

Operator

Good day, ladies and gentlemen, and welcome to the Intel Corporation Q1 2016 earnings conference call. At this time, all participants are in a listen-only mode. Later, we will conduct a question-and-answer session, and instructions will be given at that time. As a reminder, this conference call is being recorded.

I would now like to turn the conference to Mark Henninger, Head of Investor Relations. You may begin.

Mark H. Henninger - Vice President-Finance & Director-IR

Thank you, Nicole, and welcome, everyone, to Intel's first quarter 2016 earnings conference call. By now, you should have received a copy of our earnings release, CFO commentary and the announcement of our restructuring program. If you've not received all three documents, they're available on our investor website, intc.com.

I'm joined today by Brian Krzanich, our CEO; and Stacy Smith, our Chief Financial Officer. In a moment, we'll hear brief remarks from both of them, followed by the Q&A. Before we begin, let me remind everyone that today's discussion contains forward-looking statements based on the environment as we currently see it, and as such, does include risks and uncertainties. Please refer to our press release for more information on the specific risk factors that could cause actual results to differ materially.

And a brief reminder that this quarter, we provided both GAAP and non-GAAP financial measures, following the acquisition of Altera, now our Programmable Solutions Group. Today, we will be speaking to the non-GAAP financial measures. The CFO commentary and earnings release available on intc.com include the full GAAP and non-GAAP reconciliations.

With that out of the way, let me turn it over to Brian.

Brian M. Krzanich - Chief Executive Officer & Director

Thanks, Mark. Our results in Q1 were in the lower half of the range we set in January and reflect an extra work week in the quarter. Revenue increased year-over-year, driven by an expanding business portfolio that now includes the Programmable Solutions Group, formerly known as Altera. Strength in our Data Center, Internet of Things and Programmable Solutions businesses partially offset weaker-than-expected PC revenues in our Client business. I'll take a minute to review our Q1 results before talking about the restructuring program we're announcing today.

CCG revenue grew 2% year-over-year. We saw ongoing declines in the PC TAM, particularly in China and other emerging markets, which also led to greater-than-anticipated reductions in worldwide PC supply chain inventory. Declines in the PC segment were offset by a richer core mix and the 14th work week.

The Data Center business posted another good quarter, growing 9% over last year on strong cloud and comms service provider demand, partially offset by ongoing softness in the enterprise. The Internet of Things Group grew a remarkable 22% year-over-year due largely to the performance of the video and retail verticals. In the Memory business, strong unit growth was offset by pricing declines leading to revenue that was 6% lower year-over-year, and in our Security business, revenue grew 12%, as this team continues to tighten its focus and execution.

And finally the PSG Group, formerly known as Altera, got off to a great start. It delivered a revenue of \$359 million. And after adjusting for \$100 million in acquisition-related accounting charges, the business achieved mid-single-digit growth. In less than a quarter after the deal closed, we are shipping our first FPGA Xeon co-packaged parts to customers in sample form.

These results tell the story of Intel's ongoing strategic transformation, which is progressing well and will accelerate in 2016. We are evolving from a PC company to a company that powers the cloud and billions of smart connected and computing devices. The Data Center and Internet of Things businesses are now Intel's primary growth engines, and combined with Memory and FPGAs form and fuel a virtuous cycle of growth.

Last year, we achieved record revenue in the Data Center, Internet of Things and Memory businesses. They delivered a combined \$2.2 billion in revenue growth and made up 40% of our total revenue and contributed the majority of our operating profit.

Today, we announced a series of actions that will build on the strength of those franchises and accelerate our strategic transformation. Through this initiative, we will intensify our investments in the products and technologies that fuel the growth in the Data Center, IoT, Memory and FPGA businesses. And we expect it will result in an even more profitable Client business.

These changes will reduce our global employment by about 12,000 positions by mid-2017. We'll do this through site consolidation, voluntary and involuntary separations, project reevaluation and an intensified focus on efficiency across a variety of programs. These are not changes we take lightly. We will be saying goodbye to colleagues who have played an important role in Intel's success. Yet acting now gives us flexibility, flexibility

to continue to invest in those Client segments that are growing, including 2-in-1, gaming, and home gateway, among others.

Even more importantly, acting now enables us to increase our investments in areas that are critical to our future success. This restructuring program will allow us to expand our investments in the Data Center, the Internet of Things, Memory and connectivity, even as we reduce our spending run rate by roughly \$1.4 billion by mid-2017. This is a comprehensive initiative. It's designed to create long-term value by accelerating the fundamental long-term change already happening at the company today. We will emerge as a more collaborative, productive team with broader reach and sharper execution and we expect it to result in the highest revenue per employee in the company's history.

Last, but certainly not least, we have one additional announcement today. I'm happy to share that Stacy Smith will be taking on a broader new role within Intel and reporting to me, leading sales, manufacturing and operations. Stacy has been a great business partner and a world-class CFO and I'm looking forward to continuing the partnership as he brings his leadership, his depth of knowledge, and his breadth into these critically important areas for Intel's future. We expect this transition to occur over the next few months, following a formal CFO search that will assess internal and external candidates. Stacy will remain in his CFO role throughout the search and transition process. Congratulations, Stacy.

And with that, let me turn the call over to you.

Stacy J. Smith - Chief Financial Officer & Executive Vice President

Thank you very much, Brian, and I really appreciate the kind words.

Revenue for the first quarter was \$13.8 billion, up 8% year-over-year. The quarter showed year-on-year growth and was in the low end of the range of our prior outlook. Within this, we are seeing growth in the Data Center, Internet of Things, Security and Programmable Solutions Groups, all of which helped offset a weak PC market.

First quarter gross margin of 62.7% was approximately a point higher than our expectations, driven by lower 14nm costs. R&D and MG&A was \$5.4 billion, down over \$100 million from our guidance. Operating income of \$3.3 billion was up 13% from a year ago. The effective tax rate for the quarter was 18.4%, about seven points lower than our prior outlook. Earnings per share of \$0.54 was up 20% from a year ago.

The Client Computing Group had revenue of \$7.5 billion, a 2% increase year-over-year. This was below our expectations due to a weaker-than-

expected PC market. Operating profit for the Client Computing Group was \$1.9 billion, up 34% from a year ago. This improvement is driven by lower 14nm unit costs on notebooks, lower overall total spending and margin improvements in our mobile products. Data Center Group had revenue of \$4 billion, delivering 9% growth on a year-over-year basis. Relative to our expectations, we saw a weaker enterprise business offset by strength in the cloud segment. The Data Center Group had operating profit of \$1.8 billion, up 4% year-over-year as we ramp are 14nm server products.

Our Internet of Things segment achieved revenue of \$651 million, with year-over-year growth of 22%. We saw strength in both the retail and video display segments of our business. Internet of Things operating profit was \$123 million, up over 40% relative to last year. Our Security business had revenue of \$537 million, up 12% year-over-year. Our Memory business had revenue of \$557 million, up 6% year-over-year. The segment had an operating loss of \$95 million as a result of challenging pricing, increased 3D XPoint spending and startup costs as we ramp 3D NAND in our China factory.

The Programmable Solutions Group had revenue of \$359 million. When adjusted for the approximately \$100 million of deferred revenue and compared to Altera's results from a year ago, the business achieved mid-single-digit revenue growth. Operating profit was a negative \$200 million. This included over \$300 million in non-cash charges for deferred revenue and inventory adjustments plus certain acquisition-related charges. Excluding these charges would result in low double-digit operating margin growth for this business.

We generated \$4.1 billion of cash from operations in the first quarter. We purchased \$1.3 billion in capital assets, paid \$1.2 billion in dividends and repurchased approximately \$800 million of stock in the first quarter. Total cash balance at the end of the quarter was roughly \$15 billion, down \$10 billion from the prior quarter as a result of closing the Altera acquisition. Our total debt is approximately \$25 billion, consistent with our prior commentary on the financing plan for the Altera acquisition.

As we look forward to the second quarter of 2016, we are forecasting the midpoint of the revenue range at \$13.5 billion. After adjusting for the extra work week in the first quarter, this forecast is in the low end of the average seasonal increase for the second quarter. We are forecasting the midpoint of the gross margin range to be 61%, plus or minus a couple of points. This decrease in comparison to the first quarter is driven by lower platform volumes.

Turning to the full year 2016, we expect revenue growth in the mid-single digits from 2015, down from the prior guidance. We are forecasting robust growth rates in the Data Center, Internet of Things, Non-Volatile Memory Solutions and Programmable Solutions Groups, which we expect to offset the decline in the Client Computing Group. We now expect the PC markets to decline in the high single digits in 2016 versus our prior forecast of mid-single-digit decline.

Our projection of the PC market remains more cautious than third-party estimates. We are forecasting the midpoint of the full year gross margin to be 62%, a one-point decrease from the prior outlook driven by lower platform volumes. Our execution of our strategy is driving growth. We are building on our strong position in Client and are investing for growth in the Data Center, Internet of Things markets and disruptive differentiated memory technology.

The trends over the last two years demonstrate that we are well into this transformational journey. From 2013 to 2015, the PC TAM declined 10%, yet Intel's revenue grew 5% and our operating profit grew 14% over this horizon. But as Brian mentioned, we want to accelerate that execution. In order to do that, we're going to go through a significant restructuring over the next several months. The goal is to come out of this more agile, more efficient, with more investment on our key growth initiatives and more profitable.

When completed by mid-2017, these actions will result in a 12,000-person workforce reduction and a \$1.4 billion reduction to our spending run rate. Relative to full-year 2016, we are now revising our spending guidance down by over \$700 million to \$20.6 billion. We expect to realize over half of the total workforce reduction by the end of this year.

In the second quarter of this year, we are taking a \$1.2 billion restructuring charge on the GAAP P&L as an estimate for the related actions. These actions are significant, and we don't embark on this lightly. But we are confident that they will build on the strong position we have across markets and accelerate the transformation of the company that is already underway.

I would like to end on a brief personal note by saying thank you to Brian for the upcoming new leadership opportunity. Intel changes the world with amazing technology, and I am proud of what we have accomplished and I'm excited about the opportunity that's in front of us.

With that, let me turn it back over to Mark.

Mark H. Henninger - Vice President-Finance & Director-IR

All right, thank you, Brian and Stacy. Moving on now to the Q&A, as is our normal practice, we would ask each participant to ask one question and just one follow-up if you have one. Nicole, please go ahead and introduce our first questioner.

Question-and-Answer Session

Operator

Thank you. Our first question comes from the line of Ross Seymore of Deutsche Bank. Your line is now open.

Ross C. Seymore - Deutsche Bank Securities, Inc.

Hi, guys. Thanks for letting me ask a question. I guess first and foremost, B.K., if you can, go into a little bit more about what led to the restructuring announcement. Not only the one today, but there have been significant changes in senior management over the last three months. So if you could, just talk us through some of what's changed strategically in the company that's led to such a large amount of turnover so recently.

Brian M. Krzanich - Chief Executive Officer & Director

Sure. If you take a look at it, so let's step back for a second and just talk about why are we doing the restructuring now, and then we can talk about some of the specifics beyond that. So we've talked about this transformation, that we're moving from a client-centric – Intel's been typically known as the PC company, to a company that is focused more and more on a much broader set of products and really focused around the cloud, and the cloud and all the connected devices that connect to that cloud and the connectivity that brings those devices to the cloud. And that includes the PC, but it's much more than that.

And so what this effort around the restructuring is, is to say it's time now to try and – we've made enough progress. You take a look at it, 40% of our revenue, 60% of our margin comes from areas other than the PC right now. It's time to make this transition and push the company over all the way to that strategy and that strategic direction. So that's why we wanted to do it now.

Let's talk then about the leadership changes. There have really only been three leadership changes, if we just take the last couple of quarters. We had Doug Davis, he's simply retiring. Those are personal reasons. It has nothing to do with his leadership or direction of the company. It's IoT. We've talked about IoT as one of our growth segments that grew 22% this quarter. (16:19) performance in the group is strong. And he's staying until we find a

successor, roughly the end of the year we think, something like that. Kirk chose to leave for some outside opportunities.

And the one with Stacy, Stacy and I have been working for several months, actually several quarters, on what does he do next, how do we grow his both exposure to other parts of the company, but also let the rest of the company see his leadership style. And so what we wanted to do is as soon as we'd made the decision to go ahead and start a search and start looking for a CFO replacement, we wanted to be completely transparent, be very open about that and let everyone know. It's just going to be an orderly transition. We are just going to start the search, see if Stacy's solid in the CFO seat in the meantime. But this gives him a chance to see other parts of the company. If you take a look at the group manufacturing operations, which is everything from purchasing to building construction and all, and sales, it's roughly half the company and people, and so it's a really good opportunity to see how the real operations of the company work.

Ross C. Seymore - Deutsche Bank Securities, Inc.

Good, thanks for all those details. I guess my follow-up would be the full-year guidance of mid-single-digit growth, when I put that together with the high single-digit decline now that you have in the PC business, I'm having a little hard time seeing how if you take the seasonality of PCs out of the equation in large part, what would be the lever that would get you there in the back half of the year, considering that a ramp to well into the \$15 billion range in revenue seems to be a prerequisite? Are there some moving parts you could describe to us that get you comfortable with that number?

Stacy J. Smith - Chief Financial Officer & Executive Vice President

Sure. Let me walk you through how we're viewing the year. And first let me just put it at the highest level. What we're projecting for the year is overall growth, and we think we'll see growth in the data center, growth in IoT, growth in memory that's offsetting some. And of course we have added in Altera now into our product family. And so you take that, and that's offsetting some of the weakness that we're seeing in the PC market.

Specific to the PC market, as we said in our prepared remarks, we are now expecting that the PC market is down in the high single digits, and when we started the year we were in the mid-single-digits decline.

The linearity, so first you have to understand. The first half is impacted by the fact that as our customers' view of the market came down, and if you recall, we had a more cautious view of the market than they did when we started the year, that they were bringing down inventory levels. That impacted us in Q1, and I think you'll see the same impact as we forecast a

roughly seasonal second quarter; that we'll continue to see those customers burning off inventory. We think that doesn't repeat in the back half. So that's a little bit of a tailwind.

I'd also say you want to be careful of – we guided to mid-single digits. That's a range. If you're mathematically trying to drive to a specific number there, you may be driving more back end than what we're really anticipating. So just a caution there that that's a range that's meant to be directional of how we see the business. All of that said, I just want to say I think Brian and I are very comfortable with the back end and what's implied in our guide based on everything that we know.

Ross C. Seymore - Deutsche Bank Securities, Inc.

Great, thank you.

Operator

Thank you. And our next question comes from the line of Blayne Curtis of Barclays. Your line is now open.

Blayne Curtis - Barclays Capital, Inc.

Yes, thanks for taking my question. I really just wanted to follow up on the restructuring. Is it more an effort to make the Client more profitable, or are you really trying to drive revenue and re-signing maybe more employees than you're letting go?

Brian M. Krzanich - Chief Executive Officer & Director

So it is absolutely a situation where we are restructuring to be able to allow ourselves to invest at a faster rate in those growth areas. If you take a look at it, 2016 to 2015 in the areas of Memory with our NAND technology, IoT, data center, even before this action, we were investing more in 2016 than in 2015 in those areas. This will allow us to – even with the cuts, even with the dollar figures that Stacy has read out on the savings, it's allowing us to invest even more in those segments.

And I always want to make sure it's not just about cutting costs necessarily in the Client area. We think that we can become more focused. There are areas in the Client space that are growing. 2-in-1s are growing at double-digit rates year-over-year. Our gaming PCs are growing at double-digit rates year-over-year. Set-top boxes are growing, and we're gaining share in the set-top box space. So we are doing very well in segments that are growing in the Client space and the PC space. And we are going to continue to double down, focus on those. So it's really a narrowing down and allowing us as a

result also to invest more in those growth areas. That's really what we're doing here with this restructuring.

Stacy J. Smith - Chief Financial Officer & Executive Vice President

And, Blayne, just to make sure, if you look at the CFO commentary, just to give – kind of make sure the financial answer is clear there, that the \$1.4 billion in run rate savings is a net number. So I just want to be clear on that. That's what we expect to achieve, and that is encompassing the fact, like Brian said, that we'll be increasing investments in a lot of different areas.

Brian M. Krzanich - Chief Executive Officer & Director

Correct.

Blayne Curtis - Barclays Capital, Inc.

Thanks. And then I know mobile is within Client, but I was wondering if that's a segment that you expect to contribute to growth this year, and if you could just talk about your confidence in reaching the cost savings for the year?

Brian M. Krzanich - Chief Executive Officer & Director

Sure. Absolutely on schedule for hitting our committed \$800 million and just like last year, we'll shoot to do better than that. Mobile is absolutely continuing to grow for us as a segment, and we are continuing to increase our profitability. If you look underneath the numbers here, you'll see that the profitability within the mobile space continues to improve for us this year over last year.

Stacy J. Smith - Chief Financial Officer & Executive Vice President

Yes, you can really see it, Blayne, in the CCG operating profit, that's up over 30%, which is on roughly flat revenues, revenues that were up a little bit, and when you parse out the big contributions there, there's some ASP good news, but the really big chunks are the improvement in the margin on our mobile products and decreases in investments that we talked to you about in the past that were all included in that mobile profitability. So you will see this play out in the CCG profitability over the course this year, and you can see it in Q1.

Blayne Curtis - Barclays Capital, Inc.

Great, thanks, guys.

Operator

Thank you. Our next question comes from the line of Harlan Sur of JPMorgan. Your line is now open.

Harlan Sur - JPMorgan Securities LLC

Good afternoon. Thanks for taking my question. I'm trying to see if you can be just a bit more specific on your full year view. Does the team anticipate double-digit growth this year in PCG? And if I look at it fundamentally, I mean cloud and hyperscale CapEx looks to be up this year. There seems to be a big upgrade cycle in networking with the move to 25-gigabit. You guys are rolling out 14nm Broadwell. Can you guys just be a bit more specific on expectations for DCG growth?

Brian M. Krzanich - Chief Executive Officer & Director

Sure. You did a great job explaining exactly why we believe that the data center will continue in double-digit growth this year. And if you take a look at the numbers that Stacy has talked about, they incorporate double-digit growth and it's for exactly those reasons. We believe we have great products that we are introducing with the Broadwell lineup. We have got – we started shipping our first Xeon plus FPGA samples to customers, which was part of our additional gaining more footprint and more performance in certain segments of the Data Center.

We're shipping an Omni-Path Fabric now. Later this year, we will have Silicon Photonics. We've got 3D XPoint starting to be sampled, and will start to ramp later this year. So we're very confident on our Data Center roadmap and we are still absolutely forecasting double-digit growth in that space.

Harlan Sur - JPMorgan Securities LLC

Great, thanks for the insights there. And then in the Memory Solutions Group, I mean that's a business that grew 20% last year. I think it was up year-over-year every single quarter last year, obviously it was down in Q1. You guys mentioned aggressive price declines. Can you just talk about some of the trends that you're seeing there? Are the sharp declines more focused on capacity or performance optimized SSDs? And then you also mentioned your view on a strong growth outlook for the full year. So what drives the acceleration from the Q1 decline?

Brian M. Krzanich - Chief Executive Officer & Director

Sure. So let me start, and then we can just talk about – remember the majority of our Memory space is built into SSDs that are going into the Data Center. So you call those, really those higher end performance class systems. What we are seeing, if you take a look at the units, units grew

quite nicely year-over-year and quarter-over-quarter for the Memory Group. You are right. We are seeing aggressive pricing in this space. The Memory segment, the NAND segment especially tends to go on these cycles where there's overcapacity in the industry and aggressive pricing, and then it shifts back to more normal pricing, and then tight pricing, which is always very positive.

So this is just a normal cycle. We think we've done a very good job of structuring the business that we ride through these with a high degree of confidence. If I look forward, we believe the 3D NAND technology that we're just beginning to ramp in our factories today and we're building out the Dalian factory for later this year startup, gives us a real cost advantage in this space and will allow us to even be more profitable in even these kinds of environments.

So we are still confident that this business will continue to grow. We will ride through this capacity situation within the industry and our 3D NAND technology will position us very nicely as we move out of this and start up our Dalian factory in China.

Harlan Sur - JPMorgan Securities LLC

Great, thank you.

Stacy J. Smith - Chief Financial Officer & Executive Vice President

And the operating margin, Harlan, you're looking at that?

Harlan Sur - JPMorgan Securities LLC

Yes.

Stacy J. Smith - Chief Financial Officer & Executive Vice President

Part of it is the competitive pricing environment that Brian is talking about, but there's a big piece of that that is associated with the investments that we are making in 3D XPoint and the startup costs associated with the factory in China. And it just points to, yes, it's cyclically a tough time in what we consider a very good business and we're investing in technology that we think give us a very strong position as we go forward.

Harlan Sur - JPMorgan Securities LLC

I understand. Thank you.

Operator

Thank you. Our next question comes from the line of Stacy Rasgon of Bernstein Research. Your line is now open.

Stacy Aaron Rasgon - Bernstein Research

Hi, guys. Thanks for taking my questions. My first one on DCG in the quarter, so up 9% year over year, but that was with the extra week. Can you tell us what it might have been year over year without the extra week? And why did pricing fall again this quarter?

Stacy J. Smith - Chief Financial Officer & Executive Vice President

Yes, so like we said when we started the quarter, that extra week was that week between Christmas and New Year's. When you look at where that 14th week fell, it's a relatively light week. It certainly had some impact, so I don't want to say, none, but it's a little hard to figure it out on any given business. It certainly had some impact on DCG though.

In terms of the pricing, it's pretty simple in that it was the growth rate that we saw in the networking segment. So what you would see if – the constant mix, we would have seen ASP up in the Data Center. But the networking segment grew 60% year on year, which is exactly consistent with our strategy. And so what you see there is strong unit growth offset by a little bit of a mix down.

Stacy Aaron Rasgon - Bernstein Research

Got it, thank you. For my follow-up, I just wanted to touch on channel inventories. So you had your notebook and desktop volumes I guess down kind of low single digits year over year. I think it's fair to say the PC builds in the industry were down quite a bit more than that. I mean, you suggest that you drained out – I guess that the channel drained on inventory. What happened with your own inventory in the channel? And how do you see that changing for the rest of the year?

Stacy J. Smith - Chief Financial Officer & Executive Vice President

You said own inventory in the channel...

Stacy Aaron Rasgon - Bernstein Research

The stuff you're shipping into the channel because it seems like your performance year-over-year was quite a bit better than what the industry was? I mean maybe it's some share gains, maybe it's the extra week. However, you just said the extra week didn't amount for very much. So can

you explain the differential between your year-over-year unit shipment performance in PCs and what the market seems to be doing?

Stacy J. Smith - Chief Financial Officer & Executive Vice President

So I would point to two things relative to the overall – like what we saw from our customers. One is, yes, we had a 14th week. That's going to make our compares different from a IDC and a Gartner for sure. But then the second thing is when you look at the results of our customer base, they would see a weaker quarter and I think that's because they were catching up to our view of the market and bringing inventory levels down. So, we were impacted by two things. I'll put it like that. We were impacted by a TAM that wasn't terribly strong and the fact that our customers were bringing their inventory levels down some.

Mark H. Henninger - Vice President-Finance & Director-IR

Thanks, Stacy.

Operator

Thank you. Our next question comes from the line of Romit Shah of Nomura. Your line is now open.

Romit J. Shah - Nomura Securities International, Inc.

Yes. Thanks very much. Stacy, you're below your run rate on CapEx in Q1, and I know you reiterated for the year, but curious if you're giving yourself flexibility in case the second half doesn't prove out to be as strong as you guys are anticipating?

Stacy J. Smith - Chief Financial Officer & Executive Vice President

No. What's going on there is that when you look at the two items that really dominated our CapEx this year, it's 10 nm capacity, so it's getting that first production capability in place. And it's the ramp of the Memory factory in China, and those are both backend loaded, so that causes the linearity to be off a little bit.

Romit J. Shah - Nomura Securities International, Inc.

Okay, thanks. And then just staying on the theme of CapEx with the restructuring you guys are talking about, site consolidation, and I'm wondering if longer-term, there will be an impact to the capital expenditures required to support the business and, by extension, free cash flow.

Stacy J. Smith - Chief Financial Officer & Executive Vice President

I'd say the same answer. When you look at those two items that are the majority of what we're spending the CapEx on, 10nm and Memory, neither one of those is impacted by the restructuring, and so we haven't let our foot off the gas one bit on those two things.

Romit J. Shah - Nomura Securities International, Inc.

Okay, thank you.

Operator

Thank you. And our next question comes from the line of C.J. Muse of Evercore ISI. Your line is now open.

C.J. Muse - Evercore ISI

Yes, good afternoon. Thank you for taking my question. I guess I had a follow-up on DCG. Thank you for the commentary around the pricing around network. I'm curious how we should think about the mix shift through as we go through 2016, and here curious in terms of presumably slowing enterprise and an uptick in hyperscale and what that means to ASPs. And then as you layer in ongoing growth in networking, how we should think about platform versus ASPs moving through the year?

Brian M. Krzanich - Chief Executive Officer & Director

Sure, a bit of a complex question, so let me try and give you a lot of data that I hope will answer various parts of that question. So first, the simple answer. If you take a look at our forecast, we continue to forecast ASPs increasing through this year, so that's absolutely built into our forecast. And we've modeled in things like you described, the weaker enterprise computing and the difference between the pricing segments. And I always remind people that – let's just start at the very top. When you take a look at the Data Center, it's not one product. It's a family of products that really span from Xeon Phis that sell for several thousand dollars to networking processors that are a few hundred dollars at times.

But within each one of those families, so whether you have networking or cloud or hyperscale or enterprise computing, our ASPs are increasing. And that's mostly due to bringing in better products, people buying up the ladder in product and resulting in a higher ASP on average for any one of those segments. So you will see slight shifts in the overall Data Center ASP. We have a boomer quarter like this, like Stacy talked about. Networking is a little bit higher or something like that, but if you take a look inside any one of those segments, ASPs are increasing and our forecast for the overall segment for the year is an increasing ASP. It's driven by people buying up

the stock, and that's because we're bringing more performance for a better price to those customers.

C.J. Muse - Evercore ISI

That's very helpful. And I guess as a quick follow-up, you outlined the cost savings, but it doesn't appear as though there's really anything on the COGS side, so curious if you see cost savings on that front as well.

Stacy J. Smith - Chief Financial Officer & Executive Vice President

Certainly. We are equally focused on efficiencies in the factory space. There's a little bit baked into the 2016 gross margin. I think you'll see a bit more of it kick in, in 2017. And just realize the labor cost in the factories is a relatively small component. The real opportunity for us is some of the other things around capital efficiency and how fast we convert over processes and things like that, and that takes a little while to play through.

C.J. Muse - Evercore ISI

That's very helpful. Thank you.

Mark H. Henninger - Vice President-Finance & Director-IR

Thanks, C.J.

Operator

Thank you. And our next question comes from the line of John Pitzer from Credit Suisse. Your line is now open.

John William Pitzer - Credit Suisse Securities ([USA](#)) LLC (Broker)

Good afternoon, guys. Thanks for letting me ask the question. I guess my first one, I wanted to get a little bit more into profitability within the Data Center Group. Revenue was down about \$309 million sequentially. Operating profit was down \$411 million sequentially. I know there are lots of moving parts. You had the extra week of OpEx that might not have been fully covered by revenue. And, Stacy, you talked about in your opening comments the 14nm ramp starting to hit there.

But with this new narrative of declining ASPs because of mix, I'm wondering if you could tell me how we should be thinking about operating profits in the business going forward. I think it was about 44% in the March quarter, down pretty significantly in the December quarter. Is this change in mix also having an impact on operating profits?

Stacy J. Smith - Chief Financial Officer & Executive Vice President

So, John, you nailed it in terms of what's going on with operating profit in Q1. It's just the early cost of the ramp of the 14nm server product. That's what's causing that to behave a little differently from revenue. And back to Brian's point, I would say no. There's nothing in the mix that per se would cause me to have a different view of the overall profit potential of this business. So taking networking as the example, it does have a lower ASP than the Xeon product line does. It also has a very different cost structure than the Xeon product line does. So it doesn't cause us to be in a different space from an overall operating profit percent.

John William Pitzer - Credit Suisse Securities ([USA](#)) LLC (Broker)

That's helpful. And then maybe for my follow-up to Brian, you guys gave us your view for the PC market this year. I'm just curious, in lieu of the restructuring, how you're thinking about the PC market longer term. And specifically, there's lots going on in the market that you probably can't control, but there's always been this view at Intel that the best use of cash is to invest in the business and to innovate, and innovation drives growth. How do you balance that innovation desire with the realities of PC market? And how do you think about the structural unit growth of PCs going forward? And do we want to risk at some point that PCs just don't provide the scale that you've talked about in the past to invest in other businesses like DCG and IoT?

Brian M. Krzanich - Chief Executive Officer & Director

Sure. So again, John, that's a bit of a two-sided question. So let me start with the back half and then we'll move into the first half. So first is no, I'm not worried that PC will shrink to a point where the scale will get large enough to fund either the factories or the other innovations. The fact that we talked about the restructuring actually makes us more profitable in the PC. That's allowing us to invest even more in those growth areas. Remember also, those growth areas are growing, and so they are replacing some of the volume in the factories as they grow.

Now, let's talk about the PC. You asked, how do we take a look at the PC long term and how do we make sure we're making the right investments, which to me that's the key. That's what we really tried to do with this restructuring, is take a look at the areas that are growing, that we believe we can bring innovation to, that will make a difference to the end user. You're going to see more investments in 2-in-1s. You're going to see more investments in thin-and-light devices. You're going to see us push even harder on high-end gaming systems, which are growing at a very fast rate,

and they tend to buy up the stack to the very, very top. And then we're continuing to gain share in segments like set-top boxes, which are becoming more and more PC-like in their capabilities, if you think about it from a hardware standpoint.

So there are absolutely segments we'll continue to invest and continue to innovate in. There are some very innovative systems in design right now that bring new functionality and new thinness and lightness to the market for the second half of this year. And we'll do that. What we're going to do is make sure we're not doing – that we're doing this as most efficiently, and not doing it spread out across all PCs and all form factors. And that's what we've really tried to do with this effort right now.

John William Pitzer - Credit Suisse Securities ([USA](#)) LLC (Broker)

That's helpful. Thanks, guys.

Mark H. Henninger - Vice President-Finance & Director-IR

Thanks, John.

Operator

Thank you. Our next question comes from the line of Amit Daryanani of RBC Capital Markets. Your line is now open.

Amit Daryanani - RBC Capital Markets LLC

Thanks a lot. I think just to start, could you just talk about from a restructuring cost perspective, how much of that is going to be cash versus non-cash? And would all the cash outlays happen in the back half of this year?

Stacy J. Smith - Chief Financial Officer & Executive Vice President

You were a bit faint. I think you asked on the restructuring, how much of that is cash versus non-cash, and how does that play out over the year?

Amit Daryanani - RBC Capital Markets LLC

Yes.

Stacy J. Smith - Chief Financial Officer & Executive Vice President

Yes, now you're loud and clear. Thanks. So I would say the restructuring charge is a mix of cash and non-cash, but it's probably – it's more heavily weighted towards cash costs. And it will be relatively frontend loaded on the

year, but some of it will extend over the course of the year, and some of it frankly will extend into the first half of next year.

Amit Daryanani - RBC Capital Markets LLC

Perfect. And I guess if I could just follow up, ASPs in the clients were up 19%. Just talk about how much of that was potentially CPE improvements on notebook and desktop pricing versus the lower mobility that may have had a better part to play there?

Stacy J. Smith - Chief Financial Officer & Executive Vice President

And if you look at the CFO commentary, we actually gave you desktop and notebook. What you'll see is that notebook was pretty flat from an ASP standpoint year on year. Desktop was up 6%. So that is one of the adders to profitability.

And then the big difference is what happened in phones and tablets. On a year-on-year basis I think I termed it in the CFO commentary, up significantly as we weaned ourselves out of some of those contra revenue programs that we talked to you about. So that actually had a fairly significant impact on the overall ASP for CCG.

Amit Daryanani - RBC Capital Markets LLC

Perfect, thank you.

Stacy J. Smith - Chief Financial Officer & Executive Vice President

You're welcome.

Operator

Thank you. Our next question comes from the line of Vivek Arya of Bank of America. Your line is now open.

Vivek Arya - Bank of America Merrill Lynch

Thank you for taking my question. Brian, on the Data Center Group, there are a lot of headlines from IBM, from the different ARM server vendors, and even from some of your cloud customers, like Google, who want to try new architectures. And I understand there is no near-term impact, but longer-term, how do you assess the competitive landscape? And especially how do you think it plays out in the compute market, where you are a very large incumbent versus the comms market where you're not the incumbent?

Brian M. Krzanich - Chief Executive Officer & Director

Sure, good question, Vivek. First, I'll just tell you that having been raised by Andy Grove, always paranoid about the competition, always driving. And we know that we live or die by the performance of our products. We believe if you take a look at our roadmaps, we have a strong competitive leadership that should allow us to continue to have the position in the market that we currently have.

I think also you have to take a look at some of our strategy that is becoming much, much broader than just the CPU. What we are trying to do is really provide top-of-rack to bottom-of-rack solutions that bring, that work together and bring performance across the whole rack. And that starts with Rack Scale Architecture itself, which is a very unique architecture that will allow people to build racks in a much denser and lower cost way to Silicon Photonics for within rack communication. Then we've got a 3D XPoint, and then you have our whole CPU architecture from networking, storage, up through server.

So we believe we are uniquely positioned to provide that whole rack viewpoint and have everything work together, and come together to bring really performance that is just unbelievable. And that's what's key to really keeping our position is to own that, is to understand that whole rack from top to bottom. And that really is our strategy when you take a look at it.

In the other areas, like you said, networking and storage and the telco area, those are areas that we're gaining share. And we are, as they move to software-defined infrastructure, and basically virtualized infrastructure, it plays right into the Intel architecture and really what we do best, which is general purpose computing. And that same architecture from top of rack to bottom of rack plays out in those areas as well like in the telco area. So we believe our strategy absolutely will maintain our position in that. But we're always paranoid and we're always realizing we get there by performance of those products.

Vivek Arya - Bank of America Merrill Lynch

Got it, thanks for those details. As a follow-up, I know you probably have answered different pieces of this question. But perhaps if, Stacy, you could, help us quantify what Intel's target operating margins are this year or maybe even longer term. Because when I look at a lot of fabless semiconductor companies, they can get towards 20% – 25% operating margins. And when I look at a foundry like TSMC, it's able to get close to 40% operating margin. So given those bookends, where should Intel be after all these restructuring actions are taken?

Stacy J. Smith - Chief Financial Officer & Executive Vice President

Let me give you some elements of it. And then I would expect we'll have a much more in-depth conversation on that at the next investor meeting. But I will give you some insight into how Brian and I are thinking of this. First and foremost, we believe there is growth potential here. So just from a top line overall company standpoint, we think that there's significant opportunity to grow. And I think we've executed well in terms of growing over the last couple few years, even as the PC TAM declined, and that's very consistent with our strategy, is invest in the Data Center and Memory and IoT and things like 5G, where we think there's opportunity and focus our investments on the Client that we talked about.

In terms of the overall model and the financial model for the company, I've given you this range of 55% to 65% gross margin as being most of the data points landing between those goalposts. If you look at it over the last five years, we've very consistently been in the very high end of that gross margin range, so a bit more like between 60% and 65%. Last year we were at 63%, this year we believe we're at 62%. So that just continues. I don't see anything on the horizon that changes that in the near term.

And then with these actions that we're taking, when we get to full realization, and I want to stress we do believe that this will give us an opportunity to reinvest in the business and actually accelerate growth. But if you just look at the cost side of it, it's two to three points of spending as a percent of revenue. When we get to mid-2017 and full realization, that takes our spending as a percent of revenue, even just based on your estimate of 2016 revenues of two to three points, it takes it back down into the low 30% from a spending as a percent of revenue, and you can do the math from there and see what we think we can achieve next year in terms of overall operating margin.

Vivek Arya - Bank of America Merrill Lynch

Okay, thank you very much.

Stacy J. Smith - Chief Financial Officer & Executive Vice President

You're welcome.

Operator

Thank you. And our next question comes from the line of Chris Danely of Citigroup. Your line is now open.

Christopher B. Danely - Citigroup Global Markets, Inc. (Broker)

Hey. Thanks, guys, just a quick follow-up on the last question on restructuring. So should we assume that total expenses will drop roughly \$150 million a quarter from 4Q 2016 to the second quarter of 2017? And then if you guys could, break that out between how much of the savings would be on COGS versus OpEx.

Stacy J. Smith - Chief Financial Officer & Executive Vice President

So no, I'm not going to give that level of granularity of forecasting by quarter in 2017, but I'll say and I want to be clear that the \$1.4 billion is all OpEx. So that's an OpEx savings number that we think we get to by mid-2017. And so just to recap some of the financial data that we've provided you, we get to that level by mid-2017. That's \$1.4 billion in savings. That is a net number, so that's including some reinvestment that we plan to make. We think that that's 12,000 positions that get eliminated, which is a very difficult thing for us to go through, but that's what's in these numbers. We think we'll achieve half of those employment reductions by the end of this year.

And overall for 2016, we've brought down our OpEx by \$700 million. That is again due to this restructuring program. And we've added in a line that you'll see on the GAAP P&L of \$1.2 billion in restructuring charges to achieve that. So beyond that, I'm not going to go into any more granular data. I think that should be plenty, and now we want to go have the conversation with the employees and help them understand what this program means.

Christopher B. Danely - Citigroup Global Markets, Inc. (Broker)

Yes, very fair response. And as for my follow-up, in terms of the growth opportunities that you guys are really pushing for, IoT, DCG, et cetera, I guess if you look at the margin profile of the Memory and basically cell phone processors, it's substantially below your current margins. So I guess my question is why would you want to pursue two markets like that where the margin profile is so much lower than yours?

Brian M. Krzanich - Chief Executive Officer & Director

Sure, so let's dissect those. For Memory, one, we believe that if you take a look at our typical margins, they're better than cell phone margins on typical quarters, but also it's integral to the Data Center. So it really actually is this virtual cycle that especially as we move to 3D NAND and then to 3D XPoint, as we've talked about 3D XPoint and how that really re-architects how Memory and storage is played out in the server rack and in the Data Center overall. It's a chance to really very uniquely shift that whole infrastructure. So we believe that's actually critical to our strategy in the Data Center, and we'll bring a product with good margins.

Now let's talk about IoT. If you take a look at it first, it's growing quite well. And if you take a look at the IoT right now, it grew 22% this quarter, and it has PC-like margins. So this is not cell phone chips. They don't tend to be cell phone chips. If you take a look at the segments we're really going after, which are things like automotive, or what I'll call autonomous vehicles, industrial and retail, they tend to be systems that have a fair amount of compute at the edge. They tend to have machine learning capabilities, and they tend to have a high degree of comms, and more and more will move into 5G.

So that link also between those products in IoT and 5G, and the 5G infrastructure, we believe also plays into the Data Center and the whole Data Center strategy, and will be critical that you can provide end-to-end solutions. So if you're somebody out trying to build whatever that autonomous vehicle is, you need to be able to provide the 5G backend, but also the 5G out on the device, whether it's a car, or a drone, or a robot, or whatever it is out there autonomously moving about.

Stacy J. Smith - Chief Financial Officer & Executive Vice President

And, Chris, let me just, on the margin point, I would take you back to points that Brian and I had made at the Investor Meeting and at other places, which is, remember, and IoT is the perfect example of this. Those businesses lever IP that we create broadly for the company. And so our cost of entry in something like IoT actually is relatively low because we have the Atom core. We have the graphics. We're investing in the connectivity. We're investing in the wireless win for other businesses, and that's where we really get leverage in this model. And that's one of the reasons that the IoT profit margins have been as high as they have been.

Christopher B. Danely - Citigroup Global Markets, Inc. (Broker)

Got it. Thanks, guys.

Mark H. Henninger - Vice President-Finance & Director-IR

Thanks, Chris. And, operator, I think we have time for two more questions.

Operator

Thank you. Our next question comes from the line of Ambrish Srivastava of BMO. Your line is now open.

Ambrish Srivastava - BMO Capital Markets (United States)

Hi. Thank you very much. Actually I wanted to continue on IoT, Brian. A couple of years ago, you had laid out a 20% CAGR target for this. Then I think a year later, you had brought it down to mid-teens. And yes, it grew very strong this quarter, but last full year it was a 7% grower. So the question is, what's the right way to think about the growth profile for this business? And what happened in the past? Was it a one-year off event or kind of just help us understand the drivers? And why it should re-accelerate? And why the first quarter is not an anomaly? And then I had a quick follow-up.

Brian M. Krzanich - Chief Executive Officer & Director

Sure. I would tell you that I'd reiterate what I said, which is it's a mid-teen type of growth rate. And you got to take a look at this over the long haul. The IoT space is like similar to the embedded space a little to some extent and to the FPGA space where you have, especially where we're trying to go, where you're trying to go into products that require that higher level of compute, the machine learning and those capabilities. You have a design time, a design-in time to win the design, and then you have a ramp for that product, and so those tend to take a little while.

Autonomous driving vehicles are a good example. If you're out winning designs today, you're winning 2018/2019 car designs. Those are what are being won today. So as you bring your products to market, that's what you're winning. So I'm still believing that over the long-term, this will be a mid-teens growth. It'll have for the most part PC-like margins and we've tried to pick the segments that play to our strengths and that also use the connectivity that we believe we're uniquely qualified to bring.

Ambrish Srivastava - BMO Capital Markets (United States)

Okay, thank you. And then my quick follow-up, Stacy, what explains such a big swing in the tax rate for the quarter, for the reported quarter, and then for the rest of the year? Thank you.

Stacy J. Smith - Chief Financial Officer & Executive Vice President

Sure. For the reported quarter, the big driver of the tax rate was a discrete item associated with one of the divestitures that we drilled out of our Security business. And we got a one-time tax benefit associated with that. And it's just coming back to the strategy, you can see the performance of the Security business both in terms of the revenue growth and their profit growth. I think the team there is doing a really good job of focusing in on a few key areas where we think we have competitive advantage and then driving them hard. And we've divested a few smaller businesses and then we happened to get a tax benefit on one of them. As we look at the year, so

part of it is just what happened in Q1, and then the other part is we would expect to have a higher proportion of our profits in lower tax jurisdictions as we work our way through the year. It will bring down the tax rate a little bit.

Ambrish Srivastava - BMO Capital Markets (United States)

Okay, thank you.

Mark H. Henninger - Vice President-Finance & Director-IR

Thanks.

Operator

Thank you. And our next question comes from the line of David Wong of Wells Fargo. Your line is now open.

David M. Wong - Wells Fargo Securities LLC

Thanks very much. A clarification of the commentary you gave earlier on your restructuring. Will there be any product lines or types of products that you'll be pulling out of in the future with all the cuts that you're making?

Brian M. Krzanich - Chief Executive Officer & Director

Yes, I'm sure that as we go through this and we finish the project evaluations, there will be some products that will exit from those as they're defined. Murthy, who we brought into the company is doing a complete review of all of our products, and he's going to report back to me in the near future and give me a proposal for what those look like. So we don't have any that are set out today, but at the end, I'm sure there are going to be a few that are part of that.

David M. Wong - Wells Fargo Securities LLC

Okay. And related to that, does the restructuring affect your longer-term expectations for technology transitions? And in particular, are you still hoping to get back to a two-year tick-tock cadence?

Brian M. Krzanich - Chief Executive Officer & Director

So no, it does not have any effect on our technology cadence. It has not touched that at all. And Stacy talked about even our CapEx and how the CapEx that we're spending this year, which has not moved, is mostly for either the 3D NAND ramp or 10 nm. As far as Moore's Law, we are always constantly striving to get back to two years. We're giving you a timing that's for 10 nm that's more like 2.5 years. We haven't talked about 7 nm, partly

it's still in definition and alignment, so we're not sure. But I can truly tell you we are constantly working to get back to two years. And they have tried to lay out, all right, if you look at the history of Moore's Law, there have been anywhere from 18 months to three years in the length of cycles over the time. More importantly, what I always remind people, is the leadership you have over the competition, which is always what's important.

All of these are getting harder and they get hard for everybody. And so you want to make sure also that your leadership gap, what you're able to do relative to the competition, remains constant as well. Both of those are as important as the other.

David M. Wong - Wells Fargo Securities LLC

Great, thanks very much.