BBBT Podcast Transcript

About the BBBT

The Boulder Business Intelligence Brain Trust, or BBBT, was founded in 2006 by Claudia Imhoff. Its mission is to leverage business intelligence for industry vendors, for its members, who are independent analysts and experts, and for its subscribers, who are practitioners. To accomplish this mission, the BBBT provides a variety of services, centered around vendor presentations.

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Host:	**Claudia Imhoff**, President, BBBT
Guest(s):	**Paul Kent**, VP, Big Data, SAS
	Justin Choy, BI Product Manager, SAS
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CI: Hello and welcome to this edition of the Boulder BI Brain Trust, or the BBBT. We're a gathering of leading consultants, analysts, and experts in business intelligence, and we meet with interesting and innovative BI companies here, in a beautiful but kind of cold today, Boulder, Colorado. We not only get briefed on the latest news and releases, but we also share our ideas with the vendor on where the industry is going, and help them with their marketing direction and messaging. The BBBT podcasts are produced by my company, Intelligent Solutions, and I'm Claudia Imhoff. I'm very pleased to introduce my guests today. They are Paul Kent and Justin Choy. Paul is the Vice President of Big Data, and Justin is the Principle Product Manager of BI Products for SAS. So, welcome to you both.

PK: Thank you.

JC: Thank you.

CI: All right, Justin. Let me start with you. You started out with SAS's year, last year, 2012. And yet again, they've had another banner year. Seems like a pretty decent run rate that you've got. So, give me a very quick overview of what happened.

JC: Sure, Claudia. And thanks for having us. SAS has (had) another great year. Approximately 2.87 billion dollars in sales. I believe it was another double digit growth year for us. It makes our owner, Dr. Goodnight, very happy there. Our split of revenue, by regions, was pretty even as well. About 47 percent was from the Americas. About 41 from the Europe, Middle East, and Africa regions. 12 percent followed up by Asia Pacific.

CI: Very good. You also split it out by different products, as well, or different areas. You mentioned that analytics, in particular, was good.

JC: Even with a down economy, we seem to do extremely well in analytics. A lot of people are trying to figure out just what's going wrong, how to optimize their businesses, how can analytics help them be more profitable in harder times. During bad economic areas, SAS has thrived quite well.

CI: Well, the other thing I noticed, which was remarkable, and a change for SAS, is that you have really put a lot of effort into your hosting areas.

PK: Yeah, maybe I'll answer that one for you. We started out, I think, in the hosting business as a sales enabler, trying to facilitate customers' adopting new ideas from us quickly, and... "Bring us the data, we'll put it in our data center and run it as a service for you." But in six to nine months, we'll transition it into your facilities, Mr. Customer." Possibly more than expected, folks have come to like the service that we provide and kept on. They say, "No, we'll re-up for another year in your data center." So, our initial plans that we would be able to roll over the capacity to new engagements were subsumed by, "No, we need to keep those customers." And yet we're still bringing more people online, so adapting to that has caused us to bring data centers online geographically around the world both to cater to the local data boundary laws of countries, but also the latency in the Internet, that people in Europe would be better served by a data center in Europe, for the most part.

So yes, it's been a great growth opportunity for us, and as long as we do a good job, I think we'll still continue this trend of helping them get started, but keep them as ongoing customers, because we take a lot of the hassle out of the equation. We just get the data, provide the business value back.

CI: Well, it certainly does take the hassle out. People don't have to worry about the infrastructure. They've got everything all set up for them, and it's good for SAS, because now you've got a version that you're dealing with, not trying to do a bunch of back grabs and everything else.

PK: Yes, more and more businesses want to operate their IT infrastructure on cloud principles, whether they fully subscribe to a public cloud and the bleeding edgers like Netflix who don't want to have a data center any longer, they'll use exclusively public cloud infrastructure. Not everybody's there at that extreme, but people are somewhere along the number line of completely private, versus some of their business functions' being served by the cloud. This hybrid model, I think, is with us for quite some time, and it's fun to participate in that kind of a business arrangement with our customers.

CI: Excellent. All right, well, Justin, let me go back to you a little bit. About the releases, you put up the year and, oh my gosh, there were something

like more than 50 releases over the year that are going to happen. First of all, that's pretty impressive. Secondly, my question is, give me some idea of what the significant ones are.

JC: Sure. SAS's product portfolio is pretty massive. We have, approximately, 200 or 210 different products. The highlight of the 2013 year is that 94, a new SAS platform is coming out. That's pretty significant for us. That's focused a lot around us getting into cloud work, getting better support for V Apps for our customers. We are introducing new technologies as well. So more in-memory computing, being able to do big data faster. Two key products, SAS Visual Analytics is one of those that is very interesting, and it allows us to rev that two times a year. A lot of SAS's newer products are releasing more frequently than previously mentioned. As well as all our existing horizontal and vertical business solutions will be revving or releasing on top of our 94 platform that's coming out, in June of this year.

CI: So second quarter of this year?

JC: Yes, second quarter of this year.

CI: Excellent. Justin, you also mentioned that SAS has got a very clear focus on certain areas. Tell me about the areas.

JC: In the BI area, data visualization discovery is very big. Visual analytics is our suite of tools that's meant to address that. We have a lot of interest in that specific area. There are also big data cloud areas. There's always talk along those lines. We are actively involved in that, as well as SAS is known for its data management areas. Our marketing analytics or customer analytics, as SAS likes to call it, again, another focus point. To circle that out, the enterprise decision management area, as well, is a pretty hot area that we are actively focused on this year.

CI: Let's spend just a moment on that enterprise decision management. I'll go to you, Paul, for that. What do you mean by that?

PK: Well, it's the family of tasks that you'd have to do to do an end to end approach to automating business processes. Sometimes, it's machine generated rules by predictive algorithms, forecasts, and things. But sometimes, it's human generated rules, the business logic of mapping the

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VIPs -- never disappoint them -- or the cut points between a good customer, a medium customer and a not-so-great customer. The software can suggest the bins, but the management are the people who ultimately assign the cut point. That's more of a human entered rule. The whole management of those things, over time, which applications use the rules, how many times the rule fires, the yes part of the rule or the no part of the rule. Just basic information to help you understand how, once you automate all of this stuff, what's actually going on inside this sussing machine. If I change this, what could happen? The dependency and impact analysis that you need to do, before saying, "What if I change the cut point between a good customer and a medium customer, from point six on this score, to point five on this score? What would that do? Could we run an experiment? Could we do some AB testing of two different cut points, to see how the application, the website, the loan authorization process behaves, as we experiment with all of these things?"

CI: It's a fascinating area, a really interesting area. I'm very pleased to hear that's a focus. Justin, let me go back to you. SAS has its own quadrant of BI capabilities. Why don't you tell me about these?

JC: The quadrant is meant to help explain the idea about big data, analytics and how they can form together. If you think about on the bottom axis, we have data size. Then on the left hand axis or the Y-axis, we have, we're trying to analyze analytical capability, from reactive to proactive. Our data size is large to big data. We wanted to capture both. Where do normal BI vendors fit in? That will be the bottom left. Your regular BI is reactive. It's usually on normal data size sources. Everyone's starting to get big data. As you move across the bottom right there, people need to do big data BI. You need to be able to do your BI on large volumes of data and then, when you start introducing analytics, because we know predictive analytics is very hot on the market, most people do that on large data. That's moving up to the top left side.

The holy grail, I guess, is as big data becomes more prevalent in everyone's organizations, you need to be able to do big data analytics on that piece. We wanted to try and showcase where SAS has strengths in all quadrants, where some of our competitors fit in either one or two of

those quadrants and are slowly moving up into those areas. It's a way that SAS tries to differentiate where its product offerings are living, in the big data world and the analytics world at the same time.

CI: Well, and I thing that's an important differentiator. You're right. SAS plays in all four of those quadrants. They have a tremendous portfolio in each of those quadrants. That is something that is different from a BI company that stays, perhaps, down in the lower left or maybe moves up a little bit into the upper left. But you guys have covered all four of them quite completely.

JC: We invest a lot of our revenue back into R&D. We're looking at new technologies to assist our customers in trying to solve those complicated or more complex problem sets. As well as address the regular things that they face, day to day, as well. It's not just us trying to solve the biggest, baddest problem. Even though that's the cool thing to do. We also want to solve any business problems that our customers have.

CI: Paul, let me bring you back into the conversation. SAS has a new mantra, "Data from anywhere", which I picked up on one of your slides this morning. First of all, what do you mean by that and how is that impacting the architecture for SAS?

PK: I probably should have labeled it, "Big data from anywhere", because we're legend, if you will, for reading any kind of data source -- back in the day, from IMS hierarchical databases to VSANT, to all of those strange, mainframe technologies that people might not even remember any longer. What I meant by that was this parallel data feed, so that we can access big data sources in many strands of parallelism, all at the same time. The two essential parts of solving big data analytics are to have fast, massively parallel mathematics, but be able to feed those mathematics with many lanes of parallelism of a data feed. Your classic, massively parallel database, like a Teradata machine or a Green Plum instance. Obviously, each of the servers in that is assigned its five percent slice of the data and that's its responsibility. We have to preserve that data parallelism, to as many data sources as we can. We started out with our early partners, Teradata, Green Plum. We've done Netezza. We've done Exadata recently. We'd like to do (SAP) Hana. We're currently finishing up

the next generation of this work on Netezza, the pure system platform. As we build out this parallel data feed capacity to everything, the one that came along, not by surprise, but very quickly of course, was Hadoop. Hadoop has burst onto the scene in many of our customers. A lot of them are beyond the proof of concept phase. They really are doing interesting, new things with their Hadoop clusters. Maybe we were lucky. Maybe we were cunning. But our mathematics ties to the many lanes of parallelism idea that is just so natural with a Hadoop cluster or an HTFS. The way that it spreads the blocks across all of the data nodes is just perfect setup for doing massively parallel mathematics. It's just an exciting time to be doing big math, because the data environments are up to the task. It's our job to understand their potential and try to get the most out of each, different one.

CI: Yeah, it is an exciting time. The architecture of being able to put SAS either in its math component, leaving it separate, or putting it in the Hadoop instance, is a really good. Like you said, I don't think there's luck. I think there's brilliance. That's perhaps a little bit more appropriate there. Let me continue that discussion. Justin, you gave us a demo of visual analytics. I want to hear from both of you. Because there was quite a discussion that came up from that. It's more or less, we're making sophisticated analytics easier and easier to use. People don't have to know the algorithms. You don't have to be a statistician or a data scientist, for example, to actually get the results from some very sophisticated analytics. The underpinnings, if you will, or the infrastructure, is kind of masked from the every-day Joe. But the every-day Joe gets the benefits of these wonderful analytics. How does a person who is not an every-day Joe... Do they have confidence in these algorithms? Should they be questioning them in any way? What's your thought there?

JC: Interesting question. It always brings up great discussion. One of the focuses for visual analytics was to produce... SAS is using the term either "approachable analytics" or you've probably heard "consumable analytics" out there. What we tried to do is make things like forecasting be a simple, one-click approach. Where users know what forecasting is and they can, hopefully, trust that SAS is a leader in analytics and knows what they're doing, and can forecast them out great results. We have a

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lot of customers that are relying on Excel and doing just simple linear regression calculations in Excel to get their forecasts out. We were hoping to get, for lack of a better term, it's probably blasphemy in SAS world, "good enough" analytics, which was to be able to do the same type of result sets as what Excel could do. But the smart people at SAS who live in the analytics world said, "We'll give you not just good enough analytics. We'll give you the best of what SAS can get."

That was to take forecasting algorithms, probably six of them, and be able to run through them extremely quickly and put the results out to the end user. And say, "Out of those six, there's this one algorithm that produced the best results. Here it is." Now, that probably will cause some controversy for a more advanced person, because they may say, "What exact technique was used? What different options were put in? What assumptions did you make?"

Our idea here is to try and say, "The business user can get introduction or use analytics to help make decisions." There is a danger there, in terms of, they can make potentially wrong decisions based off things that they click. But hopefully, they're vetting these by their advanced analytics people or people that know a little bit more than they do. Before they're actually surfacing the results to more people.

PK: The whole collaboration and community efforts and evangelizing analytics culture in a company. You hear about big companies trying to imbue the analytic culture, more broadly, across everybody in the organization.

CI: They're all struggling to do that.

PK: Get the HR people to think analytically. The early adopters are actually quite successful at that. Teaching business domain folks enough about analytics to get the value out of it, without becoming complete experts. Sure, there is a danger that you over-fit a model and it doesn't roll into the future as effectively as a bespoke model would. But it's a numbers game at some point. If you can influence 100 business people with the technology, whereas before you could only reach 5 by the bespoke lab coat guy, which one's better? Which one adds more value to the

business? At SAS, we actually think that a blend of both of these approaches is appropriate. We'll still have the hardcore tools, at the top end, for the precision engineers, the ones who build models for a living and do it all day long, and the forecasting community who understands that next year you'll have your sale on a different day and that the weekends don't line up, as they did last year. There's five weeks in the month next year and only four last year. But for most people, a rule of thumb forecast is enough directional guidance that it's better than nothing. It's certainly better than, "Here are six approaches in the tool box. I hope you try them all before you choose one," which is what we're better than. To Justin's point, Excel may have had those techniques, but very few people tried them all and chose the most appropriate one. And the advances in firepower in the software, as well. "I'll just try them all. I'll use the diagnostics and put forward, in the tournament, the one that showed off the best."

CI: Yeah. That's the beauty of it. You can do them all. You can have it decide which one is the most optimized or whatever it is. The person getting the results doesn't have to be the data scientist. Right?

PK: Yeah. Exactly. We hope to grow them up into a data scientist or grow the pool of people that approach the definition of a data scientist. But in the long run, analytically enabling their thinking. Almost surreptitiously or in the background, or subtly. But we think this is a good approach.

CI: Yeah. I think it's a good approach and the right way to go. Unfortunately, we're out of time. We could talk about that one for quite a while. That's it for this edition of the BBBT podcast, with me. I'm Claudia Imhoff. It's been a great pleasure to speak with Paul Kent and Justin Choy of SAS Today. Thank you both.

PK: You're very welcome.

JC: Thank you, Claudia.

CI: I hope you enjoyed today's session. You can find more podcasts from other vendors at our website. That's www.boulderbibraintrust.org. If you want to read more about this session, please search our hashtag on

Twitter. That's #BBBT. Please join me again for another interview. Goodbye and good business.

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