


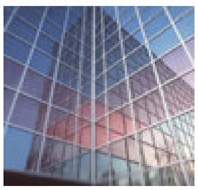

SupplyChainDigest™

SCDigest Unplugged Interview with Procter & Gamble on RFID

In June 2007, Supply Chain Digest Editor Dan Gilmore sat down to discuss RFID with Dick Cantwell, Vice President of Auto ID at Procter & Gamble. He is also Chairman of the EPC Global board. Cantwell has been very active in the Electronic Product Code (EPC) community, and also been a vocal proponent of the potential of RFID/EPC in the consumer goods-to-retail supply chain. Also contributing to the interview is Cantwell's colleague, Paul Fox. In this complete transcript, Gilmore has questions, Cantwell has answers.

Gilmore: Long term, I have been very bullish on RFID, and am bullish right now in many applications. But in consumer goods-to-retail, for a variety of reasons, I am a bit skeptical in the short term.

Cantwell: I have a lot of sympathy for your skepticism. I don't think there is anybody who doesn't believe RFID is going to happen and is going to be a technology that is going to revolutionize the future. The question is how long is it going to take and how is it going to play out.

I think we have all done things in 20/20 eyesight that we learn from and that's the discovery process of this journey we're on. So there are no real absolute right and absolute wrong answers to the discovery process that has allowed us to continue to make the technology more reliable, more predictable, more robust. And as we have gone from the early days of seeing this technology that was about all things, all the time, to right now, where we have evolved to prioritizing the opportunity so we can deploy the technology where we can get value in the short term.

Cantwell Says:

"I've seen every plan in the book to get better retail execution, and I've not seen anything that had ever lived up to its expectations. What RFID does, is it gives you, for the first time, real actionable visibility."

What do you say? Send us your comments here

In the past, we were also doing all kinds of pilots and tests across the whole value chain and across many, many products, but we weren't getting any real value. We were just learning how to use the technology. Now we've narrowed our focus and we are going much deeper into specific applications, and we're getting value. Proctor & Gamble has already achieved several million dollars of incremental sales. And that's just from a number of tests sites we're deploying in. I have demonstrated over and over again that the return easily exceeds the minimum of our company's financial hurdle rate for invested capitol. That's with tag prices that I know are going to drop, and with retail sites that I know are going to expand, and that's without benefit from further economies of scale. That's with just certain products and using still a semi-automated tagging process.

Fast forward into the future: tag prices come down, there are more sites, and tag application is more automated. My ROI is going be significantly higher. So, I am feeling like I used to be bushwhacking through the jungle, which is what we were doing 5 years ago. Now, I feel like we're on the road, headed in the right way. It's a journey and there's discovery, and discovery brings new ways of looking at the benefits.

I've often been asked, Why hasn't Wal-Mart slowed down? Why has Wal-Mart not done what they said they were going to do? Why have they changed their tone? And my answer to that is it's a discovery process. We're inventing something that no one knows what it will look like. This isn't looking in the rear view mirror and rolling out a new enterprise system, or a new warehouse management system based on incrementally improving what we have.

Dick Cantwell
Procter & Gamble

We're inventing a new way of doing business and as our group president for North America says, "We only know what we don't know." And with that kind of paradigm, we have a 24-month road map. We look out to the next 6 months with very finite plans, and during that process we learn things, and then we adjust. Move 10 degress to the right and then 10 degrees to the left.

Pretty soon, the opportunities we are shooting come into full view. It might be different than what we thought 6 months ago, but they are real. We have a much better shot of achieving them based on the work we have done. And I think that is what Wal-Mart is going through. They're going through kind of a trial and re-assessment, trial and re-assessment, constantly fine-tuning their lens on where they want to deploy and get the most value.

Both Wal-Mart and P&G, and any other manufacturer or retailer in the CPG category, is faced with the fact that in our individual operations, the management that is in charge of those facilities have to be convinced that they're going to get value from the technology. You can't just toss it over the fence and expect that they're going to plug it in and embrace it overnight. There has to be a process of socializing it and convincing the people it will work and having them own the process change that is going to drive value.

And what we're seeing now within our organization, within Wal-Mart's organization, are more and more people are saying "If I'm going to hit my objectives, in terms of driving sales, reducing inventory, limiting shrink, hitting my cycle times on new items in displays, reach my business objectives, I'm going to have to use this technology, so how do I do it?" The more progressive people are getting behind it. And that's going to be a continually evolving process.

Gilmore: I think if Wal-Mart had articulated the scenario as you have just done, and stopped acting, what has seemed to me, to be more like a politician trying to justify to the media what's happening, we all would have been better off. I think they got too defensive about the whole thing. They should have said "It's nobody's business but ours how we roll this out. Leave this alone and we'll tell you when we're done." I think that would have been a better approach for Wal-Mart and this industry – and to admit the uncertainties.

Cantwell: I think Proctor & Gamble could have done a little bit better job too. We were tagging pallets of commodity goods and not finding a business case. So we went sideways for awhile. We were being perceived as being among the skeptics at one point. Now, we've gotten ourselves back on the road. We're focused on a strategy that's looking at opportunities where we can deliver value now. We've taken advantage of all the advancements in EPC technology, and we're producing our return for the company. We have a business plan that shows a positive return on investment. So now we're becoming more vocal and more interested in communicating that this is absolutely something that works.

Gilmore: At the opening of Alien's RFID Lab, I heard for the first time the notion that P&G has 3 levels of products classification when it comes to RFID potential. Can you just take me a little deeper? What do those designations really mean?

Cantwell: Sure. We did a portfolio analysis and we ranked our products and our marketing events, such as marketing a new product launch or promotion, based on the value proposition. In other words, how quickly could we leverage EPC to provide value to our customers and to P&G. We also cross referenced the product characteristics that made RFID technology friendly or not.

Gilmore: The RFID technology friendliness being purely from a readability perspective, based on packaging and materials and other factors?

Cantwell: Yes. There are obviously products that are easier to read and products that are more difficult to read. Products that have more value going into the market place, products that are more commodity products. So we want to find the lowest cost solution so that we can put more tags on the commodity products, but at the same time we want to make sure we engineer around the laws of physics to be able to put tags on products that are high in metal, liquid, packaging that make reading more difficult.

So we created what we call the "EPC Advantage" strategy. At the top of the pyramid are Advantage products - higher value products or higher value marketing scenarios that deliver a business case for EPC right now. For example, promotional displays are a huge opportunity that is advantaged. In the CPG industry, our life blood is new products and promotions. We take consumer insights, turn them into new products or new line extensions, bring more benefits to consumers, and then we put them into the marketplace with displays, and splashy launches and put some advertising behind it.

It keeps our brands fresh, and it gives the retailer what they need to create excitement within their store. This is the engine that drives our categories. To be able to get more executional excellence out of our new product launches and our promotional display events is a huge advantaged benefit. The nice thing about this is that, generally speaking, you've got a corrugate shipper that has numerous items in it, so we only have to put one tag, and that one tag on the outside of the shipper can be amortized over all the products in the display. It returns an ROI more quickly than putting a tag on an individual item of toothpicks, or whatever.

Also in the advantage category, are high-margin, high-velocity products like Gillette razor blades, Crest white stripes, Duracell batteries. So, given the state of play, there is more than enough we can do to build the infrastructure and the process to get value out of these advantage products.

The next are Testable products. These are products that are on the bubble. They need more work to establish value. They need a price of entry, the price of the tag has to drop a bit more to make the ROI work here. Maybe there has to be more process change in place to make these work or a few technical bugs that have to be worked out.

The last category is Challenged products. They don't have a business case yet. There are technical handling obstacles that have to be overcome. For example, a box of Cascade dishwasher detergent – it is like a block of metal. The crystals themselves have certain properties and then they are wrapped in foil, and the foil is put in a foil box, and it is a tough nut to crack. That would be an example of a challenge product. We spend our budget probably 75% against the advantage products and probably 15% against the testable products, and 10% against the challenge products. It's something like that.

We're constantly using what we learn from our advantage products to demonstrate business value, give us new business case learning. That then generates more value, more opportunity, which drives volume, lowers cost, and provides funding and resources to mine the challenged, and the testable opportunities.

Gilmore: When it comes to promotional displays and out-of-stocks, many retailers have a store execution issue, it seems obvious to me. Is the way to solve that store execution issue to go spend billions of dollars on RFID infrastructure?

Cantwell: In a word, Yes. I've been in this industry with Johnson & Johnson, Gillette, and now P&G for over 25 years, keeping up on both the marketing and the supply side. I've seen every plan in the book to get better retail execution, and I've not seen anything that had ever lived up to its expectations. What RFID does, is it gives you, for the first time, real actionable visibility. It gives you the systems to really know where your products and displays are.

What we discovered in 50 or so individual pilots and research, all showing very reliable, repeatable results, is that only about 45% of our displays are actually being executed according to plan in the store. If you had asked us even with all the programs we had in place in order to correct that before RFID, we would have said 80-85%.

With only 45% of our displays being correctly implemented, that's a huge opportunity cost, and also huge in terms of shopper satisfaction. What we've also found is that 30% of our displays that we ship in, where we pay the customization cost to build them, get broken down and the display merchandise is used to stock shelves. This is because perpetual inventory is inaccurate, and the displays provide a convenient source of inventory to put on the shelves. But, it's also because there is no automated process for finding displays and getting them out to the store floor where they belong.

Gilmore: What if a retail store manager has an electronic list that would list the 6 displays that have to be on the floor today or your bonus gets docked? Wouldn't you try that first before you tried RFID?

Cantwell: It has been tried. We've had a number of very significant launches – The Fusion razor (from Gillette), the Sensor razor before that; these launches are backed by hundreds of millions of dollars of marketing support - advertising on the Super Bowl – no company is as good as Gillette at surrounding the consumer with that initial product message.

I can tell you that down to the aisle clerk in the stores on Day 1, they are anticipating and ready for the displays to be there. And we get 85%, maybe 90% compliance on a good day. This is a one-off launch that happens only every 4-5 years, one of the biggest things for Gillette, one of the most important events that our retailers do.

But we have hundreds of other events, that when you combine it with the hundreds of thousands of other events that our competitors are also putting out there, despite the fact we know we can apply manual pressure and the store manager can generate lists, and the store manager can crack the whip, the fact of the matter is, half of these displays do not get put up correctly.

Let's take out the portion that they eventually get put up, but maybe they are late, you are still talking about 60%-80% compliance. My answer to your question is, if you are relying on a manual process to do that, given the motivation and the chaos and the low wages of the people doing the picking and the placing, you are going to run into errors, noncompliance, lost goods, and RFID takes that out of the equation. It gives you an automated system where you come to work and there is an automated report that says do this. And if it isn't done, the store manager knows and the regional headquarters knows, because they can tap into the same automated system to monitor this kind of performance.

Gilmore: I got the idea from the initial work on promotional displays that a lot of this was that Gillette and P & G would follow up with the store manager and say "We've been monitoring the data and here's what you need to do." If we now take this across dozens of vendors - there are hundreds that do this type of promotional displays - are we going to have 300 different CPG manufacturers all calling 1500 or 3000 different Wal-Mart store managers? How is that going to work?

Cantwell: Yes, you put your finger right on the nub of the problem. P&G Gillette has a huge advantage right now because we have a merchandising force that routinely calls on stores each day over a 3-4 week cycle. We are in the stores and we can take that information and make it actionable with store personnel and make sure these displays get out. That's a huge competitive advantage for us, and we're taking advantage of RFID to drive that competitive advantage.

But longer term, what is going to happen and what we see beginning to happen now is the store itself – store personnel – are going to on-board the process that we are doing for them. They are going to start generating automated data and directing their staff to do what we're doing for them in these pilots.

That's the process I referred to earlier that we're going through and that will go through at Wal-Mart. There is socializing and educating and motivating the store managers to begin changing their processes. That's going to be a longer term process. But with RFID visibility, actionable visibility as we call it, they now have the tools to do it. The store manager goes to a Wal-mart meeting and gets the playbook on how you can better execute display results using real-time reports that say he needs to do this, this and this, and he or she's getting feedback on whether it happens or not. That process is going to eventually drive greater executional excellence.

Gilmore: Aren't those benefits more for the chief marketing or merchandising officer than the Chief Supply Chain Officer?

Cantwell: That's a very good point. I've always intended that this is a cross functional shared opportunity and that needs to involve IT and operations and marketing people on the same team in the same room. All of them have a stake both from a standpoint of enabling the technology, but also from benefiting from the technology.

From a marketing standpoint, marketers have a limited number of marketing dollars to spend on advertising and in store activities like promotions. If they can use RFID to better measure the effectiveness of their promotions, they are going to be able to establish a set of best practices that tells you what promotions work best, what part of the store they work best in, how they should best execute it, etc. This becomes a huge marketing tool and this is something that retailer's marketing staffs and supplier's marketing staffs are going to want to use to mine the rich data and the new metrics to really redefine in-store marketing execution.

Cantwell Says:

"What is the cost of the tag? We are at the 15-cent range now and it's dropping like a rock. If you came to one of our packing facilities now, you would notice that we have automated that application of our tags on our high-speed packaging lines so that we can apply tags at a dramatically lower cost."

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Gilmore: This seems to me to have several impacts. The way the supply chain and marketing may think about value and ROI may be quite a bit different, for one. And do we need "RFID for merchandisers" training? It seems that this is flipping around a little bit in the short term. In the long term it's going to get back in the supply chain, but in the short term it has flipped a little bit on this and it's more about in-store execution and in-store merchandising. If you go back to the original Auto ID center materials I don't believe you would see much about that in the original concepts.

Paul Fox: Let me give you a perspective on this. I share a lot of your concern about the balance of responsibility and engagement between supply chain and marketing on this. But one dynamic you will see beginning to increase in terms of its importance to the marketing function is that if you accept the principle that marketing is very much focused on trying to connect with the customer, and trying to develop the promotions, the displays, etc. with the hope of engaging in-store with that customer.

Now the assumption is that you'd get a reasonable level of execution to allow that to happen at the store level. What is now happening across the retail sector in the U.S. and now extending into Europe by the end of the year is a global standard on movement and availability at the store tracked by what we call a "measured media."

Marketing at manufacturers today will buy other marketing channels based on measurement data. They get data to decide how they will spend money on TV from Nielsen, for example, or other data sources for print. It establishes consumer reach.

Now, an "industry scanner" is being developed to measure the store in terms of consumer reach. I hate to use this word, in a sense, but stores will be "elevated" on the same level as all the other marketing channels. But a critical factor in establishing the store's ability to reach a consumer is really a pretty simple equation – it's the traffic, how many people were in the store, the aisle, the zone of the store, and what did they have the opportunity to see.

And that's where the question of compliance comes in. It will suddenly get this huge amount of focus. Dick's put the foundation stones in there, showing that the studies we've done indicate the compliance is around 45%. That's a huge area of opportunity to drive sales and reach shoppers. But on the other side of the coin is that this in-store metric will get traction. It will become a syndicated service by Nielsen in early 2008.

Another side of it is, retailers need to drive compliance too or else their score is not going to look good. That's another dynamic that's happening within the retail sector, where it's focusing marketing's attention on the question of compliance, which before really didn't have that level of focus.

Gilmore: Why do you think, other than Wal-Mart, the other retailers seem to be moving very slow in this whole area?

Cantwell: I think there are a couple reasons. One is the other retailers are scared to death of Wal-Mart. So, the work they are doing is being done pretty much behind closed doors. I can tell you that there is work going on that half a dozen retailers that I know that never gets the press, never makes the light of day.

They're keeping themselves in a readiness mode, so that when this thing hits, they're prepared but they don't want to give away their strategies. Second, there are retailers out there that manage certain aspects of their supply chain very well, and today don't see the low hanging fruit that Wal-Mart sees.

I think there are retailers out there that are staying abreast of the technology without hopping in, but feel when it starts to accelerate they'll have time to find one of the big consultants and get a turnkey solution to plug in. I'm a little more skeptical of that because I think you've got to have on-boarded RFID and have it in the DNA of your company to make it successful.

Paul Fox: I know it all kicks off in the retail sector, so there was a lot of focus there in those earlier years. P&G and Gillette were among the principal drivers. The traction of technology has received across different sectors is significant though. I think that is something that is sometimes overlooked because Wal-Mart. You have areas like footwear and apparel, areas like movies and entertainment, areas like pharmaceuticals. Then you've got other applications of RFID technology in things like aerospace, and defense, and the US Department of Defense, which is a major user of the technology. But it's not surprising that time and time again the focus comes back to the Wal-Mart roll out.

Cantwell: Well that's one big change since the days of the Auto ID Center. At that time, the Auto ID Center was centered around CPG leading the way. I chair the board of EPC Global and I'm very vocal at letting the GS1 know that although it is a CPG-to-retail centric organization, it cannot ignore aerospace and chemicals and pharmaceuticals, etc., because they very well may adopt this technology faster and deeper than CPG.

The great thing about it is because of the standardized platform that GS1 EPC global is architecting and deploying, what's good for chemicals will be good for CPG because we all use the same tags, we all use the same EPCIS system, we'll all benefit from the same economies of scale.

So, I think it is great that the apparel, for example, is finding so many applications and realizing the benefits. I think it is great that Avery Dennison, one of the largest label manufacturers in the world, if not the largest, is also a tag producer, and they're putting tags they produce into labels they produce for apparel, so that apparel can have a low cost applied tag solution for inventory management and in-store consumer shopper satisfaction. You'll see the dominoes start to fall. It can become a gold rush very quickly for any given industry.

Gilmore: Last question: with cost to distribute in CPG sometimes as low as 20 cents per case, how can you possibly cost justify RFID tagging that in the end also costs that much or more? Which would you rather have: a whole distribution center, or tags on cases?

Fox: Well to answer your first question or one of the questions that was imbedded in that, tag costs are at about 15 cents right now. We're pretty confident that it is going to be below 10 in the immediate future – not 5 years from now but right around the corner.

Cantwell: Here's how I look at it Dan. First of all, what is the cost of the tag? We are at the 15 cent range now and it's dropping like a rock. If you came to one of our packing facilities now you would notice that we have automated that application of our tags on our high-speed packaging lines so that we can apply tags at a dramatically lower cost. I encourage you to go to New England Wooden Ware up in Gardner, Massachusetts, where they have now installed the first corrugate_producing machine, corrugate assembly machine, where the tags are being applied as the corrugate is being built.

So, they have come up with a way to apply the tag as part of the corrugate process, so application cost is maybe a cent, or less. So, you take a 10-15 cent application cost, and you drive it down to under a penny. That's a pretty dramatic paradigm shift.

Right now we are betting that prices will go lower, and it's all about the promise of future opportunities, but prices are going to drop. Secondly, I think as these tags are used within the four walls by the DC operator, they are going to find advantages in terms of locating, assembling, checking inventory in and out. We found in our own DC about a 20% improvement of productivity as a result of using the technology.

Third, we are amortizing that the cost of the tag, whether is 20, 10, or 5 cents, on the downstream applications. All the things that happen in checking the inventory into the customer's DC, reconciling orders to shipments, getting the product into the back room, knowing when it is out on the shelf, knowing when it needs to be replenished by associating RFID data with POS data. Every time we send one of our merchandising reps into a Wal -Mart with the data that is generated by EPC reads, even at case level, we are able to see $300-500 dollars of incremental sales. And you multiply that against the whole Wal-Mart chain, you're talking about millions of dollars in increased sales opportunity.

Fox: And just to give you a perspective on that, if you take the many locations where we have a packaging operating next to a plant. Basically you've got a tunnel that connects the two buildings. All this is has historically been a non-EPC enabled process. If you imagine a pallet moving from the pack center, through a tunnel into the DC, that inventory would have to be counted, for a number of reasons. One, because we want to know what's moving, but also to reconcile the payment for third party packagers. That process, on average, the process of manually counting the cases on the pallet would take about 20 seconds. It doesn't seem like that much, but with the EPC-based process we were below five seconds per pallet.

You start adding that up, and you add to that fact that you have an incremental improvement accuracy, at the end of the day you know that manual process is costing you a lot. There are all these things sort of floating out there that you need to draw in when you do those ROI calculations. Today, you add 10 cents on the applied tag cost, but you take it away somewhere else in the process, because you don't need to do something you used to do. You've got people now building this stuff into the corrugate, and we're going to get an applied cost of less than a cent.

Cantwell: OK Dan, just to close our conversation, I think it's important to keep in perspective, and I think you touched down when you talked about the marketing opportunities, this is a supply chain play right now – there are huge efficiencies and productivity gains and in-store compliance gains and execution gains which serve a huge purpose in providing an ROI to install the infrastructure.

But if you were talking to the CEO or the chairman of the board right now, the thing that motivates them, the thing that he or she wants to be talking to the board about, is building top line sales. The fact that right now, by making the supply chain work more effectively for us, we can reduce out-of-stocks , drive display execution, generate incremental sales as a result of that. This is huge for the CEO.

You then build on that with that infrastructure in place, and you think about all the consumer marketing, consumer interaction opportunities you have to drive shopper satisfaction. That's where P&G plays. That's where P & G has no equal. I think what you're going to see is more and more opportunities building off the infrastructure to drive those things. It might be starting with having better marketing metrics as Paul alluded to. So now we have a better idea of what is in store worth to us verses spending our dollars on advertising verses spending our dollars on internet marketing. But then beyond that, you're talking about maybe having a consumer who can interact directly with your products and create a tighter brand relationship, which is going to build_brand equity. And P&G wants to provide its consumers the opportunity to bond even more closely with its products.

So, I've always been somebody who looked at my cell phone as the ultimate consumer device for interacting with products – getting information, identifying yourself to the product, finding out that because you are a loyal user, you can get a 2 for 1 deal or you can get a free item with your purchase or whatever. So, those are the things that are going as the supply chain infrastructure is filled, those are the things that are going to get a lot of CEO's attention down the road.

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