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PRESENTATION

Varvara Alva - *Gogo Inc. - VP of IR, Treasurer*

My name is Varvara, I'll be your host for today. I just wanted to let you know we're very excited to have you all here. This is our third annual Investor and Analyst Day, and we'd like to really welcome you all here today. And also, we'd like to welcome everyone who's listening to our webcast with the online webcast at ir.gogoair.com.

Over the course of today, we'll spend three hours - and you'll hear from the senior members of our management team. This is our schedule. And at the end of the presentations, we'll hold a group Q&A session.

And now I'd like to turn to I guess the most thrilling part of the presentation, for me anyway, is the Safe Harbor statement. We will be making forward-looking statements so I encourage all of you to please read through this slide carefully before we start our presentation.

And I also see my colleagues out there passing out the materials for today. So this is our printed and hard copy of the presentation. We also have a digital copy available for you, so feel free to take note.



And with that, I would like to press forward and invite President and CEO on stage, Michael Small.

Michael Small - Gogo Inc. - President, CEO

Got it. Thank you. Thanks, Varvara, and good morning, everyone. We have a lot to share with you today and we want to leave plenty of time to your questions, so we're going to jump right into it.

When this Company was founded 25 years ago in 1991, it was about serving business jets with phone calls on an analog network. When I joined this Company in early 2010, it was about passenger internet connectivity, or commercial aviation and business aviation, in North America with a 3 megabit per second network.

Today, it's about the global connected aircraft, and we're looking at 100-plus megabit per second aircraft. In fact, this year, Gogo system powers turbulence avoidance application that passengers are going to love not having daily turbulence and the airline saves maintenance cost and fuel as a result.

That was entirely unimaginable to me when I joined in 2010. It's a reality now. The point is that the industry, the opportunity continues to expand at a rapid rate. The pace of innovation is amazing. And I think it is fair to say at this time the aviation industry views broadband connectivity as a must have. The aviation industry is inherently difficult to serve. It has significant requirements that present barriers to entry.

It's perhaps the most globally evolved industry verticals that you can think of. The safety and security requirements are profound and that leads to rigorous hard-to-comply with regulatory regime. And furthermore, the aircrafts are complex and long live and they're actually designed to be resistant to innovation. It is a challenge to get in technology onto aircraft.

The opportunity for us is large particularly as measured in terms of the number of aircrafts. In commercial aviation today, approximately 10,000 aircrafts are either installed today with broadband connectivity or have submitted to be installed.

When look out approximately a decade, there will be about 30,000 commercial aircrafts in existence. So over the next decade, there's roughly 20,000 to get and we do believe that all aircrafts will be broadband connected within the decades. So that's about 2,000 aircraft per year.

On the business aviation side, it is even less penetrated. There is about 4,000, little more, that are broadband connected; almost all of them by Gogo. And there will be well over 30,000, almost 40,000 planes by 2025. We don't think they'll all be broadband connected by then and would estimate about a thousand per year will adopt the service.

How we are going to get to those planes that will be connected will be changing a little bit, and Gogo will be expanding its distribution channel in response to that. Historically, we get most of our growth in North America, and more recently, we've been going global and making really good in roads, particularly in Europe.

Going forward, it's going to be much more about the Middle East and Asia Pacific regions and this shows in this chart where we think the new commitments and new works for aircrafts will be coming between now and 2018, at the end of 2018.

The other big change is historically, we've been about the aftermarket. Going forward, increasingly, this will be about the OEM channel, sometimes we refer to that as line-fit.

The next couple of three years will be that transition period where more and more of the aircrafts coming from the OEM will be equipped with broadband connectivity.

The other point I'd like to make and because I think this is misunderstood at times is that a high percentage of Gogo's new awards for aircrafts will come from airlines that have already chosen connectivity provider because outside of the United States, most airlines haven't chosen for the entire airline, they've chosen for a few aircrafts so there's many more aircrafts yet to get at most of those airlines.

And Gogo is winning and continues to win with leading share win rate in 2016 year to date. BA well over 500 aircrafts has been added new units and sold this year. In CA, we have added 850 aircrafts. Some for conversion, some for new installs, and now have over 1,300 in backlog.

Now that's different number than you may have walked in here thinking it's up by over a 100 because just minutes ago, we announced Air France KLM has chosen Gogo in a big push of its international fleet. They've awarded us 124 aircraft, 777s and A330s, and then options on some additional aircrafts beyond that. So we're very excited that iconic European airlines have joined the Gogo team.

This win rate over time has left Gogo with unrivaled scale and experience. We have over 6,600 broadband planes installed and have done over 110 million connectivity sessions. That scale is important because it gives us the ability to invest in the capabilities that our airline partners want which in turn allows us to win more aircrafts so creates a virtual cycle and on an economic basis where you can afford these investments to keep their unit cost or cost per aircraft down.

So what are those investments? We've divided them into three general categories. There's the network technology, everybody kind of gets that. We got to have a high bandwidth solution to the planes. Secondly, you need aircraft operations. That's the ability to install and maintain that network technology on aircraft. And thirdly, it is essential that you have the software platforms that allow the airlines to make flexible and easy use of the connectivity on their planes.

And it does take real investment in each of these categories. The R&D for network technology, we've now deployed nine network technologies in the Company's history, six of them during the time I've been here, and that's real money and takes real scale on aircrafts to make that investment. Obviously, you have to build the network. There's a cell site network in North America, the satellite network globally. There are hundreds of STCs we have in aircraft operations or the maintenance location and installation. We do that on a global basis. It requires scale and investment.

And finally, the platforms are more on experience issue. We have the most mature and sophisticated ability to present these services to the passengers and the airlines in ways they want to use them. And this has been working since we've been IPO roughly three years ago, just slightly over three years ago. We've doubled our revenue. We're up six fold in EBITDA, and we have kind of strong increase in aircrafts in both business and commercial aviation.

And we do this by relentlessly innovating and delivering results. So let's go back through what we talked about last year when we met at this same event, and we talked about 2Ku last year. We presented this as 70-megabit-per-second solution. Today, we're talking about it as a 100-plus megabit per solution and in the meantime, we've purchased high-throughput satellite capacity and we've introduced a new modem and our costs are down by a factor of 2/3. So tremendous improvements during the course of the year.

Today, you'll also hear from Anand right after me about our next gen solution that we announced yesterday. Dramatically cheaper than the 14G solution we were considering a year ago and you will hear lots of advantage where we think a much more elegant solution.

Aircraft operations, we didn't have the backlog, we didn't have the installation capabilities. You'll hear from John Wade how we're up and rolling in installing those planes.

And on the platform front, there's been a lot of progress. Gogo Vision is now doing two million sessions per month, views per month, that's doubled from what it was a year ago. And the connected aviation kind of ups that like - such as a turbulence avoidance one are all beginning to appear on our platform. I can go back, and while we've been doing all that, the results have been good. Revenue is up 23% and more than a doubling of EBITDA.

Now let's talk a little bit about where we see this going and there are some really positive trends developing or actually deliverables that we're bringing to the market that are making a big difference and it summarized them as more bandwidth, more planes, more payers, all of which translates to more revenue.

First on the capacity issue on the more bandwidth, the satellite planes are getting deployed. By the end of 2018, 40% of Gogo's commercial aircrafts will have satellite technology on them and bandwidth equals revenue.

Secondly, we're getting critical mass going in the Rest of World rest of the world. Only 9% of our planes today Rest of World aircraft by the end of 2018 will estimate that it will be 20%.

And then the more payer side, when we started this business it was all about the passenger paying us for connectivity. As you will kind of hear that more and more parties are paying for that bandwidth and actually for more and more services.

This is the trend we've been experiencing for a while. We've taken it from 100% down to about 80% from passenger paid, down to 80% now and it's heading to about 60% over the course of the next couple of years.

Taking it a little deeper on the bandwidth issue, we've been driving more bandwidth right now. We're actually up 57% year over year in number of bits delivered and that compares with 23% revenue growth. So we're delivering more value for the dollar to our customers.

But that's been driven up to now by converting ATG to ATG-4 as the chart shows between June of last year and June of this year. Over the course of the next year, the shift in the percentages is from ATG to the satellite solution. So now you're shifting from a 3 megabits solution to a 50 today growing to 100 megabits solution but this actually is going to accelerate and we're very excited about that.

For the rest of today, three of my colleagues, leaders in our Company are coming up to describe what we're doing and they each have direct responsibilities for each of these three areas.

And Anand Chari has been with us for 13 years and invented most of the technology, he and his team, that you're going to see on this chart. He's going to explain basically how we now have a ground-like experience for both the big planes and the Gogo planes with 2Ku and we have a ground-like experience for the smaller planes that stay in North America with our next-gen ATG solution.

John Wade who's been with Gogo for eight years, who has been an aviation industry veteran of 30 years, hopefully I wasn't going to say that, but I will. He's going to explain how we get that on planes and do it quickly and efficiently and in a way our airline partners want.

And so that's - to scale that globally is the big issue for Gogo right now and what we're working on and what we're solving and getting better at every day and delivering real value to our airline partners.

And finally, you all know Norm, he's going to get up and explain how this translates into shareholder value, explain how more bandwidth and more plane translates into revenue growth, profitability and value for shareholders.

So we're very excited about what's happening today, the new announcement that you'll all hear and there's a lot of great information in this presentation. Anand, are you ready to come up and take us through our technology roadmap?

Anand Chari - *Gogo Inc. - EVP, CTO*

Thank you, Michael. Good morning, everyone. I would like to cover three topics today.

First, Gogo's innovation. I want to cover the track record and factors and philosophies that drive our solution. Second, I want to offer some details around the upcoming innovations particularly 2Ku and next-gen ATG that we just announced yesterday. And third, the topic of capacity, network capacity, the demand versus supply.

Gogo has been a leader and innovator in bringing best-of-breed solutions to the in-flight connectivity market. Our solutions center on solving the needs of customer.

It is some of the factors that are well known, its capacity, its coverage, its cost but I want to highlight two other factors that often get overlooked. It is the reliability and redundancy.



And reliability is important in any business for any customer but particularly important in aviation because you can't really touch an aircraft that easily, the downtime is too expensive so it's got to be reliable.

The second is certain degree of future proofness, easy upgradability. Again for the same reason, you cannot bring down a plane and keep on swapping equipment. It costs a lot of time and money to bring a plane down. So the solution approach or innovation approach has to offer a path of easy upgradability and I will show you how Gogo addresses that. If you have to do all of these, what we have found is the best way to do this is take a technology-agnostic approach.

We are not wedded to air to ground. We are not wedded to satellite. We don't care about a particular satellite constellation whether it's geostationary satellites or low earth orbit satellite. It doesn't matter what frequency band we are using.

It is all about bringing the best-of-breed solutions that meet the needs of the customer. In fact, if you look at the 25-year history, it has been a story of relentless innovation. And if you look at the future, the same trend continues.

But what I would like to point out is if you look at all the solutions we have gone about of the last 25 years of the Company's existence, it's air-to-ground and satellite. As early as in the '90s, you could see air-to-ground and satellite.

That trend continues into 2000. That trend continues in this decade as well. It is multiple frequency band. We use this cellular frequency band in the early '90s. Now we have the air-to-ground frequency band for air-to-ground and we are announcing they're going to be using unlicensed frequency band here for - in our upcoming solution.

If you take the satellite solution, we have L-band. We have Ku band. We have Ka-band. So that is going to continue and the point is we are using all these technologies to bring about solutions to the market that deliver higher and higher capacity.

So we started with a few kilobit per second and we are delivering today 50 megabit per second and taking it to 100 plus megabit per second in the next year or two. And that is a ground-like experience for all passengers onboard with any aircraft of any size.

And what's interesting here on this chart is that if you look at what happened on the terrestrial wireless and wireline industry, it followed a similar evolution curve. It went from a few megabit per second to 100 plus megabit per second over a course of a decade and we are following the same innovation curve.

And you probably saw this chart last year, you're seeing it this year. More than likely you'll see it next year because I love this chart. I've been with the Company 13 years. I started right around here.

Things were pretty slow back then. [After each time], it began really fast. So this is my annual performance review document with Michael every year. They want to see it every year.

But let's focus on the top right corner, that's where all the action is, that's where the future is. Two things, 2Ku and 2Ku's evolution and next gen ATG.

Both of those solutions bring plenty of bandwidth to the aircraft, more than 100 megabit per second to deliver a ground-like experience. People can do whatever they want to do with those kinds of speed.

I will cover details of each of those solutions. The last two years of analyst day presentations, I covered a lot of details around 2Ku, how the size and the shape of the antenna affords some unique capabilities and benefits.

It's two times spectrally efficient because of the shape of the antenna. It does not have any degradation in the tropical regions that other rectangular satellite antennas suffer from.



But what's important is this antenna takes advantage of Ku-band ecosystem that offers the redundancy and the reliability that I talked about. It solves the coverage problem. It solves the capacity problem. It supports all kinds of application.

And what we did yesterday was the 2Ku antenna was good for large aircrafts. It does not fit on a smaller aircraft or the small fuselage. So we want to deliver a 2Ku-like experience to the smaller aircraft.

And we announced the solution next-gen ATG that improves our current solution and takes it to 100-plus megabit per second while preserving all the customer needs and benefits of overnight installation, lower weight, low latency and all those features that are associated with air to ground.

So I will go into each of these solutions a little bit and see what's going on. So one of the things I highlighted is the easy upgradability or the future proofness being built into solutions, the new built solutions that are based on open architecture.

You transform a solution to a platform. 2Ku's a great example. When we announced this in 2014 and when we did the demonstration last year in 2015, there were wide beam satellites in the Ku-band, state of the art in the modem technology then delivered about 25 megabit per second.

The antenna itself is capable of delivering much higher speed but the modem was the limiting factor and it was limited to 25 megabits per second. We innovated on that modem, did some software optimization and today, we are delivering 50 megabits per second.

Nothing changed on the aircraft. We just rolled out the software release. It's delivering 50 megabits per second.

A few months back, we announced a next-gen modem. We will be swapping out the modem exactly as the drop and the replacement on the aircraft and that takes us to 70 megabits per second, again, matched up - what is installed on the aircraft stays the same.

And next year, with the launch of high-throughput satellite with the same hardware that's installed on the plane, we will be delivering more than 100 megabits per second.

That shows the part of the platform. You get the benefit from the innovation in every component of the value chain without really changing the hardware that's on the platform.

On the high-throughput satellite side, it is not just a one-time improvement. There are plenty of high-throughput satellites that are going to be launched.

If you look at the chart here, already Intelsat had launched IS-29E, the high-throughput satellite covering North Atlantic Ocean and they will be launching here this year another high-throughput satellite.

And in fact, the top four satellite companies, each of them are launching a handful of high-throughput satellite over the next two to three years. And what's more impressive is that any given region in the world is going to have multiple high-throughput satellites covering it.

That is the case today with the wide beam satellite. You got plenty of redundancy. You got ample and diverse supply of capacity and that's going to continue even in the high-throughput satellite world. And Gogo has purchase agreements with all of the leading satellite providers that are listed on this page.

Our innovation just does not stop with high-throughput satellites and 2Ku. We believe 2Ku is the best performing technology for the foreseeable future but as I mentioned in my opening statement and slide, we never assume or we have never averted to a particular frequency band out of a particular technology.

We continue to put R&D investments into future stuff. Just to give you some ideas -- sorry, I'm slide ahead, sorry. Just to give you some - I'll give you an idea about our future innovations here in a minute.



But let me address the issue of network capacity, okay? So with all these high-throughput satellite, one of the questions that often gets asked is, is there enough network capacity to serve all the aircrafts and all the passengers?

So I want to address that with an example. Let's take North America. There are 4,000 mainline aircrafts, the large aircrafts that can take a satellite antenna. And let's go through the math and see about 70% of the aircrafts that's going to be in service active at any given point in time.

Let's assume every passenger, about 100 passengers on an average, are all using the system. We made usage assumption that are pretty aggressive in 2020, each passenger is going to use so much data. The demand percentage of all of that is about 70 gigabytes per second.

If you look at what the satellite providers and the Ku-band are projecting, they're going to have three to four times that capacity in 2020 and more than the 370 gigabytes per second. That's ample capacity, that product exceeds the demand in the Ku-band ecosystem.

In fact, if you look at the evolution of the capacities that the satellite providers are planning over North America or globally, it's going to be 100 plus gigabytes per second even in 2018 and about 400 gigabytes per second by the time in 2020 rolls around in - over North America.

To take into a global scene, all you have to do is multiple this analysis and the numbers by a factor of three to four times and the same math works. There's plenty of capacity to meet the demand.

You can do it in the other direction as well because one of the questions that raised is, what if you have 100 aircrafts around an airport like Chicago, do you enough capacity?

Absolutely. In fact, what I just shown that we can serve 4,000 aircraft over North America. It's almost irrelevant where the 4,000 aircraft are distributed because over North America for example, you got more than a dozen satellite and each of them have several spot beams and you could have multiple satellites, multiple beams taking care of a particular region.

As the traffic grows, you could have access to capacity and multiple satellites to serve that. So there is plenty of flexibility in the Ku-band ecosystem to serve the demand of any particular region whether it's very micro region like an airport or city, macro region like North America or even global scale.

Now this capacity does not include some of the future stuff that people are talking about including our own next gen air-to-ground. If you look at what is ahead of us as good as 2Ku is performing, we continue to make R&D investment and some future stuff.

We are looking at low earth orbit satellite and 2Ku - we're looking at 2Ku being compatible with the low earth orbit satellite if and when they're going to be launched, all the advantages of low earth orbit satellite that are extremely attractive to our customers.

We are investing on antenna technologies. We got 2Ku working in the Ku-band but we are looking at other frequency band as well and we are looking at other form factors.

We are looking at antennas that have electronically steerable beam. In fact, our next gen ATG antenna is one such an antenna that uses electronically steerable antenna technology, right.

So I will cover some details about the next gen antenna. As I mentioned, 2Ku delivers ground-like experience for larger aircraft. It does not fit smaller aircrafts.

So to deliver a 2Ku-like experience for the smaller aircrafts, our solution is the next gen air-to-ground solution. Once again, keeping in mind Gogo's philosophy of you want easy upgradability.

I just want to walk you through our thought process in designing air-to-ground system in the past and designing air-to-ground system that we announced today and we'll be launching in the future.



So when we launched air-to-ground about 10 years back, it delivered 3 megabits per second speed and we did an upgrade to that that's called ATG-4. We preserved all the investments, all the boxes, everything that is on the ground and on the aircrafts.

We just added some antennas and modem and we brought it up to 10 megabits per second. It was a fairly easy upgrade because much of the installation was preserved everywhere, both on the ground and in the air.

And when we go to next-gen ATG, we are doing the same thing. You add a blade antenna to the belly of the aircraft and you replace the modem box with a new modem. This is on the aircraft.

On the ground, it's exactly the same. You replace the radio unit. You add an antenna. You add a radio and you add an antenna and you got the next-gen ATG solution.

It leverages all the investments that Gogo has made from the ground infrastructure. It uses the same cell tower. It uses the same backhaul network. It uses the same core network.

And on the aircraft, airlines - the investment airlines have made - the investments or business aviation aircraft owners have made every bit of [this preserve]. They keep all the antennas, all of their hardware and wiring and cabling on the aircraft.

We just add the blade antenna to the belly of the aircraft, the picture of the antenna is shown there, and we replace the modem box and you get more than 100 megabit-per-second solution.

And all the benefits of air-to-ground of low latency, overnight installation all preserved and we feel extremely excited about it because the addressable market is huge. There are 9,000 business aviation regional jets and small mainline aircrafts that this solution is a great fit for in delivering a ground-like experience.

In conclusion, some of the takeaways I want to leave with you are A, Gogo's relentless innovation continues. It is going to be - they're always based on a customer-first and technology-agnostic approach.

2Ku is already in the market. Four airlines have deployed it. John Wade will offer you more details. The performance is excellent and it's going to get even better with the next gen modem and high-throughput satellite. Next gen ATG is bringing a 2Ku-like experience, a ground-like experience to the smaller aircrafts as well.

We'll take a short break. After that, John Wade will come and tell you how good the reception he is having for 2Ku at the commercial airlines and how excited the business aviation customers are to receive the next-gen ATG solution. Thank you.

PRESENTATION

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

Hello, everyone. If I may ask you, please take your seats so we can continue with our prepared remarks. Now I would like to welcome John Wade to take us through the operations.

John Wade - Gogo Inc. - EVP, COO

Good morning, everybody. I hope you all get a chance to get some coffee and deal with e-mail over the break.

As Varvara said, I'm John Wade. I've been recently appointed to the role of COO at Gogo. Well, I'm not new to Gogo. I was running the business aviation unit for the last eight years. In fact, I've spoken to you for the last couple of years about what's happening in business aviation.



As Michael pointed out, I've got more than eight years' experience in aviation and in fact, it's almost 30 years somewhat [been practically] for me. But the 20 years prior to running business aviation, I was involved in the airlines side but bringing that background to this role.

So before we get in to looking at the individual business units, I want to spend a little bit of time looking at what is common about our customers. So things that are important for them.

And fundamentally, what we're looking at today is that the number one thing people are asking for is to be able to satisfy that relentless need for speed. And you've heard from Anand about how the technology we're bringing today will give you solutions to get you north of 100 megabits a second. Whether you're flying on a 747 or a Phenom 100, we're going to be bringing you the bandwidth that you need.

Reliability is also really important. If you go back to 10 years ago, connectivity used to be a nicety. Today, it's an essential amenity and some of our NetJets customers won't even fly the aircraft if there's a problem with Wi-Fi. It's become that important.

So we focus relentlessly on getting the highest levels of availability and today, I really do think we've got the highest levels of availability in our industry.

Another key component what they're looking for is the minimized operational impact and that's primarily driven by the downtime on the aircraft when they're installing the system in the first place.

For years, we've led the industry with overnight installations in air to ground. We're bringing that same kind of relentless obsession about how you reduce downtime on an aircraft to a satellite solution.

It costs hundreds of thousands of dollars a day to ground the 747 or an A380. We're making sure that our solutions are going to lead the industry in terms like installation time.

Now once the aircraft is operating, it's really important to think about how those solutions are going to be used. And so the airlines' connectivity has become an extension of that brand right into the cabin, for the platforms that we're delivering allow them to extend that brand experience right into the cabin, right into the passengers' equipment and right in front of them.

It also doesn't matter if you got the fastest speed in the industry if it's really hard to use. So we're making sure the interfaces with the passenger are intuitive and easy to use which will increase usage and obviously revenue.

Speaking of revenue, cost of ownership is important in the selection process. We spent a lot of time looking at the cost of our hardware and making sure they're competitive, looking our satellite networks, the networks they're using to make sure that the cost of service is going to be compelling both to the airlines and to their passengers.

So all of these things come into play as we look at the future. Now looking at those strategies maybe a little more detail from an individual business unit perspective, as Michael announced earlier today, we've been fortunate to be selected by Air France KLM, another testament to how 2Ku is really establishing itself into leading products internationally.

We have a backlog of 1,300 aircraft so we're going to be focusing very much on deploying these aircrafts as quickly as we can.

Customer satisfaction is really important whether the passengers themselves or the airlines and I really want to make sure that we're focusing on that and making sure we have again leading kind of customer satisfaction.

Michael talked about how this industry is going to change over the next few years and that OEM installation is becoming increasingly important and I'll give you an idea of what we're doing with that a little bit later.

And as COO, I'm responsible for a lot of money that we spend. I'm sure all of you in the room will be pleased to hear that I'm going to make sure that we are as efficient as possible to improve the overall unit economics for our business.

So with business aviation, I talked last year about the importance of us moving into the lowest end aircraft and I'll talk more about that a little bit. That's really being accelerated now by what Michael talked about earlier in terms of the connected airplanes.

We're seeing applications evolved for flight crews which improves the operational safety of the aircraft and the operational efficiency of those aircrafts. That is going to drive lower end adoption into the business aviation market.

Our 4G product is on track for release in Q2 next year. On the announcement of next gen, the future of business aviation in terms of air-to-ground products is just about assured.

Gogo has had the leading market share for years now. On this chart, it kind of represents where we stand today. And it's great news as you look about and think about our business for the future that as you can see our success today, in terms of our market-leading positions being driven by North America.

Yet today, our business is accelerating even more internationally. So if you look at the top part of that chart there, there was a long, long way for us to go in terms of international growth. So we really are poised to expand and grow this Company and maintain that leading market share.

A year ago when we talked you, 2Ku was a vaporware, it wasn't flying. Yet today, it's flying on four airlines in 14 aircrafts, and that increases at almost daily basis now. What is really cool about 2Ku, it does everything we said it was going to do. See up there, there's an Aeromexico aircraft with Netflix painted on the side. It's working so well that you can get into that Aeromexico aircraft and you can stream Netflix to your heart's desire. Every passenger on that aircraft can do whatever they want to do.

And as Anand said it's today delivering 50 megabits per second and that's just the beginning. The roadmap we have for the future is going to take us beyond the 100 megabits and I'm just excited, hopefully, you can tell about where this business is poised to go.

Its global performance is incredible. In terms of the technology we used with that antenna, it gives the most consistent global performance of any solutions that's out there. It supports live TV and then what is - but wait, there's more moment, it now comes with gate-to-gate service.

In the 30 years I've been doing this, I've seen a number of generations of technology rolled out into aviation that have had a massive deployment over time. But there's one thing I know what to do is how to do this. I was involved in the deployment of in-flight entertainment when it became a requirement in aviation. I've been involved in the in-seat power and in-seat telephony, and most recently in the deployment of the 4,000 aircrafts into business aviation.

We're showing on the left-hand side of the screen, well, our installation capabilities today. By focusing on those four key points on the middle of this slide, by next year, we're going to transform this Company into what's on the right-hand side of this slide.

There's four key elements that are really important as to how we're going to scale this business successfully. For the coming of global company, that requires ability to walk right on a global platform with global logistics. The Maintenance Repair and Overhaul organizations, cleverly called MRO, which gives us the capability to install on a global basis in hangars around the world.

Scaling a company and doing it successfully requires a relentless obsession about quality and the standard in aviation is something called AS9100. Both divisions in Gogo today are AS9100 certified. Using that framework allows to scale these businesses successfully and without introducing areas into the system.

We'll be spending a lot of time focusing on global supply chain making sure that no one supplier can actually take this off the rails in some of the installation plans.



And we're deploying regional capability to deploy our global MROs and global logistics organizations to make sure that by this time next year, we're bragging about just how well we're doing on the right-hand side of the screen.

Today, we have become a global company. Many of you still may think of us as being a North American centric company. But if you look at this global map, everything in blue is where our customer airlines fly today.

Every dot on the page is where we have resource, an office, a teleport, something involved in actually delivering global solutions. We have 450 employees today whose only job is to install aircraft to make sure they keep running. We are a company obsessed about supporting our airlines on a global basis.

STC's are our lifeblood of what we do, and for those of who are not in aviation, STC stands for Supplemental Type Certificate, and it's the thing that the global regulator bodies give you to say you're safe to install on the aircraft. No STC, don't get on the airplane. We're spending a lot of time investing in STC. By the end of this year, we'll have something like 10 STCs, and by the end of next year, we'll have over 30.

That means almost 80% of the aircrafts that's in service today have an STC available for them to do the installation. The reason that's important is it means the timeline for us between selection and installation is, most of them, in a matter of months.

Looking at the new aircraft delivery side of things, I don't know how many people in this room realize that almost 2,000 new commercial transport aircrafts enter the market every year.

For 30 years, I've been involved in doing live installations and I know what it takes to do it. Back in 2015, Gogo had its first ATG OEM installation. The next year, we had our first 2Ku installation. We're working very closely with the OEMs to ensure that by 2020, if you have an aircraft that's coming out of the factory that it can be delivered with the 2Ku system or an ATG system installed.

This pause now, that we talked about commercial aviation. Let's take business aviation for a while, perhaps the heart of my love with Gogo. Today, we've established a very clear market-leading position. You can get a sense for how successful we've been with air-to-ground by looking at the number of installs our closest competitor has had. And the very reason we've been able to establish this leadership position is not just based on ATG, but back to Anand's theme about constant innovation.

Gogo has innovated throughout its history whether it's with the early voice systems, more recently with air-to-ground. And now with the 4G system we're announcing and all the partnerships we're talking about with people seeing the benefits of having connected aircraft and now the advantages of the flight crew and Garmin and others see the benefit of what we can do and are partnering with us to create this application.

If we look at the distribution channel for business aviation, it's a little different to our airlines side of the business. We have the same relationships with the OEMs but in this case it's Gulfstream, Dassault, Cessna, Bombardier and so on. But on the aftermarket side, we have a dealer community.

These are guys that when you take your airplane in for new breaks, tires, and oil change, they'll sell you an upgrade to the avionics too. We have a 150 of those dealers in North America and they have been very, very successful of selling air to ground into the business aviation aftermarket.

You can see some of the results of that. There are over 90 STCs available today for business aviation aircraft. If you have a business aviation aircraft, we could have STC for you.

And then on the OEM side, almost three quarters of every aircraft that delivers into North America today leaves the factory with air to ground installed. Well, that's resulted in, as you can see on the right-hand side here, is this massive adoption of air to ground to the business aviation and as Michael said, there's a long way to go. So I extrapolated this graph set to the right and it's just going to keep climbing.

If you have a business aviation aircraft, we have a system to you. Whether you're flying regionally in North America or you're flying globally, we have a solution that will make sense for your aircraft.



If you look on the left-hand side on these large jets, we've been very, very successful with our air to ground products. These guys clamor for more bandwidth and they're buying propensity is often driven by the - by that desire to satisfy more speed.

We already have air to ground customers. We're committing to install Gogo 4G as soon as it is released. We have numerous STCs that are already in work for the 4G product. They're taking their existing system and upgrading it and that's going to happen with next-gen ATG too.

So in terms of our ability to serve that big side of the big airplanes, we've got a solution from [them in] North America and with the Jet Connect systems when they fly internationally.

Medium-sized aircraft, again, has been very, very vibrant in terms of adoption of air to ground and that same upgrade philosophy is going to happen with these guys with 4G and next gen.

As you move into the smaller aircraft, we talked in the past about the hardware solutions we believe so they could [use] ATG 2000 and ATG 1000. By coupling that with the third party applications that enable the flight crew to do things like avoid turbulence and save fuel, we're seeing a number of these smaller operators who own the aircraft and fly the aircraft saying to us for the first time, I get it. I get now why I need broadband because without broadband, I can't make use of this application.

So, look for us to continue that expansion of those applications which will drive the need and the desire for those smaller aircraft to have broadband. In the past, we haven't thought about that turboprops but there's a lot of them out there and they're going to have that same compelling need to put broadband on, not every turboprop only carries four passengers, some of them carry as many as almost 20. They have needs for broadband and we're going to continue to see those aircrafts start to take on broadband.

So the three things I'd like you to walk away from today with a high level of confidence in, the first is the 2Ku is establishing itself as a fundamentally important part of the aviation ecosystem. 1,300 aircraft are going to be installed with that. As soon as you fly 2Ku, you'll realize what a game-changing technology it is. More airlines are going to sign up because they see the benefit and the power that it brings. It's truly game-changing, truly transformative.

I'm going to be relentlessly driving us to install those 1,300 aircraft as soon as we can. So there's a pent-up demand for more bandwidth, the global airlines are yet to really see that, with 2Ku, we're going to be able to transform the international landscape.

Then finally, I couldn't possibly finish the presentation without reflecting a little bit on the future for business aviation. The business is running extremely well and continues to grow with all the other applications and the new hardware platforms we're introducing. I fully expect to see that business continue into the future and grow strongly and profitably overtime.

So with that, that's my thoughts. It is my first presentation to you as COO. Sorry, Michael.

I'm going to hand it over to Norm who'll run you through the numbers.

Norm Smagley - Gogo Inc. - EVP, CFO

Hi. Good morning, everyone. Nice to see all these smiling faces waiting for us this morning.

So we've shared with you our vision, our technology roadmap and how we're going to continue and take care of our airline partners. Now, we get to the really important stuff which is how all these translates into creating shareholder value.

So, let's start by taking a quick look at how much we've done so far.

Okay. If you look at the numbers here, it belongs to commercial aviation in 2008, since 2009 we generated a 54% compound annual growth rate of revenue. With improving network utilization and operating leverage, we've driven profitability extremely high in the similar timeframe.



Anand, thanks for the point of ideas in your technology curve as your performance success points because I think I will use this one is mine.

So, how do we keep this moving forward? Let's take a look at that. The financial model for the Company is pretty straightforward. When you think about the business, we think in terms of four key drivers. One, win more aircraft. Two, get a quick payback in any co-investment we make. Three, drive ARPA and get more revenue from each plane. And four, improve margins particularly on the rest of world side.

So let's take a couple of minutes and talk about each one of these one at a time.

So with the number one driver, getting more aircraft online. We focus on large fleets and as you can see, we have been very successful in winning those, driving our 2Ku backlog over 1,300 aircraft at this point. By 2018, we'll have most of that backlog installed.

From that, we'll have a very valuable portfolio of STCs and cover about 80% of the world's aircraft and we'll have established a very high volume 2Ku install rate and we'll have OEM offerability. Combining those things with our technology leadership and our own track record, it's clear that we will continue to win more fleets.

The second key driver, the payback in our co-investment is a quick two to three-year period based on gross margin from only current ARPA.

The co-investment for our aircraft is trending lower, we expect that trend to continue as 2Ku further strengthens its leadership position in the market place. On the second quarter call, we gave guidance on installs and cash CapEx through 2017, now we're going to extend that through 2018. We're looking at 2Ku installs between 550 and 750 aircraft and cash CapEx of \$170 million to \$205 million.

I'm going to use a four-letter word now that I really don't want to but you'll have to bear with me. As you know, cash CapEx includes network infrastructure and capitalized software. The bulk of this spending note is on success-based co-investment for airborne equipment.

Now, under GAAP which is the four-letter word that, excuse me, for using but I have to make it clear, the airborne equipment that we sell to our airline partners that stays in our balance sheet, as you know, we discussed them many times. So it replace the amount of equipment we purchase not necessarily what we install.

That amount, obviously, driven by the number of installs and ongoing inventory requirements but when we think about the cash CapEx guidance range, remember, it's driven by more than installs alone.

I thank you for your forgiveness in mentioning the four-letter word.

So, we talked a lot about next-gen ATG both in - I mentioned the benefits of it. One benefit I'd like to highlight is that it's actually the cost of what the 14G solution would have been and gives us the same performance.

Reason it's a low cost project is because it leverages our existing ATG network infrastructure and it can be deployed on the phased basis. So, earlier we showed you that it will be about a \$50 million deployment cost. The CapEx numbers that I showed you for '17, '18 and that range don't include those amounts because we're still refining our deployment plans. I just want to point that out here, it was on the slide but just in case you missed it.

Now, this solution significantly increases the long-term strategic value of our ATG network because it will support our BA aircraft and CA regional jets over the long term.

So, third key driver, ARPA. More revenue -- sorry -- more bandwidths, that is more revenue for aircraft, drives in more ARPA.

In North America, by the end of 2018, we'll have about 30% of the fleet or about half the mainline aircraft installed with 2Ku that will begin to have a meaningful impact on ARPA.

We'll also be passed the year-to-year dilutive impact of adding more [RJs] and most of those will be installed by the end of this year. You all thought of these planes with 2Ku will free up significant capacity and have a positive ARPA impact on the remaining ATG aircraft. The rest of world, most all the new aircraft will be installed with high capacity 2Ku bringing 100 megabits plus per second each aircraft.

So we won't have meaningful ARPA impact from a dilution because there are very smaller jets. ARPA will impacted by dilution from the new fleets that we're adding on particularly over the next couple of years but we'll accelerate after that. Importantly, though, keep in mind on the incremental basis every aircraft we installed with 2Ku is accretive.

So more bandwidth gives us the flexibility to drive revenue in ways that is more difficult in a capacity constrained environment. The increased capacity enables to expand the use driven by additional payers including airlines and third party sponsors.

It's already happening and I'm going highlight through examples to give you the feel for how we generate that revenue. With Japan Airlines, we've rolled out a program which the airline is paying for 15-minute sessions and giving them away free to all the passengers. This has significantly increased the ARPA growth of that particular airline and has also great passenger benefit.

With Delta, they're offering Delta Studio which is a private label version of Gogo Vision, free to all passengers, and paying us directly [for the session]. That's driving non-connectivity revenue.

We've also been in partner with T-Mobile which they're buying sessions from us and providing them free to their subscribers.

As Michael mentioned earlier in the presentation, all these represent expanded revenue opportunities which will continue to increase as a percent of total service revenue as more bandwidth becomes available.

Now, let's turn to our fourth key driver which is improving margins. But first, let's take a look at what we already achieved with BA and CA North America. BA introduced its first broadband service in 2009. You can see that huge improvement in service margin that had generated.

It's now more than doubled what it was in 2009. You can also see that after launching the CA North America business in 2008, the margin on service revenues had a dramatic improvement as the business has matured, getting more aircraft that's increased revenue and improved network utilization. The same thing will happen in the rest of world.

As we install more aircraft to increase total revenue and improve utilization of our global satellite network, with the benefits of 2Ku two times spectral efficiency and reduce high-throughput satellite bandwidth cost, we expect to exceed 50% service revenue margin in 2019, a huge swing from where we are today.

Now, also, as you would expect, the trend in segment profit margin will follow that service revenue margin. Again, let's look at what we've already achieved in BA and CA North America. Segment profit margin increased more than 3.5 times since introduction of broadband in the BA business driven by service margin increases and operating leverage.

In CA North America, we demonstrated the same trend with a dramatic improvement of positive segment profit margins also driven by service margin increase and operating leverage.

Now, particularly, in the rest of world, we're investing in STCs, OEM offerability and to complete the build out of our global infrastructure.

The benefit of the increased bandwidth from 2Ku comes on as we install those aircraft. As with the other segments, rest of world will generate an attractive return of profit margin driven by improving service margin as we've just discussed and increase operating leverage from global and operations as we add more aircraft.

We're targeting a 30% segment profit margin in rest of world by 2021. The economics across all the businesses are the same. Higher revenue for more aircraft and more bandwidth and improved margins and operating leverage drives us to profitability. It's as simple as that.



So the key takeaway from today is that all the elements are in place to achieve profitability. Looking at the four elements of the business drivers, of the business model again, one is aircraft, most of the 2Ku backlog will be installed by 2018, proven winning track record and technology roadmap will drive new awards.

Two, ARPA. We'll see moderate ARPA growth in the near term as 2Ku installs ramp up in CA-NA and we experience the dilutive impact of the new fleets in rest of world and will accelerate after that. We're targeting ARPA to double in 2021.

Three, investment per aircraft. We're looking at a quick two to three year payback of co-investment right now based on current ARPA gross margin and we expect the coinvestment to continue to decline as it has been.

Four, margins. Rest of the world will [be stopping a drag in] earnings as we get a 50% service margin target in 2019 with further improvement to our targeted 30% segment profit margin by 2021 resulting consolidated adjusted EBITDA margin targeted at 30% also by 2021.

I'll now turn it over to Michael who for concluding comments.

Michael Small - Gogo Inc. - President, CEO

Thank you, Norm.

I'm going to take this last slide from the ground up. I think John Wade showed quite clearly how we are embedding 2Ku in the aviation ecosystem both in the aftermarket as well as the OEM channel.

Anand was clear that we now have ground-like experience not only for the large jets but also for the small jets and we feel tremendously good about the technology roadmap in front of us. And then there's two factors that we're getting on planes with break technology providing more bandwidth. It's ultimately what drives the path to profitability that Norm laid out for you.

So we're ready to take your questions and I'll ask my team to come up to the stage and join us - join me and we'll spend the next hour or so doing that.

QUESTIONS AND ANSWERS

Michael Small - Gogo Inc. - President, CEO

We need chairs to answer questions.

(Multiple speakers)

Michael Small - Gogo Inc. - President, CEO

I think the way it's going to work because we are webcasting this, is Varvara will be up here to - she will repeat your questions just to make sure they're heard on the webcast. I think there will be some microphones going around the room but that never runs perfectly.

And who has the microphones, to start walking around. There you go. All right.



Varvara Alva - Gogo Inc. - VP of IR, Treasurer

We should have three mikes in the room. If you don't mind, please raise your hand, state your name, the company you're with and go ahead with the question and if I need to repeat it just to make sure, we get it captured in the webcast, I will -- so do we have the first question?

Marc Buchheit - The Knickerbocker Group - Analyst

Hi, my name is Marc Buchheit from Knickerbocker. Could you talk a little bit about your assumption on take rates? Currently, you have a take rate in the low 6% range. We have a cell phone penetration rate in this country that now exceeds a 100%. I don't know what the smart phone penetration rate is. But could you talk a little bit about your assumptions about take rates over the planning horizon?

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

Take rates and where do they go in the future, Michael?

Michael Small - Gogo Inc. - President, CEO

Yes. Take rates ultimately every passenger on the plane will be connected. I do think it takes the multipayer model to do that but the airlines will want to communicate with their passengers on a real-time basis per rebookings, whatever.

So, you know, I think the only open debate is how much bandwidth to which passengers and who pays for it. We will, we are, as we sit here today, because of the more bandwidth in some of the new partners that Norm describes on his ARPA page are already starting to see take rates pick up. The big inflection point is more bandwidth and that's happening now.

By 2018, we're going to have a real difference in the amount of bandwidth reach in our planes and I think, you know, somewhere around that, I would expect inflection point to start happening.

Marc Buchheit - The Knickerbocker Group - Analyst

Great. In the same vein, on slide 22, you talked about assuming a 100 passengers per flight and assuming your projected consumptions per session. Could you talk a little bit about what went into those assumptions and how quickly you expect consumption per session to grow and recognizing this is a high class problem? But if we think that everybody's going to be connected, why are only 100 people on the flight using broadband and how does that factor into the plans?

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

So consumption per session on the commercial flight, I think great question for Anand.

Anand Chari - Gogo Inc. - EVP, CTO

Yes. In that particular example, it was a North American example so it's fair to use about roughly on an average 100 passengers just for planes. That's the reason we use the number of 100 passengers just for plane.

It was essentially to show that with 100% take rate, nearly 100% take rate, 100% market share, there's enough capacity in the ecosystem to meet the demand. In fact, in all of those flexibility, even if the demand grows beyond what we are projecting, we can still meet it. On the first session consumption, we assumed in that one, an average of about 250 kilobit per second per session and that is because the nature of the internet traffic is bursty.

You got 20 megabit per second. People consume. There are idle periods, busy periods, browsing, streaming, e-mail, all that, and that is a pretty aggressive assumption if you look at what third party estimates are as to what the consumption is today, it's a pretty aggressive assumption that we made.

And it doesn't matter whether it's far exceeds that. The point is there is enormous capacity in the ecosystem even if the demand exceeds what we projected.

Varvara Alva - *Gogo Inc. - VP of IR, Treasurer*

Question from Simon. As a reminder, please state your name and --

Simon Flannery - *Morgan Stanley - Analyst*

Simon Flannery, Morgan Stanley. Another one for Anand. Can you give us a little bit more color on the next-gen ATG? You talked about using unlicensed spectrum. What do you need to do to make sure that you have access to that that there's no interference (inaudible) and if you can identify the spectrum and have [orders I have seen] you can have a lot more, 60 megahertz, something like that. So any color you can provide around that?

And then the network side of it, you talked about 50 million. Can you just give us a little bit more color about -- is that the antennas? Is it going to be 250 towers getting more powers? Any detail on that would be great.

Anand Chari - *Gogo Inc. - EVP, CTO*

Sure. So it is a combination of unlicensed spectrum and licensed spectrum that makes up the next-gen ATG solution. It's an integrated solution that leverages off licensed spectrum and unlicensed spectrum. The unlicensed spectrum that we plan to use is in the 2.4 gigahertz. It's the Wi-Fi spectrum that are - there is 83 megahertz spectrum available in that and we plan to use about 50 megahertz for that.

And we already told you in the slides, we use the wireless access technology for that portion of the spectrum with the LTE and use beamforming antennas.

And to your question about what upgrades are needed on the ground, you need new radio for the new spectrum and new antennas for the new spectrum and we will use - we plan to use all the 250 cell sites. There might be some changes here and there. But for the most part, we will use all these 250 cell sites and the cost, \$50 million upgrade to 250 cell sites with a new radio and a new antenna.

Varvara Alva - *Gogo Inc. - VP of IR, Treasurer*

Next question is from Ash.

Ash Birla - *Dougherty & Company - Analyst*

Hi, I'm Ash from Dougherty. I have a couple of questions. One for Anand and one for Norm.

So Anand, you talked about getting - capturing bandwidth from LEOs and so can you clarify if the 2Ku today can do both LEO and GEO in sustaining that because one of your competitors made a comment on a conference that 2Ku cannot capture bandwidth from the [LEOs].



Anand Chari - Gogo Inc. - EVP, CTO

Yes. So, no. Those 2Ku will work with the LEOs as well. That our elements of low earth orbit satellite because there are several hundreds of them, you know, around earth at any given point, you could have a few every few minutes. There will be a new satellite that will come in the view and they got to do some handoffs and so on so there are technology but the 2Ku, essentially, that antenna state if we deliver phenomenal performance even in the low earth orbit satellites.

There are modifications required to deal with LEOs. We are not going to publicly discuss and disclose all that. That's the part of these future R&D that we are working on and, again, we are quite happy with the performance of 2Ku with the geostationary satellite but that is just to show that we are not going to be closed to new ideas and new innovations and continue to invest in if that was the point but whatever minor modifications are needed, we'll be able to take care of that. But 2Ku will still work with LEOs.

Ash Birla - Dougherty & Company - Analyst

And, Norm, just one question on the next-gen ATG that you talked about, what kind of ARPA, because there won't be probably no [life feeding] on that, so what kind of ARPA are you expecting?

Norm Smagley - Gogo Inc. - EVP, CFO

We haven't given ARPA by technology or anything like that in terms of ATG. What we're doing is to target doubling by 2021 in commercial aviation.

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

Question?

Andrew DeGasperi - Macquarie - Analyst

Thanks. Andrew DeGasperi, Macquarie. First question, Norm, maybe can you describe us the CapEx number for 2018. Is that a snapshot of the business as of today or including maybe a softer traditional wins over the new few months?

Norm Smagley - Gogo Inc. - EVP, CFO

It's based on everything we know today and how we think it will hit 2018.

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

I think we have a question over there.

Unidentified Audience Member

Hi, Norm. I have one. I wanted to just ask a question. Your presentation to that slide had a ton of what was, to me, new information. I just want to make sure that I'm thinking about it in the right way and I know you're not providing projections. But is it reasonable for me to think of it this way that you got 2,800 planes installed today. You have a backlog of another 1,300, some of which would be replacing existing plans as they - as they are retired. But in aggregate, that's 4,100 planes minus those retirements.

But between 2018 and 2020 or 2021, you're going to presumably get more planes that you'd be installing because that backlog will be installed through '18. So I said to myself, you'll get some additional amount. So we're 5,000, maybe 5,000 planes by 2021 and this is -- what I'm going to admire, I'm not asking you -- and your saying that ARPA should double by that time to around \$300,000 a plane.

So to me, I'm saying, that's a billion and a half dollars of revenue plus whatever the business - the business jet revenues are, so maybe that's another \$300 million or \$400 million. You're starting to push towards your \$2 billion company and then you said that there 30% consolidated margins. So that consolidated margins, I'm assuming is across the segments. So you have a business that if you follow those points, might generate \$600 million of EBITDA.

So my question which is at the end of it, is if we - A, are those premises correct? Am I thinking about it in a right way? And then, secondarily, when I looked at the CapEx that you put up on the screen as well which was a lot of it for shared investment in 2Ku as well as the network, can you assume that that trajectory is funded or likely to be funded? I know that's at a, you know, you can't predict your financing plans by today's balance sheet.

Norm Smagley - Gogo Inc. - EVP, CFO

Yes. I think that's a reasonable framework to think about the business and the cash flow dynamics. I think that's right.

Unidentified Audience Member

And the business that's funded to perform that.

Norm Smagley - Gogo Inc. - EVP, CFO

Yes.

Unidentified Audience Member

Thank you very much.

Carter Mansbach - Jupiter Wealth Strategies - Analyst

Good morning. Carter Mansbach with Jupiter Wealth Strategies. So I have a marketing question. So I've flown on Delta with Gogo's on. If you didn't catch it for the second that they mentioned that you didn't even know there was internet on the plane. So, two questions. As 2Ku rolls out, do you see the marketing efforts both by Gogo and by the airlines to be more aggressive? And do you guys have any marketing plan to change the perception of what Gogo was to what Gogo is becoming?

Michael Small - Gogo Inc. - President, CEO

So, a couple of comments on that. Yes, we've been in a period where we haven't been trying to encourage more usage and that's going to change rapidly. And so the marketers will hit the market and very excited to do that.

And, to me, the number one changer of perception, 2Ku starts flying, all of a sudden, we're going to be the best -- we're going to be the one with the best service out there and the install lines are happening now and by spring, there's going to be lots of planes out there and lots of people are going to be trying it and your product speaks volumes.

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

Next question is from Ross.

Ross Margolies - Stelliam Investment Management - Analyst

Ross Margolies, Stelliam Investment. This is related to next-gen ATG. Are hybrid solutions back on the table given the speed that you're coming out with now?

And secondly, is there a strong economic argument to make to airlines that have a slow connecting satellite product you might want to upgrade to for an older airplane that they're going to retire in, say, five years or seven years whenever? Will they be able to economically install next-gen ATG to improve their product quality and could they just even turn off the satellite and use next-gen ATG if they wanted to save money?

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

So, a question for Anand first and do we have plans for a hybrid solution?

Anand Chari - Gogo Inc. - EVP, CTO

So we have the capability of a hybrid solution. We announced the hybrid solution product several years back and if an airline wants that, they want both the satellite system and the next-gen ATG system, they can have it. So those brings us plenty of choices for the airline.

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

The second part, I believe, was whether or not some of the aircraft that have lower satellites connectivity system, does it economically make sense for them to upgrade and get current satellite solution?

Anand Chari - Gogo Inc. - EVP, CTO

In my view, yes. It would make sense both economically and from a performance standpoint. Again, if performing slower, so you need more bandwidth, you need more people using it and, you know, air to ground, next-gen air to ground would be a lot more economical than the slow satellite system, whatever that is that they have. So it makes sense and we'll be happy to entertain such opportunity.

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

Next question? Louie?

Louie DiPalma - William Blair & Company - Analyst

Michael, John and Norm, you gave your forecast regarding average revenue per plane over the next five years. And currently, I think you have about 260 aircraft equipped with the satellite technology and your run rates for bandwidth cost are approximately \$44 million per year. So I was wondering, how do you expect those bandwidth costs to scale as you go from 260 satellite aircraft to 1,400 satellite aircraft over the next four years?

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

Great question for Norm. How do we expect our satellite capacity cost of scale from where they are today to enable those other aircraft?

Norm Smagley - Gogo Inc. - EVP, CFO

Well, it's going to go up. I also -- okay, okay. (Inaudible) in the marketplace coming down will continue to come down. So cost per bit will continue to decline. We will -- as they put through a lot more bits through the system but revenue will go up and commensurate with that. So might as well expand.

Michael Small - Gogo Inc. - President, CEO

We have a lot of capacity that is we can leverage the utilization of. We have a global satellite network, those 19 satellites and 18 teleports adding planes to that price drives the cost per unit down substantially.

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

So while there will be an increase, it's going to be an incremental increase - the big slug of the investment is already in and then, obviously, as that volume of planes come up, we'll expect to see some significant utilization.

Next question, your boss, over here.

Jim Breen - William Blair & Company - Analyst

Thanks. We appreciate that. Jim Breen, William Blair. Can you just talk about, you know, you're talking about how much revenue per plane needs to get going to whether it's doubling over the next four or five years? What have you seen so far where you've got to 2Ku planes launched? You know what usage is, you're seeing what the revenue per plane is, sort of. What are the early indication there that would give us confidence that those numbers are going to go up.

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

Question for Michael. What do we currently see on 2Ku planes in terms of ARPA?

Michael Small - Gogo Inc. - President, CEO

So we have 14 planes flying as of when we put these slides together. There might be one or two more as we sit here. We have the usage data and the usage is way, way up. But they're all in various stages of deployments. Some are free usage for the customers, some are introductory pricing. Way, way, way too early to get data on ARPA.

But the usage and the experience and how customers perceive the experience, they're thrilled. It's a whole different world. It's a ground-like experience.

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

So, Michael, we actually have probably more data on 250 satellite, Ku-satellite connected planes. Can you talk about the ARPA differential there versus the ATG-4?

Michael Small - Gogo Inc. - President, CEO

Well, it was recorded that the satellites are - I mean, planes are now exceeding in ARPA what we do on the U.S. and that is a blend of the Delta international fleet and the very short haul, Japan airlines fleet. But, yes, when you bring more bandwidth, you bring more revenue. We have a lot of evidence of that. It's too early to say that about the first 2Ku planes [bought].

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

Great. Thank you. Next question?

Robert Gutman - Guggenheim - Analyst

Yes. Robert Gutman from Guggenheim Partners. John, you mentioned 2017 could see OEMs installations for 2Ku. Is that, you mean, a full line-fit or is that factory retrofit and what can you tell us about process that gives you confidence that that will occur in 2017?

John Wade - Gogo Inc. - EVP, COO

The reason we have confidence is it's a confirmed program. We're in the, sort of unique position and that in the past, the OEMs are really focused with line-fit, that they want to be able to offer to their customers the ability to post delivery installs as well [parts] of the aircraft being received by the airlines. And that has got a number of benefits to the airlines and it maintains the factory warranty on the aircraft.

So, in fact, we really think we'll see both line-fit installations as well as post delivery mode installations overtime.

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

Next question.

Lisa Friedman - UBS - Analyst

Hi. Lisa Friedman from UBS. I just wanted to ask about the KLM-Air France win. Was it a competitive bid situation, how long was the sale cycle? And then, Michael, you had mentioned that most of the future opportunity is Asia and the Middle East.

So, I know you guys have the JAL domestic fleet, you have the Hainan Airlines term sheet, but there hasn't been a lot of that activity to date in that region so I'm just wondering how Gogo is perceived and positioned and, you know, what are the sale cycles looking like over there as you're trying to enter that market? Thank you.

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

The first part is Air France-KLM. Tell us a little bit more about that win and how long that --

Michael Small - Gogo Inc. - President, CEO

Most of these are long sale cycles and that one was no different. I think it's been multiyear since we first had a discussion. It was highly competitive and at the end of the day, they chose Gogo not only for the 2Ku but the whole package, the aircraft operations and the platforms. We're going to be able to better take them into the connected aircraft stage than our competitors whatever is the decision they made.



We have now a substantial portion of the TransAtlantic traffic. IAG, Air France-KLM, Delta International flights. We're - I think we're pushing, actually, for leadership already in TransAtlantic. We are now turning increased attention to the Middle East and Asia and I'm totally optimistic we're going to win there for the same reasons we won in Europe.

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

With our presence in China, I think we recently announced the [fly over] right. Do you want to maybe just mention the importance of that?

Michael Small - Gogo Inc. - President, CEO

Yes. So, we are - our network is truly global now with 19 satellites and the final push was to get rights to use that everywhere and you have to get country by country right and we just received the right from - for China and the Delta International Planes will begin - will be turning on, I think, early next month to - for service over China.

So, yes, we have operating capabilities everywhere, of course, that's going to be necessary to turn on the Hainan and Beijing Capital aircrafts as part of the Shareco the deal too.

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

Next question over there.

Sergey Dluzhevskiy - Gabelli & Company - Analyst

Hi. Sergey Dluzhevskiy with Gabelli & Company. Michael, could you share your thoughts and expectations for M&A environment in the industry. And also, as you look at your company, do you see any need to acquire these new capabilities whether it's technology software or maybe in certain regions, certain companies, with certain customer relationships? How do you think about that versus the organic growth?

Michael Small - Gogo Inc. - President, CEO

We are focused, first and foremost on organic growth. We think we have a lot of technology capability internally and we partner often on an exclusive basis when we don't have it internally. So I think this is an organic growth story, first and foremost. I do think the industry, there are actually aren't that many players in the grand scheme of things, about a half dozen players in this industry for early stage global industry, not a tremendously big number but that will consolidate down. It takes a lot of planes to succeed in this industry to make the investment in network technology aircraft operation and platforms, so somehow another, there will be some consolidation and the larger players will be better.

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

Next question in the back.

Walt Piecyk - BTIG - Analyst

Thanks. Walt Piecyk from BTIG. Anand, I have a followup question on the unlicensed spectrum. You mentioned it's in combinations with licensed spectrum. Is that combination with your existing license spectrum, or is there another band that you're looking at?



And if so, is that acting as effectively as controlled channel to handle what's happening in the unlicensed bands, or more to what's going on with the unlicensed LTE? That's the first question. And the second question is if you can talk at all about what the process that you have gone through with the FCC at the OET or what you have to go through going forward in order to implement this plan? Thanks.

Anand Chari - Gogo Inc. - EVP, CTO

So, it is that licensed spectrum portion of that solution is our current three to four megahertz, 850 megahertz spectrum that we have and the second question was around --

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

What's the process with the process with the FCC --

Anand Chari - Gogo Inc. - EVP, CTO

No. Before the process with the -- yes, the control channel or what the -- so we are not publicly disclosing all of those details. It's an integrated solution, everything from control channel to payload and then the traffic. There are a whole bunch of details there that's unique to Gogo and so in due course, maybe we'll disclose more details. But this time, it's going to remain confidential information.

As far as certification from FCC and the unlicensed band, you really don't need any certification other than every transmitter, licensed or unlicensed bands, has to get FCC certified. So you got to do the testing through the certified labs and present the reports to the FCC, so that process is a standard process. We have done it hundreds of times and the world knows how to do it and we'll be doing that.

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

As a reminder, if you have a question, raise your hand and state your name.

Ned Zachar - KLS Diversified Asset Management - Analyst

Ned Zachar from KLS. For the ARPA, you gave the 300,000 figure over a period of four, five, six years. How much of that revenue will be airline passenger-centric in nature whether it's they pay for it themselves or T-Mobile buys [some of the caps] as compared to airline operations in nature which with nascent, if anything, at this moment in time? Thank you.

Michael Small - Gogo Inc. - President, CEO

Yes. Most of that will still be passenger-centric even within the five-year timeframe. In the long run, we think someday, when we look at how valuable this is to the airlines, the aircraft operations base, it won't happen inside, that would be well beyond 10-year timeframe where that can happen.

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

Next question? Simon?



Simon Flannery - Morgan Stanley - Analyst

Thanks. John, you had a very helpful slide looking at the scaling of the install process. The STCs are a big part of that in the past. It's been - the FAA has taken their time on some of these. What sort of visibility, what sort of clarity do you have? Is that a process that's a lot cleaner today than it was or is that something where just a little bit uncertain?

John Wade - Gogo Inc. - EVP, COO

There's always going to be a little bit of uncertainty when dealing with regulatory agencies. What I will say, though, is the more familiar they get with your STCs new packages, the easier and quicker generally tends to be. So overtime, I think that uncertainty or lack of certainty will diminish.

Unidentified Audience Member

Hi. You made a very significant announcement with regards to next-gen ATG and it caused me to do a little more research and I see that SmartSky Networks just last week got some significant funding. Can you talk about who they are, what kind of competitive threat, what kind of patents they say they have and what that really means for next-gen ATG?

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

Question for Michael. Why don't you take that through?

Michael Small - Gogo Inc. - President, CEO

Yes. SmartSky, it's - in some ways, John Wade is most familiar with them because they've been primarily addressing the business aviation market. They just, I guess, yesterday revealed that they're using 2.4 on unlicensed bands and they have plans to build an air-to-ground network in the unlicensed bands. We would distinguish that from us, which is using both bands, and we know that gives us substantial performance advantage and the way we're able to design the system, we know we can do it dramatically cheaper because they already have the cell sites from the backhaul and the existing spectrum.

We know we have a massive dealer network and we know we have thousands of installed planes today. So and we are thrilled that what we believe the performance of our system will be.

So I think they will be - this is an exciting business. A lot of people are going to be trying to get in to it. We love our position.

Andrew Spinola - Wells Fargo - Analyst

Hi. Andrew Spinola, Wells Fargo. Anand, I wanted to ask you specifically about the beamforming technology that goes into the next-gen ATG. It doesn't seem to me like you can acquire base station - LTE base stations off the shelf that are capable of beamforming. So, it means SmartSky has, apparently, had to rely on Harris Corp.

And I'm wondering where you're getting your technology for beamforming with LTE, what partnerships may be on the technology side you guys have secured to be able to support the beamforming or are you doing it on house? Thanks.

Anand Chari - Gogo Inc. - EVP, CTO

So, first of all, beamforming using LTE is well known technology, it is more effective when you have a line of sight communication like from the base station to a plane and the targets, and so on, on the ground. It's effective as well but it involves different dynamics.



And we are not doing it in house. We are using a third party vendor and there are smart antenna technologies going on in the plane as well. I covered that as the combination of both. And at this point, we are not disclosing the suppliers or vendor names. But it is not -- you're correct. It is not -- you cannot take off-the-shelf LTE and then just magically work, that's not the case.

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

Raise your hand if you have a question and name yourself and [from what firm].

Eileen Chen - GSO Capital Partners - Analyst

Hi. This is Eileen Chen from GSO. My question is about rest of world, as you moved into Asia and the Middle East, are you seeing the same level of enthusiasm from passengers and airlines for Wi-Fi capability? And then in regards to Europe, given your announcement, next-gen ATG could be the better solution for [flight routes] over land and we know that Inmarsat is building out their own ATG network. Do you foresee them being a substantial competitor in Europe going forward?

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

Okay. So, yes, a two-part question. The first one is what is the passenger enthusiasm like in Asia Pac regions and, I guess, in rest of world? How does it compare to North America?

Michael Small - Gogo Inc. - President, CEO

Yes. The enthusiasm and rest of world is every bit as high and - for the connected aircraft and also for our 2Ku solution. I would say that line-fit or OEM is a bigger factor as you - particularly in the Middle East so that's why what John Wade took through is critical there.

But also, a lot of the locations, the equatorial tropical region is more pronounced. And so, not only is 2Ku better generally, it's going to outperform to a greater degree on a lot of those flight routes. And then the --

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

The second part was the Inmarsat euro ATG network and --

Michael Small - Gogo Inc. - President, CEO

Yes. So, yes, as Anand describes, our next gen ATG solution relies on both spectrum bands, integrates them. So why it's conceivable in Europe, it's not as elegant and so the [2-4] is available but the 850 isn't and [that is online] and the rest of world. We see rapid adoption of satellite going on in Europe and remaining opportunity for an air to ground network is less.

Also, in the target aircraft for the ATG solutions, two thirds of the world's business jets are more - are in North America and most of the regional jets that would use - are more often here than anywhere else in the world.

So we actually have the right solution in the right geography. I think it's going to be air to ground - it might pop up elsewhere but it's not as obviously the case.



Varvara Alva - Gogo Inc. - VP of IR, Treasurer

Right. Next question, back to Louie?

Louie DiPalma - William Blair & Company - Analyst

Hi. T-Mobile is considered very progressive in their marketing and they've obviously partnered with you for sponsored in flight connectivity. Can you provide any more color on any other conversations that you may be having with internet companies or telecom carriers on a global basis for sponsored data because that seems to be one of the next, you know, big drivers for getting the take rate from 6% to 30% or 40%?

Michael Small - Gogo Inc. - President, CEO

Yes. So we won't comment on any specific deals but you're absolutely right on the trend and that's why we featured multi-payer. It's someone else wanting to pay the bill. It's much more likely that passengers going to use it. We totally agree with that.

And the motivation for some of these partners is often the positioning. T-Mobile is now all of a sudden business traveler focused on a very economical base. I think that - I ain't going to say million but I think billions of media impressions.

Netflix painted a plane on AeroMexico. We only have five planes flying at the time and I think they got over a billion media impressions from doing that. So there's a lot of reasons for third parties to want to play in this game.

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

Great. Any other questions from the audience?

Unidentified Audience Member

Hi. I'm (inaudible) from [Woodsbury] Management in Hong Kong and I was just wondering if you would sort of 50 years out into the future, can you ever see a point in time where we can just use our own smart phones directly in the air with our carrier?

Michael Small - Gogo Inc. - President, CEO

I'm going to turn that over to Anand. He might need to do that to keep those performance review 50 years from now.

Anand Chari - Gogo Inc. - EVP, CTO

So, it really depends on phone manufacturer and they got to make planes that's just [loud on] -- I really don't see how you pick up a signal from the ground and use it. We could certainly - we already have this today where you could go on your phone, for example, the T-Mobile program. As you turn on your phone and turn on Wi-Fi calling or Wi-Fi texting, just there is not much else you need to do and just be automatic what's called the registration and authentication and you are free to use your phone.

So we certainly see a day here you really don't, as a user, you don't need to do anything. Just turn on your device and start using it. That is there today and it will become more seamless into the future.

If you're talking about [RF] technologies and so on penetrating the fuselage and getting to the plane, I don't think -- at least I don't see a way forward from that.



Michael Small - Gogo Inc. - President, CEO

Yes. So the power levels in the phone and the antenna quality in the phone is just not the same as that in airplanes. So, you know, but I agree with Anand. We're going to make it appear that way to the customer but you're going to need our network infrastructure in the middle even 50 years from now.

Varvara Alva - Gogo Inc. - VP of IR, Treasurer

So, any last questions in the audience or are we ready to wrap up?

Michael Small - Gogo Inc. - President, CEO

All right. Well, this is good because we got to get home. We got a lot of 2Kus to install.

So thank you everybody. Gogo's never been stronger and we appreciate your attendance today.

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