want the option to work remotely, no matter where they are at any time on any device. And to do this they need the tools to communicate, to access their data and to stay productive, no matter where they might be.

Employee expectations are changing, too. We've seen a shift away from routine tasks to a way of operating that requires all employees to think critically and to be creative.

And by creative we don't just mean designers and the like, we mean everyone, no matter what kind of creation work you might be doing. Whether it's giving a sales presentation, doing a financial analysis, drafting plans for a big desktop deployment that you might be working on, everybody is being asked to be a problem-solver and to work together.

And of course the security risks have also dramatically changed when you think about the modern workplace. On the one side there's the pressure to have an open flow of information for productivity and teamwork. But then on the other side it's as critical as ever to protect your estate, because threats today are complex, they use advanced social engineering, and they target everybody in the organization from the CEO right on down. It's a difficult but critical balance when you think about that.

So it's these factors that have really motivated us to rethink services for the modern workplace, and that is Microsoft 365, and you heard Satya reference it earlier this morning.

Microsoft 365 brings together the best of Windows 10, the best of Office 365 and the best of enterprise mobility and security.

Now, for sure we've had these products in market, and you work with many of them probably today, but I want to be clear our expectation with Microsoft 365 is not just a marketing bundle. It really represents a fundamental shift in how we're going to design, how we're going to build, how we're going to deliver, how we're going to support our services for you. We're pivoting in a significant way to deliver Microsoft 365 as an integrated, complete solution for the modern workplace.

Now, Microsoft 365 focuses on four key areas. Creativity and teamwork are about unlocking the potential of every individual to drive innovation inside their organization. And then on top of that we're integrating for simplicity and building security into the platform to deliver the best TCO we possibly can. And for the rest of the session we're basically going to talk about these things.

Now, first as we think about empowering employees, it's our goal to provide best-in-class tools to help you unlock the creativity and the ingenuity of everybody in the organization.

And across these tools we're making several big bets. One that you heard from Satya is on artificial intelligence. We are focusing our AI efforts to make it easier for people to create high-impact content, to automate routine tasks that they're working on, and to surface key insights from data. With AI and the Microsoft Graph we're making it easier for users to search and discover across people and content in highly, highly personalized ways.

We're also betting on a new user interface. We're expanding capabilities in inking and voice and translation, and we'll talk about that, new gestures, new touch capabilities. We're introducing new content types, including three-dimensional content, video.

We're also investing in data visualization to help people analyze information, to gain new perspectives, whether that's in Excel or in Power BI, or through immersive experiences like mixed reality.

And we're fully committed to Microsoft 365 being available on any device across any platform. Now, of course we're highly focused on Windows devices, and particularly Surface, where the benefits of vertical integration will allow us to differentiate experiences in some pretty unique ways, but we're also deeply committed to delivering first class experiences for Microsoft 365 across Apple and Android platforms, too.

And it's not just delivering apps on the platform themselves, our aim is to make sure no matter what device you're working on, no matter where you're working, your apps, your content, your files, your preferences, they're all going to roam with you no matter where you are, so you can get your work done anywhere, at any time.

Now, the best way to really convey what we're doing is to show you some examples. So I'd like to invite Shilpa up onstage -- she's a partner engineering leader from the Windows team -- to give you a demo. Shilpa?

(Applause.)

**SHILPARA RANGANATHAN:** Thank you, Kirk. It's absolutely fantastic to be here with you in Orlando today.

As Kirk noted, jobs across the spectrum are changing, IT included. Creativity and teamwork are becoming imperative to success in the modern workplace.

Now, when we think of creativity and creators, we tend to think of artists, musicians, painters. Well, I'm here to tell you that you don't have to be an artist to create. Each one of us here is a creator. Creating is who we are. It's the essence of who we are as human beings, and it's what makes us unique. And now with Microsoft 365 I'm going to show you how you can unlock this ability and supercharge your creativity.

So like most of you here, I tend to use my phone a lot when I'm on the go. I have a young daughter, so every day drop off, I'm checking email in the car, which I probably shouldn't. And I have an email here from a coworker with a PowerPoint deck attached to it. So I'm going to click open.

The phone's a great device for consumption. I'm easily able to look at my entire deck here. But when I want to create and when I want to really edit and perfect this PowerPoint, I choose my Windows PC.

So let's go here. With the work of the Windows and the Office teams you can now seamlessly pick up your PowerPoint document from your phone right on your PC.

So I'm going to click on this, and it opens the PowerPoint that I was looking at on my phone. So this is pretty neat.

Now, I'm part of the engineering team, and this presentation is a collaboration between the marketing and engineering disciplines. It's funny, they were teasing me that engineers don't know how to make beautiful PowerPoint presentations. Apparently, all our decks look like black and white, simplistic slides.

For all the technologists in the room and the engineers in the room, I'm here to tell you we can prove them wrong. With PowerPoint Designer now I can make beautiful slides. So let's take a look.

This slide looks a little boring. I'm going to try to insert a few pictures. These look like good pictures of the event.

Notice what happens here. PowerPoint Designer actually perfects whatever I have on this title slide, the pictures and the text included. It's actually put the person and the picture in focus, all with one click. I haven't had to spend any time.

Let me take you along with the other slides as well. This one again most of us have these slides, text ill formatted, pictures. Now, I can pick the one that actually brings the person's face in focus, and it beautifies the entire text I have on the slide as well.

And then a lot of us use an agenda slide. Here again PowerPoint, with the power of AI and the intelligence in the cloud, is able to match my intent with a bunch of things that it has from a knowledge perspective, and create this beautiful timeline here that would have taken me a few hours to do.

And then lastly, the intent. So I have a lot of intent in my slide, because this is a "next steps" slide. So when you leave, I want you to take away a few tips and tricks. What PowerPoint does is it extracts this intent, uses intelligence to match it with the templates it has in the cloud, and creates a really, really awesome slide.

So that was pretty neat, huh? (Applause.)

OK, so that was awesome, but what can make it really magical is 3D. So let me take you to this other PowerPoint that I've been creating. This actually looks really nice, so I used Designer to do that.

I have an object here which is a 3D object of an Xbox Elite controller. And so regardless of what my marketing counterparts think, I can copy-paste really well. So I'm going to go to the second slide, and I'm going to paste. Let's try that again. There it goes.

Because it's a 3D object, and with Windows 3D and Office, I'm seamlessly able to rotate this device, I'm able to actually enlarge it as well. This looks pretty neat.

And then at this point in my presentation I probably spend a lot of time animating this transition from slide one to slide two. Instead, all I do is click morph in PowerPoint, and let's take a look at what this did.

That is amazing. And I'm going to click further on. You can do these amazing transitions in PowerPoint with the click of your mouse.

I hope this was really, really helpful for you, and I hope you can prove everyone wrong, that engineers can create amazingly beautiful slides.

OK, so now that we're done with the 3D portion of it, let's talk about mixed reality. I also work on the software for our retail demo experiences with the Microsoft Retail Store. Many a time we have to integrate and collaborate across our colleagues, and they're all across the world. So we have to figure out if we want to lay out a demo table in one of the Microsoft Stores that has an Xbox how much you collaborate with your team members for this particular issue.

So I have Windows view 3D here. I have an Xbox Elite controller. You can see that I can move it around. If I want to view it in mixed reality, I'm just going to move it along here. So as you can see, I can set it right down next to the Xbox. I can move it. That looks about right. As I walk along here, it stays anchored. I'm going to take a little picture so I can explain it to the team in the retail store as to how I would like this table to look. And there's a preview of the picture.

And just like that, I have been able to blend 2D and 3D, a perfect blend of both the physical world and the digital world, and it took me just one click to do that.

OK, so let's talk about writing. Billions of post-its are sold each year. More than 70 percent of people use their pen for more than an hour each day.

And so what I really want to talk to you about is how with the power of Windows ink as well as Office I can now use my pen to make quick edits inside the Word document I'm using.

So this is my Word document here. What's really empowering is using this pen to delete. Let's say I do not like that paragraph. It disappears, the document reflows beautifully. This is something I would not have been able to achieve in paper.

Selection of paragraphs and text made really super easy with the pen, so I have the ability to do that. Now I can highlight this particular paragraph as well in Word, really, really natural. It's something we are taught to do every single day. So being able to use the pen on my Word document and use it as if I was doing it on paper, super empowering and super easy.

All right, so let's talk about the Word editor. We have about over a billion people worldwide that struggle with some kind of disability. True to our company's mission, we believe that we should empower every single person on this planet to achieve and do more. So let's take a look as to what Word's doing to help with this.

If you look at the first line here, there's a lot of people that are color blind. In order to identify spelling mistakes as well as grammatical errors, Word now enables us to use visual proofing cues that rely on patterns and not just colors.

On the third line here, if you look at this particular word here, it's actually suggesting that I should change it to "believe." It also gives me synonyms. And for those of us that are dyslexic, you also have the ability to read aloud this particular word, so that you can understand how you might go ahead and correct it.

So what's new now is the Word editor. Think of it as a copy editor in the cloud. It's constantly checking my documents, scanning them and helping me actually be a better writer.

As a person in engineering, I really lay a premium on being precise and concise in the Word documents I write about technology. So imagine having somebody actually offer suggestions to make that so. Let's take a look.

In the first one here I'm being a little wordy and redundant. I have the ability to change that very quickly. If I talk about people going bananas over Kirk's Microsoft 365 presentation, it would suggest that I choose "go wild" instead. Double negation is a common occurrence in Word documents. We have the ability to correct that as well. And then if I were to use words like "we need some young blood" on the team, Word automatically tells me that new people might be a better use of that particular phrase there.

And so with this you can see that Word Editor is constantly learning. Like I said, it's in the cloud, so it uses AI. It learns the things that I actually end up taking suggestions for and the things I discard, and then constantly helps me be a better writer every single day.

So for those of you that know me at work, you know I love math. My mom was very particular about the fact that I get to be a doctor or an engineer, so I picked math. And so whenever I work with numbers, I end up using Excel. And I really like Excel.

Now, most of you know that Excel has always supported text as well as numbers. So if you look at this spreadsheet, it looks no different from anything you've seen before. I've got a few stock names here.

Now, what's really awesome is that Excel is actually the first spreadsheet that ends up connecting to external data sources to make my entire dataset here a rich entity. If you look at it, it's actually identified the fact that these are all stocks. And it's converted each of these into rich entities. So if I were to click on one of the cards, I end up seeing the stock price for Microsoft and a whole bunch of other metadata, which I wouldn't have had access to.

If you're like me, you probably spend hours trying to copy-paste this from the internet or from other data sources, but now with the click of one button, Excel empowers me to bring this into my dataset.

So let's see, there's the price there. I did notice that if I were to type "price" here, I can actually update all the rows in this Excel sheet with the price. And what's even better is to make it more efficient we have a little ticker here for you that actually helps -- OK, sorry about that -- the ticker actually helps you get high and low prices as well. I'm just going to type it and show you, high as well. And this way I can actually use all of the metadata in the cards, and have them show up here.

So I spend a lot of time in my daily job working with product bugs, and they're all in bug databases spread across the team. And for me to be able to make those into a presentation that I can highlight with my management, I end up copy-pasting between the bug database and Excel a lot. So if you have internal data sources in your organization, know that you will be able to use this data to connect to your internal data sources, and do exactly what I need.

I hope I showed you that you don't have to be an artist or a musician or a painter to be a creator, you can create with words, images, numbers, or even code. To be human is to create, and Microsoft 365 can help you do just that.

Thank you so much.

(Applause.)

**KIRK KOENIGSBAUER:** Thanks, Shilpa.

So next what I'd like to do is to bridge a little bit to how we're enabling people in this new modern workplace to work better together.

And we think about this notion of teamwork a little bit differently than collaboration. A lot of people can collaborate on something, they can get together, have a lot of meetings, but actually not get a whole heck of a lot done.

With teamwork there's this expectation of an outcome where there's a sense of accountability to really make progress together. And that's the nature of teamwork and it's also something we're really trying to do with Microsoft 365.

Some projects are incredibly diverse. For example, teams come and projects come in different sizes and shapes. A team could have two people or 200 people. They could last for two days or two years. Team members can be spread across the globe, or they can include vendors, they can include contractors, along with fulltime employees. The nature of teamwork can just be so, so diverse.

So with Microsoft 365 we offer this notion of a universal toolkit, giving people the right tool for the right task.

Now, oftentimes people ask me, gosh, can't there just be one single tool for everything? And of course that would be nice, but it's really not realistic when we think about addressing the diverse needs of these teams.

And that's why we've built purpose-built solutions, purpose-built tools to essentially help you tackle each of these tasks and each of these scenarios.

For example, we have experiences for email, we have experiences for meeting, we have experiences for messaging, we have experiences for document sharing, and tools for communicating across an organization or in a town hall or even at a big setting like this particular room here.

With Office 365 Groups we bring these together with shared identity, with membership, with common services, so people can work naturally across them and move between them really easily.

Now, core to our strategy is Microsoft Teams, which we announced just last March. We view Microsoft Teams as a digital hub for teamwork. It's not intended to be the only place that you ever work, but instead the starting point for people to work together and really stay connected.

Teams is unique in the sense that it brings together conversations and meetings and files and applications all into a single canvas, all into a single frame.



It's customizable, making it easy to gather information and streamline tasks right within your workflow, with over 150 different apps, bots, services, including ones from Kayak, Trello, Adobe, of course Microsoft Services and many others.

With our open developer platform you can build and customize integrations to connect existing line-of-business apps that you have directly into the Teams scaffolding as well.

Now, related, I want to share some news on our communications roadmap for voice, for video and meetings that we're announcing this week.

We are introducing a new intelligent communication strategy. We believe that communications really sits at the heart of teamwork. And so our vision is to deliver smarter calling and meeting experiences for customers by integrating in AI and Cognitive Services like translation and speech recognition to create new scenarios for people to better communicate and collaborate.

Now, as part of this new strategy we're making a few very important announcements. First, we've introduced a new backend for the Skype infrastructure to deliver high-quality voice, video and meeting experiences. This infrastructure is already powering communications within Microsoft Teams itself, and it's evolving incredibly rapidly.

Second, for our Office 365 cloud customers Microsoft Teams will evolve as the core communications client. We will make Teams the hero experience essentially for voice, for video and for meeting experiences. And over time, Microsoft Teams will replace the current Skype for Business client.

Now, of course, we're very excited about the future of Microsoft Teams, but I also want to be clear that we still plan to fully support Skype for Business during this transition.

Now, you'll hear a lot more about this vision for intelligent communications this week. And for those that are particularly interested, I really encourage you to go to the Office 365 communications session, which is today at 4:00 p.m., with Laurie Wright and Bob Davis, who will go over this in a lot more detail.

Now, another core component of teamwork is content management, sharing files and modern intranets. And over the last 18 months, Jeff Teper and the SharePoint team have been on an absolute tear in terms of delivering new innovation.

The core UI has undergone a complete redesign that provides a new modern, coherent experience across web, mobile and desktop experiences.

New SharePoint communication sites let you build these beautiful intranet pages that are mobile-ready by default, without requiring you to do any custom development.

And it's easy to incorporate dynamic content into these pages, including new web parts from Yammer, you can embed YouTube feeds, Twitter feeds and more.

SharePoint, of course, is also deeply integrated into Microsoft Office 365. It backs the file experiences in places like Outlook and Yammer and Teams. And we also integrated SharePoint really closely with Power Apps and with Flow so you can customize forms, build workflows, even build custom mobile apps.

OneDrive has also seen a tremendous amount of innovation over the last year. There's been significant quality improvements and reliability improvements in the synch engine itself. There's also a new sharing experience, which includes the ability to share files with people outside of your organization, now without requiring an MSA or a Microsoft Account.

Another capability that we're particularly excited about is files on-demand, which is coming to the Windows 10 Fall Creator's Update. This is really exciting. With files on-demand it's essentially a cloud-backed storage model that's deeply integrated into Windows, so users can either access docs from the shell, the File Explorer, or they can go directly within the Office applications, all without consuming any local disk space. It's a pretty powerful capability.

So with that, let's go ahead and check out some of these experiences and go through a few more demos. I'd like to invite Catherine Boegger to the stage, general manager from our Office team, to give you a look. Catherine?

(Applause.)

**CATHERINE BOEGGER:** Thank you.

Good morning, everybody. So I'm really excited to show you how Microsoft 365 is built for teamwork. And you saw a great demo this morning, and unfortunately our stage is a little small to bring out a car, so it's just going to be me and my colleague Kim, and some really cool technology.

So let's get started. I'm going to start this morning actually just like Shilpa did, on my phone. And that's how I start most of my mornings. The first thing that I'm going to do is get up to date on my mail.

And what I love about the intelligence built into Outlook is it makes it much easier for me to pay attention to the mails that are a priority. So with Focused Inbox, Outlook learns from my behavior, and I can train it, so it flags the emails that I should pay attention to and prioritize them, so I can take action quickly.

It does other things like with this Outlook Summary Card. It takes this long email from Delta about my flight back to Seattle, and it pulls the relevant information up top in a

summary view so I can do things like checking in or even looking at the event on my calendar.

And we don't just do this for flights, we do this for package delivery and restaurant reservations, so again understanding the content of the mail and helping me take action fast.

But when I'm on the go, I sometimes tend to be a little too fast. So here's this mail from Satya. And I don't know about you, but when I get a mail from my CEO that's saying he needs important information, I kind of want to get back to him pretty quickly.

So I go to give him the information he's asking for, and Outlook knows that this isn't the Satya that usually emails me, and actually flags the different email address. So it protects me from sending important confidential information to an email that's unknown, again helping me take action and also keeping me safe.

But I also want to show you something that we actually are just piloting, and that's the Cortana Calendar Service.

How many of you find it a little hard to book time with teammates? Come on, scheduling can be a pain for all of us. But with the new Cortana Schedule Service I simply write a mail to the folks that I want to meet with, I cc Cortana, I send off the email. Let's get back to my mailbox. I send off the email, and quickly Cortana goes out, checks all of our calendars, and will come back to me with the meeting scheduled, just like that, saving a lot of time and effort.

So now that I've got this meeting scheduled, let me show you a social concept that we've brought into Outlook. And these are @mentions. Sometimes I get mails from colleagues asking me for information. And I don't have the information, but I actually know who does. So with a simple @mention I'm just going to say, hey, I know that Jerrod has these Q1 -- let's go to Jerrod -- has these Q1 data points. Jerrod can provide. And then I send that off. And this is another thing that's off my to-do list, making it really easy for me to take action.

What you'll notice on the stage, though, it's not just about me giving other people to-do items, although that would be kind of fun. I also have my own to-dos. My colleague back in Redmond is working on our Windows 10 deployment document, and needs my input.

And what you can see is automatically, because I was @mentioned in that document, it flags it for me on the phone to remind me to take action after I'm done with this demo. So Outlook does a great job keeping me on the go.

So with some of that work quickly done, let's go to that brainstorming session that Cortana set up for us on our deployment plans. And to do that I'm going to go to this

beautiful Surface Hub. You were probably wondering why it's been here throughout Kirk's presentation.

This is a lovely Surface Hub that connects me with people in the room, as well as people around the globe or within the Office.

And what I'm showing you here is actually an early preview of a whiteboard application. It looks pretty simple, right, it looks like a whiteboard that we might use in any conference room. But behind this is an intelligent canvas.

I've got some folks in the meeting and so we want to work on our deployment plans. And by an intelligent canvas let me show you what I mean. First, it recognizes shapes. Let's see here, as I said it was a preview so give it a little time, but here we go. Automatically it recognized that this was a triangle and it's smart, it knows the angles of the triangle. I can actually move the angles. Let's go back in here. I can move it. I can resize it. I can even make it a right angle. Just like that. So it understands the elements of that shape.

So I finished off that flow chart. But now actually let me get to work on what we're trying to do. Sorry, let me get to work on what we're trying to do, which is actually this rectangle. You know, I drew one earlier, so let me show you what that looks like. So this is a rectangle. I told you it was early, early preview. I'm showing you early code.

So let me show you what it looks like. Pretend it recognizes the rectangle. I can draw rows. I'll draw another one. There you go, it worked that time. I'll add in some headers. It knows this is a header. We want to check the apps that we need to check. We need to check the devices. Look at that, it expands with my writing. I can add columns. I can put in some departments that we need to look at. And then, just like that, we can connect across the team and make sure that we're taking action with the departments on the go.

But now I'm going to have Kim join me, because although this device is beautiful not everyone has one. So you can actually use this new whiteboard app. Let's go back to my Visio diagram, you can put in new content, new product, and you can access this app with any Windows 10 device. So Kim is over here on her Surface. I've got some other folks back in Redmond helping me with this demo. And just like that we have this amazing brainstorming session happening and no one has to be in the room taking their webcam and putting it up against the whiteboard. So it really connects everyone across the company and across the world.

So that's a quick whiteboarding session, and at the end of that I can email notes out to anyone, and I can simply end the session and it erases all the content on my whiteboard and keeps that information safe.

So next I want to show you how I connect across my teams. And so Rana did a great job showing you Teams this morning as well as bringing in the mixed reality into that environment. And I use Teams every day. And the reason I use Teams every day is it connects me to my project groups.

So on the left I've got all of my teams that I'm a member of and underneath each team are the channels or the working groups and the working sessions. And what's exciting is we've just introduced guest access into Teams, so people within your company can be part of your team, but also any of the millions of users on Azure AD can be brought into the team. And for IT what's nice about that is you have the management and controls, like conditional access and multi-factor authentication when you bring them into the Teams environment.

And, again, within this team I have all the content I need to be effective. I have my files. I have my OneNote notebook. I even have my Power BI dashboard. So in the parts when I was working across my team sometimes a lot of the questions that we had were, where can I access this information or where did you get that number, but with Teams it really democratizes information and content so everybody has all the same information and content and we can spend more time on insights or next steps that we want to drive. And, of course, as Kirk mentioned, I can customize this with one of the many third-party apps to truly make this Team my team.

But in Teams where the magic happens is within the threaded, persistent conversations. And what's great about these conversations is it really takes that concept of the water cooler or the coffee cart to a new virtual element. So a lot of times, as Kirk mentioned, with the way the workplace is transforming we can't have a quick cup of coffee together. We can't figure out what happened on the weekend. But with Teams you actually can let your personality shine with emojis, with GIFs, with content and pictures to keep the team more closely connected.

And also because it's persistent you can get caught up in conversations quite quickly. But it's clearly not all about emojis and GIFs and kind of conversations, a lot of time it's obviously about getting work done. So let me show you how easy it is to go straight from here, from within Teams, to this Excel document that's logging support incidents. And I'm going to have Kim join me again on stage and show you that we can have this content be co-authored across different teams. So Kim is going to be working on her Mac on this other side of the stage. So regardless if you're on a PC or a Mac, you can actually have quick co-authoring capabilities right within this environment.

So it's great to let you get work done and stay on the same page. Pretty cool, right? Come on, we need a little energy in this room. Give me some energy. (Applause.) Thank you.

So going back to Teams, the last thing I want to show you is the exciting new vision for intelligent communications that Kirk mentioned. So I obviously as part of the team a lot of times you might want to meet with your colleagues, and you want to have this integrated, consistent experience. So within the Team itself, we're actually working to build in those Skype for Business capabilities that we talked about.

So let me join this meeting, and I'm going to be joined by a few folks backstage. So we'll say hi to everybody. It's the beautiful four-box. It works. All right. We've got it both on stage. And now can actually join that meeting with a phone call as well. So just a local number, which is pretty exciting. So it has this rich meeting experience.

And then, of course, after the meeting is done you get all the notes. You get all the chats and conversations that happened with your meeting inside of Teams. So we'll say hello and goodbye to everyone on this screen. It sounds like they've got lots to say back there.

And then I want to show you a new experience that we're actually going to be -- let's end this call, let's go back into the Teams environment. And then I want to show you a new experience in case I missed the meeting, for example. We can go back and we have recorded meetings available. So many times you have lots of meetings that you're trying to prioritize, but right here I have this recorded meeting. It takes place in stream, so I have that rich transcript that Kirk was speaking about as well as that facial recognition. So I could immediately go to the spot in the meeting where people are talking and get up to speed really quickly.

So the last thing, let me get back out my phone here. So where Teams is about my high-velocity projects, I want to turn to SharePoint which is where I share, manage content, knowledge and apps. And with SharePoint I can access all of my company information like this beautiful communications site which keeps me up to date on what's going on with my company, or of course with OneDrive I have access to all of my documents.

So I'm just going to go into my OneDrive folder there and now I can actually make these all available offline. So as I was getting ready for my trip to Orlando, I can download all of the files I need on my phone, and then I can easily access them on the plane. And then as soon as I sync back or I get wireless connection, all my changes will be synched and all the documents will be synched to my phone. So that's pretty cool, right? This is something all of you have asked us for. So having that offline access.

(Applause.)

Great. So now let me show you what Kirk was talking about as he talked about files on demand. So to do that I'm actually going to do a little bit of a boring demo here because the exciting thing about files on demand is OneDrive is built into the Windows kernel. So it makes everyday behavior like this file open much more intuitive and easy for the end user. So now I can manage my cloud and local files all in the same place. This was something that I struggled with remembering some of those SharePoint URLs or what documents I had saved information on and now all of your end users can simply work with documents just like that.

And what it also does is it actually saves a bunch of disk space. So let me open up one of my SharePoint libraries. And you can see this library has 1.35 terabytes of data saved to the cloud but next to nothing on my local disk. Pretty exciting. And it's super easy to

work with this content because of these file explorer status icons. I know if they're saved in the cloud or on my document itself.

So that's a little bit of what's coming with Files on Demand.

The last scenario -- OK, yay, a little more clapping. Come on. (Applause.) I like it. I like the energy. It's a big room.

The last thing I want to show you is how we connect at Microsoft from Satya to every employee. And that's through Yammer and this new experience that I'm about to show you called our employee town hall. This is our Yammer page, which it lets us engage directly with Satya and his LT and then every month we have a CEO all-hands, where Satya joins us, and I'm just going to hit play for a second, joins us and talks about what's top of mind for him. And again, what you can see in this experience is that using Stream we have the transcript, automatically a real-time transcript here. But what I wanted to quickly show you is you can translate it to your local language.

So for many of us in globally distributed companies this is super-important. So you can quickly change the language and then obviously you can engage with Yammer comments. But we're also making it super easy to take the social emoji aspect, do you can engage with this content and let your feelings be known of what information you like, what types of information you're resonating with, where you might have some questions, just like that.

And then after the meeting you have rich analytics of who joined, what the viewership was like, if there was any drop off, as well as you can dig in and understand what the sentiment took place at what times, both from a facial recognition of which speakers, but then also using those emojis, understanding the places where there was a lot of applause, and there might have been some confusion. So allowing you to stay better connected from the CEO down to every employee.

And so those are just a few examples of how Microsoft 365 is built for teamwork. And I'll turn it back to Kirk. Thanks so much.

**KIRK KOENIGSBAUER:** Thank you very much. (Applause.)

**CATHERINE BOEGGER:** Thanks, Kirk.

**KIRK KOENIGSBAUER:** All right, thanks, Catherine.

So we continue to see some really fantastic traction with customers moving across the cloud and in terms of the cloud with Office 365, with EMS and with Windows 10. Each company has its own story, but the diversity of the companies that you see on this slide here, moving to Microsoft 365 workloads is pretty impressive. We have customers across all industries and sizes, like consumer packaged goods companies, retail companies, manufacturing companies and more. And increasingly this includes

organizations in highly regulated industries, like financial services, or government, or healthcare that are all beginning to take this journey to the cloud.

Today we thought it would be valuable to share some learnings of one customer in a really deep way. GE is the world's largest digital industrial company, employs well over 300,000 employees. They've been on a journey to transform their business both on how they're building their own products and services, but also on how they think about the tools and the experiences for their own end user infrastructure. GE itself has made a big investment in Microsoft's cloud. Today they have Office 365 Pro Plus deployed broadly across their environment. They have 220,000 mailboxes on Exchange Online. They're planning to migrate another 100,000 before the end of the year. They're rolling out 100,000 seats of Windows 10 per year, too. It's really, really impressive, particularly what they've been able to do at such scale and with such a rapid pace.

To talk about their experiences I'd like to invite Jeff Monaco, who is GE's CTO of Digital Workspace Technology, and Cate Gutoski, who is GE's VP of Commercial Sales, to join me to the stage. But first we put a quick introductory video so you guys can get a chance to see what they're doing. Please roll the video.

(Video segment.)

All right, pretty cool.

**JEFF MONACO:** Thank you.

**KIRK KOENIGSBAUER:** Well, thank you again for joining us. We appreciate it.

Please welcome Jeff and Cate. (Applause.)

Just a few of our friends here today, I thought maybe just to do a little bit of an icebreaker maybe we can get to know you guys a little bit better. So I'm curious, what's on your bedside table in terms of books? Jeff, what are you reading these days?

**JEFF MONACO:** So I was lucky enough to go to South Africa this summer with my wife and ended up reading Trevor Noah's newest book, *Born a Crime*, loved it. That was a great story.

**KIRK KOENIGSBAUER:** Awesome, Cate?

**CATE GUTOSKI:** Yeah, so I'm a huge Simon Sinek fan. I read *Start with Why* and liked it so much I'm reading Simon's more recent book *Leaders Eat Last*.

**KIRK KOENIGSBAUER:** Very good. Take notes everybody.

So for me I guess I've been reading *Shoe Dog*, which was an awesome story about Nike, which is a fantastic company. And then also The Boss, *Born to Run*, has been a good one



for me the last couple of weeks. I see some people applauding for The Boss. That's good.

Let's jump in and talk a little bit about the transformation you guys have been going through. Jeff, maybe you can start. Tell us a little bit about how you're supporting GE's goals to drive the digital transformation internally there?

**JEFF MONACO:** Sure. So GE is going through this transformation from being an industrial company to a digital industrial company. And so whether or not it's digitizing our factories, becoming brilliant factories with sensors and analytics, to digitizing our products, our jet engines, our gas turbines, trying to squeeze even just 1 percent better productivity out of those assets has tremendous value for not only GE, but also for our customers.

So we're taking that same mentality and taking it into the workplace. So it's equal parts digitizing our solutions, whether that's productivity, collaboration, or the devices that we provide our employees to make them more productive themselves, but also the workplace environment. So we even have projects where we're actually putting sensors in the workplace to sort of monitor what's happening where people are, how they collaborated and really great outcomes.

**KIRK KOENIGSBAUER:** That's cool.

Cate, you've been leading the digital transformation on the sales side. Maybe you can talk a little bit about some of the work you've been doing from that perspective.

**CATE GUTOSKI:** Yeah, thanks, Kirk. So one of the things that's happening at GE is we're in the middle of a transformation. We're really trying to transform this 125-year-old industrial company into a digital industrial. As part of that we've kind of come to this realization that, gosh, if we're going to sell digital, we actually have to be digital inside the company. And this is important, because if we don't do that then we really won't have credibility with our customers as we help them with their digital transformations.

So as we work through this one of the things that we've seen is that sales is about to change more in the next five years than it has in the past 50. And so we have to get ready for that. And when we compare it to other functions like marketing, for example, marketing went through their own transformation about seven to nine years ago. And so what's happening -- the transformation is happening right now in sales. And so to get started one of the things that we did is we really took a page from the Microsoft playbook and started working on building a solid customer data foundation.

So what we did is we took \$1.5 billion in disparate accounts that were across all the different business units, put them into 350,000 clean customer entities and what that basically means is that we were able to deliver a new digital product to our sales force called GE Insights. And what that really means, Kirk, in very simple terms is that now if

I'm trying to call on ExxonMobil I can in seconds find the right contact inside GE, whereas it used to take our sales teams three weeks of calling and emailing stuff.

**KIRK KOENIGSBAUER:** That's pretty incredible taking all that massive amounts of data and making it actually understandable by the business, significant stuff.

Jeff, tell us a little bit about how you all did the roll out, or starting the rollout for Office, for Windows 10, for the EMS pilot that I know you're doing, as well. How has that been going? Give us a little bit of color on that.

**JEFF MONACO:** It's been going quite well. So really as we made the decision around Office 365 we knew we wanted to modernize the tools and solutions that we provided employees, obviously with this digital journey that we're going on.

We knew that we actually wanted to move everything to the cloud, managing these capabilities was not really setting GE up for success. We wanted to focus on business outcomes for our customers. And really the movement to the cloud has been pervasive across all of GE.

And since we really operate in about 170 different countries globally, we really needed the security and the compliance measurements, or capabilities to really allow us to move forward with this cloud capability. So that was really the mindset and the framework that we went after. And really it set us up for success to moving very, very quickly.

**KIRK KOENIGSBAUER:** Got it. You've got about maybe 300,000 seats of Office 365 Pro Plus. Could you tell us a little bit about how you rolled it out in such a quick period of time?

**JEFF MONACO:** So really Pro Plus was the precursor for getting to Exchange Online at GE. So we wanted to roll out Office 2013 and subsequently 2016 out to our global employee base in order to move that first mailbox over.

The carrot at the end of the stick for GE employees, and I know Cate sort of felt this, too, everyone at GE had a one gigabyte mail file, which for anyone in the audience, it's a little thin. It's living lean. And so really the 50 gig mailbox was really the delighter. So we really had to get our employees to realize that there are so many valuable capabilities that are different from the on-premise solutions that we're rolling out and that comes with the sort of equal parts grit and perseverance of getting things through, but also expecting our employees to be change agents to being a digital native that change is constant all around them.

But really at the end of the day it was great project planning and great partnership with the Microsoft Fast Track program.

**KIRK KOENIGSBAUER:** That's great. And Windows 10, you're also moving on that fast.

**JEFF MONACO:** So Windows 10, yes, absolutely. And so Windows 10 we've been rolling out Windows 10 for about six months right now. It's the only OS on all new devices being rolled out with a three-year PC refresh. We're well on our way. But we do want to accelerate that and work with Microsoft to figure out ways of accelerating that dramatically, because not only is it an employee delighter, it helps us out with modern management and provisioning.

**KIRK KOENIGSBAUER:** That's great.

So lots of people here I bet are asking us how are you moving so quickly, what's the learnings that you have to help folks get there?

**JEFF MONACO:** So we went all-in on the click-to-run capability with Office Pro Plus, which is really where you deploy the assets or the software to the end points and they get their updates from the cloud instead of pushing these updates out globally. And that alone at a company of GE's size and 1,000 different sort of knowledge worker locations has transformational shifts in how you get data from your cloud into our end points.

So really I would say that a key learning is really educate yourself on the channels and rings that Microsoft puts on not only for Office Pro Plus, but also for Windows 10. But we really needed to have an open mindset towards being adaptable. There's a lot of times we bring in vendor solutions and we say it's got to be the GE way. We can't do that. It's not how you be successful. So GE has to look at ourselves a lot and say, hey, maybe we should change some things in the network, maybe we should change some things on identity to modernize it. We do it and really consume the products the way that they were developed.

And lastly, I think that anything of this massive size you're going to run into hiccups along the way and you've got to have a little bit of a thick skin, but you also really have to keep the big picture in mind and keep going.

**KIRK KOENIGSBAUER:** That's good. Good words of wisdom.

Cate, on your side, you have recently -- you wrote a lot, actually, I think about the notion of digital work and modern work. You did a piece, That Was Then, This Is Tomorrow: Eight Lessons on Leading in the Digital Age. Maybe you could talk a little bit about that and the employee productivity that you're seeing in your organization.

**CATE GUTOSKI:** Yeah, thanks, Kirk. So look, Microsoft has been someone that we've really looked at from a productivity standpoint, because Microsoft has really completed their own business transformation. And so one of the things that we've seen is that on employee productivity is that we really have to look at how we can drive significant transformation and Microsoft has been an important partner for us, because they've really -- they have a lot of credibility in this space. And you led your own transformation really on sales. And so we've talked to a lot of your leaders and really

listened to a lot of their insights. And I think in a lot of ways Microsoft really proved to us, to GE, that it can be done. And so that's been really beneficial.

But the other big thing that we've learned is that when we started this initiative of sales transformation, we thought it was just about technology, but what we've learned is that it's not. It's a lot about process. It's about skills and capabilities. And the more we can invest in really upgrading our skills and capabilities, it really helps us to adjust our mindset and then as technology progresses we can be more ready for it.

**KIRK KOENIGSBAUER:** A lot of it is about culture, and you talked about that before.

**CATE GUTOSKI:** Yes, absolutely.

**KIRK KOENIGSBAUER:** Can you tell me a little bit more about how you think about culture and how you think about sort of connecting everyone in the organization, the assets, the data, the people, to help foster that?

**CATE GUTOSKI:** Yeah, absolutely. The initiative that we're using to describe it is really this idea of the digital thread. And I own the commercial part of the digital thread, which is really the beginning. And as our leadership likes to remind me the most important part, because if we don't get the beginning right then nothing else works. Jeff likes to remind me of that as well. So no pressure.

But it's really all about how do we create this connected digital ecosystem so that we can enable everyone in the company to really put the customer at the center of what we do. And so Microsoft contributes to that significantly with 365 and with Yammer, and the reason why we're doing all of this is because we've realized that our customers are changing, and a lot of the things that we see in the consumer world, the ease of use, the productivity, all of that is creeping into the industrial world and our employees are demanding better experiences. Why can't my work life be as easy as my consumer life. And then our customers are as well. So we've got a lot of work to do, but our goal is if we can drive that 5 percent productivity that delivers \$6.2 billion. So that's what we're chasing.

**KIRK KOENIGSBAUER:** That's a pretty good return. So one of the takeaways is, of course, there's technology, there's culture. I'd love, Cate, your perspective on partnering with IT during this? Like how's it going, what's the --

**CATE GUTOSKI:** You know, I'm actually really passionate about this, Kirk. I think that fundamentally the role of the sales leader is changing. I believe that if you want to win in the future you just have to be attached at the hip with IT. And I think I'm kind of an IT wannabe now, because I've been able to spend so much time with the team, but the reason why the CEO has to be your new best friend is because in the past as sales leaders we could get away with maybe not knowing as much about technology, but I think in the future, future leaders are really just going to have to understand intimately what's happening in technology, how technology is changing, but most importantly they're really

going to have to understand intimately how their teams do their jobs. I think we've lost our way on that a little bit, and so we've got to get back to that. And so in the future I predict that sales leaders will be, one of the big parts of their jobs will be buying technology, and if you want to be more productive and you want to win, that's what you'll have to do.

**KIRK KOENIGSBAUER:** Got it. Maybe one last question for both of you. Jeff, what's top of mind for you, what keeps you up at night? What do you think? What's cooking?

**JEFF MONACO:** So maybe it's just a little bit of Ignite and Envision for me, but I think that we're truly excited about My Analytics, Delve, Microsoft Teams. Teamwork at GE, we really want to embrace that high-velocity collaboration and so really what you guys have done with Microsoft Teams, bringing together not only the messaging but also Planner and OneNote and other capabilities, especially the extensibility, that's what I'm excited about.

It doesn't keep me up at night yet, maybe it does. I think what keeps me up at night is just making sure that we operate in a safe and secure model with the governance controls that we expect.

**KIRK KOENIGSBAUER:** Got it. Awesome.

Cate, your end?

**CATE GUTOSKI:** So look, I share Jeff's enthusiasm on Delve and My Analytics. I think for us to be able to get new insights, fresh insights on how the sales team is spending their time, how many meetings are they in, how much time are they spending with their sales managers on actually coaching, how much time do they spend with different functions. All of that is important for us to understand what are the best behaviors for driving growth and productivity. So that plus definitely the mixed reality that I saw this morning from Satya. That's pretty cool.

**KIRK KOENIGSBAUER:** It is the future for sure. OK, great. Well, thank you both. We appreciate your being here. Everyone please thank Cate and Jeff for sharing some of their thoughts.

(Applause.)

OK, that discussion with Jeff and Cate hopefully is a good transition for us to talk about our vision for how we talk about simplifying the infrastructure to deliver on all these end user experiences that we've just been sort of referencing. Our goal is to deliver a complete and secure solution at the lowest possible TCO for the entire lifecycle of the IT journey, whether that's from deployment to management through servicing.

Among other things, Jeff referenced PC setup as one of the more challenging IT aspects that happens today and he's right. Managing desktops is tough. It's hard. It's time consuming. It's probably more complicated than it needs to be. And that's why we're introducing a new capability in Windows 10 that we're very excited about called Auto Pilot, Windows 10 Auto Pilot. This will dramatically change what's happening here.

With Windows Auto Pilot a new device can be shipped directly to the user who answers just a couple of simple questions in a setup dialogue, after which her device is automatically configured, including her email, all of her apps, her security profile, all right there and done for her.

We're going to show this in a few minutes, but I'll just summarize by saying what used to take many, many hours now just takes a few minutes. And that's incredible. Windows Auto Pilot already is supported on Surface devices and today we're excited to announce that Auto Pilot will come to Windows 10 Pro machines from Lenovo and HP in early 2018 followed by new devices from Fujitsu, from Toshiba and from Panasonic later in calendar year 2018.

Now in addition to device setup, we also know richer analytics, we also know you want richer analytics to help manage your estate. You need richer insight. And so we've been working closely to infuse artificial intelligence-backed analytics into the Microsoft 365 admin experience.

So, for example, the new Windows analytics capabilities gives you a data-driven way to segment your devices and target specific users for upgrade. Additionally, we've got a whole new set of tools on the Office side, too, Office 365 Analytic Tools, to help you understand Office application usage, also including comm add-in usage to help you evaluate backward compat and ease deployment updates.

Between these tools you can pinpoint device health issues that could affect a user's experience before they even happen to notice it, identifying steps to resolve them proactively, versus after the fact when you've got a problem.

Flexibility is another important theme, too. And while there are many compelling benefits to moving to the cloud, we know businesses need to be able to move to the cloud on their own terms. And as such, we've got great support for hybrid scenarios. It's a big area of investment for us. We're continuing to invest in our on-premises servers and our on-premises clients.

And then, once you've made the decision to move to the cloud, we have multiple options in terms of deployment. For example, you can use our multi-tenant service. We've got local data residency options in 12 different markets. We've built purpose-built solutions for U.S. government cloud organizations, or U.S. government organization, and lots and lots, of course, of regulatory and standard support in the market.

Additionally today, one of the things we're really excited to talk a little bit about is this notion of co-management, and a new set of system center and Intune capabilities that are really going to help you migrate to the cloud with Windows 10 in terms of its management.

Now, many of you already use Config Manager today. In fact, there's over 100 million devices under management, and we've heard your feedback that you want to leverage that investment and the existing skills that you've already got. So, co-management will be that bridge. It's going to provide that flexibility as you shift to the cloud. Again, we're going to demo this in a couple of minutes, too, but it's a really, really key capability.

We also know that many of you have Win32 applications that need to be modernized on this journey for better manageability, for security and performance. And there's a couple different strategies here.

One I wanted to talk about is Windows Desktop Bridge, which allows you to distribute either Win32, WinForms, or WPF apps by using a modern Windows app package. And for apps that you don't want to bring forward or essentially have sunset, we also have virtualization options, of course, as an alternative approach.

And while Microsoft 365 works across all devices, we believe the best way to experience it is with a Microsoft 365-powered device, which would be one running Windows 10, Office 365, and of course managed by EMS. That's going to give the best TCO, the best management, the highest level of security across a broad range of Windows devices in the ecosystem.

To make all this real, and to show you a couple of demos of some of the things I've just talked about, I'd like to invite Brad Anderson, corporate vice president from the EMS team, to come out and talk a little bit more about these capabilities. Brad?

**BRAD ANDERSON:** All right. Let's show you some of the things that Kirk was just talking about, how we're going to help simplify your life. But before I do that, can we just take a moment and maybe agree that there is just something magical about opening a laptop for the first time. You know, I realize I might be a little bit of a geek, but there's just something magical about opening that box and taking out the device, if I can get it out here.

You know, this experience is magical. To me, it takes me back to Christmas morning when I was eight and nine years old. As a part of this modern provisioning, you want your users to experience the magic. So, let's show you what this looks like when your users are going to be able to provision their own devices, and as we help simplify what we do.

So it's going to give you a view now of what Auto Pilot looks like. And so, the scenario here is I've turned on my PC for the first time. It boots up. It's going to ask me five

questions as an end user: What language do I speak? Where do I live? What do I want for my keyboard preference? And then what Wi-Fi do I want to attach to?

Now, what I want you to notice here is I do not have to be attached to the corporate network. I can be anywhere in the world because these are cloud services.

Now, when I attach the Wi-Fi, what happens is the device is now talking to Auto Pilot, and it knows by the serial number my company purchased this and assigned it to me. And so, it starts to personalize the device for me seconds after it's powered on for the first time. Your users are going to think this is magic.

I type in my password, and now what happens is Microsoft 365 is automatically going to go and start provisioning the device. And so, specifically, Intune is going to start bringing down your policies, your configuration. It's going to deploy the applications that that specific user needs, based upon their identity in Azure Active Directory and the role they play in the company.

And it just happens. And like Kirk talked about, what used to take hours now takes minutes. You can give these devices directly to your user. They can drop ship right to your users, and they can experience that magic of pulling it out of the box and seeing it provision right in front of them. And now you see my apps are deployed, OK?

Your users are going to love this. You're going to love this.

OK. Let's now move on to the next thing we wanted to show you. I wanted to show you something we're doing in terms of analytics. And one of the beauties of the cloud is we're able to take all the data that comes in, apply artificial intelligence to it, and then reflect that back to you in ways that help you focus your efforts and your precious time.

Let's specifically show you what we're going to do and help you upgrade to Windows 10. In the 4 o'clock session we're going to go a lot deeper on this. And so, I come up and I'm going to go click on upgrade readiness.

Now, traditionally, one of the biggest challenges with upgrading to a new version of Windows is application compatibility. Right here, we're going to give you the insights to help you focus your efforts. You can see here that I've got 5,000 total devices in the company, 4,500 have been upgraded. So, I want to go focus on that last 500.

We can see here that within your company, you have 9,000 applications but there's only 625 that really you need to go do some work on. And you can see right here that just about 8,000 of your applications are rarely used.

So the next thing we're going to do is we're going to start helping you see where to go focus at. So right here, we're going to say, "Listen, let's go focus on these 503 applications." One of the intriguing things about this is you see this number right here where it says 397? We're aggregating data from across the industry, and we see that



these 397 applications are already widely adopted in the enterprise in your peers. We know that they're working so you don't have to go and do your own testing of them.

I love this blade right here because we say, "Listen, if you go focus on these 136 drivers and applications, you will unblock 10 percent of your remaining devices to upgrade to Windows 10. If you go and focus on these 579, you'll unblock 80 percent."

And then, of course, we're going to go track this for you. And you're going to be able to see here at any given time how many of your devices are ready to upgrade. In this case, there are 16. You come right here. You can export that configuration, and guess what that does? It exports the Config Manager. Config Manager automatically goes and targets those devices, and they're automatically upgraded for you.

Do you see how these insights help you focus and help you accelerate the things you want to do?

Now, one of the new things we're announcing at Ignite today is similar capabilities with Office. And so, one of the most important things as you upgrade to the new version of Office is you want to see what plug-ins you're using. So right here, we're going to give you a view of the most commonly used plug-ins in order of how often they're used.

And then, with the Office Analytics, we're going to give you this beautiful Power BI dashboard. Let me just give you a little bit of a walkthrough here. First of all, right here with the black line, I can see what my licenses are. And then the red line here is actually showing me my usages. Over here on the right hand side, you can see usages by each one of the Office 365 services. We want you to use what you're buying from us.

I can come down here, start clicking into each individual service. I can see with Exchange online just shy of 99 percent of my people are using it, and I can see what part of the world they're in.

Likewise, if I come down here, I can see that with OneDrive for Business, there are 3 million files that are stored in OneDrive for Business, but only 66 percent of my users are using it. So, I want to go do some work to get the rest using it.

But now, you have these insights that help you understand usage, how to accelerate deployment. Think about how we're going to be able to use this to help you be more secure, which we'll come back and talk about in a minute. This is such a great example of how the cloud brings insights to you to help you be more effective.

Now, the last thing I want to talk about here is the co-management capabilities that Kirk talked about. You know, all of us are starting from a place where we're using Group Policy Active Directory and Config Manager, and we want to move into the modern world with these modern IT principles.

For me, being the management guy at Microsoft, one of the most significant announcements at Ignite today is in the fall release of Windows 10, this co-management capability will allow a single Windows 10 device to be both AD and AAD joined at the same time. What that means is that devices can now be managed by Config Manager and Intune at the same time.

And then what you can do is instead of just having to go all or nothing and move to the cloud, you can actually move a workload at a time. So, you can start doing device compliance from the cloud. You can then do updating from the cloud. Move your software distribution to the cloud.

But you can now take these bite-sized steps to help you move forward. It makes it less risky, and it helps accelerate your move to the cloud.

And then, of course, what we do here is we're going to give you a view in the Administrative Console for this. So, what you're looking at here is this is the Azure Console. This is the Intune Console. And you can see here I have all my devices, who their principle user is. I can see if they're compliant or not, but look right here. I can see who the authoritative source for the configuration is.

Because Intune and Config Manager are constantly in communication with each other, we actually know for every object and every attribute who is the authoritative source so you avoid conflicts, OK?

One thing to call out here, we're announcing today that we're extending the capabilities of Intune to do in-depth Mac management.

All right. So there you get a chance to see what it is that we're doing as we think about how we help you simplify, revolutionize how you do deployment and provisioning, provide you insights, and then accelerate that move to modern IT through co-management.

Thank you, and back to Kirk.

**KIRK KOENIGSBAUER:** Thanks, Brad. For the last section here, I want to talk a little bit about one of the most important topics that's probably on most everyone's mind, and that's securing your organization.

With the sheer size of the threat landscape, it's impossible for any individual -- for any human -- to keep pace with the complex security challenges that are out there. You really need the scale of a comprehensive cloud-backed, AI-backed solution to stay ahead of it.

Now, with Microsoft 365, we've built security into all layers of the infrastructure to help you protect your people, your data, your devices all without disrupting end user productivity. That's the balance we're trying to strive for. Our solution is powered by the

Microsoft Intelligent Security Graph, which applies AI to billions of signals that are captured across products like Exchange, Windows and Azure.

As an example, on a monthly basis we patch over a billion Windows devices. We scan over 400 billion emails for malware, and we handle over 450 billion authentications. This gives us incredible visibility into threats, and enables us to better protect your estate.

There's a lot we could talk about here, but I want to focus on just a couple of key topics. First, it's obviously critical to protect at the front door. Over 80 percent of today's breaches come from stolen or weak passwords. So securing identities, along with their apps and their data, is pretty foundational.

Today, Microsoft 365 customers are already using conditional access based on factors such as their identity, their location, device health all powered, again, by the Security Graph.

Going forward, we're going to extend this capability to provide additional protections, like the ability to apply these controls to sessions directly within SaaS applications. So, as an example, this means you could allow access to a cloud storage account but limit content downloads if the person's running on an unmanaged oriented device.

Taking this further, we're applying these same conditional access controls to your documents. So, if the system detects risk, it can prompt for multi-factor auth, or deny access to those documents all together. Both of these new conditional access capabilities will roll out over the coming months.

Another part of our security vision is to simplify and integrate the information protection capabilities across Microsoft 365. Core to this is creating ways to detect, to classify, to protect and monitor critical data, no matter where that data may live.

One example is how we're integrating Azure Information Protection into Office 365 Message Encryption. This is going to make it possible for end users to encrypt emails, send them to literally anyone, including those using consumer services like Outlook.com, or Gmail. It's a great end user benefit, and one that your users can trust and you know is going to be secure.

But the bottom line, no matter how good a job you do protecting your users, you've got to assume you've already been breached. So, detection and remediation are becoming critical. We know that spear phishing, as an example, is top of mind for many customers. So this fall, we're enhancing our anti-phishing capabilities even further to prevent against these increasingly sophisticated behavioral oriented attacks.

Additionally, we're announcing a limited preview of a service called Azure Advanced Threat Protection. Many of you already use Advanced Threat Analytics today to identify anomalous behaviors in your active premises -- your on-premises environment.

Today's announcements bring those same capabilities to the cloud. So now, with Azure ATP, it can be used together with Windows ATP, and Office 365 ATP for a more complete approach.

On the remediation side, we have exciting new capabilities here with our recent acquisition of Hexadite. Hexadite essentially automates the remediation of security issues. So in addition to alerting you about issues, Defender will now fix them for you automatically. And this new service will preview this coming fall.

Compliance is also really a critical component of securing that infrastructure, and one compliance topic that, for many, is top of mind right now is around GDPR, or the General Data Protection Regulation. Microsoft 365 itself -- Microsoft 365 proper -- will be ready for May 25th, 2018, the day that GDPR takes effect.

But to help you evaluate your own compliance standing, today we're announcing Compliance Manager. This new tool performs a real-time risk assessment, essentially creates a compliance score, and recommends actions and step-by-step guidance to help you improve your own standing. For those thinking about GDPR, this is going to be a super valuable tool, and this will be available also this coming fall.

As you can tell, there's quite a bit going on in the security space here. I want to invite my friend Brad Anderson back to show you a little bit more about some of the work we're doing in the security space. Brad?

**BRAD ANDERSON:** Thank you. All right. Over the last couple of years, we've shown you demonstrations where we're protecting, for example, the Office data, and the Office data on devices that are managed and trusted. But one of the things that you've asked us to do is you want to enable your users to work on any device. And so, we've needed to innovate that truly enables your users to work on unmanaged and therefore untrusted devices.

What we're announcing new today is, building on top of our industry-leading conditional access capabilities, we are now doing in-session control in the browser of your SaaS apps that allows you to now open up your users to access any other SaaS apps. But because we do in-session control, the data stays in the browser, never leaves the browser and is secure.

Let me show you what that looks like here with SharePoint online. So, I'm working on my home PC here unmanaged, therefore untrusted from the eyes of IT. And I've logged into Office 365. I'm going to come over here and look at SharePoint. And as I'm going into SharePoint, I'm going to go onto my team site here and look at the library of files.

Now, the first thing I want to call to your attention is the little yellow bar up here. In real time, what has happened is that Microsoft 365 components working together have recognized this is an unmanaged device. Therefore, it's untrusted. And so, it's taken action in the session to now control and protect your data.

The first thing to notice here is, look, when I go and highlight one of these files, there's no sync button. I cannot synchronize the files down. When I go to open, I can only open into Word Online, again keeping the data in the browser. As it comes online here, things like if I come here to file, I can't print. Cut, copy, paste has been disabled.

But this revolutionizes your ability now to enable your users to work on any device anywhere on the planet. We do the in-session control. Your data is secure. Your users are creating and they're achieving. I think this is awesome.

Now along these same lines, for years I bet you many of you have used the secure email capabilities of Outlook and Exchange. There are certainly times when I send email that I want to guarantee it only goes to certain individuals and it doesn't get forwarded, or doesn't get printed.

Today, we're announcing that we are extending those capabilities with Microsoft 365 to enable you to now do secure email with consumer email services, which now enables you to do that secure email collaboration with your partners and your customers.

Let's see what it does. So right here, I'm going to send an email. And notice I'm sending this email to Mia into her Gmail account. I'm going to come up here and click on "protect," and I'm going to ahead and hit "send." Now, that email's being sent encrypted, and this is integration across the Microsoft 365 services, including Azure Information Protection.

Let's go see what that looks like now for Mia. So, I'm going to come to an iPad, and I'm going to come bring up my Google email. And there's the email that just came in that I sent to Mia.

So, I'm going to go and open this email up. And you know, you just can't see until you go into the email. So, I'm going to go into this envelope. And you're going to see here it's going to come up, if it works. Try it one more time. And it's going to ask me now to sign into Google, but you see we've done the work to federate. And so, with the federation up, I'm automatically going to get that single sign-on into my Gmail.

And look what happens now. The email comes up. It's secure. And I've sent it to an individual's Gmail. Now, take a look here. If I try to forward, forward doesn't work. If I try to come and highlight this to copy and paste, I can't copy and paste.

This is amazing because we are extending your secure email capabilities to now these consumer email services. You can now collaborate securely with your partners and our customers knowing and controlling the data that you're sending. I think that this is also amazing.

Now, we all work hard to protect our organizations. But the reality is the people that we're fighting in this battle, man, they're good. They're world-class athletes in what they

do. And they're innovating, just like we do. And so, like Kirk said, you have to take a posture that you have been breached. You have to take a posture that you've been attacked.

And so, we acquired this company just a couple of months ago named Hexadite. And what Hexadite specialized in is the ability to be able to take automated actions to go do investigations and remediations based upon data that it gets. And so, we've worked quickly to wire this up into the Intelligent Security Graph, and into Microsoft 365. And this is the first time we're showing this ever publicly what Hexadite is going to do in Microsoft 365.

So, we kind of give you a view of the dashboard here. First of all, I can see here all of the active alerts that we've caught. Right here, I can see all of the active investigations that are happening. One of the key things here to enforce is the rate of attacks and the sophistication of the attacks have hit a point where human hands and human minds just cannot keep up. You have to have the power of the cloud with cloud capabilities, like what Microsoft 365 brings, that is supplementing what you're able to do, and bringing these insights and taking action on your behalf.

So right here, you can take a look that we have actually successfully remediated 189 of these alerts. And take a look at the time here. We did it, on average, in one minute and six seconds. This is critical because think about these attacks that we're seeing today.

And take WannaCry as an example. When WannaCry got into an organization, it would blanket the organization in less than an hour. So there not only is a capacity issue, but there's a timing issue that you have to be on top of. And these are the kinds of example of the things that Microsoft 365 does to automate and keep you secure.

Now, let's go look at the dashboard here. And so, you can see here are all the active investigations that are happening. You see one's been fully remediated. There's one running here that I want to go take a look at, so I'm going to open that up. Now, let me walk you through what is happening.

So first of all, notice here it's been fully remediated just in the time that we opened that up. You can see here that Windows Defender ATP has recognized that there's been some kind of an event. In this case, there is a device that is communicating with a known malicious IP address. We have researchers who all they do is they go and look for these addresses and where the malicious code is coming from.

So, we detected that. It came out of the Intelligent Security Graph. We then went and scanned all the history of your organization to see if you had other devices that had been in contact with that IP address, and sure enough we found another one. You can take a look here at the things that we went and analyzed -- the files, the processes, the services. And you can finally then come here and see that we remediated that device, and we did it in just about a minute, OK?

You have to have tools like this. If you assume breach, you need to have tools that are taking automated actions on your behalf as these alerts and these suspicious activities are coming. An example of how the intelligence of the cloud, and the intelligence of Microsoft 365 helps you keep your organization secure.

OK, one more demo I want to show you here. Many of you know that we have a product that's called Advanced Threat Protection inside of Microsoft 365. Today, we're making a significant announcement. We've taken those capabilities and we're now delivering it as a cloud service, and it's called Azure Advanced Threat Protection. First time this has ever been showed publicly.

And so, what this is allowing us to do now is we can protect your on-prem Active Directory identities just like we protect your cloud identities from the cloud.

So, this is what the view looks like. I'm sitting here looking at dashboard, and I can see here that there was some kind of a privileged escalation that happened on a device. And then I'm able to now pull all these events together that I may not have realized were connected, but I can see that someone was doing some reconnaissance on DNS and was basically probing in. There's been some suspicious authentication failure. Somebody's been trying to basically guess some passwords.

And finally here, I can see that there's been an abnormal modification to a sensitive group. I want to click in and see a little bit more information on that. And so, as I click into that, I can now see that this help desk account which has not been used for a long, long time went in and added somebody to a very sensitive group.

And if I come and take a look down here, I can actually see that this particular account that did this action actually authenticated on this device, which is not normal. We've never seen this user account on that device before.

So, if I click into that, I actually now get a chance to look at that device. And what I want to call your attention to is these alerts right here. These are firing off alerts that Defender ATP is what caught this. That has now been sent back to the Intelligent Security Graph. And going back to the demo we just saw, Hexadite is already now investigating and taking action on your behalf to block this attack and keep your organization secure.

Microsoft 365 enables us to do things we've only dreamed about in the past. I can guarantee you that as you're using these capabilities, your organization is going to be more secure. You're going to be more empowered. And as we help you simplify things, your users are going to have this incredible experience.

And with that, let me bring Kirk back out.

**KIRK KOENIGSBAUER:** Thanks, Brad.

**BRAD ANDERSON:** One thing, people often accuse us of spending too much time together as we've kind of built Microsoft 365, and in fact people say we spend so much time together, we're beginning to look alike.

**KIRK KOENIGSBAUER:** I'm not sure if I see the resemblance. (Laughter.) All right, Brad. Thanks.

Next, I want to talk a little bit about how we're expanding some of the Microsoft 365 offers that'll be coming out this coming fall. As context for you, this past summer we introduced Microsoft 365 Enterprise for our largest organizations, and then also Microsoft 365 Business for SMBs.

Today, we're announcing two new offerings of Microsoft 365. One is Microsoft 365 Education. Like Microsoft 365 Enterprise, this brings together Office, Windows and EMS, plus specific enhancements and unique experiences for teacher and classroom scenarios, including of course Minecraft. Microsoft 365 Education will be available on October 1<sup>st</sup>.

Second, I'm pleased to announce a new offering tailored specifically to an important yet generally underserved segment of the workforce. We call them Firstline Workers. Firstline Workers are your factory floor workers, your service reps, your retail employees, your branch associates, and they often engage with customers in pretty important ways.

They're the first to engage with your customers. They're the first to represent your products. They're the first to service your products. They really form the backbone of many of the world's largest organizations, yet they've been largely left behind by the digital transformation revolution.

So today, we're announcing Microsoft 365 F1, one of our Enterprise SKUs. It's going to be available also on October 1st. But F1 brings together Office 365, Windows 10 and EMS, again, tailored for the needs of these Firstline Workers. We believe the capabilities within F1, in addition to Microsoft's broader capability around Dynamics, and IoT and Mixed Reality, is really going to create a great opportunity for businesses to empower these kinds of employees inside of the organization.

We know these employees also really need great devices. And so, today I'm also excited to announce that we're partnering with HP, with Lenovo, and with Acer to provide Windows 10 S devices for these Firstline Workers with price points starting as low as \$275. Available later this coming year, these devices will offer the performance, the battery life, the security and the manageability really purpose built for these Firstline Workers.

So with that, I'd like to wrap up. There's a culture of work that's emerging that's defining this notion of a new, modern workplace. We're here to help you on this journey to create



the most productive experiences for your users again and at the same time with an infrastructure that's secure, that's easy to manage and offers the lowest cost of ownership.

Thank you for joining today, and thank you for all your continued feedback in bringing these capabilities into your organization. Thank you.

(Video segment.)

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