# Q4 2016 Earnings Call

# **Company Participants**

- · Ashish Saran, IR
- Hock Tan, President and CEO
- Tom Krause, CFO

# **Other Participants**

- Blayne Curtis, Analyst
- Craig Hettenbach, Analyst
- Harlan Sur, Analyst
- Ian Ing, Analyst
- Jerry Osmar, Analyst
- John Pitzer, Analyst
- Ross Seymore, Analyst
- Stacy Rasgon, Analyst
- Vivek Arya, Analyst
- William Stein, Analyst

#### Presentation

# Operator

Good day, ladies and gentlemen. Welcome to Broadcom Limited's Fourth Quarter and FY16 financial results conference call. At this time, for opening remarks and introduction, I would like to turn the call over to Ashish Saran, Director of Investor Relations. Please go ahead, sir.

# **Ashish Saran** {BIO 18971141 <GO>}

Thank you, operator and good afternoon everyone. Joining me today are Hock Tan, President and CEO; and Tom Krause, Chief Financial Officer of Broadcom Limited. After market closed today, Broadcom distributed a press release describing our financial performance for the Fourth Quarter and FY16.

Globe Newswire inadvertently published our earnings release today without the financial tables that typically accompany the release. Globe Newswire is in the process of republishing the complete document. However, these tables are available for you to review in the copy of the earnings release we furnished to the SEC earlier today. Once updated by Globe Newswire, you will also be able to obtain this information from the investor section of Broadcom's website at www.broadcom.com.

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This conference call is being webcast live and a recording will be available via telephone playback for one week. It will also be archived in the investor section of our website at broadcom.com. Within the prepared comments section of this call, Hock and Tom will be providing details of our Fourth Quarter and FY16 results, background to our First Quarter FY17 outlook. And some of commentary regarding the business environment. We will take questions after the end of our prepared comments.

In addition to US GAAP reporting, Broadcom reports certain financial measures on a non-GAAP basis. A reconciliation between GAAP and non-GAAP measures is included in the tables attached to today's press release. Comments made during today's call will primarily refer to our non-GAAP financial results. Please refer to our press release today and our recent filings with the SEC for information on the specific risk factors that could cause our actual results to differ materially from the forward-looking statements made on this call. At this time, I would like to turn the call over to Hock Tan. Hock?

#### Hock Tan {BIO 1460567 <GO>}

Thank you, Ashish. Good afternoon, everyone. FY16 was a very transformational year for our Company, as we complete the acquisition of Broadcom corporation.

This acquisition and integration significantly increased our scale, added seven businesses to Avago's existing portfolio of 12 businesses and roughly double revenue. Since closing the acquisition at the start of our second fiscal quarter, we made great strides in integrating classic Broadcom.

As you may recall, going into the Broadcom acquisition, we had introduced an operating model targeting 60% gross margin and 40% operating margin that we be had expected, planned I should say, to progress over the long term. I'm very pleased that we were able to make good progress towards this target in FY16 and, in fact, since closing the acquisition February 1st, 2016, we have driven significant improvement in product margin and spending and exited the fiscal year exceeding this long-term target.

More recently also, on November 28th, we also made good progress on another major milestone with the integration of Avago's and Broadcom's financial reporting systems. Looking at 2017 and beyond, we expect our business to be continuing to be sustainable and in fact becoming much more profitable. We are raising our long-term operating margin to target to 45%, a significant increase from our prior model. We expect to drive to this long-term target through a combination of the full realization of material cost synergies and operating leverage on a larger scale, reflecting expected improvement in profitability.

We announced earlier today a doubling of our dividends. We are comfortable that our projected free cash flow generation will support this significantly higher return to shareholders, while still preserving flexibility on our balance sheet for future M&A opportunities. As and when these new M&A opportunities materialize, they will enable us to further increase capital returns to shareholders.

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Let me now turn to a discussion of what happened in the Fourth Quarter. We delivered strong results for our fourth fiscal quarter of 2016 with revenue of -- with revenue at \$4.15 billion, up 9% sequentially. This result was at the top end of our guidance, primarily due to better seasonality from our wireless and enterprise storage segments. Earnings per share of \$3.47 grew by 20% sequentially.

Talking about wired, our largest segment, in the Fourth Quarter, revenue came in at \$2.08 billion, meeting expectations totally. And the wired segment represented 50% of our total revenue. Revenue for this segment during the quarter was up slightly on a sequential basis. We benefited from increased demand for networking ASICs into data centers, as well as strong fiber optic shipments into excess and Metro networks.

Our recently launched Jericho standard product line that targets aggregation and edge routing applications continued its ramp during this quarter. We were also able to address the supply chain constraints we experienced in the prior quarter, allowing us to catch up to customer demand in our set-top box business.

As we look to the First Quarter for our wired segment, despite expected declines, seasonal declines I should add, in broadband carrier access and set-top box businesses, we anticipate continued growth in fiber optics and strong increased demand from several cloud data center operators, which will keep our wired revenue in total at least flat sequentially.

Moving on to wireless. In the Fourth Quarter, wireless revenue came in at about \$1.35 billion and the wireless segment represented 32% of total revenue. Revenue for this segment was up 34% sequentially, a bit stronger than expectations. Growth was primarily driven by the full ramp of the new phone generation and our North American smartphone customers. Further enhanced by an increase in Broadcom's cellular RF content and wireless connectivity content in this new generation of phones.

We made great progress in relieving (Avago's) capacity constraints we experienced in late 2015. Over the course of 2016, fiscal year, we were able to increase FBAR filter capacity in our Fort Collins fab by approximately 50%. This increase was enabled by our new 8-inch wafer manufacturing process that came online with very good yields.

As we look forward, we intend to add more capacity by continuing to convert existing 6-inch lines to 8-inch lines. This very capital efficient conversion approach will allow us to theoretically add another 70% of capacity over our existing 6-inch footprint within Fort Collins fab over the next few years. Because of this, we no longer need to keep the idle facility we had purchased in 2005 in Eugene, Oregon, as a backstop, pending the outcome of this 6 to 8-inch capacity expansion.

Turning now to our projections for First Quarter FY17. Similar to last year, we expect a seasonal decline in demand and expect our wireless revenue to sequentially decline in the mid-teens on a percentage basis, at least.

Turning to enterprise storage, which is going through something of a resurgence that we expect will continue into the First Quarter FY17. In the Fourth Quarter, enterprise storage revenue came in at \$561 million and this segment represented 14% of our total revenue. Segment revenue grew 6% sequentially and came in better than expectation. We benefited from the strengthening demand both for our HDD hard disc drive and rate (whole box) adaptive products.

Looking into the First Quarter, we expect the strength in the storage end market to continue to show momentum and drive enterprise storage revenue growth to 20% on a sequential basis. We're expecting growth from all our enterprise storage products, in particular we're expecting a strong ramp in shipments of our custom flash controllers for SaaS enterprise solid state drives that are increasingly being used in place of high performance hard disc drives in data centers.

Finally, let's move on to our last segment, industrial. In the Fourth Quarter industrial segment revenue came in at \$162 million, down 20% sequentially. This segment represented 4% of our total revenue, as expected, with reduced shipments sharply into our channel as we headed towards the seasonally weaker end of the calendar year. Industrial product resales did decline. But only in the mid single digits sequentially, resulting in a sharp reduction in our channel inventory.

Accordingly, as we look into First Quarter, we plan on rebuilding depleted channel inventory and anticipate increasing shipments to our distributors. As a result, we expect revenue in the First Quarter from our industrial segment to increase sequentially in the mid-single digits.

In summary, after a strong close to our FY16, we expect a solid start to FY17 as the demand environment for our entire portfolio of products continues to be very firm. In fact, we expect in the First Quarter to largely offset the seasonal decline in wireless revenue through sustained strength from wired products benefiting from growth in cloud, broad strength in enterprise storage and the recovery in industrial. With that, let me now turn the call over to Tom for a more detailed review of our Fourth Quarter and FY16 financials.

# **Tom Krause** {BIO 17978469 <GO>}

Thank you, Hock and good afternoon everyone. My comments today will focus primarily on our non-GAAP results from continuing operations unless otherwise specifically noted. A reconciliation of our GAAP to non-GAAP data is included with the earnings release issued today and is also available on our website at broadcom.com.

Let me start by providing some comments on our long-term operating model and an update on our capital allocation return strategy. As Hock highlighted, the integration of classic Broadcom with Avago is going very well and we have made rapid progress towards achieving our original target operating model objectives. Looking forward to a fully integrated Broadcom, we recently announced an increase in our long-term target operating margin from 40% to 45%.

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We expect to make progress towards the new operating margin target through a combination of operating leverage driven by long-term revenue growth, which we continue to target at approximately 5% per year. And the full realization of acquisition related cost synergies from the Broadcom acquisition. All while maintaining a significant investment in research and development.

In addition, we recently announced the acquisition of Brocade, which we expect to complete in the second half of FY17. We expect that Brocade's fiber channel SAN switching business will generate approximate \$900 million in EBITDA by FY18.

Turning to our balance sheet. We currently intend to maintain liquidity from cash on hand of approximately \$3 billion, to cover expected working capital needs and projected annualized dividends. As we have discussed in the past, we expect to continue to target gross leverage of approximately two times EBITDA as long as the costs of that leverage remains attractive. Given our current EBITDA run rate, we don't intend to pay down additional debt going forward beyond the amortization obligations in our loan agreements.

Finally, long-term, we expect CapEx to run at about 3% of net revenue, consistent with our largely fabless business model. However, as you'll see, for FY17 we expect CapEx to run at an elevated level of approximately \$1.2 billion. This includes about \$500 million towards campus construction, primarily at our Irvine and San Jose locations and about \$200 million towards purchasing test equipment to consign to contract manufacturers to support classic Broadcom businesses. In summary, as we reflect on all of this, we are comfortable that we can generate long-term free cash flow margins of better than 35%.

Turning to M&A. And as Hock highlighted in his opening remarks, as we look at the landscape versus the scale of our projected free cash flow generation, we feel that we have reached the point where it makes the most sense to return a more meaningful portion of our cash flow to shareholders in the form of dividends. The substantial increase in our dividend announced today is a first step. Long-term we plan to target aggregate dividends of approximately 50% of free cash flow on a trailing 12 month basis. Given our free cash flow generation, we believe that this will also allow us sufficient balance sheet flexibility to pursue opportunistic acquisitions that are consistent with our proven business model.

One note on the dividend. Our Board has decided to set dividend policy and the projected quarterly dividend amount for the full fiscal year rather than a quarter by quarter basis as it did previously. However, the declaration and the payment of any particular quarterly dividend, if any, is subject to the approval of the Board at the time of distribution.

Now looking below the operating line, I want to pause for a minute to provide you a quick update and some color on our tax situation. As you are you aware, we are a Singapore Company and our IP is predominantly located in Singapore pursuant to our agreement with the Singapore government. When we acquired classic Broadcom we intend to align the acquired operations with classic Avago's existing processes and structure, as that

structure has demonstrated long-term sustainability and relatively higher flexibility to deploy cash globally. This integration of IP occurred in the First Quarter of FY17.

As a result of acquisition accounting at the time we closed the Broadcom acquisition, we established a deferred tax liability on our balance sheet associated with the potential tax liability from our planned IP integration. This tax liability will only become payable upon the actual distribution of any earnings resulting from integrating the IP and may be partially offset by any qualifying tax credits and deductions available to us at the time of distribution. We expect to distribute these earnings over several years.

The payment of these cash taxes will be in addition to the cash taxes that we pay on our regular operations and will over time reduce the deferred tax liability that you see on our balance sheet today. As a result, in FY17 we expect to pay approximately \$400 million in cash taxes, which will include the impact of cash taxes, if any, associated with the IP integration.

With that, let me quickly summarize our results for the Fourth Quarter. Revenue for the Fourth Quarter came in at \$4.15 billion, growing 9% sequentially, Foxconn was a greater than 10% direct customer in the fourth fiscal quarter. Our Fourth Quarter gross margin from continuing operations was 60.8%, about 30 basis points above the midpoint of guidance, primarily due to better than expected operational efficiency.

Turning to OpEx. R&D expenses were \$666 million and SG&A expenses were \$137 million. This resulted in total operating expenses for the Fourth Quarter of \$803 million, slightly below guidance, reflecting the benefits from the ongoing realization of acquisition related cost synergies, offset by higher bonus accruals due to higher profitability.

Operating income from continuing operations for the quarter was \$1.72 billion and represented 41.5% of net revenue. Provision for taxes came in at \$73 million, slightly above our guidance, this was primarily due to higher than expected net income. Fourth quarter interest expense was \$106 million and other income net was \$9 million. Fourth quarter net income was \$1.55 billion and earnings per diluted share were \$3.47. Our share based compensation expense in the Fourth Quarter was \$208 million.

Moving on to the balance sheet, our days sales outstanding were at 48 days, a decrease of four days from the prior quarter due to better linearity of revenue in the quarter. Our inventory ended at \$1.4 billion, an increase of \$92 million from the beginning of the quarter.

I would note that the starting inventory for the quarter included the impact of \$86 million of step-up charges to reflect the impact of purchase accounting. However, our non-GAAP results exclude the impact of these step-up charges. Therefore, non-GAAP inventory days on hand reflected an aggregate change in inventory of \$178 million in the quarter, an increase from 74 days to 78 days.

We increased inventory for some of our classic Broadcom products to improve operational flexibility to better meet customer demand. We generated \$1.35 billion in

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operational cash flow which reflected the impact of approximately \$124 million in cash expended primarily on classic Broadcom restructuring and integration activities, including discontinued operations. We ended the quarter with a cash balance of approximately \$3.1 billion.

In the Fourth Quarter, we spent \$193 million on capital expenditures. A total of \$213 million in cash was spent on Company dividend and partnership distribution payments in the Fourth Quarter.

Now let me turn to our non-GAAP guidance for the First Quarter of FY17. This guidance reflects our current assessment of business conditions and we do not intend to update this guidance. This guidance is for results from continuing operations only.

Net revenue is expected to be \$4.075 billion, plus or minus \$75 million. Gross margin is expected to be 61.5%, plus or minus 1percentage point. Operating expenses are estimated to be approximately \$785 million. Tax provision is forecasted to be approximately \$73 million. Net interest expense and other is expected to be approximately \$101 million.

The diluted share count forecast is for 446 million shares. Share based compensation expense will be approximately \$210 million. CapEx will be approximately \$330 million. And as a reminder, our First Quarter is generally a weaker quarter for operating cash flow due the payment of our annual employee bonuses relating to the prior fiscal year. That concludes my prepared remarks. Operator, please open up the call for questions.

### **Questions And Answers**

# Operator

(Operator Instructions)

Our first question comes from the line of Craig Hettenbach from Morgan Stanley. Your line is open.

# **Q - Craig Hettenbach** {BIO 6185428 <GO>}

Yes. Thank you. Hock, question on networking. You mentioned some strength in ASICs. I know over a number of years you guys have done well in terms of taking share. Can you talk about where you are in that and the legs of that share gain story on the ASIC side?

# **A - Hock Tan** {BIO 1460567 <GO>}

Well over the years -- you're correct, we have been gaining share and as we talk generally about those shares, generally these ASICs have a long product life cycle. And gaining share tends to take a while, a few years, before it shows up in revenues. I guess what we're seeing now is the outcome, the revenue outcome of share we had gained in previous

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years. And we continue to gain share, especially on very, very high speed, high

performance networking switches, routers, even vector processing machines.

### Q - Craig Hettenbach {BIO 6185428 <GO>}

Got it. Then as a follow-up, on the wireless front, you mentioned kind of getting caught up on capacity and the 8-inch transition is going well. Up until this point you've been mostly servicing the two high end smartphone OEMs. Any thoughts in terms of the approach going forward on the China smartphone OEM market in terms of is it sizable enough for you guys to engage more on that front?

#### **A - Hock Tan** {BIO 1460567 <GO>}

It is sizable. It's just that, see, our strength, our basic strategy in wireless B RF cellular, analog or wireless connectivity, Wi-Fi, bluetooth combo is about the features, the engineering advances, the innovation we provide with those solutions. And we continue to do that generation after generation.

However, this tends to be a very expensive, relatively speaking, product. But they offer very, very unique differentiated features to our customers. So that's -- it's usually only a very high end segment of the market that's takes this on and you're right, it would include the Chinese, to the extent that is very high end flagship status, premium status phones. But it's a much smaller percentage than our core business, which is largely the flagship phones from our North American customer and our big Korean customer.

### **Operator**

(Operator Instructions)

Our next question comes from the line of Blayne Curtis from Barclays. Your line is open.

# **Q - Blayne Curtis** {BIO 15302785 <GO>}

Hi, guys. Great results.

Maybe just following up on that last question. On the wireless segment, you're guiding basically what you did last year. I'm just curious if the moving pieces within that are about the same, if you can just give any comments on what you're seeing in January versus last year.

# **A - Hock Tan** {BIO 1460567 <GO>}

Pretty much the same, Blayne. You hit it right on. Our wireless business is very, very more predictable. There's a product road map. Every generation we come up with -- every generation of phone, which is every year, virtually, we come up with new product, new set of features, capabilities that our solution provides for our flagship phone customers. And typically more content, as we call it, because there are more bands or there are more features or there are more channels that wireless connectivity needs in delivering the high performance data signals that phones are rapidly becoming. So it is -- but other than that,

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the fact that it keeps innovating, it keeps becoming a much more and more engineered product, it's very much the same kind of business we have.

#### **Q - Blayne Curtis** {BIO 15302785 <GO>}

Great. Then the guidance for storage is up quite strongly. You mentioned the ASICs for SoCs. Just wondering with that, within that guidance, how much of that was contributing in just broad strokes and what else if you had to rank the drivers getting that 20% growth?

#### **A - Hock Tan** {BIO 1460567 <GO>}

It's no surprise to you guys, right? Right now I suspect -- not suspect -- the strong seasonality in consumer PCs and hard disc drives are running very strong. It's also partly because enterprises, clouds are buying a lot of hard disc drives because enterprise grade name shortages too.

So we benefit a lot on that on storage side. But also we're seeing a lot of cloud spending on the storage side of the business, which is where our mega-rate, our SaaS storage connectivity, server storage connectivity side of the business is also showing renewed strength, even at this late stage of the (grenly) generation. The (pearly) is coming middle next year, that's when we expect a big lift. But it's interesting to see this lift also happening at this time. So we're seeing across, as I mentioned, pretty much all sectors in our enterprise storage portfolio.

#### **Q - Blayne Curtis** {BIO 15302785 <GO>}

Great. Thanks.

# Operator

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

# **Q - Ross Seymore** {BIO 20902787 <GO>}

Hi, guys. Thanks for letting me ask a question, I guess the first one on the cash return policy. Congrats on doubling the dividend; I was just wondering if you can give a little color on how the 50% of free cash flow target was given. And Hock, does that have any implications about your view on the appetite and/or availability of good M&A targets, in that you're going to more equally balance return of cash to shareholders and M&A.

# **A - Tom Krause** {BIO 17978469 <GO>}

Ross, let me hit that first and if Hock wants to add something more, he should. At the end of the day it's a balance. We looked at the scale of the free cash flow, we looked at the M&A landscape relative to that scale and we wanted to maintain flexibility on the balance sheet and remain in and around our target of two times EBITDA in terms of leverage. So when we put that together in light of the fact that we're very focused on the dividend relative to any buybacks, 50% made sense.

#### A - Hock Tan {BIO 1460567 <GO>}

What is implied here, Ross, the other side to it is our appetite on acquisition hasn't changed at all. If there are interesting businesses out there that are actionable, we will consider and we will act prudently and appropriately.

One of these things is In terms of our new capital allocation policy is we're basically taking the view that we are taking on a significant amount of our debt as effectively on a long-term capital, as part of our long-term capital. And we feel comfortable in continuing to support that, which then basically opens ourself out for the opportunity to really create a lot of flexibility on our balance sheet and our ability to translate a lot of our operating cash flow into cash return for our shareholders, while not at all diminishing our ability to act on transactions that make plenty of sense.

#### **Q - Ross Seymore** {BIO 20902787 <GO>}

Right. And I guess in my one follow-up, it is very helpful to have the updated target, the 45% of the operating margin. If I pulled that together with the last couple quarters where you've nicely beaten the gross margin side of the equation, gross margin wasn't mentioned in the levers you're going to use to get to that 45% operating margin. So I just wondered what your thoughts are in the direction of gross margin going forward. Thanks.

#### **A - Hock Tan** {BIO 1460567 <GO>}

Oh, no, I didn't mention it. I didn't mention it. And a key part of our realization, of a benefit to all this. And particularly in gross margin is our gross margin continues to expand. You have seen that since February 1st this year, quarter after quarter. And we continue to expand even as we guide Q1 FY17.

And our Q4 FY16 was 60.8% gross margin, we're guiding it up to 61.5%. And you look at it closely, stepping up, we weren't trying to tell you that's a long-term trend. We have been stepping it up about 50 basis points every quarter sequentially and the reason why that's coming from is simply because, very simple, we're getting synergies from material costs.

Tom talked about investing CapEx into testers, a lot of testers of our silicone based products. These are very expensive testers, we're talking investing \$200 million on a lot. That's because we believe we have a more efficient way of doing it. We do our testing through consignment of our test equipment, which we are adopting. Basically the idea and the whole thing to all that is we're getting a lot of synergies on material costs, not just on our SG&A line.

# **Q - Ross Seymore** {BIO 20902787 <GO>}

Thank you.

# **Operator**

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

**Q - Vivek Arya** {BIO 6781604 <GO>}

Thanks for taking my question and congratulations on consistently good execution and for doubling the dividend. I have one question on wired and one on wireless. Hock, on the wired one, just on an apples-to-apples basis, how do you think your wired business has done relative to what you thought when you acquired classic Broadcom?

I know there is a perception that you had stood firm on pricing. Do you think this has distracted from growth in any way? Just how do you think, given your networking on the cable sides have done in your wired business over the past year?

#### **A - Hock Tan** {BIO 1460567 <GO>}

Okay. Our wired business has done very, very well. In fact, to be direct about it, just before we closed the transaction, that means in the final due diligence stage and all that, looking from that point, starting point over the last nine months, it's done much better than we had expected it to have done.

We have seen this product been very, very sustainable with our customers, been very, very strategic to a lot of our OEM customers and continuing to be that way. We continue to invest a lot in those areas that we particularly find them to be very, very core and sustainable and we haven't spent on that investment there and we are seeing it paid back a lot.

By the way, when you say investment, it's not just hardware. We're investing a lot in firmware, software and support. That business has done much better than we originally thought we could get out of it.

# **Q - Vivek Arya** {BIO 6781604 <GO>}

I see. And as my follow-up, looking forward on your wireless business, usually April is the seasonally trough quarter for your largest customer. But there is often some positive offset from your Korean customer. Can you give us some color on how you're thinking about how April might shape up this time around? Thank you.

# **A - Hock Tan** {BIO 1460567 <GO>}

To be honest, we have no clue for this one. Part of it is how resale is doing, especially through this holiday season. That's when we start to know about it, in the January time frame. December is a bit too early to figure it out. But you're right, typically in spring we have the other large OEM customer in Korea has a nice counterbalance and that helps.

But overall for wireless, we expect  $\Omega 2$  as always to be almost, I call, it the bottom of the seasonality. What's very nice for us right now is the strength that I purposely indicate to you guys in my remarks, opening remarks, in our wired. And our strong recovery now, early recovery in bookings, on our broadband set-top box and carrier access in bookings recovery would actually then -- would actually help cushion that seasonality we expect in that March, April time frame, which is our  $\Omega 2$ . But that's looking very far ahead, of course which we as always, I will never try to venture in much of an opinion on.

**Q - Vivek Arya** {BIO 6781604 <GO>}

Thank you.

### **Operator**

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

#### **Q - John Pitzer** {BIO 1541792 <GO>}

Yes. Good afternoon, guys. Thanks for letting me ask a question. Congratulations on the strong results. First question just around CapEx, Tom. You gave a lot of detail for the fiscal year coming up. Looks like you guys under-spent in the calendar Fourth Quarter by quite a bit relative to guidance.

What drove that and as you answer that question, I'm just curious, Hock, I want to make sure I completely understand your commentary around the Oregon fab. Is it the 6 to 8-inch transition for FBAR has gone so well that you don't need to build out capacity in Oregon to the extent you thought. If you could help me understand that, that would be helpful.

#### **A - Tom Krause** {BIO 17978469 <GO>}

Let me hit the first one quickly, John. Then I'll pass it to Hock. The answer is timing of payments. We had a lot of obligations, we had placed orders and ended up making payments rolling into Q1 as opposed to making payments in Q4. So pretty straight forward. Q1 will be your high water mark for CapEx likely in this fiscal year.

# **A - Hock Tan** {BIO 1460567 <GO>}

Okay. It's timing slippages of payments from Q4 to Q1, basically. But back to Oregon fab, yes, I know, there have been a lot of concerns, comments or chatter out there, at least I hear it from Ashish about where we're selling of this idle potential facility in Eugene, Oregon.

As I said in my remarks and you hit it right on, John. And I said that right at the get-go when we bought this fab, it's an insurance policy, best way to describe it. It's an insurance policy because we were in the midst of increasing our capacity in Fort Collins by taking all our 6-inch lines, which is the entire line a year plus ago, two years ago. And converting them into 8-inch. In phases. But we're converting them to 8-inch.

And by the time we finish converting all 6-inch we'll get a 72% increase in capacity without any further expansion of the footprint. Which is pretty cool. Which will be pretty much what we need over the next few years, 72% increase.

And our initial couple of phases of conversion, which have happened over the last year and-a-half, has gone very, very well. Yields are up to normal, everything is running very well. So we feel very comfortable. And in my usual way of making sure he we don't

overspend money, we don't want to hold onto an idle facility that we pay some operating

expenses on on an ongoing basis. In other words, I don't need an insurance policy anymore.

#### **Q - John Pitzer** {BIO 1541792 <GO>}

Then as my follow-up, just to follow on to Blayne's question earlier, I'm just kind of curious within enterprise storage, how large is the SSD business now and can you help us kind of understand how big that business should get? Is this going to be a similar size market to HDD controllers over time? Are the dynamics in this market the same? How are you thinking about this over a longer period of time?

#### **A - Hock Tan** {BIO 1460567 <GO>}

Well to be honest with you, first and foremost I don't have the data in front of me. And if I do, as a policy we generally don't try to break out (inaudible), because then you'd be torturing me every of this earnings call about why is this number going there now? But broadly, it's not the size of HDD channel at this point.

And do we hope to cushion some of the long-term gradual decline in HDD SoC? Yes. We do, that's why we go into this because that has similar capabilities and designs that we transfer engineers from our SoC to this area, very nicely.

And so we are seeing two streams of revenue in our so-to-speak our storage drive business right now. And it's just that in this season where flash seems -- enterprise flash seems to be in short supply, we're seeing enormous demand from a couple of OEM customers for flash controllers.

We do customize flash control. We do for these OEMs that are used for SaaS-based enterprise drives, which are the high performance enterprise drives. So it's very interesting and it is significant enough to be rather meaningful in overall mix.

# **Q - John Pitzer** {BIO 1541792 <GO>}

Perfect. Thanks, guys.

# Operator

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

# **Q - Harlan Sur** {BIO 6539622 <GO>}

Good afternoon. Solid results and great to see the strong dividend rates here. On the data center routing side, strong results. We're still early in the ramp with Jericho and Qumran here. Port deployments I think by your cloud customers are still trending about less than 10%, from a silicon port shipment perspective though, I think that the penetration numbers are obviously higher.

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So I guesses the question is, where do you think we are in terms of silicon port shipment penetration for Jericho and Qumran? Then on the routing side, just sticking with that, is the team also benefiting from the data center routing port buildout via some of your ASIC engagements as well?

### **A - Hock Tan** {BIO 1460567 <GO>}

Interesting question. Yes. But one thing you did say is very correct. The two are running almost -- the two will be running in parallel down the road.

You're right, most of this routing program, routing core or edge routing and aggregation to a large extent, data centers now, used to be using a lot of ASICs, which is great for my ASIC business. What we're also seeing is in some of these cloud guys, they're moving to merchant silicon, which is Jericho, Qumran, as you put it and that's early stage compared to the ASIC side. So we're very well positioned n the ASIC side and we are well positioned now as we ramp up Jericho in edge and certain parts of core aggregation especially.

And to answer your question it's very early. That Qumran, Jericho side is barely -- you say 10%, I'm surprised. I think it's a bit more than that at this point. But then, it could be we may be looking at different parts of different sets of data. But it's definitely not one-third yet. It's in the range of, I would call it, 20% to 35% of those ports available. Because there's still a lot of the ASIC being used.

But that trend over the long term you're seeing is towards standard open merchant silicon. You're right. We're seeing that especially not just on the cloud, hyper cloud, (between our) Tier 1 guys. We're seeing that among the operators who are pushing for standard silicon, standard source for their networks and data centers.

And that's also putting a lot of pressure in push -- in driving up use of Jericho especially. But it's also interesting in the sense that many OEMs are now coming -- working with us on both sets in parallel. Which is why I say that will be co-existant of the two approaches. In ASIC, silicon for routing, together with merchant silicon.

# **Q - Harlan Sur** {BIO 6539622 <GO>}

Thanks for the insights there. Then on the broadband connected home, it seems like the pay TV service providers in developed countries are getting ready to make a more aggressive pushout of 4KUHD services, which I think should result in a set-top box upgrade cycle. So given your leadership in satellite cable, IP set-tops, is this going to start to be a growth tailwind for the team in 2017?

# **A - Hock Tan** {BIO 1460567 <GO>}

I'd like to believe that one replaces the other. But you're right. And for once, they can't just use software to upgrade it. They should need a (ability) new chip, which is good for us. But we're seeing it. But it's a gradual trend, it's not an avalanche. It will be a gradual trend and we're in the midst of it beginning the early part of the up trend on 4K.

#### **Q - Harlan Sur** {BIO 6539622 <GO>}

Thanks, Hock.

#### **Operator**

Thank you. Our next question comes from the line of William Stein from SunTrust. Your line is open.

#### **Q - William Stein** {BIO 15106707 <GO>}

Great. Thanks. Let me add my congratulations on the excellent results.

My questions relate to carrier aggregation. You've cited this in the past as one of the future drivers of your RF content and I'm wondering if you can update us to better understand where we are in the growth in that -- of that phenomenon driving that part of your business. We're in the midst of carrier aggregation as you know now.

It's happening a lot in the US, it's happening in China, in space too. Which is, by the way, a good way for us to sell our chips even to the low cost sensitive Chinese phone makers. They still need carrier aggregation in China and those are very difficult chips to do and we have the best performing chips so we get a very good share in that even in China, where they are even cost sensitive. In other words, they have chip stuff everywhere, except the carrier aggregation chip, which is interesting.

But in terms of the big flagship phone makers that I mentioned earlier, they have it all in spades. This is usually down-link carrier aggregation. In another year or two we will see uplink carrier in addition, all towards saving infrastructure cost, base station cost and power. And that will with another lift.

That's why I say year by year as I look over the next several years, that RF cellular payments that we develop and sell to those flagship phone makers continues to get more and more complex, more and more content. Great. Thanks. If I can follow up with one more on the pending Brocade acquisition. Any update on the anticipated timing or in the process to sell the piece of that business that you're planning to divest.

# **A - Hock Tan** {BIO 1460567 <GO>}

Tom, go ahead.

# **A - Tom Krause** {BIO 17978469 <GO>}

No, no, it's just as we discussed when we announced the deal. We are targeting the second half of our fiscal year and all the regulatory filing processes that have to take place are on track.

As for the divestiture, we don't have any specifics to report at this point but we remain pretty confident that we're going to be able to have a successful outcome there and that's off to a very good start and progressing well and hope to report on that relatively soon.

**Bloomberg Transcript** 

Date: 2016-12-08

#### **Q - William Stein** {BIO 15106707 <GO>}

Great. Thank you.

#### **Operator**

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

### **Q - Stacy Rasgon** {BIO 16423886 <GO>}

Hi, guys. Thanks for taking my questions. I had a question on your margin target.

You obviously got to the 40% operating margin target pretty quickly. Raised that to 45%. Do you need the he Brocade deal and the benefits from that in order to reach that 45% or do you think you could get there even without Brocade?

#### **A - Hock Tan** {BIO 1460567 <GO>}

The Brocade deal may accelerate it somewhat. But not really make a difference. We are trending towards -- it may take us a bit longer without Brocade, may or may not. But we'll get there. We are very confident.

This model now is a long-term model. Obvious it's not a model just for 2017, FY17. I would say it's a model over the next three years that we would meet or exceed that 45% operating margin with or without Brocade.

# **Q - Stacy Rasgon** {BIO 16423886 <GO>}

Got it. Thank you. That's helpful.

For my follow-up, just a quick one on your debt balance. Obviously you're going to be holding onto debt for now. But as far as I understand it's mostly or even all floating rate. How do you think about that situation in what may potentially be a reflationary environment that we're heading into.

# **A - Tom Krause** {BIO 17978469 <GO>}

It's a good question. It's something we monitor and focus on, as you might expect. I think the key take away is our credit quality continues to improve. And I think that's going to drive a lot of our decision making around how we think about floating versus fixed in our long-term capital structure. But I've got to leave it there in terms of talking about specifics on how we might think about solving the floating rate risks going forward.

# **A - Hock Tan** {BIO 1460567 <GO>}

But we do recognize --

# **Q - Stacy Rasgon** {BIO 16423886 <GO>}

Sorry, go ahead.

#### **A - Hock Tan** {BIO 1460567 <GO>}

But we do recognize it.

#### **Q - Stacy Rasgon** {BIO 16423886 <GO>}

Got it. Thank you, guys.

### **Operator**

Thank you. Our next question comes from the line of lan Ing from MKM Partners.

#### **Q - lan lng** {BIO 16486390 <GO>}

Yes. Thanks for taking my question. You've done a great job of targeting big OEMs of the world. What are your thoughts on automotive OEMs, is this something potentially to go after some day? Seems like every semiconductor company, large ones like Intel and Qualcomm and Samsung are talking about it. Thanks.

### **A - Hock Tan** {BIO 1460567 <GO>}

I assume you don't mean targeting OEMs as customers, right? (multiple speakers) -- OEMs as our customers. Well see, our business model is very financially driven. We sell components. We sell very engineering based components where in each of our product lines, business units, we are not just the market leader, we're the technology leader, very, very clearly. And this can be niche market. Some of them have become and our big end markets.

Regardless, that's our business model and our acquisitions, as you put it is not about targeting any specific area. It's more about targeting businesses out there that become available, that have a very strong potential to be -- to meet those criteria I mentioned about established markets, technology leader and very successful in the markets they're in, be they niche or mass. And if automotive is one, yes, we might. And in automotive if there are potential opportunities there. But we don't stretch and go out of our way to look at specific end markets where we want to play.

# **Q - lan lng** {BIO 16486390 <GO>}

Thanks. And for my follow-up perhaps more of an update on the IT back end consolidation and update on the synergies there. You talked about financial systems in the prepared comments. Does that go into  $\Omega$ 2 and  $\Omega$ 3 of this year?

# **A - Hock Tan** {BIO 1460567 <GO>}

Yes. We are not done with our synergies yet, especially on the operating synergies, OpEx synergies in below the line SG&A. We are now running on one ERP system, which is great, which would be -- which would help us a lot in terms of headcount and expenses to be able to run it much more efficiently. And we will also see other synergies in other areas

that in IT, workplace services that relate and a few other areas. And they all will come in over the course of at least the next six months, if not nine months.

#### **Q - lan lng** {BIO 16486390 <GO>}

Thank you, Hock.

# **Operator**

Thank you. In the interest of time, we will take our last question from the line of Amit Daryanani from RBC Capital Markets. Your line is open.

#### Q - Jerry Osmar

Hi, this is Jerry on behalf of Amit. Just two quick questions and thanks for squeezing us in. I think first off, it looks like just based on modeling to the midpoint of guidance that operating margins could be about slightly north of 42%. I know you guys just talked about 45% as a long-term target. Going forward, is getting to that 45% number is it going to be more gross margin or operating -- or OpEx in terms of synergies?

### **A - Hock Tan** {BIO 1460567 <GO>}

Both. We expect all long-term -- to answer your question where 45% comes from, it comes from both places. As you see us keep expanding our gross margin and we see that continuing for some period of time. We will start to approach, particularly product mix as well, together with cost synergies and scale on manufacturing overheads as we cover -- as we broaden our product line, scale our product lines over the same set of manufacturing support teams to come closer and closer to 65%.

Our OpEx, R&D and SG&A will run closer and closer to 20% if it's not already there. R&D will continue to be at 16%, 17%, I think is the basic thing. And our SG&A (inaudible) is less than 4%, now closer and closer to 3%. You can see where our 45% is. That's not going to happen in 2017, guys. But it's where over time we will be able to drive this whole thing.

# **A - Tom Krause** {BIO 17978469 <GO>}

Let me add also, the revenue trajectory and how the revenue bumps around especially related to the 5% targets we have also will help drive that number.

# Q - Jerry Osmar

Thanks for that clarity. I think that helps quite a bit.

Next question, just congrats on the dividend increase and probably not trying to push my luck here. But I would say the two other factors that investors struggle with is the lack of buybacks and not including option expenses in the model. Can you just talk to your process around those two dynamics?

# **A - Tom Krause** {BIO 17978469 <GO>}

Date: 2016-12-08

Sure, I'll take it. On the latter question around SBC, we certainly break it out very explicitly in our comments and our results. So we think we're addressing that pretty much head-on. In terms of the buybacks, we've addressed this a number of times.

We look at dividends as a more permanent return to capital, better indication of how we feel about our business. Obviously we talk a lot about the sustainability of the franchises that we own and I think that's consistent with our model.

### Q - Jerry Osmar

Thank you. So much.

#### **Operator**

Thank you. At this time, I'd like to turn the call back over to Ashish Saran, Director of Investor Relations for closing comments.

#### A - Ashish Saran (BIO 18971141 <GO>)

Thanks, operator. I'd like to confirm that Globe Newswire has now released the corrected earnings press release which includes financial tables. The updated press release has also been uploaded to our website at broadcom.com. Thanks everyone for participating in today's earnings call. And we look forward to talking with you again when we report our First Quarter, FY17 financial results.

That concludes Broadcom's conference call for today, you may now disconnect.

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