Broadcom Corp. (NasdaqGS:BRCM)

Earnings Call Transcript

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Call Participants

Executives

Chris Zegarelli
Director of Investor Relations

Eric K. Brandt
Chief Financial Officer and Executive Vice President

Scott A. McGregor
Chief Executive Officer, President and Director

Analysts

Ambrish Srivastava
BMO Capital Markets U.S.

Betsy Van Hees
Wedbush Securities Inc., Research Division

Christopher Caso
Susquehanna Financial Group, LLLP, Research Division

Christopher J. Muse
Barclays Capital, Research Division

Craig A. Ellis
Caris & Company, Inc., Research Division

Craig Berger
FBR Capital Markets & Co., Research Division

Daniel A. Berenbaum
MKM Partners LLC, Research Division

Daniel L. Amir
Lazard Capital Markets LLC, Research Division

Glen Yeung
Citigroup Inc, Research Division

Harlan Sur
JP Morgan Chase & Co, Research Division

James Schneider
Goldman Sachs Group Inc., Research Division

John W. Pitzer
Crédit Suisse AG, Research Division

Jonathan Steven Smigie
Raymond James & Associates, Inc., Research Division

Mark Lipacis
Jefferies & Company, Inc., Research Division

Romit J. Shah
Nomura Securities Co. Ltd., Research Division

Ross Seymore
Deutsche Bank AG, Research Division

Sanjay Devgan
Morgan Stanley, Research Division

Shawn R. Webster
Macquarie Research

Srini Pajjuri
Credit Agricole Securities (USA) Inc., Research Division

Stacy A. Rasgon
Sanford C. Bernstein & Co., LLC., Research Division

Uche X. Orji
UBS Investment Bank, Research Division

Vivek Arya
BofA Merrill Lynch, Research Division

Presentation

Operator
Welcome to the Broadcom Second Quarter 2012 Earnings Call. My name is Ellen, and I will be your operator for today's call. [Operator Instructions] Please note that this conference is being recorded. I will now turn the call over to Chris Zegarelli, Senior Director, Investor Relations. Mr. Zegarelli, you may begin.

Chris Zegarelli
Director of Investor Relations
Thank you very much, Ellen. Thank you, and good afternoon, everyone. Today's call will include prepared remarks by Scott McGregor, our President and Chief Executive Officer; and Eric Brandt, our Executive Vice President and Chief Financial Officer.

This call will include forward-looking statements that involve risks and uncertainties that could cause Broadcom's results to differ materially from management's current expectations. We encourage you to review the cautionary statements and risk factors contained in the earnings release and our 10-Q, which were furnished and filed respectively with the SEC today and are available on our website.

We undertake no obligation to revise or update publicly any forward-looking statement to reflect future events or circumstances. Additionally, throughout this call, we will be discussing certain non-GAAP financial measures, today's earnings release and the related current report on Form 8-K describe the differences between our non-GAAP and GAAP reporting, and present a reconciliation between the 2 for the periods reported in the release.

Please also see the Investors section of our website at www.broadcom.com/investors for a slide deck that includes additional information disclosed in accordance with SEC Regulation G.

Now it is my pleasure to introduce Broadcom's President and Chief Executive Officer, Scott McGregor.

Scott A. McGregor
Chief Executive Officer, President and Director
Good afternoon, and thanks for joining us today. Broadcom performed well in the June quarter with revenue at the high end of the guided range and earnings above both our prior expectations and Wall Street consensus. Q2 revenue was a record $1.97 billion, which was up nearly 8% sequentially. Non-GAAP earnings per share were up more than 10% sequentially, consistent with our focus of outgrowing the market while driving leverage through the P&L. Broadcom grows faster than the broader semiconductor industry for several reasons: First, our end markets are growing faster than the broader industry due to strong secular trends such as new PON subscribers, data center buildouts and smartphone adoption; second, we're gaining share in several key markets, including communications processors, 3G basebands, wireless connectivity and broadband access. Finally, Broadcom is seeing growth in content per platform due to our expanding IP portfolio, our integrated platform approach and the trend to more advanced networking features in the home and in infrastructure. I'll go into these trends in more detail later, but let me first turn the call over to Eric for details on the second quarter financial results and third quarter guidance. Eric?

Eric K. Brandt
Chief Financial Officer and Executive Vice President
Thanks, Scott. As Chris mentioned, please refer to the data breakout in the Investors section of our website for additional financial information that will supplement my financial commentary. Moving to the financial overview. To summarize for Q2, total revenue of $1.97 billion, including product revenue of $1.92 billion. Q2 total net revenue was up 7.9% sequentially and 9.7% year-over-year. Excluding the full quarter impact of acquisitions, net revenue was up approximately 5% sequentially from prior year levels. Q2 non-GAAP product gross margin was up 20 basis points from Q1 to 52.2%. Q2 GAAP product gross margin was 46.7%. Q2 non-GAAP and GAAP R&D plus SG&A expenses were up $38 million and $28 million, respectively, from Q1 level. Q2 non-GAAP EPS was $0.72 or $0.05 above first call consensus of $0.67. Q2 GAAP EPS was $0.28 per share, including $0.24 of acquisition-related and nonrecurring adjustments outlined in our earnings release. Cash flow from operations for Q2 was $349 million. Our cash and marketable securities balance at the end of the quarter was $2.2 billion. Moving to revenue and gross margin. In May, we said we expected Q2 total net revenue to be $1.9 billion to $2 billion. We delivered revenue at the top end of the range at $1.97 billion. As anticipated, our Broadband Communications segment was up 10% from Q1, principally driven by growth in sales of broadband modems, partially offset by the anticipated decline in Blu-ray and DTV. Our Mobile & Wireless segment was up 3% from Q1, which is better than expected, primarily due to wireless connectivity. Including the full quarter impact of NetLogic, revenue from our Infrastructure & Networking segment increased 18% sequentially. Excluding NetLogic, this segment was up approximately 6%, driven principally by growth in switching products. Our Q2 non-GAAP product gross margin was up 20 basis points from Q1 to 52.2%. This was slightly better than our expectations at roughly flat. Our Q2 GAAP product gross margin was 46.7%, a decline from Q1 levels principally driven by an increase in acquisition-related charges of roughly $40 million. Moving to operating

expenses. Total non-GAAP R&D and SG&A expenses for Q2 were up $38 million from Q1 levels, including the full quarter impact of our acquisitions and our annual merit increase, which is at the low end of our guidance provided in May due to lower-than-expected facilities/IT costs and legal fees in the quarter. On a GAAP basis, R&D and SG&A expenses for Q2 were up $28 million from Q1 level. Moving to the balance sheet. As I mentioned earlier, cash flow from operations was $349 million for Q2. Cash and marketable securities ended Q2 with $2.2 billion. This reflects the net cash payment for BroadLight of $179 million and our quarterly dividend payment of $56 million. Our accounts receivables day sales outstanding was 38 days in Q2. In addition, inventory turns were flat at 7.7 turns in Q2. Finally, moving to expectations, we currently expect net revenue in Q3 to be roughly $2 billion to $2.15 billion. Sequential revenue is expected to be up from Q2 for our Broadband segment, up slightly for our Infrastructure & Networking segment and up significantly for our Mobile & Wireless segment. We expect Q3 non-GAAP product gross margin to remain roughly flat versus Q2. We expect Q3 product gross margin -- GAAP product gross margin to increase by roughly 200 basis points versus Q2 due to an anticipated reduction in acquisition-related charges, primarily inventory step-up. In addition, we expect non-GAAP R&D plus SG&A expenses in Q3 to be up approximately $5 million to $20 million. We expect GAAP R&D and SG&A expenses in Q3 to be roughly flat. And now, I'd like to turn the call back over to Scott to talk more about the state of the business.

Scott A. McGregor
Chief Executive Officer, President and Director
Thanks, Eric. Starting with the Home Platform, Broadband Communications revenue increased nearly 10% sequentially, driven by strong growth in broadband access solutions for both cable operators and telecommunications service providers. Broadband access continues to deliver meaningful growth for Broadcom. Our portfolio of complete solutions across cable, DSL and PON enable us to benefit from the entire broadband deployment cycle. We're gaining share globally and seeing richer content in next-generation residential gateways. Additionally, we're benefiting from favorable secular drivers such as the transitions to DOCSIS 3.0 and vDSL2. These trends have delivered solid year-over-year growth of over 20% for our broadband access business. During the quarter, we closed and fully integrated BroadLight, a provider of highly integrated end-to-end GPON solutions. The combination of our existing GPON business with BroadLight makes us the leading supplier of PON solutions in the market. Customer feedback has been positive and given our complete product portfolio, we're well positioned to expand our customer base and benefit from solid PON subscriber growth rates, which are forecasted to grow in excess of 25% annually over the next several years. Turning to set-top box, we believe that demand is accelerating into the second half of this year. In developed markets, we see continued share gains, accelerated adoption of network set-top boxes and the ramp of new technologies, including full band capture. Outside of Europe and North America, pay-TV subscribers are forecasted to grow more than 20% annually over the next several years, providing a long-term growth opportunity for our set-top box business. Looking into Q3, we expect Broadband Communications revenue to be up driven primarily by growth in our set-top box business. Moving to Infrastructure, our Infrastructure & Networking revenue was up 18% sequentially in Q2. Excluding NetLogic, our Infrastructure business was up roughly 6% quarter-over-quarter, driven primarily by growth in Ethernet switch and PHY in the service provider enterprise and SMB end markets. We made several new product announcements in Q2. We announced the industry's first family of network SoCs that deliver high bandwidth gigabit conductivity for 5G Wi-Fi, SMB and home networks, supporting the gigabit wireless rates that 5G Wi-Fi can achieve. We also announced the industry's lowest power, highest performance family of 100 gigabit Ethernet multi-rate gearbox PHYs. The low-power architecture of these products dissipates 2.5 watts per port, enabling power savings in excess of 35%. These PHYs simplify optical modules and lower platform costs, enabling next-generation optics and ultimately driving 100 gigabit Ethernet into mainstream data center enterprise and core networks. We are seeing solid design wins for our portfolio of multi-core, multi-threaded and embedded processors. During the second quarter, we shipped a wide variety of XLP products ranging from cost-effective single-threaded control plane processors to the highest end multichip solution supporting 128 coherent threads. Our XLP customer base continues to expand with new design wins in LTE base stations, Layer 4 to Layer 7 services cards, Layer 7 security appliances and for control plane processors supporting Broadcom's switches and network processors. We look for these trends to continue into the second half of 2012. Looking into Q3, we expect our Infrastructure revenue to be up slightly across all end markets. Moving to our Hand Platform, our Mobile & Wireless segment revenue was up 3% sequentially as growth in Wi-Fi combos and 3G basebands more than offset the anticipated softness in 2G basebands and multimedia coprocessors. Mobile & Wireless results were solid and ahead of guidance due to stronger-than-expected growth in wireless connectivity. Several significant smartphone launches in Q2 meaningfully expanded our 3G baseband business. First, we saw continuing momentum at Samsung, with several new single-SIM and dual-SIM Android handsets introduced globally. Second, we saw the launch of the TCL W989, which is shipping into China Unicom. In addition, Vodafone launched their latest Vodafone-branded device, the Smart II, a cost-effective 3G Android smartphone that's shipping globally. The Smart II enables Vodafone to convert existing feature phone users to their first smartphone. This momentum enabled us to gain share in 3G basebands in Q2. During the quarter, we also received production orders for our 40-nanometer, single-core and dual-core basebands with ramps expected in the second half of 2012. These basebands are part of Broadcom's next-generation cellular platform that includes our industry-leading wireless connectivity, including Wi-Fi, Bluetooth, GPS and NFC. Momentum continues to build around the 5G Wi-Fi ecosystem. New product announcements in Q2 included access points from Cisco, NETGEAR,

Belkin, Buffalo and D-Link and the industry's first 5G Wi-Fi laptop from Asus. We extended our portfolio with today's announcement of our fifth-generation wireless combo chip, the 4335 [BCM4335]. The 4335 combines 5G Wi-Fi with Bluetooth 4.0 and FM, and builds on a franchise that has shipped over 1 billion wireless combo chips to date. The 4335 leverages Broadcom's robust software suite and extends our industry-leading wireless coexistence technology to LTE, thereby delivering a high-performance, low-power solution for next-generation mobile devices. The 4335 has sampled to multiple customers. We expect initial shipments around the end of the year and a meaningful ramp in early 2013. Finally, we shipped our NFC reader to lead customers in Q2 and expect continued growth in NFC in the second half of this year as our customers' products come to market. Looking forward, we expect Mobile & Wireless revenue to be up significantly going into Q3, driven by wireless connectivity as we are in the vast majority of wireless consumer devices for the holiday season. In summary, our results and guidance continue to demonstrate Broadcom's ability to grow faster than the overall semiconductor industry, while driving leverage through the P&L. We continue to benefit from powerful secular trends, continued share gains and a steady increase in content per platform. This concludes our prepared comments and we're now ready for your questions. Ellen, may we have the first question, please?

Question and Answer

Operator
[Operator Instructions] Our first question is from Glen Yeung from Citi.

Glen Yeung
Citigroup Inc, Research Division
The first question is about inventories that you see out there in the various end markets. What kind of condition do you think that they're in?

Scott A. McGregor
Chief Executive Officer, President and Director
I think normally, we have some customers who have a little bit of inventory, some customers who are running too lean. I would say that they're pretty typical inventory situation right now. Nothing particularly unusual.

Glen Yeung
Citigroup Inc, Research Division
Okay. Fair enough. And then second question is just thinking about the timing of some of the product launches that you'll benefit from in the second half of the year. And I wonder if the kind of the way your customers are launching products now adjust or alter the typical seasonality we would've seen from Broadcom, let's say, over the last 5 or 10 years.

Eric K. Brandt
Chief Financial Officer and Executive Vice President
Glen, it's Eric. I don't think so. I mean our seasonality is such that we would typically ship for the holiday season in consumer devices in Q3. We tend to be sort of a leading indicator of the end product demand as opposed to a lagging indicator. And as we've discussed many times, typical seasonality is down mid-single digits Q1, up high single-digits Q2, Q3 and usually flat to down a couple of points in Q4. I don't know that it's -- seasonality is probably more affected, I would say, by the aggregate growth rate of the business than -- and the industry than the ramp pattern of the customers, which -- who will normally ship for the holiday season in the early part of Q4, which means they need product from us in Q3.

Operator
Our next question is from Ross Seymore from Deutsche Bank.

Ross Seymore
Deutsche Bank AG, Research Division
I guess, the first one for Scott, similar to what was asked in the prior question, macro is impacting many of your competitors. Can you just talk about if you're seeing any impact in the bookings linearity, any end market color that shows any weakening versus what you had as prior expectations?

Scott A. McGregor
Chief Executive Officer, President and Director
I think we're definitely seeing some softness in Europe and a little bit of scattered softness in parts of Asia, so macroeconomy definitely does affect us. I think what's different for us is we do believe we're taking share, and so we think we've been able to offset some of the macro headwind with the ability to take share in a number of our markets.

Ross Seymore

Deutsche Bank AG, Research Division
Great. And as my follow-up for Eric, on the gross margin side of things, you're guiding at flat. It seems like as opposed to the second quarter, the third quarter mix might be a little bit negative given the end market splits that you're talking about. Can you just walk us through the puts and takes to getting your gross margin flat, please?

Eric K. Brandt
Chief Financial Officer and Executive Vice President
Sure. You're absolutely correct. So given the up significantly for the Mobile & Wireless segment, which tends to be below our corporate average gross margin to some degree, it does create a headwind to the gross margin. We are offsetting that with a couple of different things, some positive mix in other parts of the business, as well as some absorption benefits that we get in the business. So in fact, the fact that we're actually holding gross margin flat in the face of such strength in Mobile & Wireless we think is a good sign for our gross margin in general.

Operator
Our next question is from Harlan Sur from JPMorgan.

Harlan Sur
JP Morgan Chase & Co, Research Division
Solid job on the quarterly execution. I know the team's traction on the 3G baseband side of the business continues to do very well, especially on the value-oriented smartphone segment of the market. I know you've gotten good design win traction with your dual ARM core gigahertz class 3G basebands for sort of mid-end smartphone platforms. Scott, it looks like you said that you're starting production and shipments for these products. What's the rough dollar content increase versus your single core platforms, and maybe give us some sense on design win traction relative to your single core solutions that are out in the market today.

Scott A. McGregor
Chief Executive Officer, President and Director
We're definitely seeing good traction for the products we have out today and they are gaining share at a number of customers, some of which I mentioned. The new products, which we have code-named Capri [ph] or under the number 28150 [BCM28150], definitely seeing design win traction. I would say as we get towards the end of the year, you're going to see those showing up in a variety of models. And I can't tell you much more than that right now, but we are feeling pretty good about those and those definitely move us from the lower end smartphones, which are high-volume but relatively lower ASP, to higher volume platforms that have much a higher ASP. So for example, we could see as much as a factor of 2 increase in the system BOM ASP moving from the kind of models we have today into the ones we'll be shipping towards the end of the year.

Harlan Sur
JP Morgan Chase & Co, Research Division
Great. And then solid job on the operating margin expansion in the second quarter. It looks like you're OpEx is only growing about 1% or 2% in Q3. So obviously, more operating leverage on the comp. Is that how we should think about OpEx on a go-forward basis, that the team is going to continue to drive leverage on continued growth in revenues?

Eric K. Brandt
Chief Financial Officer and Executive Vice President
Harlan, we are trying, as we've said, to maintain our business between 20% and 22% product operating margin, and for Q2, we're right at 20%. And I think with the guidance we gave, you'll probably come up with a number that looks like 21-ish. We'd like to run our business sort of in that range and that's what we're going to try to do, managing sort of the puts and takes in the overall macroeconomy.

Operator
Our next question comes from John Pitzer from Credit Suisse.

John W. Pitzer
Crédit Suisse AG, Research Division
Just kind of a follow-up on the strengths in September you're seeing out of the Mobile & Wireless business, Scott. Can you talk a little bit about how diversified that strength might be across customers? And I guess, more importantly, as you think of product launches later in the year, can you talk about how that may impact seasonality within the December quarter?

Scott A. McGregor
Chief Executive Officer, President and Director

So we're definitely seeing strength as I mentioned and the 2 primary areas that come to mind are the wireless connectivity and 3G basebands. As we look at designs that are ramping in the second half, they're both with existing customers and with new customers, and so there is some diversity to that. In terms of seasonality, we generally sell our products to our customers a quarter before they ship them so the third quarter is generally a good quarter for us because of the holiday pre-build and then December, as Eric mentioned, that quarter tends to have a slight negative seasonality to it.

John W. Pitzer
Crédit Suisse AG, Research Division
And Scott, as my follow-up question, just an update on 802.11ac. Do you see that being a meaningful portion of the revenue in the second half of the year? How do we sort of think about the ramp of that new protocol?

Scott A. McGregor
Chief Executive Officer, President and Director
I think it will be relatively small on the second half of this year, mostly as the infrastructure guys start to deploy. In the next year, that's when the handset guys will ramp, and that drives a significantly higher volume than the infrastructure providers. So I would say we'll definitely see some this year. It will move the needle a little bit, but not a lot. Next year is when 5G Wi-Fi really moves the needle.

Operator
Our next question comes from James Schneider from Goldman Sachs.

James Schneider
Goldman Sachs Group Inc., Research Division
I was wondering if you could comment relative to the Q3 guidance for Mobile & Wireless. Can you give us any kind of color at all in terms of how much of that increase is being driven by the combo and connectivity business, and how much of it might be driven by baseband, please?

Scott A. McGregor
Chief Executive Officer, President and Director
The majority of the upside was driven by the connectivity business. The 3G business was pretty good and overall, our baseband business, still a little bit of headwind from the 2G and the app processor business declines at one particular customer. But definite growth and I think share gain in 3G.

James Schneider
Goldman Sachs Group Inc., Research Division
That's helpful. And then from a broad perspective, as you look into the next year and a half of your baseband business, can you talk about how -- I understand you don't want to talk about new products before you've announced them, but can you maybe talk about how you expect to slot in higher-end solutions, dual and quad core solutions, and potentially LTE over time, how that should ramp through the rest of this year and then 2013?

Scott A. McGregor
Chief Executive Officer, President and Director
So as I mentioned, we'll definitely see some beginning ramp from our multi-core, next-generation products towards the end of this year. And I'd expect that to continue strongly into next year. Those designs have not all been finalized and we don't know how popular they'll be. So it's a little hard for us to forecast some of that, but we do see that across various customers. By the way, I know we've talked about one customer, Nokia, in the past. And I think due to the uncertainty of some of the things going at Nokia, we had talked about a 3G design win. In our forecast, we have removed that from our forecast given the uncertainty there. So just a little clarity for you in terms of different customers. We won't be talking about specific customers anymore going forward until their products actually ship.

Operator
The next question is from Craig Berger from FBR Capital Markets.

Craig Berger
FBR Capital Markets & Co., Research Division
Can you help me understand, in the set-top box business, you talked about strength. Is it content, is it units? And can you talk about inventories in that part of the supply chain? I know it's a lumpy business.

Scott A. McGregor
Chief Executive Officer, President and Director

In the set-top box space, we see the growth going forward being driven by a variety of things. Certainly, for us, there's geographical expansion, moving out of just North America and Europe into the rest of the world. So that's a global share gain for us. We also are in the process of deploying a lot of our 40-nanometer products. So there's a product cycle refresh going on in our set-top box business. Some of our Full-Band Capture products are starting to launch now. So we're seeing a number of trends just on our side. And then on the customer side, I think there's a real demand there to get the whole home networks out to get some of the higher-speed, higher HD content devices. And so I think it's a multiple set of things going on there to drive that. I don't think there's anything particular going on in inventory there. It feels like genuine and product drive to us.

Craig Berger
FBR Capital Markets & Co., Research Division
As a follow-up question, you talked a little bit about NetLogic, but can you just update us a little more, kind of what do you feel is the -- your current market share, what's your customer reception, what are your forward prospects, how big can that business grow in coming quarters?

Scott A. McGregor
Chief Executive Officer, President and Director
I think in terms of the NetLogic business, things are going well. We've pretty much completed the integration at this point. And the processor business, which was the primary strategic reason we bought that business, is doing quite well. We're seeing good design wins across a variety of customers, strong product there. We believe that business is taking share. We see sequential, quarterly increases in revenue there, and we've seen some of the other competitors out there reporting flatter or declining businesses. And we're growing our business, so believe we're taking share in that space. So feeling pretty good about it. As it's fully integrated in Broadcom it's able to use a lot of the engineering talent we have in the rest of the company to accelerate those products. And so I think that's going to be really strong there for us as we look for expanding into areas such as cellular base stations, cellular infrastructure over all and network processors in general. So I think we showed you some slides when we bought that business, pretty good CAM SAM expansion opportunity there. And we think that over the long run, that's going to enable us to drive the Infrastructure business to double-digit growth.

Operator
The next question is from Craig Ellis from Caris and Company.

Craig A. Ellis
Caris & Company, Inc., Research Division
First one is looking downstream, a customer made a technology acquisition [indiscernible] PSR [ph]. What do you think the implication of that is, near term and longer term, for yourself downstream [indiscernible] being emerged [indiscernible]?

Scott A. McGregor
Chief Executive Officer, President and Director
We have certainly seen customers acquire companies to create sort of vertical integration plays before. It happens occasionally in our industry and generally doesn't work out well. We have seen some of those companies. They weren't particularly strong in their technology. And I think the one you're referring to mostly served the low end, and we believe we've got pretty good technical position and customer position versus that technology. In the short to medium term, I don't it'll affect our business at all. In the longer term, I think it'll be sort of a question of can they turn that business into something that's competitive with Broadcom, with a fairly small number of employees, it's not particularly advanced technology, and I think we've demonstrated over the last 5 years that doing good, well-integrated, technically performing combo products is harder than it seems. And so if we continue to innovate and keep doing good products, I don't expect it will affect us in the long term.

Craig A. Ellis
Caris & Company, Inc., Research Division
So you're saying that you think you have significant differentiation in your coexistence in the software stack that you have above your combo chip, Scott?

Scott A. McGregor
Chief Executive Officer, President and Director
I think we have differentiation in the software stack, in power consumption, in the coexistence between all of the combo devices. The particular company you're referring to was never successful creating a combo chip at all. So I don't think from a technological point of view, that's going to be a competitive threat to our products. I think in the very low end, where that particular customer used both them and some other Taiwanese competitors, it might be

more of an issue there. But I don't see it as a threat in the prime smartphone business or in most of the businesses we're working on with that customer.

Operator
Our next question is from C.J. Muse from Barclays.

Christopher J. Muse
Barclays Capital, Research Division
I guess given the lumpy concentrated product cycles in the mobility side, and here really speaking to connectivity, can you discuss your visibility and whether that extends into Q4? And as part of that, could we see better-than-typical seasonality for you guys because of that?

Scott A. McGregor
Chief Executive Officer, President and Director
Our connectivity visibility, I mean we pretty much know whether we're in a design or not for all of the products that are going to ship this year. So from that visibility point of view, it's pretty good. From the visibility of how many will our customers actually ship, well, I don't know. You guys can probably figure that out as well as we can. So that part's where a lot of the challenge comes from, and as we discussed earlier in the call, there's a seasonality aspect that we typically ship in Q3 for holiday builds in Q4. So we have plenty of visibility. We know what platforms we're in, in Q4 and we feel really good about that, and as I mentioned before, I think we're going to take share and you're going to see some new customers and new platforms there. But it's hard to tell how many they will actually ship.

Operator
The next question is from Mark Lipacis from Jefferies.

Mark Lipacis
Jefferies & Company, Inc., Research Division
Eric, your gross margins are at the high end of the range, of your normal range, it looks like for 3 quarters, assuming that you hit your guidance for Q3. Is there something structural that prevents you from keeping them at or above your normal range? And as part of that, can you talk about your transition from 65-nanometers to 40-nanometer, where you guys are in that transition, how that impacts your margins?

Eric K. Brandt
Chief Financial Officer and Executive Vice President
Sure. So structurally, I think the only real sort of headwind to gross margin tends to be the strength and growth of the Mobile & Wireless business vis-a-vis the rest of the company and hence, while you see in Q3, we're relatively flat as that business continues to grow. Now having said that, I think that we're comfortable and now more comfortable than we certainly were a couple of years ago, both due to cost reductions that we've seen in 65 and with the growth of Mobile & Wireless to be able to maintain our gross margins in the targeted range and maybe even at that top end or slightly above that range. In terms of the transition from 65 to 40, roughly 70% of our business was at 65 this quarter. Actually, it was the first quarter really began to dip down, 40 has -- is approaching 10% and growing. So I expect you'll see a number of new products hitting the market in 40 going forward through the back half of this year and into next year as 40 begins to grow in a significant part of our business. And as Scott mentioned, even in the set-top box area, where one of the places we're going to see some growth in Q3, you have some new 40-nanometer products that really drive increased content and functionality for the customer and I think do well from a margin perspective for us.

Operator
The next question is from Vivek Arya from Bank of America.

Vivek Arya
BofA Merrill Lynch, Research Division
Scott, Broadcom is obviously doing very well in connectivity, but we also have Qualcomm gaining some momentum, especially when the customer uses a Snapdragon processor. There's perhaps a greater likelihood that they might use a Qualcomm connectivity solution rather than Broadcom. Are you seeing that trend also or is that still on a very isolated basis?

Scott A. McGregor
Chief Executive Officer, President and Director
I think there's certainly a chance that we're going to see competitors get some share in connectivity. We never said we would keep 100% or get 100%. I think we have said though that we do expect to continue to gain share this year, and I expect that to continue for the rest of this year. We're doing very well, and I know that particular competitor

talks about how they have most of their customers who use certain chips use their connectivity, but I'm not clear that it's most of the units contain that connectivity. In fact, some of the teardowns we've seen and some of the premiere smartphones coming out show there's our connectivity alongside their high-end baseband chips. So again, I think we've got great products. I think -- they're naturally going to get some share, that's okay. But I think most of that share is going to come from some of the smaller players in the market that I think are getting marginalized. And it's possible for them to gain share and for us to gain share at the same time because of that.

Operator
The next question is from Uche Orji from UBS.

Uche X. Orji
UBS Investment Bank, Research Division
Scott, can I just ask you if there are any comments you can make within the Infrastructure business by various subsegments and also possibly by region? And by that, I mean what are the trends you're seeing within data centers, enterprise and service providers? And also if you can provide some comment on the regions. And also, yesterday, TI talked about -- made some specific [ph] comments about small cells from the back half of this year. How is your positioning in that market and how do you see that taking off?

Scott A. McGregor
Chief Executive Officer, President and Director
Sure. Let me try and help you out there. I think one of the drivers we certainly saw was strength in service providers. And that surprised us a little bit. We expected to see a little more strength in data centers and less in service providers, but it was the latter. So one of the things, we think, is driving that is I think people have widely reported that service provider CapEx is roughly flat year-over-year last year into this year. But if you look at it from first half to second half of this year, it's steeper increase first half to second half than it was last year, and definitely growing first half to second half. So I think that's driving some of the service provider spend there that reflects into our infrastructure products. We're definitely seeing -- in terms of regions, we're seeing weakness in Europe. We're seeing some of the tenders come back in China that had softened up a little bit. We're seeing a couple of those come back now. So I think that will reflect into product sales in the second half of this year. In the United States, certainly, we're seeing some of the CapEx spend from some of the larger guys. Again, a second half greater than first half trend, which helps there. You asked about small cells. We're very bullish on small cells and it's a very natural combination with our products because we can provide the combination of the last mile technology and what we would normally do in a DSL or a gateway product. We can add that and make that a very competitive, attractive product. So we're very bullish on small cells. The total volume of that shipping right now is not particularly high, but you've probably seen a number of the forecasts showing that's a pretty rapid growth business going forward. The real problem it solves is that carriers now are all struggling to deal with the bandwidth issues by limited spectrum. And there are 2 ways that the carriers saw the limited spectrum issue. One is to go to smaller cells, where we're set up to participate strongly, and the other is to offload to Wi-Fi, which with our 5G Wi-Fi infrastructure offerings and handset offerings, we've got really good product in that space. So we're a great partner to help them with the spectrum overload they have now, both in current products with 5G Wi-Fi over the next course of the next year or 2 with small cells, and then over the course of the next year or 2 also on the base station that we talked about before in the ING [ph] business.

Operator
The next question is from Stacy Rasgon from Sanford Bernstein.

Stacy A. Rasgon
Sanford C. Bernstein & Co., LLC., Research Division
First, I think a couple of weeks ago, you had settled with Emulex. You're supposed to be getting a $58 million settlement. Is that incorporated in your guidance for Q3? And if it's not, how do we model it? Also on my math, based on the numbers you gave for last quarter and this quarter for NetLogic, would suggest that it was actually flattish quarter-over-quarter. Was it actually flattish? Was that in line with expectations and when do you actually expect that business to start growing again?

Eric K. Brandt
Chief Financial Officer and Executive Vice President
Stacy, it's Eric. On the Emulex settlement, we haven't finalized the accounting because it's a contingent gain. We don't need to book it until next quarter. Now if you take a look in our Q, we actually have a paragraph, we believe a portion of that will be, given it's a partial settlement, a portion of it, and we think it will be a small portion, will be booked to past damages, which will be a onetime benefit to Q3. And then the remainder will be booked over the period of time of the agreement, which is 10 years. And it probably won't be ratable. It probably will be -- start high and drift down, but I'm not positive yet on that accounting. We'll get you more information on that as we have it. In terms of NetLogic actually, what I said last quarter was that I expected NetLogic to grow roughly in line with the corporation. And if you

take out -- again, if you take out the acquisition effect, the corporation grew roughly 5% and NetLogic grew pretty close to that number.

Operator
The next question is from Daniel Berenbaum from MKM Partners.

Daniel A. Berenbaum
MKM Partners LLC, Research Division
On the -- just taking a step back on the guidance, it looks like you're top line guidance is all -- the range is a little bit broader than normal. Is there any particular reason for that? Is that just kind of the macro environment?

Eric K. Brandt
Chief Financial Officer and Executive Vice President
No, actually, Dan. All the way from $1 billion to $2 billion, we used $100 million range. Now that we're over $2 billion, we figured we would widen the range to $150 million. And maybe we'll keep that to $3 billion, but that was just the thinking behind it.

Scott A. McGregor
Chief Executive Officer, President and Director
We were a smaller percentage variation than any of our peers, and so in terms of percentage range, it's really sort of keeping in the same spirit.

Operator
The next question is from Daniel Amir from Lazard.

Daniel L. Amir
Lazard Capital Markets LLC, Research Division
One of your competitors was talking last week about some of its success in kind of the 10- and 40-gigabit Ethernet market. It's early on, but can you give us then kind of where Broadcom stands there and what do you think the opportunity for you guys there going forward?

Scott A. McGregor
Chief Executive Officer, President and Director
Well, we certainly have enjoyed a great position, both technically and in terms of market share, in the Ethernet space and we see that continuing. We believe we've got the best products in that space. I'm guessing the competitor you're alluding to has strength in Infiniband and that's certainly a niche-y part of the market. It's a growing part of the market and they're certainly able to post good results, but also, when you look at that number, be a little careful because that company includes in that number, sale of switches, boards, cables, everything. The actual semiconductor component of that's fairly small. If you break out our Ethernet products that sell into that same segment, we've seen roughly the same growth rates and opportunities as that other company. So we also enjoy growth in that market and expect, certainly, as the storage market and as the broader market continues to go, we'll see benefit there. They -- in Infiniband, they typically have a faster product with 56 GB, and as Ethernet goes to 100 GB, it's really going to pick up some speed benefit that was a disadvantage in the past. In general, Ethernet over the years has evolved to really provide an open solution to a lot of the problems that people used proprietary technologies for in the past. And so I think that will give us a lot of advantages going forward.

Operator
Our next question comes from Romit Shah from Nomura.

Romit J. Shah
Nomura Securities Co. Ltd., Research Division
Scott, I was hoping you could expand on the -- your service provider comments. It looked like AT&T and Verizon were wide [ph] on their Q2 CapEx, but they kept their full year guidance the same, which sort of implies that the second half, from a spending standpoint, could be better than normal. I know you mentioned that service provider spending was pretty healthy today, but how do you see that trending throughout the rest of the year?

Scott A. McGregor
Chief Executive Officer, President and Director
Well, I would say you've got the analysis sort of the same way we see it, and I think if you follow up with Chris, we can point you to some of the reports we see in the market that analyze that. I mean we don't have our own check on that, but we certainly read the reports there and it does look like it's exactly, as you said, that year-over-year, it's

not particularly growing and was down in the first half and in the second quarter, but first half to second half, we do expect growth.

Operator
The next question is from Sanjay Devgan from Morgan Stanley.

Sanjay Devgan
Morgan Stanley, Research Division
I just wanted to touch base on -- I know there were a couple of questions on the NetLogic acquisition. Now that you've had that under your umbrella for a couple of months, was wondering if you can kind of walk us through some of the initial customer discussions regarding integration opportunities with their existing switch fabric and the like. Is that something customers are looking to? Is that something you guys are kind of pushing in terms of differentiating that product further or will this just be kind of like a complementary and kind of garner [ph] additional BOM within the existing boxes that you sell to with your existing switch and PHY fabric?

Scott A. McGregor
Chief Executive Officer, President and Director
I can't comment on particular customers, but in general, we're seeing a strong interest. Initially, it's -- we're able to make the products work better together, so we can optimize our switches to work with the network processors and with the TKM [ph] products. Over the longer term, it's our goal to design that more as a platform to bring significant advantage to customers who purchase all of them together because the products will work very well together. So think of it more as a discrete play where customers get some advantage buying them all from one source to, over time, really improving the integration of those products and creating more of a unified platform.

Operator
The next question is from Srini Pajjuri from CLSA Securities.

Srini Pajjuri
Credit Agricole Securities (USA) Inc., Research Division
Scott, I have a question on the baseband business. Obviously, China is a large market and you seem to be making some progress there. But just looking at what Qualcomm is doing and MediaTek is doing, on one hand, Qualcomm, I think, is investing aggressively in their reference platform and MediaTek claims to say that they have the local presence. I'm just curious as to what Broadcom brings to the table in China to address that opportunity. And also, as you look to invest more locally, I'm just curious as to how that impacts your OpEx going forward.

Scott A. McGregor
Chief Executive Officer, President and Director
We've been ramping our China team fairly significantly over the last couple of quarters and in Q2 in particular, we ramped it even faster than we have before. And what we are doing is putting a team in place there that can not only support the local customers there, but really act as a reference design, much as you see from a MediaTek or a Qualcomm. And so I think we have recognized that as an important thing to do. We have already ramped it, and so you see that already in our OpEx numbers. So that's not new OpEx to go. That's in our OpEx growth and was one of the higher priority projects we did.

Operator
Our next question is from Shawn Webster from Macquarie.

Shawn R. Webster
Macquarie Research
For the outlook for Wi-Fi for the coming quarter, can you help us understand what are some of the moving parts? I recognized a big chunk of it is smartphone, but I'm wondering if there are certain end markets, whether it be tablets or smartphones, access points that are some of the growth drivers? That's my first question. And then the second question is on content growth. Scott, I was hoping maybe you might be able to quantify what you're seeing or expecting in terms of the increase in pricing as you move from '11 into ac and as some of your newer set-top box chips ship.

Scott A. McGregor
Chief Executive Officer, President and Director
So in terms of wireless connectivity, phones is, by far, the largest market for that. And so a couple percent movement in there can swamp growth or changes in some of the other businesses. But that being said, we are ramping with new customers that are not in the phone space that could drive some significant volume. I can't say much more than that right now, but we'll say more on that maybe in the next quarter call. But you should see some other things coming to

market. So in terms of share gain opportunities, we've kicked out some other competitors with these new customers as they ramp on those things. So that will definitely help us there. In terms of opportunity for ASP expansion with ac, absolutely yes. There could be a 2x or 3x expansion in the ASP based on exactly what product they were using and the configuration and so forth, but it is an ASP improvement. It's a much more sophisticated product and complexity in silicon, but the performance is substantially better and we do get a premium for that.

Operator
The next question is from Chris Caso from Susquehanna Financial.

Christopher Caso
Susquehanna Financial Group, LLLP, Research Division
You had spoken a bit about NFC in your prepared remarks. Could you give us an update on what your expectations there? And some of your competitors have at least announced some products with some integrated NFC. Could you give us an update on your roadmap and your intentions there?

Scott A. McGregor
Chief Executive Officer, President and Director
Apologize, we don't announce products prior to them shipping or at least sampling, so don't assume we're not doing pretty well in that space though. We've got a variety of products. Initially, we'll ship discrete NFC products and then you can expect that over time, we'll integrate those increasingly in the combos. But we haven't announced those to date. We do expect to ship NFC in meaningful volume this year, and then I expect to see a broader ramp next year as our product family broadens out and our customer base broadens out into a lot of different products.

Operator
Our next question is from Betsy Van Hees from Wedbush Securities.

Betsy Van Hees
Wedbush Securities Inc., Research Division
Just super good guidance in a very tough market. It seems that the quarter played out largely as you guys expected. Was there anything that happened in the quarter that you weren't -- that didn't meet your expectations? And as you look forward to Q3, is there anything also that didn't -- isn't going to happen as you had previously thought as you were exiting Q2?

Eric K. Brandt
Chief Financial Officer and Executive Vice President
So I think on the positive side, as we mentioned, Mobile & Wireless grew, we were expecting to be roughly flat. I think Broadband performed quite strongly. We are watching the infrastructure market, waiting for it to turn around and are hopeful, per Scott's comments on the back half of the year relative to CapEx or at least based on what AT&T and Verizon are saying. But we probably expected that to be a little bit stronger in the quarter, and it continues to move a little bit slowly. But again, we hope that it picks up. In terms of other places, I would say that we did better on OpEx than we thought, and gross margin was a little better than what we thought. And as we rolled into Q3, I think given the very significant strength in Mobile & Wireless and a number of the new products that we anticipate in the market, we were probably expecting gross margin to maybe even have a downdraft, and we're pleased to see the gross margins holding flat across the 2 quarters.

Operator
The next question comes from Ambrish Srivastava from BMO Capital Markets.

Ambrish Srivastava
BMO Capital Markets U.S.
Scott, this is Ambrish, just a longer-term question. VMware made an acquisition and Cisco shareholders were not happy. On the SDN front, what are the -- some of the challenges or opportunities that are there for the chip guys? And then how are you addressing it? I know in the past, you've talked about open flow design wins.

Scott A. McGregor
Chief Executive Officer, President and Director
We're a big fan of software defined networks or SDN, and I think you're alluding to a sale yesterday of Nicira to VMware. Broadcom has been working with pretty much everybody in the SDN space, and so our expectation is that the majority of the SDN networks that come into plays are going to be working on top of Broadcom switches. So that's a big opportunity for us as that begins to feather out as a new technology. So yes, we're aware of that, we're very much a fan of that, and we've optimized our switches to support a lot of the flow technology from that.

Operator
The next question comes from Steve Smigie from Raymond James.

Jonathan Steven Smigie
Raymond James & Associates, Inc., Research Division
I was hoping to make a follow-up question on the small cell comments. I was just wondering if you've taken some of your pre-trial [ph] technology and pushed that up into LTE as well. And then just curious, your intentions in terms of markets for [ph] you that try to -- kind of mostly residential or would you try to push that up into enterprise and metro markets?

Scott A. McGregor
Chief Executive Officer, President and Director
So will we support LTE at some point? Absolutely, yes. And in terms of residential versus small cell higher end markets, our expectation would be to cover as broad an area of that as we can. Technology is very scalable.

Operator
And that was the last question. I'll now turn the call back over to Scott McGregor for any closing remarks.

Scott A. McGregor
Chief Executive Officer, President and Director
So thank you very much for joining us today. In summary, in the second quarter, Broadcom continued to outgrow the overall semiconductor industry. We were able to expand our IP and product portfolio, and we were able to drive leverage through the P&L. Broadcom is, we believe, very well positioned for long-term success in the fastest-growing segments of the semiconductor market. Appreciate you being with us today. We'll talk to you next quarter. Thanks, and have a good day.

Operator
Thank you, ladies and gentlemen. This concludes today's conference. Thank you for participating. You may now disconnect.