Remarks by Bill Gates
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MR. WHEELER: We're very excited that you're here. You just heard what I said about the two coming together. But, why are you here?

MR. GATES: Well, I think wireless is probably the key component that's really going to take the scenarios of empowerment that we've always believed in and make them a reality. The idea now that we can take the voice world, the data world, and let people access that stuff from any size screen, anywhere they want to go, that's an incredible opportunity, and Microsoft wants to be there and provide the software that helps make it happen.

MR. WHEELER: You know, as I go around talking about the new wireless vision, I'm frequently referencing you and talking about the new vision that you've shown at Microsoft in leaving the CEO position and going on to head up the development of a multi-device world. Is this indicative of your belief in where wireless and other things are going?

MR. GATES: You bet. There's a great rate of change here, and then you can go back to the excitement of the PC and how that really stunned everybody, the excitement of the Internet and how that really stunned everybody. Well, here we're talking about this multi-device era where it's the phone, it's the TV set, it's the car, it's the PC, all those things working together. Even though people have seen those amazing things in the past, I think they're going to be totally surprised by the kind of new companies, the new opportunities, perhaps most importantly how empowering for people, this is all going to be. That is my full-time job, and it's the job that I like best.

MR. WHEELER: Well, we're looking forward to hearing what you have to say. Let me get off the stage and turn it over to you. Thank you very much.

MR. GATES: Thanks, Tom. You bet.

(Applause.)

MR. GATES: Good morning. This is really, I think, an important milestone, because the role of wireless in letting people reach out to information is just at the beginning. The speed of the networks is going up from about 10K baud to, with some of the newer technologies, about five times that speed. And even with the limited speeds in a number of geographies, the user reaction has been pretty incredible, and with the price per minute being fairly significant, people are still very excited to get at information wherever they are.

Another interesting data point is that portability matters a lot. The PC business is at over 100 million units a year, and the business PCs shipping more and more are the portable devices, even

though there's been a pricing premium for the portable that will come down over time. So, over 40 percent of the PC business is laptop based.

All of this is moving to use a common standard, the IP standards, where we can mix voice and data, where we can have quality of service and very rich applications protocols built on top of that. It's a world where voice and data have been separate. If you go to a Web site today and you want to talk to somebody, there's no easy way to do that. If you're on your phone and you want to get a map, or you want to get additional information, there's no way to get that onto your phone, even if you have a nice screen.

By bringing those together, we're really going to surprise people with what they can do. Now, Microsoft's role in this is pretty straightforward. From the beginning, which is 25 years ago now, we've been about building software -- software platforms that would allow all the different applications, even very specialized vertical applications, to take advantage of all the hardware power that's out there and to get those applications working together.

Now, a lot of that has been associated with the PC. The PC is a fantastic device and, as you'll hear later, it's not standing still. As the full-screen device for creating documents, doing rich editing, rich annotation, that is part of these scenarios, but these scenarios are now multi-device. They're not PC centric, they're not TV centric, they're not centric to anything but the user who wants to get at their information.

To do this right, to make sure that the user doesn't have to learn a lot of command sets or replicate that data around, to make sure that the security of the data is preserved and that you get notified about the things you care about, there's a huge advance in the software technology. Our vision brings together the kind of things people do as professionals, as individuals, and how they want to share, whether it's their business colleagues or their family. And here you see all the different kinds of devices that are going to be hooked up.

If something happens, a stock price changes, their schedule changes, you'll be able to say, depending on what you're doing, whether you want to be interrupted and exactly how that information should appear on any of these devices. There's a huge user benefit here. Today, if you think about people and all their different phone numbers, their different email addresses, how their voice mail is different from their email, managing your communications is a lot of work, and we can shift that burden onto the network, onto the software, and give you a lot of control with user preferences.

Even things like documents should roam automatically. Today, they're kind of stuck on an individual PC. And so, if you want to take them home, that's a lot of trouble. All of those documents should simply be out in the clouds, and even if you go to a device that you don't own, it's not your device, if you authenticate yourself -- and that could be smart card, password, finger print, however it's done -- you should be able to then connect up to everything that you care about. Not just your electronic mail, but the spreadsheets, the word processing documents, anything that's of interest should show up immediately on that screen.

We also need to have real-time collaboration. Not just voice calls, not just video conferencing, but the ability to take these powerful tools and work together, work on a spreadsheet, work on a word processing document, go through a support scenario very easily using these wireless networks. A key point here is letting the user decide exactly how it all works. Today, if you ask people what's the thing that bothers them the most about electronic mail, it's the junk mail that they get; it's the fact that they don't have that much control.

And the fact that if you look at the way they work, they're often interrupted by a piece of mail coming in that's not that important, but because it appears there in their in-box, they feel like they should go pay attention to that. Giving control back to them is something that will be very, very important.

So, the Internet is evolving. It started out simply being plain static HTML pages. It moved over the last three years to be much more transaction based. You can actually do business. So if you go to the Web site, it's not just the static pages, it's the actual programs called ASP or script-based programs that let you customize and let you do business.

That's advancing to a whole new level, and this is where the wireless world and the Internet intersect. XML is a very critical standard here because it lets you view data; it lets you have the data in a form that's not tied to the presentation. And if you're going to take the data and put it in a voice form, a small screen form, a TV form, a PC form, you want that kind of abstraction. So, XML has come along exactly when it's needed for this multi-device world.

Now, letting people build those Web sites in that great abstract XML form requires a new generation of tools. And the software industry, including Microsoft, is moving very aggressively to build that. It requires a set of standards around XML, things like, what a purchase order looks like. If two companies want to do business, and the purchase order of one company and the sales order form of another company are different, you have to negotiate electronically to make sure that all the right data gets exchanged. And if there is a business transaction, you have to have the digital understanding of, if a delivery is delayed, who do you notify. All of that that's been done in the paper world now is shifting over to the Internet. So it's a much richer Internet than we've ever thought about before.

And this is at the time when you have the data networks, the wireless data networks, growing in capacity and geographic coverage. And you have the PC itself continuing to evolve. So, all of that is coming together for these new scenarios. I'm a great optimist about what those scenarios will be able to deliver. But it's always important to checkpoint where we are today. You know, are computers super easy to use, as you see them covered in the news? Can we do better? I think the answer is yes, and I've got a little bit of a video clip of some news coverage that really proves that point, I think. So let's take a look.

(Video shown.)

MR. GATES: So we have a long way to go. We can make things easier, we can make them more reliable. Taking the Internet explosion and bringing that to the Internet world is a key element of this. Just look at the kind of growth we've seen out on the Internet, the growth of

transactions, the growth of electronic mail. We have a site called Hotmail that alone has 60 million people connecting up and using their email many, many times a month. A year ago, that was about 15 million. So we're expecting over the next couple of years that we'll have 300-400 million active email accounts. These are very significant numbers. It's a free service, it's a very rich service, and if we can give people the best of both worlds, the richness of corporate email, which will cost something but be integrated, and the free email service, what we've done with Exchange and what we've done with Hotmail, and extend that out to all the different devices -- particularly the mobile devices -- the opportunities are incredible.

And it's not just the electronic mail, it's also peoples' schedules, their preferences, the whole idea of 'What do I care about?' If this stock changes, do I want to know about that, if this Web site document is updated, do I need to know about that. It's up to the user to say what they would like to see, and then have us transform it through software onto the different devices. So everything that we do, from our Internet properties to the Windows desktop to the Office applications themselves, we're thinking, let's get those out into that mobile space. And so, the Internet explosion can go to a whole new level.

E-commerce, people talk about how that's really exploded. But, only when you get into mobile devices can you get into things like entertainment choices, where you're seeing the directions and making choices exactly when you're interested in them. Only through the mobile scenario can that be done. Now, through our consumer service, the Microsoft Network, have been doing a lot of different things. We've been building popular sites like MSNBC, Expedia, Hotmail. We've been using things like Web TV as a way of accessing these networks. There's over a million of those Web TV devices out there, and that will grow to be about 100 million over the next four years, as it's done through higher speed connections.

Today those million are simply using dial-up connections. But, by using various wireless technologies and the cable infrastructure, this digital set-top box will simply deliver that kind of Web TV experience on every TV. Simple things like being able to watch a show when you want, being able to see the TV schedule, but also the integration, going to the related Web sites for the ads and the shows, and being in touch with your communications, so if somebody is watching a show when you are and they're on your buddy list, you can chat and talk to them while that's going on. So it won't be that the TV is a world separate from the Internet or the PC. Likewise, the phone and all the other devices need to participate in that as well.

MSN Mobile is what we're doing to bring this world together. Today, we're actually watching the second major revision of that, which does some great new things with the devices. It will actually be out for consumers in April. I'd like to ask Steven Guggenheimer, who is our director of consumer wireless, to come out and give us a look at what this is going to do for consumers.

Good morning, Steve.

MR. GUGGENHEIMER: Good morning, how are you?

Let's take a few minutes and show how we're extending some of the services that are available for consumers today on the Web to other devices using wireless technologies. Now, in this case,

we want to show MSN Mobile 2.0. For those of you who aren't familiar with MSN Mobile, about six months ago, we launched the 1.0 service. So today anyone with a cell phone that can get email or paging services can get data sent, or pushed to them. They can get stocks or the weather, news, any kind of Internet content pushed. But it's one way -- you get it pushed out to you.

With the 2.0 service, with phones with a micro-browser, you can actually have a two way service. So not only can you get things pushed to you, but you can go out and retrieve more information in more depth. Today we're launching in conjunction with our first partners, Nextel and Air Touch, so there will be service providers out there that we can go and get this from. Let's take a look. Now, in terms of what we're trying to provide, obviously we can't take the entire MSN screen and put it on the cell phone. So we've got to take a set of services and make them available in a logical way. Let's take a look at some of these. I don't know about you, but when we're done with this conference, I'm actually going to take a little vacation. So I'm going to go down to the travel site and look at my itinerary. It's going to pull my itinerary up from Expedia. It takes my preferences or stuff I've stored and makes sure they're available on the phone.

MR. GATES: So you didn't have to actually put that into the phone, just the fact that you were using Expedia meant that that was automatically put onto your phone capability.

MR. GUGGENHEIMER: That's right. Obviously, typing all the information via the nine keys here would be a little difficult.

If we scroll down, one of the things I can see is my departure time, the arrival time, that's the schedule, and the flight is there. So if I want more information, I can click on the flight itself and it gives me weather for today, the schedule time, whether it's on time or not -- it's still on time today -- and if I go down even farther it will actually give me the gate information. So as we get closer to when we're actually leaving, I can go and get the information I need. Is the flight on time, what gate is it at, et cetera. It's very handy for people that travel or want to get information while they're on the go.

Let's go back to the home page. Now, since we're going off to Orlando, one of the things I might want to do, for example, is look at weather. So I can scroll down to weather, and go and get the weather, let's say, for any day of the week. Let's check tomorrow, 77 and 52, sunny and clear.

MR. GATES: So it looked at your calendar to know where you'd be interested in the weather for that day.

MR. GUGGENHEIMER: That's right. And then I live near Seattle; any kind of sun without rain is good. So this is going to work for us.

Now, as you mentioned, one of the cornerstones of the Web is Hotmail and email, and all of those millions of users who want access, potentially to their email. So what I'm going to do is go to Hotmail, and now I can go out and get my email. Now, I might not want it all. I might want some filtered subset of it, maybe the stuff from my boss and my wife, which are somewhat the same, but all the key people I care about. If I scroll down here, you'll notice when I hover over

the title of a mail it will scroll it from left to right, because the whole title doesn't fit. So, again, we're using a little intelligence to make it a little more usable, the content on the phone.

Now, I see a flight delay here; since we just checked my flight, I want to see what that is. And this is a flight from 320 Seattle to San Francisco is delayed. This is my wife's flight, since I looked at my calendar and didn't look at my wife's, Expedia sent me a separate notification that says, hey, the flight your wife is on is going to be late. So I got that information, as well. Again, pretty critical stuff when we're out traveling.

Let's go back. I think you get the idea. Now, one of the important things about wireless is it's not just one device. There are obviously lots of phones out there, but there are also other form factors. So this is a new form factor, this is the Pocket PC, and we've started to talk about this. We've talked about some of the new technologies, like Windows Media Player. Last week we announced the Pocket Internet Explorer, so I thought I'd show you MSN Mobile on this device.

Now, in terms of getting data to this device, I could get a receiver for this device, the same way the phone has a receiver, or using Bluetooth, which is a way to connect devices together in short range at high speed. I can actually use the same phone as a receiver, and then decide to use this for looking at the Web, because I can look at a little bit richer content. Now, regardless of how I get there, if I go into Hotmail, you'll notice it's a little bit easier to read. So if I had 20 or 30 messages, I might want to dial in with this device, but use this device for the scrolling and the browsing.

Here's the same set of mail -- there's one from my wife about the trip. It says, you've been working hard; I'm sure you have something special planned. Well, unfortunately, the only thing I've planned so far is the trip, but she sent me a link, so let's see what she's interested in. And you'll notice that a graphic comes up. So on the back end, the MSN Mobile service is smart enough to decide what type of content to send to a phone, versus the type of content to send to this type of device, a little bit of intelligent filtering there. She's interested in the Disneyland kind of stuff. And here's a hotel overview, et cetera. I want to go back to the mail again.

That stuff is nice, but personally I'd like to get out in the evening one night, so I'm going to go down to a mail from the Dailies Fan Club -- that's a band we both like. And again, we see more links. So here it's a little bit richer, I can go in and look at -- they have a new album out. Let me click on it. And I can actually go out to the Web in this case, and I can download a song clip. So something that wouldn't make a lot of sense on the phone makes a lot of sense here. It takes a little while to do this, so I downloaded it earlier. But, if we go again to that Windows Media Player, I can not only download it, but I can listen to it. So, again, nice integration -- being able to do more things on this device and using the richness of the device with the services. Let's go back. There was one more link in this particular mail. It turns out that they're going to be playing in Orlando, so if I click on Orlando, it goes out to the Yellow Pages now and gets the directions.

So, again, lots of different ways to provide information. One important thing, again, relative to Blue Tooth, is that these devices are going to come with these Compact Flash Blue Tooth cards that allow me, again, to share information between these devices. If I liked that song, and I

wanted to download it to my car, I could use the Compact Flash Blue Tooth to go download it to my Auto PC and add it to my play list.

MR. GATES: Well that was a very rich experience. I'm curious to have you show us exactly how you set that up. How did it know what you were interested in?

MR. GUGGENHEIMER: That's a good question, because a lot of people don't understand that this is, one, very easy to sign up for, and two, I don't have to enter all of the information using a cell phone. If I, again, had to use the nine keys for the alphabet and everything else, it would take a while. So here's the MSN Mobile sign-in page. It's available off the MSN home page. This is for the new 2.0 service -- it will be up in about two weeks. It's got the new UI to it. Here I can edit my account. And you can see all my email, my news filters, weather, sports. Let's pick one; let's look at financial information. If I go into the edit screen, you'll see here, it's very easy to add stocks, set my trigger types, like if the price changes or it moves a certain amount during a day, how often I want to be notified, and the nice thing is when I make the changes here it's reflected in the phone. If I want to add a new Expedia account or change my Hotmail address or something else and I really don't want to do it from there, it's a little time consuming, I can do it easily from here.

But, on the flip side, if I do make a change from the phone -- let's say I make a change to my stock to my portfolio -- it actually shows it back here. So the two are in perfect synch, and I have a central storage. It's pulling from my MSN Mobile preferences and all of my accounts, but available in multiple places.

MR. GATES: So if I'm a mobile carrier, I could actually set this up for my billing information, the plan I'm choosing, all these things are just one place that I go on the Web.

MR. GUGGENHEIMER: That's right. And, in fact, with the two new partners, these pages will be co-branded, where it's got both this information as well as the carrier's information with it.

MR. GATES: Well, it's great to see what consumers are going to be able to do. Thanks, Steve.

MR. GUGGENHEIMER: Thanks, Bill. Bye.

MR. GATES: Let's talk a little bit more about the corporate space, the professional use. Of course, in the world of the PC a major milestone was achieved a couple of weeks ago when we officially shipped Windows 2000. This represents several billion dollars of investment on our part to bring Windows up to a new level. And we were able to really benchmark, as part of the announcement, how far we've come on reliability and scalability. The scalability issue is very important, because when you're talking about business transactions and communications, people want perfect reliability. They want the system to be available whenever they're interested in getting the work done.

The way that the scalability has been done historically is by buying bigger and bigger hardware boxes, a bigger mainframe. Now, the problem with that is that it represents a single point of failure, and there's an absolute limit to how far that approach can take you. In fact, off on the

side, Tandem, whose equipment was used in all the really demanding applications, for stock exchanges, a lot of communications back-end, they took a different approach. They didn't have a single point of failure; they didn't go with just a pure hardware design. They recognized that if you could use software to distribute the work across many different systems, then even if one of those systems went down, you'd still be up and running for the user. There were a lot of good advances that had to be made there to make sure the user wouldn't even notice if one of those boxes went down. If one of their customers wanted extra capacity, they would simply add hardware modules, and the capacity would be there without having to change the application.

This approach, which we call software scaling, has now been brought to the PC server world. Windows 2000 delivers software scaling; it's built into the design. As part of the benefit of that, we showed that on the most popular transaction benchmark there is, which is this TPCC benchmark, Windows-based systems that cost about a tenth as much could be used to blow away the world's record transaction benchmark. So we did more than a factor of two of the most expensive mainframe or UNIX box. What this means now is that somebody can build a back end and use the best software tools that are out there, that come in this environment, and get the benefit of software scaling so that their back end can deal with the peaks in demand that they're going to face.

We also did a lot of work in Windows 2000 on the communications infrastructure. There's a very important issue having to do with quality of service management. On corporate networks today, people have not enabled video conferencing or even screen sharing, because they're worried that that traffic will crowd out the more critical transactions that are going across their network. And it's unfortunate, because really the capacity is there, as long as you just do the prioritization. Working with a number of partners, including Cisco, we've taken industry standards and built those into Windows, so you can set policies, where you can say this user running this application deserves medium priority, this user running this application deserves high priority, and you make sure that there will never be a problem with these collaboration things crowding out the other traffic.

That issue, it turns out, although it starts in the corporate network and it's important there, it's even more important as we think about the wide area network, as we think about the global wireless network, where people are going to be running many, many different applications, some of which need very quick response time. If you're interacting with your SAP system, if you're completing a business order, that deserves to have priority over simply, say, consumer video chat, or other chat-type sessions. This is a foundation that we think is very important. We've also upped the basic communications speeds that these systems can handle, showing that getting multi-gigabit performance, which had never been done before on any system, is now possible.

We're building in wireless support. What this means is, when you come along with a wireless modem, we automatically recognize what it is, and we're able to bring up the configuration parameters and the service offerings that relate to that. There is some very key work we're doing with the mobile industry to make sure that authentication is done automatically. People don't want to have to log in again, and again, and again. You see this on the Internet today. You go to a different site, you have a different user name, a different password, and it makes you reluctant to take advantage of it.

Well, when you log into your PC to get at your mail and your local capabilities, we should be able to take that and use that to authenticate against the mobile services as well. So getting that integration actually requires platform cooperation with the wireless vendors.

I have a simple goal here, which is that all of those portable PCs in the next four years should have a wireless modem and, therefore, they'll be paying significant monthly fees to the wireless industry to get the rich connections, whether it's simply gatewaying back to their corporate email, browsing the Web, or doing the kind of collaboration that you want to do when you're out on the road, that will be a very competitive way to do it. And so Windows will continue to evolve to put in wireless support, but we took a big step with Windows 2000 itself.

The PC hardware is going to continue to get better for these things -- building in a very high quality microphone so that voice conferencing, video conferencing, works very well. We're building in the echo cancellation software, and some of these new microphones we're seeing are both very inexpensive and very high quality. Some of them are what are called phased array microphones, so you can actually do noise elimination in a fantastic way that helps the voice recognition software. Of course, when you're working with voice, sometimes you simply pass it through to another user, sometimes you record it, and sometimes you pass it through software that does the recognition. All of those things are being built into Windows.

The actual form factor of the PC will be changing as well. Because now there have been such improvements in the handwriting recognition capabilities, your ability to call up a Web page or a document and simply annotate that document, or edit that document, or navigate around in that document, won't require that you have the keyboard there. There will be a tablet-sized form factor. In fact, as you go to a meeting, whether it's inside your company or outside, you'll probably just take the tablet device without the keyboard.

Another element of this is improving the readability. Today, virtually all of us here probably use electronic mail quite a bit, but there are still documents of a certain size that you don't want to read off the screen. You print them out and it just feels more natural. Magazine publishers who have put their magazines up on the Web for free haven't seen the subscriptions fall off, and that's mainly because people still want to get it in the print-based form. So our research group has done a lot of work about readability -- how can we make it better? In fact, how can we make it so that it's as good off of an LCD screen as it is off of paper?

There's a lot that has to be done in the software and hardware. But all of these things will be achieved in the next couple of years. Screen readability will be dramatically better. Even if it's a magazine or a long document, it will be as comfortable to sit for three or four hours and read it off of that screen as it would be off of paper. That changes user behavior. Your ability to go to a meeting and take notes, your ability to keep everything in the digital form where it's easy to organize and share as opposed to having this impedance mismatch between what do you have on your computer what do you have on paper will be greatly reduced.

As part of this, we know we have to simplify the user interface. On the PC today, just think of the number of search commands you know, or the way that email is different than files, which is different than their Web cast. You want to take your PC and make sure you have everything you

need. You have to go to many, many different places. There's a lot that we can do that I think that will be as important as the breakthrough we made as we jumped up to graphics user interface about 15 years ago. A lot is going on with the PC -- it's definitely not standing still.

Some of the wireless things of importance, simple Web browsing, wherever you go, online meetings, online support, e-books, they speak to the readability point I made. As soon as you get that readability, magazines and books are going to be like music, where people wonder why they were ever in any form but a pure digital form. Music is already there; the music industry has come around now. We're building in the digital rights management into all of the devices, so that they can be enthusiastic -- people will not only use digital music, but they will pay for digital music. And e-photos is another one that I think is fairly explosive. If you have a camera, putting a Blue Tooth capability into that digital camera is very simple. Having it available to transmit over the phone or to edit on your PC, put into an album and share, are very compelling applications that all the pieces are falling into place for.

Location-based applications where you have a phone or a PC in an airport or a stadium, and you're offered up different things that relate to that location: those are just being designed now, but the kind of infrastructure things the wireless industry is doing will make those possible, and the advertising and transaction fees that can come out of those is just a whole new revenue source that will be a big use for the mobile industry. Whenever you improve the way that people can communicate, the demand for that always surprises people, and that's certainly what we've got here, between the better small-screen devices, the better PC, and the wireless environment, it is a whole new world of communications.

I would like to ask Pat Fox to come up and talk to us a little bit about how the mobile professional will use this. Welcome, Pat.

MR. FOX: Good morning, Bill.

Well, what I'd like to do first is give you an example of a solution that really begins to deliver on a request that we hear all the time from business users. And that is, "enable me to get access to information and lists from inside the corporation whenever I want from a variety of different types of devices." What I have here is a mobile phone with a micro-browser on it, and I'm going to demonstrate one of the solutions available today -- and this is from a company called Wireless Knowledge, it's a joint venture company between Microsoft and Qualcomm -- and just last week Wireless Knowledge announced their new product called the Workstyle Server. The Workstyle Server is a product that lives within the corporation, and what it does is gives mobile users access to the information that lives there behind the firewall.

From my mobile phone here with the micro-browser on it, I can browse inside my corporation and access my information. Now, in this case, I'm showing access to my Exchange Server, where I have all my email, calendar and contacts, which is the core of my communications life. And you can see from the phone here, I have a variety of different options. I can look at my mail, I can move down here to look at my appointments, and then I can select to look at my appointments, and it generates a request to the server back to the corporation, inside the firewall, and will bring me a list of the appointments that I have for today. And you can see I have a

number of appointments, not the least of which is this keynote. And if I want to get additional details on these, I can browse down and select one, and it will go back and pull up information like the location, attendees, and things like that.

So, during the course of the day, as I'm moving from meeting to meeting and locations change, and new meetings get put on my calendar, and other changes occur, the critical thing here is, I have a live connection back to my server. So I don't have to work about syncing the information in the morning and then being out of sync throughout the day. It really is a live connection back to the server, so I have access to that information.

What I will do now, just to complete it is, go back to the main menu and show you my in-box. And this is just a sample of messages obviously from my in-box. You can see, I can browse down and look at the messages here. I'm going to go ahead and read this one since it looks like it's fairly interesting, being from you. Now, you'll notice that you asked me to call you right away. And down at the bottom, you can see here that there's a menu item called act. So can choose to act on this message, and you get what you would normally expect, to reply or delete the message, but you'll notice down at the bottom there are two options, to call you in your office or on your mobile phone, and this shows the integration of the email with the contacts. Because I have you in my contacts database, and I have your phone numbers in my contacts, it pulls those out and puts them at the bottom of the message here. So I can just go down and select "call you at the office," and it will terminate my circuit switch data call and create a voice call back to your office. So we've got the integration there.

This is one of the solutions that partners offer today -- this one from Wireless Knowledge -- and as we evolve the platform, we expect that Wireless Knowledge and our other partners will continue to evolve their solutions so even richer mobile data solutions will be available for business users. So, we're very excited about the next 6 to 12 months in this space.

MR. GATES: Great.

MR. FOX: The next thing I would like to do is highlight a solution that you kind of touched on in your trends, and that is, one, as the networks evolve to all IP always on with technologies like GPRS, Edge and HDR, Windows 2000 users of laptops and notebook computers really can take advantage of that improved bandwidth in a very, very rich way.

What I have here is a laptop running, of course, Windows 2000, and what I have here is a wireless modem that I'm going to plug into the laptop, if I can fit it in here, and as you mentioned, Windows 2000 has the infrastructure built in to recognize the device, and you'll notice in the lower right-hand corner, Windows 2000 will recognize the device here, and it will load all the appropriate drivers and protocols, acquire an IP address in this case, so that now I'm actually on the network. To demonstrate this, I'm going to go ahead and log on to the MSN Messenger Service, and this allows me to have a view of all my colleagues that are online, wherever they are around the world, and in this case, I have a colleague in the back, Aaron, who is online. If I want to communicate with Aaron over this mobile network, I can just type in something, and Aaron can respond from the back, and we can begin to collaborate in this manner.

Now, just to highlight the fact that I really am mobile, people in the audience will see some cords coming out the back. I want to go mobile with this device. So, I'm going to unplug the video, so the screen is going to go black a little bit, and I'm going to unplug the power from this laptop. And you can see that I am, indeed, mobile. I'm going to bring the laptop around here to this part of the podium, so for the rest of the video we're going to have to rely on the mobile camera to give you a view.

Now, let's say that Aaron and I are working this way, but we really do want to collaborate in a richer way. Well, Windows 2000, as you mentioned, has great communication infrastructure built into that. And one of the applications is NetMeeting, and if you're not familiar with NetMeeting, NetMeeting is a communications program that allows full audio and visual conferencing to occur, and I'm going to do this over the mobile network. So what I'll do is, I'll go up to the menu here and choose start NetMeeting, and I'm inviting Aaron to join the NetMeeting, and you can see that the phone comes up, I'm going to accept the meeting from Aaron, and so the video will change from me to Aaron. And Aaron is in the back, wave there Aaron.

And so now, with NetMeeting, we can have a full videoconference over a mobile network, really taking advantage of the improved bandwidth that can occur. But that's not all. If Aaron and I wanted to actually collaborate on a document, Aaron can use the capabilities of NetMeeting to share a document, and I can actually go up and take control of the application that he started. I can type here and then Aaron in the back can take control back and then he can type. So this is all core-capabilities built into Windows 2000 that highlights Windows 2000 is a great communications platform for the wired world in addition to the wireless world.

MR. GATES: Super. Well, now talk to us about how a user would be able to take all the different things going on in the world and make sure that they're not going to be overloaded by everything that's changing.

MR. FOX: Well that is a real challenge. As the numbers of devices proliferate, and as we get inundated with more and more communication, the vision that you articulate about letting users control their communication becomes important. And Microsoft research has been thinking about this problem for some time, and they have developed a prototype application called Priorities that begins is to show how users can control their communication from a variety of different types of devices.

So, if we switch to the screen, you can see that I have a typical view of my in-box.

MR. GATES: A lot of mail.

MR. FOX: A lot of mail. And I'm going to go ahead and run this Priorities application, and what the application does is two key things. The first thing it does is, as the name implies, it goes through my in-box and prioritizes all the messages in it, and it does it on a variety of criteria, and the user can then customize it. The criteria being, is it sent directly to me? Was it sent from a broad alias, or was it sent from a person inside the organization? How high up in the organization is that person? Is there time sensitivity? Is there urgency?

MR. GATES: So, it's actually reading the message and seeing things like the --

MR. FOX: It will go through and read the message and say, Pat, can we get this done by Tuesday. And it will say, wow, that's more urgent. Today is Monday, so this needs a higher priority. So it is very intelligent in that manner. So the first thing it does is, it goes through and assigns the priorities, and you can see this is how it's chosen to assign the priorities on these messages. And, if I want to, I can customize outlook, of course, to give me another view of my in-box that will show me how my messages are prioritized by the system, so I have my high priority messages, my medium, and then low priority messages.

The second key thing that the application does is really provide a notification platform. And that means it gives me the capability to customize how I'm notified when various communications come in to the system. Let me give you an example. So what I'm going to do is just choose the application, and show you that I have a number of different options. The first is, how do I determine personally what is a low, medium and high priority message, and what do I want to happen if I'm sitting at the computer. I can customize different sounds or things to happen in this case.

The real power happens beyond the desktop, and this is when I'm away from the desktop, the system can detect when I'm away from the desktop and send me notifications of higher priority items that come into the system. So, for instance, you can say, notify me about new mail when the priority is greater than 75 for instance. So send me a message to my phone, send me a message to my pager, call me at some other number, do something like that only if I'm away from my PC.

One of the challenges we have today is people set up systems for notifications, but you get notified even if you're sitting there at your computer. The other thing is, there's is some view of where you are throughout the day. So, for instance, if I'm at home, I don't want to be notified, and things like that. The other thing that is very intelligent about the system is that it will look at my Outlook calendars, and it will determine when I'm in meetings, and when I'm free. And so, for the lower priority messages, I can be notified when I'm not in a meeting, for instance.

And so you can begin to see the integration of the various communication components, and the power that you can provide users to better control their communications, and then combined with the intelligence inside the carrier networks, there's a real opportunity to provide rich solutions to enable users to control their communications.

MR. GATES: That looks great. Thanks a lot, Pat.

MR. FOX: You bet.

MR. GATES: So this basic idea of the user in control for email, for voice mail, for information changes, I think that's super important for the user. It's also important for the industry because, as the industry builds customer relationships, a lot of that information is going to create long-term value and a certain stickiness in terms of who you have worked with.

We are working in partnership with the industry here. Our expertise is simply software, and so in the same way that we worked with Intel on chips, or people like Compaq and others on PCs, we'll simply do what we do best, which is software, and see how we can bring that together. A lot of these relationships are building very new products, because this is such a fast moving space. We're doing a few joint ventures. We're really pleased with the current things that are going on. But you will see this expand very substantially over the next year. As we are looking at how we allocate our R&D resources, we decided that the wireless area would receive the greatest increase of all the things that we're doing, and a lot of that is focused on sitting down with the partners and saying, okay, given the rich platform we have, what can we build for you?

There's no doubt this is an industry sitting on the verge of unbelievable opportunity, not just connection the full screen PC devices, but making that seamless with the other devices, defining new types of communication, the location-based services, the e-everything from photos to books to music, making sure that there's a way to reach into the secure information. It's not just the data on the Internet, it's also a lot of information like your SAP applications, or other things, you want notifications coming out of that world, and yet there's a lot of requirements to make sure you integrate and the security is preserved.

So, the devices themselves will be surprising us all with the great things they can do. There will be a lot of magic software there. The networks are going to be surprising us. And we're very, very excited to be working with all of you to seize this opportunity.

Thank you.

(End of event.)