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The following is a transcript of the Question & Answer session of the Internet webcast hosted on July 31, 2002 by Hughes Network Systems, Inc., a subsidiary of Hughes Electronics Corporation ("Hughes"). A replay of the webcast, including the Question & Answer session, is being made available on Hughes' website beginning August 5, 2002. A copy of the presentation made in connection with the webcast was made available on Hughes' website beginning July 31, 2002 and was filed on Form 425 on such date. Certain text contained within the transcript has been bracketed because it was inaudible:

In connection with the proposed transactions, General Motors Corporation ("GM"), HEC Holdings, Inc. ("Hughes Holdings") and EchoStar Communications Corporation ("EchoStar") have filed amended preliminary materials with the Securities and Exchange Commission ("SEC"), including a Registration Statement of Hughes Holdings on Form S-4 that contains a consent solicitation statement/information statement/prospectus. These materials are not yet final and will be further amended. Holders of GM $1-2/3 and GM Class H common stock are urged to read the definitive versions of these materials, as well as any other relevant documents filed or that will be filed with the SEC, as they become available, because these documents contain or will contain important information. The preliminary materials, the definitive versions of these materials and other relevant materials (when they become available), and any other documents filed by GM, Hughes Electronics Corporation ("Hughes"), Hughes Holdings or EchoStar with the SEC may be obtained for free at the SEC's website, www.sec.gov, and GM stockholders will receive information at an appropriate time on how to obtain transaction-related documents for free from GM.

GM and its directors and executive officers, Hughes and certain of its officers, and EchoStar and certain of its executive officers may be deemed to be participants in GM's solicitation of consents from the holders of GM $1-2/3 common stock and GM Class H common stock in connection with the proposed transactions. Information regarding the participants and their interests in the solicitation was filed pursuant to Rule 425 with the SEC by EchoStar on November 1, 2001 and by each of GM and Hughes on November 16, 2001. Investors may obtain additional information regarding the interests of the participants by reading the amended preliminary consent solicitation statement/information statement/prospectus filed with the SEC and the definitive consent solicitation statement/information statement/prospectus when it becomes available.

This communication shall not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. No offering of securities shall be made except by means of a prospectus meeting the requirements of Section 10 of the Securities Act of 1933, as amended.

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HUGHES Electronics [GMH] - SPACEWAY Enterprise Business Plan Briefing
Wednesday, July 31, 2002 4:30 PM ET

JON RUBIN: Okay, thanks, everyone. I'm Jon Rubin, Vice President of Investor Relations for HUGHES, and I'd like to welcome everyone to our briefing of the SPACEWAY Enterprise Business Plan presented by Hughes Network Systems.

First, I'd like to introduce the folks that are here to make the presentation from HNS and to answer your questions: Pradman Kaul, Chairman and CEO of HNS; Mike Cook, Senior Vice President, General Manager of SPACEWAY; Paul Gaske, Executive Vice President of North America Division; and George Montague, Vice President of Finance for HNS.

We have a lot to talk about tonight, so we're going to try to keep this as informal as possible, meaning that we would encourage you to ask questions throughout the presentation. It's a rather long presentation. We have a lot to talk - a lot of good things to talk about, so feel free to interrupt us during the presentation and ask your questions.

For those listening via the webcast, just so you'll understand the logistics, we are making this presentation in New York City to the sell-side analysts who cover HUGHES. If you'd like to follow along and view the slides, you can do so on the computer, but we ask that you - you're going to have to manually advance

the slides on your computer to stay with us. And I'm going to ask the speakers, when you change slides, actually, to just try to remember to mention "next slide," so the folks on the webcast will be able to follow along.

I'd just like to remind everyone that this presentation really is only about the HNS Enterprise business. And, as such, we really ask that you keep all your questions centered around this topic. So we will not be taking any questions tonight on the merger with HUGHES and EchoStar or what this business plan may look like after the merger or what the consumer broadband business plan may look like. This is really focused on SPACEWAY enterprise, so please respect that and keep the questions focused around that topic.

With that, I'd like to introduce Pradman Kaul.

Oh, one other thing is when you have a question, for the folks on the webcast so that they can hear the question, we'd like to get you a microphone before you ask the question, so --

PRADMAN KAUL: Good afternoon. Thank you very much for joining us here today. My colleagues and I here today are going to present to you the business plan and the aspirations we have for SPACEWAY in the enterprise business in North America. But before we get going, I think I have to put up some of the slides. Do you want us to read these?

UNIDENTIFIED SPEAKER: No, actually, those are forthcoming. They're the guidelines [indiscernible].

PRADMAN KAUL: You don't want me to read all this?

UNIDENTIFIED SPEAKER: No, no, no. It's just -

PRADMAN KAUL: We've got two pages of these guys, so I'll let you scan through it. It's also in the hard copy that we're giving you, folks. But when you're in the middle of a merger, there are all kinds of lawyers involved that give us guidelines in what we can say and not say. So that's all - yeah, I was going to do it right after we do the guidelines because the video might be covered by that.

Okay, now before we actually also get started on the presentation, we have a 30-second video that we would like to show you about SPACEWAY, and then I'll get started.

[Video playing]

PRADMAN KAUL: Okay, so we've broken up today's presentation into six sections. We'll give you an overview of our enterprise business today and how it evolved into SPACEWAY; we'll then talk about the needs of our customers in the enterprise sector; describe the SPACEWAY system and the market opportunity that we are pursuing with SPACEWAY; and then we come to the financial part of the presentation, the business plan; and finally end with a summary.

So, first, with an overview; I don't think I need to spend more than 10 seconds on this. This is the HUGHES structure, Hughes Network Systems being one of the four companies that's under the overall HUGHES Electronics umbrella.

There's a lot of confusion between DIRECWAY and SPACEWAY, and I thought I'll take a couple of minutes in the beginning to sort of clarify when we use these terms what we mean by them. DIRECWAY is our brand that we are using for end-user services. We're using it today in the Ku-band world, and we'll continue to use it in the SPACEWAY Ka-band world. It basically offers services that are turnkey, and they're offered not only in the United States but globally for both

enterprises and consumers. It includes the manufacturer's sale and installation and maintenance of equipment, the hub services, and the space segment necessary to provide the services.

So when we say DIRECWAY, we're basically talking about the end-to-end service that we offer both our enterprise and our consumer customers. Today, we're going to talk primarily about the enterprise.

By SPACEWAY, we're talking about our next-generation satellite platform. It includes the operations of the satellite, the owner and the operator of the three satellites that we intend to launch to cover the United States, and the provider of space segment to our DIRECWAY services and other people who might want to use the space segment.

Now, when we present the numbers today and when we present the business today, we're looking at the consolidated HNS North American enterprise SPACEWAY business. So just think of the DIRECTV model, and it's going to be a change in how we present our business. When the DIRECTV folks present their business case to you, they don't break out the space segment separately from the total end-to-end service that they're offering. The satellite that's being used to offer DIRECTV services is an integral part of that service offering, just like the terminal is or the content is or the programming is, etcetera. We are going to present this business in that same way. The SPACEWAY satellite is just going

to be one element of this end-to-end service that we're going to be offering the large, medium and SOHO enterprises in the United States. Our presentation today and our business plan today also, as Jon mentioned earlier, will not include the consumer DIRECWAY service. Okay?

Why are we so excited? Next slide. Sorry for the folks who are on the webcast. Jon was just looking at me. This slide talks about the evolution of two-way satellite communications. The reason we have been so excited about SPACEWAY is that we believe that if you take the history of satellite communications from the time it started, there have been two major discontinuities in the whole business. One was obviously when the business started in 1964 and we had these C-band satellites which we used for trunking applications. The satellites were primarily owned by large carriers, like RCA, Western Union, British Telecom, etcetera, Intelsat, and they were all C-band bent-pipe satellites, and the antennas were very large 10 to 30 meter antennas.

Somewhere in the first half of the `83/'84 timeframe, the FCC authorized the use of Ku-band, and we really started a whole new series of applications and a whole new set of businesses utilizing the Ku-band world. We started the VSAT industry, enterprise networks. Enterprises became the customers instead of carriers. The applications were primarily star networks. The size of the dishes came down very quickly to 1.8 meters, and now are at about a meter. Uplinks were at 256 kilobits today, and the downlinks are at about 45 megabits.

Companies that were in the business, like Intelsat, Eutelsat, Astra, quickly moved from the C-band world to the Ku-band world. Instead of selling one earth station at a time, we started selling thousands of earth stations at a time to a customer. And we were able to spawn a whole new generation of technologies and businesses. And we've basically been in that business for the last 20 years, from 1984 to today. We've improved the technology. We've reduced the size of the dishes a little bit. We've increased the speed. We've driven the costs down. But fundamentally, we've been operating in that domain in the data communications world.

Well, I think with SPACEWAY, we're ready to make the third major jump in this

whole industry. With SPACEWAY, we'll now go to mesh networks instead of star networks. We'll have peer-to-peer applications. We'll still serve the enterprises, the large and medium and probably a significant number of new small SOHO enterprises. We'll serve telecommuters, people who are working from their home. The antennas will typically be .7 meter in size. The uplinks now - we've sort of been limited to 128 or 256 kilobits, like they have for the last 15 or 20 years, will increase suddenly from 512 kilobits to as much as 100 megabits. The downlink, instead of being limited to 512 kilobits as it was for a long period of this last 20 years with the 45 megabits it is today, will go up by an order of magnitude to 440 megabits. And for the first time, we'll be flying a satellite with on-board processing with a "switch in the sky."

Significant changes, and I think we'll spawn a significant change in the business that we are in and will also spawn a significantly different way of looking at the business. And today, as we go through the presentation, I think you will see why each of these items that I have on this chart represent a totally different way and a different business than what we have today.

Now from the HNS perspective, a lot of people have asked us, "You know, all of your competitors in this Ka-band arena are falling by the wayside. Why are you going to succeed? Why are you still staying in the business where everybody else has left the business? I think the answers are fairly straightforward.

What are the core strengths of HNS? One clearly is the technology. We invented the first VSAT in 1983, and we've continued to lead the way as the chart shows in different generations of VSAT technology. About seven or eight years ago, we also started going into the consumer electronics business and manufacturing

DIRECTV set-top box receivers. And as you can see, in 2002, today, we have shipped nine million DIRECTV set-top boxes. Why is that important? Well, clearly, what it says is we have the technology, the know-how, the manufacturing expertise, the support expertise to basically build very inexpensive electronics for satellite communications. We have the expertise to distribute it, we have the expertise to support it, maintain it, and install them.

The second major reason why we think we'll succeed in the business and why the management at HUGHES and General Motors have supported this very large investment is that we are in the business and we are successful in the business. We've always been the market leaders, and today, we have a formidable list of customers already in the United States that we hope will transition in a significant way to SPACEWAY. I think we have about 200,000 - approximately 200,000 enterprise VSATs in operation in North America today from a whole list of companies in these different verticals that you see on this chart. In the automotive world, Ford, General Motors, Chrysler, Toyota, Lexus - all the dealerships have an HNS VSAT.

In the energy industry, we have almost 50,000 VSATs - Texaco, BP, Exxon, Chevron, Shell, Amoco, Hess, you name them.

In the hospitality area, we're beginning to grow much more in that area than we had in the past, and over the last few years have won some significant accounts, and we see that as a major growth area.

Retail - that's where we started in the VSATs with our first contract with Wal-Mart, who continues to be a customer of ours today, and a whole other series of retail chains that we serve. And then many others in the services side.

But something new that's been happening over the last year or two is we've also been developing an indirect channel sales organization, and we have a pretty

impressive list of resellers today that have begun to resell our VSAT services, our DIRECWAY services, and we expect that'll continue in the SPACEWAY world when we move to the Ka arena. And then we are developing a set of specialist sales channels for the government, for carriers, and for live systems.

In addition to all of this, we have over 8,000 installers and maintenance technicians across the United States who are trained on our products, who are available to go to the next generation of DIRECWAY, on when we go to SPACEWAY. And so the bottom line in all of this, I think, that we're trying to tell you is we don't have to develop new distribution channels. We don't have to develop significant new customer penetration. We don't have to develop - we don't have to start on the technology front from the bottom. We are totally self-contained and can do the whole job, and that's what helped build up confidence in our minds and helped build up confidence in the minds of our owners to make the investment in SPACEWAY. Next slide.

So if you look at today, we are the global market leader in broadband satellite services. We have a 55-percent share of the VSAT market, according to COMSYS; that's reasonably accurate. Between our global installations, we have over 500,000 terminals now ordered or installed, and our revenues in 2002 for enterprise worldwide will exceed $600 million. So we are a player in the business, and these are real numbers.

In the last five years, the growth that we've achieved has really been fueled by our technology advances. And what these technology advances have done are two things. One, by reducing the prices, they've allowed us to address larger markets. And by providing new applications, we've been able to broaden the markets that we've been addressing. However, today, I think it's fair to say we

feel we've reached the performance limits of the current platform. We just can't squeeze out more than 45 to 60 megabits out of a Ku-band transponder. Because of FCC regulatory constraints and the economic realities, we cannot uplink more than 256 kilobits from a small dish - from a small VSAT. These are real constraints, and these constraints make our competitive position with the terrestrial alternative that customers are beginning to see today, become a real limiting factor.

So it was very clear to us when we started building the SPACEWAY satellite that if we were to continue to grow this business and take it to the next level, we needed one obviously significant additional capacity, which cannot be provided in Ku-band today, but also capacity which supported higher speed at lower costs and significantly higher speed and a significantly lower cost, both on the uplink and the downlink. And we feel the answer is the SPACEWAY platform. Next slide.

So what is the market opportunity we're going after? Today, when we sell a network to an enterprise or a large corporation, it's primarily a private branch network. For example, for General Motors, we've connected their host computers in Detroit to the 9,000 dealers they have. For a Chevron, we connect the facility in San Ramone, the host computer in San Ramone, to all their Chevron gas stations. These are private networks for these large corporations.

But I think with SPACEWAY what we expect to do is significantly expand the addressable markets, allowing HNS to compete with the carrier - with the terrestrial carriers for the private line and frame relay services to all large enterprises. We think we can compete very well in the IP virtual private network services for large and medium enterprises. We'll be able to provide broadband services to the small, medium and [SOHO] sectors and to teleworkers and other extranet applications.

We're going to - Mike Cook is going to take you into a little more detail through this, but the bottom line in all of that is that the market that we're addressing today with today's Ku-band platforms, we estimate to be about $3.5 billion. In 2004, when we have SPACEWAY in service, we expect that market to increase by an order of magnitude -- that is the addressable market - to $38 billion. And in some subsequent slides, we'll take you through why we believe those numbers are reasonable. Next slide.

And we'll do all this and I think generate superior financial returns. In the last section of this, we'll take you through some detailed financials, but we expect to increase our HNS enterprise revenues by a factor of almost three in five years because it's a larger market, we get increased - we'll be able to satisfy increased customer throughput requirements and offer new value-added services. And not only will we increase the revenue by a factor of three, but we expect to increase our EBITDA margins by a factor of four in five years.

Many of you will ask, and we'll go through some of the explanations, as to why do we - how do we achieve that kind of magic.

But, clearly, one of the major reasons is for the first time, HNS will own its own satellite platform, and that means we will derive the space segment profits that in today's Ku-band world our business does not show because we buy the space segment from the FSS operators.

Secondly, we'll have significantly increased leverage on fixed costs because as we expand the business, the fixed costs are clearly all paid for and the incremental gross margin flows to the bottom line. And we expect to add some significant value-added services. Our steady, state cash flow, in fact, could repay the SPACEWAY investment every three years once we get into the steady, state mode. Next slide.

5

With this, I'd like to ask Mike Cook to now go over the next three sections, starting with what are the needs of our enterprise customer.

MIKE COOK: Thank you, Pradman, and good afternoon, everybody. So for those on the webcast, we're currently on page 14, and I'm about to move to page 15.

In order to understand the markets and the business case for SPACEWAY, it's important to be able to understand the market that we are dealing in and the things that are driving the needs of our customers. So we want to talk to you about how enterprises communicate today, and we're talking here about large corporations, and we're talking here about small- to medium-sized corporations.

One primary way, perhaps the original way in which enterprises communicated between its own branches, was the use of dedicated private circuits. The benefit of that to the enterprise is that they know the amount of bandwidth they have, it's available to them the whole time, but the down side is it's a fixed amount of bandwidth, so if they have peak utilization, they're constrained by the amount of bandwidth they have, and they have to pay for that bandwidth whether or not they're using it. So there is an economic trade of dedicated, committed guaranteed bandwidth versus the cost of doing that.

As a result of that, enterprises began to use other means of communicating, and they moved to packet-oriented technologies, and more, particularly, they moved to the use of managed bandwidth, where the service provider basically puts in an infrastructure, shares that bandwidth between many customers, and passes some of that economic benefit back to the end-user. And typically today, the most successful of those managed bandwidth systems are frame relay, which is the

largest part of this market, and the IP virtual private network market, which is something which is emerging. And that is emerging as a result of the Internet.

Service providers are leveraging the Internet backbone infrastructure that they have put in and are offering now enterprises the opportunity to share that bandwidth. The down side of the managed networks are that none of these service providers actually control the whole of the network infrastructure that they're using. So it becomes more difficult for them to offer end-to-end quality of service guarantees and, to some extent, these service providers are dependent on others for the economic basis of the service which they offer.

So the next slide covers another aspect of what's going on in the market, and that is that enterprises have been, in the past, very centralized in terms of their data communication needs, very headquarter-centric, and that suited the architecture that we had with our hubbed Ku-band communication systems. And what we've seen is a major trend to diversification in the network, where what is going on in the Intranet of the enterprise at branch level is as important as what's going on at headquarters, and the need for branches to communicate with themselves, for branches to communicate with the regional offices, and even more important, for branches to communicate with customers and suppliers and people outside the corporate network. So the trend has moved toward a much more distributed data networking architecture.

On slide 17, we're also looking at the drive that there has been for enterprises to have more bandwidth, to require more bandwidth, and we can measure that by looking at some of the market statistics. So if we take the chart here on the bottom right-hand side, this is derived from 18 - information coming from 18,000 enterprises of 500 employees and above. And you'll see that in 1999, about 63 percent of those enterprises were using high-speed dedicated lines. The green bars on here represent the dedicated bandwidth, the private lines. And here we're measuring T1, which is 1.5 megabit-per-second private lines and fractional T1 circuits. And you'll see that the trend has been to move from 63 percent

requirement or usage of those types of lines to in 2002 somewhere over 90 percent - 95 percent of all of these large enterprises using dedicated bandwidth.

The blue chart on here - or the blue lines on here represent frame relay penetration in these large enterprises, moving from 42-percent penetration in '99 to something like 70-percent penetration in 2002. You can see - well, in fact, these numbers add up to more than 100 percent, that many enterprises use both private lines and managed bandwidth in a mix to fulfill their data communication requirements. So that's an indication that bandwidth requirements are increasing. Another indication is that if you look at the statistics on frame relay and look at the port speed that customers require, back in '99, we were talking pretty much about 64 kilobit access speeds for frame relay networks. Well, today, pretty much half of all of the frame relay networks are requiring access speeds in excess of 64 kilobits per second, and that trend is expected to continue, and, indeed, there is a migration upwards in the access speeds that people are using.

As Pradman had said, we have a limitation today with our Ku-band platform that we are really cost effective in the 64- to 128-kilobit-per-second access speed range. As we drive above that, we pretty much hit a hard limit of 256, where we simply cannot put in a competitive network. And we, therefore, need to have a technology which allows us to continue to compete with the frame relay - in the frame relay marketplace.

On slide 18, we're also addressing the availability of the capacity that we

currently use. All of our data communication systems today are using Ku-band, FSS - fixed satellite service - capacity, and there is a problem for us in this space. It is very difficult for us to secure adequate bandwidth in and develop services in one orbital position. Today, as this chart shows, the blue bars or blue satellites are all existing in orbit-launched payloads, and there, frankly, are no more available Ku-band slots for the deployment of new FSS Ku satellites. There are some additional satellites that are being launched, which are the pink satellites on this chart, and those are fundamentally for replacement of the existing-in-orbit satellites. So it's a very little new capacity that is being launched.

To put SPACEWAY in perspective, we today have three satellites under construction. One of those is scheduled to be an in-orbit spare, for the three SPACEWAY satellites will provide more capacity than the whole of the existing Ku-band-in-orbit fleet. That fleet today represents about 600 transponders, about 24 gigabits per second of capacity, gross capacity, and a gross capacity on the first - on the three SPACEWAY satellites that we're building have a - has a gross capacity of about 30 megabits per second - 30 gigabits per second.

So concluding that section, SPACEWAY is going to enhance HNS's competitive position because it's going to enable us to provide the increased speed and performance that our customers are demanding. And we'll demonstrate to you, it's going to give us lower transmission costs. It's going to allow us to meet the changing architectural requirements of our customers as they move to this distributed architecture. And, most importantly, it's going to provide us with the opportunity to concentrate and develop our services in the orbital positions that we have available to us.

So let's talk a little bit about the satellite system itself.

First of all, we have taken the satellite technology, and for the first time we have optimized that technology to provide point-to-point data communication. Ku-band satellites today are fundamentally designed for broadcasting. SPACEWAY satellites are at the other end of the spectrum; they're fundamentally designed for point-to-point communications. Each satellite has the equivalent Ku-band capacity of between five and eight Ku-band satellites. The typical Ku-band satellite is between about 1 and 1.3 gigabits per second. We have licensed slots

from the FCC at 101 degrees west and 99 degrees west, and in the second round earlier this year, we were awarded a third slot which has U.S. coverage - not quite full CONUS coverage at 131 degrees west.

The most important thing about SPACEWAY which differentiates it from today's platform is that any one of the terminals connected to the SPACEWAY system will be able to communicate - or to a SPACEWAY satellites will be able to communicate directly with any other terminal connected to that satellite without the need to go to a hub or other terrestrial gateway.

So on slide 22, we're talking about the speed and performance of the platform. And Pradman has mentioned some of these characteristics a little bit already. But fundamentally, we're offering, compared to the Ku-band platform, 16 times faster uplink speed, up to 16 times faster. We will have terminal options and carrier speeds that operate at 512 kilobits per second in the uplink and 2 megabits per second, at 16 megabits per second, and, indeed, we will be able to offer up to 100 megabits per second from the end-user site up to the satellite.

In a downlink, we will be delivering data at 440 megabits per second, and we will, therefore, be able to offer a whole range of different quality-of-service options to the end-user depending on the service and the tariff that we put

together for that service.

Another fundamental difference that SPACEWAY has against pretty much any of the other technologies is that we will truly be able to offer bandwidth on demand. A terminal that has data to send will be able to burst, we will be able to offer higher instantaneous data rates to take that data away than the average or steady-state data rates that are available to a terminal.

We've also designed into the system multiple classes of service so that we can prioritize traffic and deliver the appropriate quality of service for the type of traffic that our enterprise customers are presenting to us.

And we've also designed in the capability of making capacity available permanently on a point-to-point basis, so directly analogous to the terrestrial private line that we talked about on dedicated bandwidth, and we can also make that bandwidth available to the customer on a switched basis. So if they just need that capacity for an hour, we can nail it up for an hour. If they need it for a day, we can nail it up for a day. Or we can give them permanent point-to-point connectivity. So we've designed an extremely flexible platform which is going to allow us to compete in all of the markets that you heard Pradman talk about.

Where are we, as far as the program is concerned? Well, we concluded our design review phase for the program --- or design phase for the program in a sense last year with the Critical Design Reviews. We've now entered the manufacturing and integration phase of the system. The bus and the payload are well advanced in manufacture, as are the ground terminals. The first spacecraft is planned to launch in mid-2003. Currently, the window is July and August of next year. And after in-orbit testing and final system integration, we expect to come into service early in 2004, in the first half of 2004. The second spacecraft will then launch in mid-2004, and the third spacecraft at a point thereafter, depending on the demand.

So far, we've spent about $1.2 billion up to the end of June, 2002. At launch, we will have spent about $1.7 billion on this platform. And the total investment that we're looking at is about $1.8 billion. I just want to put that $1.7 billion in perspective. I mentioned earlier that the amount of capacity that we are building here is equivalent to the whole Ku-band fleet. The whole Ku-band fleet, if you were to launch it today, would cost about $6 billion. So that will give you an idea of the cost effectiveness of the platform that we have put together.

8

Now, we mentioned a couple of times that we're going to be competitive, so let me expand a little bit on that. And this takes us to slide 25. We will be, we believe, extremely competitive with terrestrial managed services, private lines, frame relay and IP virtual private networks. I'm going to talk about each of those. It's important, also, to remember that we are combining the best features of terrestrial networking with our point-to-point capability with the best features of satellite networking, which are broadcasting and multicasting. So our platform is designed to retain the capability of broadcasting and multicasting and being enhanced to provide these point-to-point services.

Another important point from the point of view of delivering quality of service to our customers is that we will be pretty much the only major service provider that actually controls the complete infrastructure on which the service is delivered. We are not dependent on third-party service providers to provide parts of the network, we don't have to have interconnection agreements, and we don't have to have third party local loop access.

Again, Pradman has mentioned some of the points on slide 26. If you compare our position to the position of other satellite service providers, we have a customer base, we have a well-established direct sales activity, we've spent the last several years building up our indirect sales capability through several distribution channels, we have an extremely effective fulfillment capability, we have well-established network operations, both satellite operations and data networking operations, and we have well-established field support. So we're in an extremely advantageous position compared to the other Ka-band satellite entrants. However, the most important thing is that we expect that we're going to have the lowest transport cost of any of these systems.

So on slide 27, we're comparing the capital costs of implementing the SPACEWAY satellite system against a typical Ku-band system and against a couple of the other Ka-band systems, which we've obviously estimated from publicly available information.

So if I compare us, first of all, with the Ku-band system, a typical Ku-band satellite, FSS satellite, has a capital cost per megabit per second of capacity of about $200,000. That includes the cost of the platform itself, it includes launching it, and it includes the insurance required to perform that launch.

If you look at SPACEWAY and we take our $1.8 billion, which is the complete development, to complete launch and insurance coverage for the three satellites that we're building, we have an equivalent cost per megabit per second of capacity of about $61,000. So we have a three-to-one gain in transport costs compared to Ka-band - to Ku-band systems. Again, what we've gleaned from publicly available information also implies to us that we would have a transport cost advantage also against the other two target Ka-band platforms here, which is Astrolink and WildBlue.

It's also worth saying that the type of platform that we have, the processor-based platform, gives us tremendous flexibility in the way we put capacity on the ground. We can literally change the amount of capacity that's available geographically. Part of it happens dynamically, and part of it happens by configuration. But we can change the amount of capacity we lay down on the East Coast, for example, versus the West Coast, dynamically pretty much through the system. That is quite different to a bent-pipe system. If you look at Wild Blue, it is what we call a bent-pipe satellite, where capacity is locked into certain beams, and if the demand is not there, the capacity is not available to other users. With SPACEWAY, it's available because we can reconfigure the way we put that capacity on the ground.

So, again, if we go back to the $38 billion of market opportunity, that is broken down into a $17 billion market, which is dedicated bandwidth - these are the private lines, and I'm going to go into each of these in a little bit more

detail - and about an $11 billion market, which is the frame relay market, and about a $9 billion market, which is the IP virtual private network market. Again, the important thing from a risk assessment point of view is that we only need to capture somewhere in the region of 3- to 4-percent of this market in which we compete in order to secure the business plan returns that we're going to show to you later on in the presentation. Sorry? Yeah, we're going to move on to slide 29.

So here I'm dealing with a private line market, and this is where enterprises buy their dedicated bandwidth from local exchange carriers. Today, the retail part of that market is worth about $17 billion. And we literally cannot compete at all in that market today because we have a hubbed system, and if the hubbed system does not allow us to deploy or to deploy point-to-point capacity between

remote sites.

If you look at what's happening in that market, about $6 billion of that 17 is going to migrate toward managed bandwidth services, like frame relay and like IP-VPN. And we do compete directly with IP-VPN and frame relay services. The rest of that market, which is the local access market, is growing substantially, and that also reflects some of this migration to managed bandwidth services.

We're going to be able to compete because if you look at dedicated circuits, there's a huge chunk of that market where enterprises are buying circuits because they have a peak load requirement, and they need the performance during that peak application, busy hour, busy time. The rest of the time, the private circuit tends to be extremely underutilized. Because we're going to be able to give bandwidth on demand, we're going to be able to meet the peak loads with higher bandwidth, maybe even than they'd get from a typical private line, at the same time, providing them with ongoing bandwidth capacity, which will meet their normal business requirements. In that way, we will come up with a much more cost-effective solution to providing those bandwidth needs.

Likewise, if an enterprise requires more bandwidth very quickly, to provision a terrestrial - an additional terrestrial circuit or circuits is an extremely lengthy process. We will be able to reconfigure their system almost instantaneously to provide them with incremental bandwidth.

On slide 30, we're looking at the frame relay market. And here, we're looking at a market which is growing very rapidly. It's about $12 billion in 2002. It's growing to - projected to grow to $12 billion in 2004. And that growth, as we saw earlier, is primarily in high-speed networking.

Today, we can't compete in the growth of that market because we cannot support the speeds that frame relay users are requiring. With SPACEWAY, we will be able to compete on speed. And as you see from the two graphs on the right-hand side, we also will be able to compete, we think, very aggressively on price despite the fact that frame relay prices have fallen over the last few years and are projected to continue to fall over the next few years.

On slide 31, we're addressing the IP-VPN market. This is an interesting market because it is sharing the Internet infrastructure, and it is an attractive solution for small- and medium-sized enterprises. It's estimated to be worth about $5 billion in 2002. And, again, today, HNS can only really compete in the low-speed end of that market.

With SPACEWAY, we will be able to compete in the whole of the IP-VPN market because we'll be able to compete on speed. We will have certain advantages because we don't have local loop access issues, as VPN service providers have. Because we have our own infrastructure end to end, we will be able to control and offer high quality of service to all of our customers, and we'll be able to top up the bandwidth needs on an on-demand basis as we go forward.

As well as those three core markets, something which is not included in the $38 billion opportunity is value-added applications, and we've recognized that we would like to have - we have an opportunity to present some significant value-added to the transport services that we've been providing up to now. As a result of that, we've taken a couple of initiatives. We've established an application center of excellence, where today we have over 100 engineers who are dedicated to building the next generation of SPACEWAY-oriented applications. In other words, peer-to-peer applications, applications that exploit the flexibility of the platform.

In addition to that, at the end of last year, we launched the HUGHES Broadband Alliance Program because today it isn't reasonable that any one company can expect to do everything in terms of new applications and value-added services. So we established the Broadband Alliance Program to give us a vehicle to work with the leading industry companies in IP networking and in IP value-added services. Since we launched that program, we've had over 700 applications to join, and we, I think, just announced a couple days ago that we have 20 fully signed members with people like Sony and Intel and Hewlett-Packard and Sun and Polycom as part of that Alliance Program. So now we have the two parts of this program working together. We have our development team, we have some joint initiatives that are going on with our Alliance partners in order to enable us to deliver a generation of very exciting applications.

On page 33, we deal with one of those, which we think is particularly relevant for the SPACEWAY platform, and that is video collaboration. So we're putting together a collaboration tool which will allow video conferencing and video telephony. It will allow dynamic, interactive file sharing. It will include messaging capabilities and a certain number of other features to enable groups of individuals within an organization or external to an organization that are working on a project to collaborate together very effectively. The most important thing about this, when we talk about videoconferencing, here we're talking about a desktop service. This is not videoconferencing where you have to go to a conference room and set everything up days in advance. This is instantaneous, interactive, from-the-desk video conferencing and collaboration. We believe that the market today for video conferencing services is about $2.5 billion. It's growing at a significant rate, about 43 percent a year. There's a lot of drivers in the market today with the cutback on travel that are driving that market forward, and we expect to have our video collaboration service available at the launch - at the commercial launch of the SPACEWAY service in 2004.

I talked a little bit about multicasting. There's another driver for bandwidth that's going over [indiscernible]. That is streaming services, IP streaming services. Forty percent of the growth is projected to come from IP streaming services by 2005. And because of the multicasting and broadcasting capability of a satellite platform, we are uniquely positioned to be able to provide high-quality streaming and multicasting services, and we're putting together plans to be able to address that market.

On page 35, we're now at the financial summary, so I'm going to hand back to Pradman Kaul.

PRADMAN KAUL: We haven't had any questions so far. Do you folks want to ask some questions before we go into the numbers? Sure, Tom.

TOM WATTS: [Inaudible]. How much of that is recurring revenue versus one-time sales?

JON RUBIN: Could you repeat the question, please?

PRADMAN KAUL: Yes. The question that Tom Watts asked was we had mentioned earlier that we had $600 million of enterprise revenues globally in this year, 2002, and the question is how much of that is recurring and how much of that is a one-time revenue.

I'll take a guess, and I'll look at George to make sure that he keeps me honest. I would guess about 350 to 400 million - roughly about 400 million is recurring and about 200 million is one time. A lot of our international business is where we sell equipment. Almost all our domestic business is recurring revenue in

North America, and we have service companies in Europe and India whose business is also recurring in nature. So I think if you took 330, 350 for the domestic; 50, 60 in Europe; and 40, 50 in India, so about 450 would be recurring. And about more than 150 would be one time.

TOM WATTS: [Inaudible].

PRADMAN KAUL: Okay, the question was, have we had discussions with our existing customers about moving to SPACEWAY? And what does it mean for the revenue per customer?

Yes, we've talked to a number of customers, and many of them are very, very excited about the capabilities of SPACEWAY. I think our proposition to them is going to be where we'll give them more bandwidth, more bits than what they have today, by a significant amount for the same monthly cost that they pay today. So it's a no-brainer, in essence, for most of our existing customers who have the need for additional bandwidth. Our hope is that once we do that that we will increase our revenues from them significantly because of the new services we're offering and additional bits that we'll be transmitting with that.

Any other questions? Yes?

TY CARMICHAEL: What are the peak load assumptions that underlie your bandwidth model, and how much flexibility do you have to adjust for changes in end-user usage patterns?

PRADMAN KAUL: I'll let Mike answer that.

MIKE COOK: Let me deal with the capacity flexibility, first of all. SPACEWAY is a spot beam system. We have about 112 uplink beams and actually about 784 for downlink spots.

In the downlink, we are able to respond to the demands from the ground in terms of putting capacity on the ground. There's no individual maximum amount of bandwidth we can give to any one of those spots. It depends on the aggregate traffic demand that's coming from the ground, so we have the flexibility to be able to load the satellite across the whole of the footprint of the satellite, depending on the demands that are coming from the end-user terminals.

In the uplink direction, we have 112 spots, and we have demodulators on the spacecraft that we can allocate very flexibly to those spots. So we can reconfigure the spacecraft to meet the changing demand patterns from the ground. What does that mean in terms of being able to load the satellite? It means that we can - we have very little wasted capacity. We can change the configuration of the satellite, and the satellite's [indiscernible] dynamically reconfigures itself in order to maximize the amount of throughput.

As far as the business model is concerned, we're probably looking at an average utilization of about 50 percent within the business plan of the capacity - of the two operational spacecraft that we will have in orbit.

TY CARMICHAEL: The increase over time - does the network - you know, if all of a sudden video conferencing does become the standard service to deliver, does the network have the ability to handle those types of changes in the future?

MIKE COOK: Again, the -

TY CARMICHAEL: If you just [indiscernible] from the perspective of what your assumptions are and your business plan versus what's being experienced today.

MIKE COOK: Okay. First of all, the reason we need to have SPACEWAY is because our customers are using more and more bandwidth, and we're finding it difficult to be able to satisfy their needs. So we are - we have a trend that we have built into the business model, which is that our customers are going to increase their bandwidth utilization. By the time we get into service, probably from - take the last couple of years, by the time we get into service, it's about a three times increase and then a further increase as we go forward into the business plan. We've also overlaid on that the increased utilization from the value-added services that we have.

And, again, you know, we - there are two things. First of all, do we have enough capacity to be able to meet that demand? Yes, we certainly have enough capacity to be able to meet the business plan that you're going to see later. Can we continue to grow the network? Yes, we can continue to grow the network. We simply will need to launch additional spacecraft, and that will give us the capacity to continue to grow the business.

PRADMAN KAUL: Our business plan assumes the capacity of the satellites we have will be reasonably full by 2008. So as we go beyond that, if we're successful in doing what we think we can, then we'd have to launch additional satellites.

MARC NABI: Pradman, just a couple of questions. One relates to - the satellites again, are they 702s? I forget again if they are 702 -

PRADMAN KAUL: We're using 702 bus.

MARC NABI: 702 bus?

PRADMAN KAUL: But the rest of the satellite is so different, it won't look anything like an existing, you know, Ku-band satellite.

MARC NABI: The problems that were experienced by Boeing on the 702s, I mean how does that relate to your Ka-band satellites as far as I'm sure you've gone over that with them to ensure that there is no - there is not a degradation issue?

PRADMAN KAUL: Yeah, I think the problem you're referring to is the solar cell problem?

MARC NABI: Yeah.

PRADMAN KAUL: And obviously Boeing has, you know, recognized the problem and fixed it. The fix is in, and I think they're going to have, I think three satellite launches with the fixed solar cell prior to our launch. I think the first one is going to be launched in January of 2003. And then there's another one for Thuraya scheduled in February/March timeframe where they have fixed that solar cell problem.

13

MARC NABI: Okay. Other question relates to today, the VSAT, HNS VSAT business. How many transponders do you lease off of PanAmSat's satellite? I know you also do SkynET as well. And I take it eventually, those are going to disappear, those types of leases, because you won't need to utilize them for your customers.

PRADMAN KAUL: I'll let Paul - Paul, do you want to answer the question?

PAUL GASKE: Okay, I think basically in the enterprise business we have about 50 transponders today. And a large percentage of those are PanAmSat's. I want to guess 60 percent or something like that. And then I think, also, as you look - as we go forward with the SPACEWAY fleet, we still will have pretty strong

requirements for multicasting and video applications as we will keep at Ku-band and dual illuminate. So we expect that some portion of those will be selling additional services with those as well. So we will contract transponders to some degree, but we have applications that will stay in there for the long term.

PRADMAN KAUL: One of the things, Marc, we are looking at is that if the multicasting and broadcasting applications increase like we all expect we will, then our SPACEWAY terminals could have two feeds, the Ku-band feed and the Ka-band feed. And for the broadcast kind of applications, we'd continue to use a significant amount of the Ku-band capacity that PanAmSat has. And for the point-to-point application, where SPACEWAY is really fantastic, we'd use the SPACEWAY capacity. So depending on how much - how we fill the satellite, we don't really envision that we will use - we'll see a significant decline in our use of PanAmSat's transponders. We think - first of all, we think about a third of our customers will stay on Ku-band so they continue to use the existing Ku-band, and hopefully these additional applications in broadcasting and multicasting will enable us to continue using PanAmSat's Ku-band. We won't see growth in Ku. You know, the growth will all come in the - from us, it will come in the Ka-band world.

UNIDENTIFIED SPEAKER: [Inaudible].

PRADMAN KAUL: Yes, yes. I mean like today, for example, when we have our DirecDuo, obviously we're receiving the two feeds. As long as it meets certain orbital constraints, which these will, you know, we can receive the two signals, yes.

BOB PECK: Actually along those lines, can you talk a little bit about the hardware and where that pricing's going to come in? And I guess sort of being competition to fiber, where would a customer have to be if they're deciding between SPACEWAY and fiber? What sort of upfront costs would they have versus, you know, what terminals are going to cost as well?

PRADMAN KAUL: Sure. We expect that the basic terminal, which is the 512 kilobit uplink and, you know, 440 megabit downlink, with some reasonable amount of applications, will sell for less than a thousand bucks, in that price range.

Now, what we typically do with our customers, they don't pay that up front because most of the enterprise customers have good credit ratings, etcetera. Like when we do a VSAT contract today, we try to bundle that into a monthly service offering if they give us a firm commitment for five years. And we are able to take that paper and sell it to a third-party leasing company and get the cash for the capital. So the customer sees a price, you know $100 a month or $150 a month, whatever he's buying. So he has no up-front capital requirement. It's a monthly recurring cost which either displaces an existing cost that he has with the phone company, or if it's a brand new lead, then it's still just an additional monthly cost.

BOB PECK: I just have two other questions. You showed before a graph about cost per bit against versus the other satellite competitors, AstroLink, WildBlue, etcetera. How do you compare against some of the fiber competitors?

PRADMAN KAUL: I think probably the best way to look at that is if you think - if you remember the chart that Mike showed for the frame relay because that is a sort of competitive managed bandwidth service. And if you looked at a port speed of 256 kilobits, our projection is that by 2004, 2005 timeframe, the terrestrial carriers, who are using fiber primarily to provide that service, will be offering their service for about $250 to $500 a month at 256 kilobits port. Our models have assumed we'll do that same thing for about $300. Now, we could do it

for $300 and meet all the margin requirements, which is significantly - which is 40 percent lower than what we think the terrestrial guys are.

Our feeling is that we would typically in the VSAT business, too, we try to price our offering, if it's competing head on with a terrestrial guy, at a 15- to 20-percent discount on what the terrestrial guy offers. And so what this tells us that in our model we still have headroom to go more aggressive if the prices of frame relay or even fiber, drops at a faster pace than what we are anticipating. And then if you go to the T1 port on that same chart, you'll see the same logicals - you know, we are like - we have room, about 35 to 40 percent room of where we expect that to be. And so we have that flexibility in that, also.

BOB PECK: One last question. Could you just talk us about Ka-band and any problems or rain fade issues that SPACEWAY would face in issues with customers?

PRADMAN KAUL: Mike?

MIKE COOK: Yeah, we've - first of all, there's obviously a difference because we're using a different frequency band, Ka-band than Ku-band; there's a difference in the propagation characteristics. These - the differences are very well known, very well documented. There are existing Ka-band systems in orbit, and we've, therefore, taken all of that information and we've designed in certain parts of the system, such that the endpoint is that we will be able to offer at least the same levels of availability on the Ka-band system as we would on a Ku-band system today.

And we do that in a couple of ways. We have fullback mode, which enables us to lower the bit rates in extreme propagation situations so that we can maintain the link for as long as possible and maintain availability for the end-user. And then on spacecraft itself, we built in some very sophisticated power control - downlink power control systems, which, again, enables us to take the available power on the satellite and increase the power in the spot beams that are affected by the propagation, and that part of the system also works with a real-time weather feed so that we can actually anticipate propagation issues and increase the power before the link would otherwise be degraded.

So we've spent a lot of time and effort to ensure that we can, as I say, at least maintain the same level available as you would on a Ku-band system, and in many cases, improve upon that.

PRADMAN KAUL: William?

WILLIAM KIDD: Pradman, when you gave the guidance, there would be roughly 80 percent, or heavy utilization in 2008. How much bandwidth have you actually sold to your customers at that point? You know, you have 30 gigabits if it's heavily used. Have you sold 200 gigabits' worth of capacity or 100?

PRADMAN KAUL: No, no, total capacity we would have is 30.

WILLIAM KIDD: But how much do you oversell it? Or is there any overselling in the model of that capacity?

PRADMAN KAUL: I don't think so. I'm not sure I even understand the question.

WILLIAM KIDD: [Indiscernible] you have utilization on your satellites as 50 percent.

PRADMAN KAUL: Oh.

WILLIAM KIDD: In a given year, you've obviously sold more than 50 percent of your capacity.

PRADMAN KAUL: Right. But I think the difference, William, is again, if I understood your question right, unlike today's VSAT market, where we basically tell a guy we're giving him one megabit of bandwidth, of - in the case of SPACEWAY, it's total bandwidth and demand. We're going to bill a person by the amount of data he uses or the number of packets we use. So if you look at the capacity, that 30 gigabits of capacity, 10 of it's - for the moment, let's assume in our model, spare that they're not even using, so you've got 20 gigabits of capacity, and I think, as Mike mentioned, in our model issues, we bill for half of that. So if estimates of billing are for about 10 gigabits, approximately in that timeframe.

WILLIAM KIDD: I see. And so I guess what I was trying to figure out is -

PRADMAN KAUL: Mike, do you want to add something there?

MIKE COOK: Yeah, I was just going to add that, again, the concept of overselling is really a pricing issue. You know, how are we going to price for the capacity. Well, clearly, we're going to be pricing for the capacity in a number of different ways appropriate for the service that we're offering. It will include regular monthly subscriptions for a fixed amount of bandwidth. It will include bandwidth on demand and, if you like, some megabyte-orientated pricing. And so the combination of those things mean that we will generate a certain amount of revenue, and there'll be a certain amount of actual utilization. So when I mentioned 50-percent utilization earlier, I was talking about the actual user bits that we are transporting through the system, not effectively what we've billed for or what we've generated revenue for.

WILLIAM KIDD: Okay. And with respect to - I guess, just a conceptual thought is that when most of the broadband systems were envisioned, there were kind of ubiquity plays, you know, coverage plays, in essence. In the presentation that you've outlined, it's very much a head-to-head competition that we're price effective and we can compete with, you know, terrestrial links using the system. And I guess when did that philosophy change, and what's - is it really just the 10 gigabits of capacity that gives you the confidence that you can compete with terrestrial price points and --

PRADMAN KAUL: I think it's more than that. I think if you remember even our earlier SPACEWAY presentation a couple of years ago, ubiquity in multicast and broadcast, clearly, satellite advantaged.

WILLIAM KIDD: Um-hmm.

PRADMAN KAUL: But we realized right from day one when we designed the SPACEWAY architecture, and that's why we put the router on board the satellite, that we had to compete with what the terrestrial guys could do at this timeframe. If we are to make that step function increase to - which I showed in my first chart, to address larger markets than today's VSATs have been able to address, so when we compete, we compete on price, as I mentioned, by being at least 15 to 20 percent lower, we'll compete on quality of service because we control the whole link, unlike the terrestrial guys who have to make deals and have great

difficulty because they don't control either the tail or they don't control the long-distance parts. So they can't guarantee the QOS that we can, and we'll compete because of the traditional satellite advantages on the ubiquity and the multicast and broadcasting. So you combine all three of them, I think we have a

compelling story for our customers.

WILLIAM KIDD: And just one minor question, with respect to the actual footprint itself, is the actual like a honeycomb footprint or footprint itself? Is that actually covering the whole contiguous United States?

PRADMAN KAUL: Oh, yeah. Yeah, it covers the United States. It'll cover Alaska, Hawaii, Puerto Rico, Northern belt of Canada, and, in fact, we have five, six beams on South America, where we'll be able to have a beam on Buenos Aries, beam on Sao Paolo, Mexico City, you know, where they could even incorporate [indiscernible] because these beams can move around.

MIKE COOK: Just [indiscernible], that's the southern belt of Canada as opposed to -

PRADMAN KAUL: Southern belt of Canada, excuse me.

MIKE COOK: Northern belt is U.S.

PRADMAN KAUL: Northern belt would be difficult. Yes?

STEVE MATHER: Can you share with us your views on the implementation costs beyond CAPEX?

PRADMAN KAUL: Paul, do you want to cover this?

PAUL GASKE: In terms of the installations?

STEVE MATHER: Well, implementation, meaning possibly equipment subsidies to get that online or, you know, channel support in order to --

PAUL GASKE: SAC - you mean like SAC, subscriber acquisition costs?

STEVE MATHER: Well, not exactly, but occasionally enterprises may be slow to adopt this even at a 15-percent discount to an alternative, and they may just be complacent. And so there may be some expense beyond CAPEX that you'll incur --

PRADMAN KAUL: Yeah, I think when we go to the business plan, we'll show you some of those costs.

STEVE MATHER: Okay.

PRADMAN KAUL: Okay? If you can hold off, let me come back to the question if we haven't answered it.

TY CARMICHAEL: Just wanted to follow up on - you said 15 to 20 percent below the comparable threshold offering. Is that pricing on a monthly basis, or is it going to be a combination of monthly and per-bit? And how does that -

PRADMAN KAUL: It's primarily on what -- on a monthly basis. But the equivalent costs on a per-bit, etcetera, the model would follow that directly.

TY CARMICHAEL: But what happens to the model if the usage goes up per month relative to what your assumptions are, so you're not able to generate the revenue per bit?

PRADMAN KAUL: Oh, because -

TY CARMICHAEL: What's the critical assumption there that's missing?

MIKE COOK: The bottom line is that we -- the pricing plans that we put together will enable us to generate incremental revenues if the bandwidth goes up. So as Pradman said, the pricing will be a combination of fixed monthly subscriptions and also bandwidth-on-demand pricing. And the comparisons that we did were based on a fixed amount of capacity requirement coming from those individual example models that we put together in the pricing scheme. But it would not be our intention to be locked into pricing which did not allow us incremental revenue in the event that the customers' requirements for bandwidth actually increased.

TY CARMICHAEL: So does that close the gap on the pricing differential, I mean the terrestrial guys that are [indiscernible].

MIKE COOK: No, because - in the terrestrial world, if your capacity requirements go up, you probably have to buy a bigger access circuit, you'll probably have to have that higher committed information rate from your frame-related supplier, and all those will put your price up. So there's, you know, in every pricing plan, there's a certain amount of headroom for growth. In our pricing plans, there'll be a certain amount of headroom, but fundamentally, if there's a significant increase in capacity, you pay more money in both worlds.

TY CARMICHAEL: All right.

JON RUBIN: Any other questions?

PRADMAN KAUL: Okay, so let's go to the financial models that we've been working on. The first element from a summary perspective is that we expect a significant reduction in our cost per transported data, and that's very critical. Roughly, as Mike said, our cost will be two-thirds lower than Ku-band.

The second bullet is probably one of the most important ones in the model. It's that for the first time we will retain the satellite operators' cash flow and margin at typically 70, 75 percent EBITDA. You know, remember, that's what SES Astra has or PanAmSat has or Intelsat has. And in this case, like the DIRECTV model, since we own the satellite - it's an integrated service - we retain that cash flow and margin, and we expect about 60 percent of our existing enterprise users to migrate within the first three years.

The rest of the plan will show that our enterprise revenues will triple in five years because of the increased revenues from existing customers, the new market segments, and the value-added services that we're offering. And the EBITDA margins will increase by four times, and all that results in the return on invested capital to exceed 35 percent when we go reach steady-state, 2008 and beyond.

Fundamentally, what we've assumed the plan is that we start service in the second quarter of 2004 and we will have unused capacity in the beginning, obviously, as we fill the satellite up. But by 2008 on a fairly linear basis, we

will have the two satellites at a steady-state place. That was slide 36 for our folks on webcast. We're now going to slide 37.

If you look at how we build up our Ka-band market share, looking at 2008, we looked at the different segments, at the large business, medium business, telecommuters and SOHO. In each of these segments, we looked at the overall market size, and these are fairly conservative numbers gotten from a number of different sources and some management estimates.

In the large business area, there are roughly 400,000 sites in the United

States, and all of them, we believe, have a broadband need. As Mike showed you on an earlier chart, almost 93 percent of them today are reaching, where they're leasing either T1s or frame relay services. We think about 150,000 of them will go - are addressable by satellites, and about 250,000 of them today are terrestrial. These are our people like existing customers today, 150,000 of them. And 20 percent of the terrestrial guys, we think, will potentially switch to satellite with these new services. So you do the arithmetic. We assume a two-third's market share for the existing satellite sites because we have most of them anyway. So maybe that's a little conservative there. And then maybe a third market share. And when we were doing this plan, Astrolink was in the game, WildBlue was in the game. So we were thinking that we would take a third of the people who chose satellites. And, again, with those two folks not in the game today, these numbers could potentially go up.

But anyway, doing the math in that form, you come up with 118,000 sites that we think will get in the large business area. Similarly, in the medium business, the market size about a million one terminals, we think most of them have broadband needs, 25 percent of them being addressed over by satellite markets. Again, a third of them being won by HNS. That's close to 100,000 sites, or 95,000 sites. Telecommuter, a similar calculation, another 95,000. And the server world, which is much larger, 13 million sites. By 2008, we think 3.5 million of them would have broadband needs, a third of them roughly would be addressable by satellite, maybe capture 20 percent, which results in 200,000 sites. So if you add all of that, that comes to about 500,000 sites. We think that the other wholesale markets that are not directly corporate networks but we're serving as a retailer in specialized segments, like government, etcetera, that would be over 160,000 sites. So we think the total market that we would have - that we would basically be able to fulfill would be about 670,000 sites by 2008.

So the first test is, is that a credible number. The reason we believe in that number is, as I said, we're already at 200,000 sites today. And we're at 200,000 sites today with a system which is essentially very, very limited in terms of the needs that it can fulfill from our existing customers. And, therefore, it doesn't require a big leap of faith to think that with all this extra capacity, with the significantly improved economics that SPACEWAY has, that we should be between 2002 to 2008, six-, seven-year period, that we should be able to go from 200,000 sites to 670,000 sites. And that's the number we've used in our plan.

Going to the next slide, slide 38, we thought it might be useful to look at the business as it exists today, our enterprise economics, and then look at what we think it will be in 2008.

First, is the number of sites. As I said, we have approximately 200,000 sites in 2002, and we expect to go to 670,000 sites in 2008. Today, in 2002, our monthly service revenues per site, [indiscernible] covers a wide range, but the real low-end user who uses only a few bits and doesn't have any sophisticated applications like video or multitasking, etcetera, they're typically at about $60 per month. That's the one extreme. If the customer has a bunch of applications, uses a bunch of bits, etcetera, it can go to $125 per month. So we're in a range of 60 to 125 dollars per month. The terminal-installed VSAT today is anywhere from $1,500 to $3,000. Many of you are aware of how the prices

have dropped down. All that translates to a revenue plan for us for 2002 for the enterprise business in North America of 330 to $350 million. Okay?

In terms of the DIRECWAY Ka-band service in 2008, we think the monthly service on the low end, if a customer basically does nothing more than what he's doing today, we - just transports a few more bits, would still be at $60 per month for

the service costs. But if he uses a significant amount of bandwidth because of the new services, because of the managed bandwidth capability, because of the frame relay displacement that we talked about because of the virtual IPNs, virtual private networks, you know, in the IP domain, the high end, we expect the range to be at about $250 per month. We think the terminal cost is actually going to be a wash between Ku and Ka, that if we get enough volume, these terminals are going to cost the same, about $1,500 to $3,000. And we expect our revenue in 2008 from the 670,000 terminals to be about $1.4 billion.

In terms of the cost structure, the space segment costs today, where we make no margin, which we just buy from a PanAmSat or a SatMex or whoever, is about 30 percent of our service revenue. That means in the low end, it represents about 17, 18 dollars per month of our service revenue in the space segment cost. Now, we don't make any margin on that today. On the high end, if you go to $125, it represents about 36 to 37 dollars per month. And in the case of SPACEWAY, because we'll be operating these satellites, the cost of the TT&C and the operations of the whole satellite constellation, etcetera, we'd have a cost of 50 million dollars a year, plus, of course, the depreciation on the capital, you know, that we'd be depreciating, so that would represent our space segment costs in the two cases.

All this results today in 2002 with all the significant pricing, competition, pressure, etcetera. You know, our EBITDA margins are going to be in the range of 12 to 15 percent. We have been as high - Paul says 1999 was the golden year - as high as 20 percent, 18 to 20 percent, but so in our - with our existing structure, you could see, depending on the mix of business we have in a particular year, that EBITDA margins are, you know, in the range of what we'd potentially do this year to as high as 20 percent. We expect that in 2008 to go to 50 percent. Again, driven by two major factors. One is the 70-percent margin on the space segment revenue that we don't make today that's showing up in the FSS service provider, and that's a big chunk of that delta, okay. The second element of that differential is that the ratio of the hardware cost - you know, if you translate the hardware to a monthly service cost, in the case of the Ku-band, it's anywhere from 30 to 50 percent of the monthly service costs. When you go to the DIRECWAY Ka-band model, because there's much more space segment, it tends to get closer to 20 percent, so you're making much higher revenues on the - higher margins on the space segment, and that space segment represents on the service revenues represent a larger percentage of the monthly cost. And the third element that comes into it is the higher leverage you get from the fixed cost being amortized and being paid for; all the incremental revenue margin flows down to the bottom line. Those three elements represent the difference between the 15 percent and the 50 percent. And then the last item we're showing in the economics is the capital expense on a normal ongoing basis once the satellites have been launched. Today, we spend about $10 million a year with the uband because it's a larger volume of terminals, etcetera. We expect that to increase to 20 million.

Going to the next slide, we thought we'd give you two points. The year we start with SPACEWAY in 2004, and the 2008 point, which we think is a steady-state point with just this satellite constellation. Obviously, beyond 2008, to grow the revenues beyond 1.4 billion, we would have - we'd have to launch new satellites, etcetera, and that - but at that stage, we're basically saying we've reached steady state. Now, again, there's another point that you should keep in mind is the 330 to 350 million in 2002. So what we're basically saying is the business we are in today is generating revenues today of 330 to 350 million. In 2004, in itself will grow at some rate. Today's economy, I don't know what, but 10, 15 percent wouldn't be unreasonable. By 2004, we expect the combination of our existing business and the incremental SPACEWAY business to result in $500 million. So, again, that's our first test of does it make sense, and I think it

makes eminent sense. We're already at 350. Getting to 500 without - by 2004 is not unreasonable. Then between 2004 and 2008, we expect a fairly linear growth in the business as we bring on added customers with added applications and added revenues.

That - in 2004, we have all the start-up costs of SPACEWAY, so the operating income and the EBITDA margins we've assumed are fairly conservative and fairly low, so we're looking at EBITDA margins of 12 percent, operating income of 2 percent in 2004, and then reaching again, growing slowly over 2004 to 2008, [indiscernible] on a fairly linear basis, growing to an EBITDA of 54 percent and operating income of 45 percent, which would be fairly typical of people who are in the space segment business. And space segment revenues start becoming a big part of this. The CAPEX in 2004 - we're still finishing up the CAPEX requirements for the launch of the satellites. And then in 2008, you're in the maintenance mode. When you take all that information, the operating free cash flow, which is really defined here as EBITDA less the CAPEX, in 2004, we would use about $70 million of cash. But once we start reaching steady state in 2008, we're generating about $730 million of cash. And, actually, we start getting cash-flow positive in 2005. The return on invested capital in the beginning is clearly low, [12] percent, but it rapidly starts hitting numbers above 35 percent. The payback period is less than five years beginning in this timeframe, but, again, once you reach steady state with this kind of cash flow, 700 million, you can see it takes less than three years to pay toward the investment.

So anyway, those were some of the financial models. In concluding, you know, we believe this satellite platform, as I mentioned earlier, is going to take us up a major step in satellite communications with the points that I made, "switch in the sky," 10-gigabit capacity, the high-speed up and down links, the point-to-point in broadcast capability. And then getting to the last slide, we expect it to generate a very, very good financial return. It'll increase the revenues, it'll increase the operating margins for the reasons we have mentioned, and achieve a return on invested capital greater than 35 percent.

And that's all we had. With that - William?

WILLIAM KIDD: Can you help me understand the pricing model a little bit better? I was thinking about your T1 pricing. I think that's $1,400 a month, give or take?

PRADMAN KAUL: I think that's what they're charged for that.

WILLIAM KIDD: And that's a megabit and a half?

PRADMAN KAUL: Yeah, that's like a frame relay port, a 1.5- megabit frame relay [indiscernible].

WILLIAM KIDD: I don't quite understand it. If it costs you $60,000 for SPACEWAY per megabit and you're charging 16,000 per year for a megabit and a half, that implies a revenue payback of many, many, many years, even before costs. And I'll just point out one particular service element, but as an example, what am I missing and why doesn't that seem to be so attractive?

MIKE COOK: I'm not sure the two bits of information you're relating are exactly connected in that way. The $60,000 per megabit per second of capacity is not per year; it's - no, the $60,000 on page 27 is the capital cost of an asset that lasts 15 years.

WILLIAM KIDD: Right. But the revenue payback would be -

MIKE COOK: And then the revenue that you looked at from the other chart, which is looking at one - it's one port in a frame relay network is a per-month cost, a per-month price.

WILLIAM KIDD: Just to make it simple, though, if you just annualized that monthly cost from 1,400 to 16,000 you make it equivalent to a T1 price [indiscernible], so instead of 60,000 it's 90,000 for a 1.5 megabit?

MIKE COOK: It's 90,000 over 15 years is the likely base price.

WILLIAM KIDD: Right. But on a revenue basis, that payback's like over six years. And if you assume a 15 - 50 percent EBITDA margin, the payback is over 10. And so I'm not sure how - you know, I see the example you said where you have 30-percent margins and people pay that per month, but I don't see how this T1 example gets remotely near the payback that the model's showing. Like I don't see that type of parallel pricing and profitability in this T1 example that I'm working through.

PRADMAN KAUL: Yeah, I think the answer is that I don't think this is a dedicated T1 point-to-point link.

MIKE COOK: It goes back to the other point that you're making on your own --

PRADMAN KAUL: Right.

MIKE COOK: -- in the sense this is shared bandwidth.

WILLIAM KIDD: I see.

MIKE COOK: And what is a T1 access? A T1 access is a peak load, the capability to take a peak load at 1.5 megabits per second. But it isn't necessarily a steady-state, 1.5 megabits per second.

WILLIAM KIDD: Exactly. So that goes back to my first question, which is what is your model assuming that people have actually contracted. So it obviously doesn't really look that attractive if someone buys 1.5 megabits and you give them 1.5 megabits, so, obviously, is a little bit of overselling in there. So what degree of overselling is implied in the model?

MIKE COOK: Okay, well, again, I don't think we have that statistic.

WILLIAM KIDD: Okay.

PRADMAN KAUL: But I think your point is well taken, and I think Mike made the point on one of his slides that we're in the managed bandwidth business. We don't expect to go compete with terrestrial. If somebody said, "I want a 1.5 megabit hard link from point A to point B," that's not - you know, satellites will never compete with terrestrial on that. What our advantage here is to compete using the managed bandwidth-on-demand capability, you know, and be - and that's what frame relay does, right?

WILLIAM KIDD: Sure, sure, but -

PRADMAN KAUL: And, in fact, what frame relay does is you get a T1 port but then you have to take a total network capacity that you are committing to, which means that every port in a frame relay system, if they operated at their maximum speeds all the time, it wouldn't work either. And it's exactly analogous to the -

22

WILLIAM KIDD: But can you give us the assumption that you're making about that?

PRADMAN KAUL: We'll get you - though we haven't look at it in that form.

JOHN STONE: Hi. I wanted to get some idea in terms of your assumptions about what kind of fixed costs you're going to have. I mean you mentioned the TT&C and some other costs for the satellite, but there's also going to be marketing expenses, G&A, R&D and other ongoing expenses per your business model. So what sort of annual fixed cost should we plan on for SPACEWAY?

PRADMAN KAUL: George, do you want to talk about it?

GEORGE MONTAGUE: As Pradman said, the operating network is going to be about $50 million dollars. We have about $40 million for marketing. The R&D, we're planning on about $30 million. G&A is about $40 million as well.

PRADMAN KAUL: You know, another way to look at it is if you build your revenue model and you take the margins we're saying we're going to make, the differential will obviously be a combination of the one-time costs, which is in the hardware, which you can get from the hardware prices we've done. The delta is the operating cost.

JOHN STONE: And, granted, you've given me most of the ingredients, but I'm sure you guys have already cooked this one, so I'll ask you anyway. What sort of -

PRADMAN KAUL: George's got the cooked model there.

JOHN STONE: What sort of annual revenues do you guys need to generate to be at breakeven, both on a cash basis and also on an earnings basis, including charges for depreciation?

GEORGE MONTAGUE: [Inaudible] told you, we're pretty close to that point in 2004 with the revenues he showed. On a -

PRADMAN KAUL: We're actually making money in the - we're always making money in this business.

GEORGE MONTAGUE: Right.

PRADMAN KAUL: You know, we're making money today, and when we progress into launching SPACEWAY, we're going to be making money. We never - no year, we'll be losing money. We've never lost money in VSATs since we started in the business in '84.

PAUL GASKE: That - I think that may be one of the points that we should emphasize is that our business has been structured around a set of customers in enterprise today. There is a platform out there today called DIRECWAY which has certain capabilities. As we launched SPACEWAY, it literally plugs into those capabilities and the staff, the facilities, the network management, the integration. All those things are utilized by SPACEWAY, so when you look at bringing it on, it doesn't have a huge jump in cost day one, and it scales very well because it's the same infrastructure. I think that's one of the big advantages we have if you go back to the original charts on why our business versus some of the other folks.

23

PRADMAN KAUL: So once the capital expenditure is finished, you know, in 2004

when you launched the satellite, we've basically ended up spending the capital, we've become cash flow positive, and we're always making on the - we're always making profits.

JOHN STONE: Two other quick ones. In terms of the $1,000 price point, what sort of volumes are you going to have to generate in terms of units to get to that point and --

PRADMAN KAUL: You know, in the Ku-band world today, we are well below that price point today. So we expect that in the first year of manufacture, where we would probably be in the 50, 60,000 terminal, we would be below that price point, below that in cost. And, you know, this is not the consumer business, so we're not looking to manufacture millions of terminals. Over a five-year period, we're looking at 670,000 terminals. So we're looking to manufacture 150,000 terminals a year, and we should be, you know, very - be able to sell these terminals for $1,000 at that level.

JOHN STONE: And, last question, if the SPACEWAY satellite winds up in the ocean, what kind of a delay are we looking at and what sort of insurance do you have?

PRADMAN KAUL: We are actively working the insurance strategies right now. You know, usually wait about a year from launch, and so that's something that Mike and his team is very active right now. They're looking at various strategies. If it goes into the drink, I think it's supposed to be six months.

MIKE COOK: Yeah, we have a committed - a commitment from the launch company that we could launch the second satellite within six months in the event of a launch failure on the first satellite.

JOHN STONE: [Inaudible].

MIKE COOK: Oh, yeah, it's already - all three satellites -

PRADMAN KAUL: A big [indiscernible].

MIKE COOK: -- [indiscernible] in the factory in construction. And the third one will be stored once its finished until we need it. But the second one is actively - it's going through all of the phases, and it would be about six months behind the first.

KARIM ZIA: Pradman, one of the underpinnings of the business model seems to be this assumption of a 20 or 30 percent satellite share of the broadband sites by '08.

PRADMAN KAUL: Um-hmm.

KARIM ZIA: And that seems to hinge on their still being a price umbrella, you know, in the enterprise market the way you've laid it out, both in private line and frame relay.

PRADMAN KAUL: Yes.

KARIM ZIA: It looks like you assume in that pricing curve that the terrestrial competition pricing - the slope sort of flattens out. What gives you the conviction that that's the case, and isn't it - I mean, given, potentially recapitalization of a lot of the CLECs and things, what makes you think it's not a straight-line curve?

PRADMAN KAUL: These - I think, Mike - correct me if I'm wrong - but I think these are estimates from various consulting organizations and charts and estimates. These are not our estimates by itself.

MIKE COOK: Yeah, the frame relay costs are third-party estimates, but, again, let's just understand what's driving that. The frame relay provider needs to acquire local access lines from the local exchange carrier. And the only revenue the local exchange carrier gets is for local access lines. So there is a sort of natural limit which comes down to the cost of a local access line, which the frame relay costs can't quite come below. So in the end, you know, it's going to asymptote to a number. Now, you can argue that number might go up and down a little bit. On top of that, of course, the frame relay provider is going to operate, manage the network, and he also has infrastructure. He has to continue to provision additional capacity in the network in order to meet the growing bandwidth demand. So he's got capital expenditure. He's got amortization. He's got [indiscernible] corporation costs.

KARIM ZIA: Is that wholesale pricing model based on some kind of [indiscernible] formula or something that gives you confidence that there is some floor?

MIKE COOK: I'm sorry, the --

KARIM ZIA: The wholesale pricing model you referred to, which the LECS are essentially leasing to alternative providers?

MIKE COOK: Yeah.

KARIM ZIA: Is that based on some sort of cost-based formula?

MIKE COOK: Yes, it is. Yeah, the -- I think you'll see the sources that we have for that are also doing cost-based analysis there.

KARIM ZIA: And, Pradman, I know you didn't want to talk about it too much, but can you just talk about consumer applications at SPACEWAY? I mean are there gating factors as to why you're not talking about it? Or is this a sensitive merger issue?

PRADMAN KAUL: Well, if Jon let's me, I'll tell you what I think we can tell you today. We believe that, you know, depending on what happens with the merger, the consumer - I think Jack Shaw has publicly stated that if the merger does not go through, our ability to fund the subscriber acquisition costs of the consumer business is, you know, in serious doubt, whether HUGHES will have enough cash to fund it on its own. So if the merger does not go through, it's - I'll use the words highly unlikely that we would continue in the consumer DIRECWAY business. If the merger goes through -

KARIM ZIA: You mean just Ku, not -

PRADMAN KAUL: Yeah, Ku and then what happens three years from today, who the heck knows? But we won't be continuing in the consumer DIRECWAY business. If the merger does go through, you know, it's a different ballgame with Charlie, and I don't know what that game is right now.

KARIM ZIA: But given the cost structure you see here, I mean do you envision that there could be a viable - a more viable consumer model with SPACEWAY?

PRADMAN KAUL: Yeah, clearly, because one of the things because of the time of day and the differential, etcetera, you could [indiscernible] if you paid for the SPACEWAY system on the enterprise business, on a marginal cost basis, the space segment for consumers - you know, we have said that we could accommodate about a million consumers per satellite in addition to the enterprise business that we have because of the time-of-day difference. The space segment cost for that, you know, on a marginal cost basis is nothing. So the economics of the

consumer business would be significantly better than Ku.

25

UNIDENTIFIED SPEAKER: [Inaudible].

PRADMAN KAUL: Yeah, I'm just talking about the space segment. Clearly, the SAC issue is still an issue. It costs $500 to acquire a subscriber, and one would have to figure out how to generate the cash to acquire SACs. That's the tough nut to crack in the consumer business --

UNIDENTIFIED SPEAKER: Right.

PRADMAN KAUL: -- which we don't have any in the Enterprise business. Jon, do you want to add anything to that?

JON RUBIN: No, that's fine.

UNIDENTIFIED SPEAKER: Just a couple questions on the cost of capacity. What sort of assumptions are you baking in for amortization of the cost of satellite? What's the useful life of a satellite?

PRADMAN KAUL: I think we're depreciating it over 12 years? Fifteen years.

UNIDENTIFIED SPEAKER: Fifteen years. And I mean just given that we talked a little bit about the asymptote nature of the curve here, do you think that's - is that reasonable according to your assumptions? I mean no one can predict the future, but do you think that's --

PRADMAN KAUL: Yeah, I think - that's what the spacecraft is designed for, and generally the spacecraft lasts longer. But the design goal - the design spec is 15 years.

UNIDENTIFIED SPEAKER: Okay. And just - to follow up on the consumer issue, also, I mean the - on the move from existing VSAT customers onto the new platform, what's sort of the new proposition to get, say, Chevron to switch from the old network to the new network, and how does pricing look? If you take, say, your $60-a-month customer, how does - if they take exactly the same amount of bandwidth, how does that pricing match the new --

PRADMAN KAUL: Yeah, we're working on that, but our fundamental philosophy is that a customer will not pay any more to move to SPACEWAY than what he's paying yesterday on a monthly cost. And for that, we'll give him more bandwidth than he's getting today. So it's a no-brainer. Should be a no-brainer for a customer who has the need for more bandwidth. If a customer doesn't have the need for more bandwidth, we'll probably not migrate him to SPACEWAY because he won't see the potential for additional growth of more services. So that's the fundamental premise.

UNIDENTIFIED SPEAKER: So it's fair to say that on an apples-to-apples basis, it takes the same amount of bandwidth. It would be actually a lower price.

PRADMAN KAUL: Yeah, we may not really lower his bill, but we just give him the additional bandwidth.

UNIDENTIFIED SPEAKER: Right. Okay.

PRADMAN KAUL: But on a price per bit or, you know, some major unit measure, it would be lower.

UNIDENTIFIED SPEAKER: Okay.

BOB PECK: But actually just touching on that, though, he'd still have to pay for the equipment, though, right? He'd still have to fork up the grand or three grand?

PRADMAN KAUL: No, I think it's lumped into the monthly service costs. Nobody pays for the equipment in North America today. Everyone - every contract that we sign in North America today is a recurring contract where the guy pays $X per month, but he commits to generally a three- to five-year contract.

BOB PECK: Okay.

PRADMAN KAUL: And that commitment for a three- to five-year contract with the fact that his credit rating is good allows us from a cash perspective to sell that paper, if we want to, to a third-party leasing company.

BOB PECK: And, lastly, on the consumer side, if DIRECWAY Ku gets shut down at the end of the year, how does that work as far as the current subscribers?

PRADMAN KAUL: Don't expect that to happen.

BOB PECK: You maintain then it wouldn't get shut down?

PRADMAN KAUL: No. I don't expect that. My bosses can overrule me, but I - based on everything I know, I don't expect the DIRECWAY consumer be shut. What Mr. Shaw has said, what Jack has said, is that he doesn't think we can continue to invest in new subscribers for the consumer -

BOB PECK: Okay.

PRADMAN KAUL: So the scenario would not be a shutdown, but where we wouldn't continue to invest additional monies to acquire new subscribers.

TOM WATTS: Can you comment on the competitive situation in the enterprise market now and how much the loss difficulties are affecting it? Are the SPACEWAY customers up for grab?

PRADMAN KAUL: I'll let my friend, Paul, comment on that because he fights them every day.

PAUL GASKE: Well, I guess as far as the market goes, the competition, the number-one thing first off is getting companies to buy and expend capital funds again. And we are seeing some good signs in some areas on that, and that's improving. I think on the situation with competing with Gilat in the market, I think the key elements there, we certainly still seem them in competition. They certainly have a different look as an enterprise customer looks at them than they had before because you have to look at security and so on. You know, we fight them in every single account and so on, but I think the key thing we have is with a big base that's also renewing and going into broadband right now, which is also driving our business, and I think that's probably the most important dynamic today.

PRADMAN KAUL: I think, Paul, our first six months of this year in both order and [indiscernible] revenues, as we've announced in the quarterly reports, have been very good, even better than the first six months of last year and so on. So we've had very encouraging results for the first six months of this year.

JON RUBIN: Any other questions? Okay, that concludes the presentation. Thank you very much.

PRADMAN KAUL: Thank you.