

The Labeling News Interview

Carl Brown. President of SimplyRFID

Carl's Bio

I am a programmer. I've tried to be other things, but it's what I am. When I watch Westerns I think to myself, "Oh my! What if I was alive when there weren't any computers! I'd be screwed!" I started SimplyRFID seven years ago to write programs and avoid meetings. So far, its working and we sell RFID asset tracking programs to about 2,000 companies.

What is your background? How did you become involved with RFID?

My dad bought me an Apple computer in the early 80's and I started writing software when I was about 12. I'm really a geek and like building software and solutions. I've tried working at a number of companies, but mostly I like doing startups. Startups are all about building new technology and seeing if you can sell it -- before you run out of money.

I did a lot of work for the US Postal Service and Stamps.com and figured RFID would be useful for tracking several billion packages a year. So, I started SimplyRFID in 2002 to automate package shipments and processing. Frankly, package tracking is still working its way through a big machine and will happen someday -- but, it turned out that other areas are pretty effective for RFID, today. We found two areas: 1) helping over 2,000 DoD suppliers ship over 20,000,000 shipments to the DoD, and 2) Asset Tracking systems ranging from the FBI to Hollywood productions to File Folders.

Tell us about Simply RFID. What was the impetus for this startup and how did it become so successful?

I actually, kinda-sorta, write a blog on this (blog.SimplyRFID.com) about the evolution of a startup. I don't really like to define it as 'so successful' because I feel that would be a bit of a stretch. But, in-business and growing I can agree with!

I started SimplyRFID because I thought we could make better products for a new market. What made it survive? For starters, we set a really low-bar! We keep it small. We only spend cash we have. We don't get caught with heavy recurring capital expenditures or opulent expenses. If anything, those three areas helped us survive the lean RFID years.

But, I think it's our team. We focus on the customer and do everything we can to keep customers happy and do the right thing. No matter how much money we waste on marketing -- over 80% of our new business is referrals from ecstatic customers. The only way to have happy customers is to have a great team creating memorable experiences.

Perhaps I am the worst marketer ever... But, that didn't stop us!

Your background is in Engineering at startups. What do you find appealing about such environments? You describe yourself as a "hacker". Why?

Startups are about creation. It's fun to see something new created from nothing. It's also a different skill. It's a sprint vs. a marathon. I work better in a sprint for several weeks to create something new and wonderful. Some people work better in a marathon where minor improvements are measured over months and years.

Hacker... I suppose because I like to try things without being forced into a process. In my early programming days, I didn't know it would be hard to create a 'Database' application. So, I wrote one. In about a week. This was in early Windows days and there weren't any really good Windows databases and I needed a database. Once you become indoctrinated in process, you have no other choice but to follow one. If you get an MBA on your team, you are guaranteed to follow process. Process always guarantees an output -- but, it doesn't guarantee a good one. So much of what we like today (Twitter, HTML, eMail) is built on extremely simple building blocks. You don't think about what it takes to send a cell phone SMS via Twitter -- all you do is click 'Tweet' and off it goes. To some extent, I think process is what causes big companies (Microsoft) to have problems. They innovate early on, but eventually their staff creates books like "Code Complete" which sound great but stifle creativity.

I ask only one or two questions during an interview. One of them is "How long would it take you to write an application that takes someone's name and stores it in a database?" Ask that. You'll be amazed at the answers. Especially if the person isn't a programmer.

What are some of the interesting changes taking place in RFID? Is this technology becoming more applicable or easier to implement in more industries?

The massive changes for RFID occurred in 2005 with Gen2 RFID. This was pushed by the Wal-Mart and Department of Defense adoption. Passive UHF RFID technology is fantastic and the biggest change is the deployments. The more companies that adopt and integrate the technology, the easier it becomes. But, it's not RFID that needs to evolve -- it's the underlying applications. For example, the 'discovery' of radio waves isn't all that interesting -- but, WiFi is! And, I gobble up every chance I can to be more connected due to it. I have a Sprint Wireless, an iPhone, two wireless routers -- B/G for kids' games and N for serious-business (i.e. Web Surfing) in the house, and it's not that radio waves are getting better. It's that it's being more integrated. My daughter's DS connects to the internet -- but we didn't buy it from SimplyWiFi.

Same for RFID. When I can buy a refrigerator that scans everything I put in there and integrates with my milk, yogurt and peanut butter, I'll be able to have that sent to my iPhone for a one-click Amazon re-order. The thing is, today's RFID can do all of this. But, it's one step at a time. Right now, we are helping companies 'tag all their stuff' with RFID. Once that's done, we'll keep making smarter and smarter doors and hallways. Eventually, we'll purchase PC's that are pre-chipped and work with the existing RFID systems.

So, the killer apps for RFID today: Asset Tracking. Period. It works and it's feasible at a reasonable price.

What are some of the considerations for implementing RFID? Are the costs too prohibitive for smaller businesses, or are there other factors involved?

RFID makes sense for some businesses. We have companies that are five people that implement RFID because they rent \$5 Million a month in equipment and they want a live RFID/Video transaction (our Nox system) of every event. But, that's the exception.

Where we see RFID being cost effective: Organizations tracking over 1,000 pieces of IT equipment. A typical starter asset tracking systems is \$5,000, including RFID tags. It integrates with Excel -- a staple at any sized business -- and it's simple.

If you're integrating RFID into a manufacturing process, it's still quite reasonable. Fixed RFID readers are around \$1,000 and integrate easily into production lines. Most industrial process engineers can integrate RFID into a business chain in several hours if they are top-notch. (The ISO 9001 standards and business process reengineering will take another two weeks to update). Savings are dependent on what the process they are targeting -- but, absolutely valuable.

We talk about asset management, and it seems to make sense in a business to track assets using RFID and asset management software. However, not all businesses make full use of this type of technology. Why do you think that is so? What is standing in the way?

It's a sink hole. CFO's need to demonstrate 'losses' on the balance sheet for theft/disappearance and Sarbanes-Oxley. But, what is the value of a high-end asset tracking system? So, they force someone in IT to manually inventory stuff once a quarter using a \$1 metal serial number and leave it at that.

Where we find RFID of-value is on frequent inventoried assets. There are many examples. Rental Equipment: High-value rental equipment may sit dormant for months, yet needs to be accounted for. Deployments: If you are often deploying assets, it is much more accurate to use RFID to get an accurate count of what is being used. Theft: RFID at doorways/portals keeps laptops from being snuck out or tossed in the dumpster for later retrieval.

Every company has a different issue to solve. RFID is still new and it takes a number of success stories before it's believable. RFID asset tracking will be a de facto standard in about 10 years.

What are some of the critical success factors a company must have in order to have RFID/asset management fully implemented?

Back to my hacker ways, I'd look at this a little differently. What problem are you solving? Most often, it's simply establishing a repeatable process. Or, 'How would you do this on paper-and-pencil'. Once we have that we define how RFID makes it better. Since most of the time, the paper solution doesn't exist; we have a very simple solution.

- 1) Create an excel spreadsheet of your items
- 2) Download your spreadsheet to NoxVault

- 3) Tag your assets with RFID tags
- 4) Take inventory with NoxVault
- 5) Sync your Excel spreadsheet to your PC.

This is slight oversimplification. But, it's really not much more complicated. However, we find most people think RFID is a magic GPS tag that will tell them, "Hey, you bought me on this date and time and I'm still under warranty and I'm located in John's desk!" Asset Tracking still takes someone doing something. This can be the hardest part of every process.

What types of industries are using asset tracking and management systems to their full potential? Is this type of application becoming easier to integrate into existing business processes now that costs and technologies are improving?

We are seeing every business type adopt RFID. There is no one area that is benefiting more than another ... except... companies with at least 1,000+ tangible assets to track benefit most easily. And, absolutely, the costs and technology advances are making RFID much easier to justify.

Do you see RFID's success mainly in supply chain management? What do you think will happen with RFID in the supply chain in the near future?

With the exception of DoD suppliers, we don't focus on supply chain management. RFID will be useful in supply chain when companies automatically apply an RFID tag to every case or to every item during manufacturing. The possibilities here are fantastic -- but, they are all about the infrastructure supporting the capability (e.g. my Magic Fridge mentioned earlier). Until then, I think very large companies can benefit from auto-receipt of RFID shipped goods (via EDI / ASN (Electronic Data Interchange / Advanced Ship Notice) but for the rest of us, it will be over 10 years before it is available. If ever. Supply Chain is not a good market for SimplyRFID but it could be good for large systems integrators (Computer Sciences Corp, Northrop Grumman, etc.) and enterprise application vendors (Red Prairie, NetSuite, etc.).

Explain your Nox software, where you use RFID and video surveillance for tracking. How does that work? Does this covert surveillance mean that Katherine Albrecht was right all along?

Nox integrates RFID tags with Video surveillance. So, if you tag a laptop, person, or someone's underwear, we can track them to the nearest video camera and send (or, store) video of that event. This is useful to see who is leaving with a laptop or another restricted item. We can look back several months to see 'who had this last' and RFID makes it very easy.

I'm not sure how RFID makes anything less private. Video has been recording movement for years and RFID just helps us pinpoint the moment in time.

Places where Nox has helped: We placed it in a distribution facility with high theft of electronics equipment. This facility shipped over 3,000 TV's and electronics boxes a day. Using inexpensive (20 cent) RFID tags, we were able to tag a large number of items and

figure out where thieves were re-routing packages onto a buddy's truck (called 'overloading') and stealing over \$1Million a year worth of TV's.

With Wal-Mart slowing down their RFID implementation, there seems to be concern over the future of the technology. What other interesting applications do you see RFID being used in now? How do you see RFID being used in next 5 years?

RFID is still fantastic for logistics. Think of it this way, some of our customers ship over 10,000 cases of product per month to the Department of Defense. How do you count / receive 10,000 items? RFID makes this easy. I think Wal-Mart still has the right ideas but did a number of things that made it onerous for the supplier. DoD, in fact, made this process much easier and as the ultimate 'consumer' of the shipped goods and is actually able to benefit from the tags beyond where Wal-Mart can. The DoD made the barcode market work in 1980 -- and, it will continue to drive the RFID market. Wal-Mart will get there.

But, RFID is going to be less of a name in five years. Our name, SimplyRFiD, will be like a company named ".com" -- irrelevant. Because people won't be looking for RFID without the corresponding product. Maybe not in five years, but eventually.

Things with RFID that I love today:

- 1) Great Wolf Lodge -- I can buy food, get into my room, and play games using an RFID wrist badge.
- 2) Disney -- There is a lot of RFID in there. Automated queue length calculations based on an RFID badge is one of them.
- 3) DoD -- Because without them we'd have a lot less business! And, frankly, they've done a superb job with their specifications and implementation for suppliers.
- 4) Florida Mini-Sun pass -- While in Florida, I paid \$5 for a passive windshield RFID tag that let me zip around Florida saving money on tolls.

Recently in Concord NH, there was a hearing about RFID. Specifically, HB478 was introduced to limit RFID's use, especially without the knowledge of the consumer. There was much concern over the possibility for covert RFID tracking of an individual's purchases, even concern that privacy would be invaded. What do you say to people about their concerns over privacy issues? Are these concerns exaggerated in any way?

I wrote a lengthy article on this last year (<http://simplyrfid.typepad.com/files/rfid-privacy-tracking.pdf>) and simply, RFID is not a privacy issue. If RFID tag values are simply numbers and not product specific, it's irrelevant. The number would just be that -- a number. Everything would be numbered with no specific reference to an item.

It's odd to go somewhere like Great Wolf Lodge and see the kids (and adults) lineup to be RFID tagged. And it's solely to track them.

You did a great job at marketing Simply RFID's DoD label printing service when the need for these labels first became obvious. These days we see you all over the social networking sites. How is that working out? Apart from having fun chatting with interesting people, are you seeing a real ROI on the time you invest?

ROI is a bizarre measurement. We measure it on stuff we spend money on (e.g. Google, Direct Mail) but we don't measure it on what we love to do! This is kind of our attitude -- we encourage everyone to spend the entire day on the phone educating customers (and, we like to talk-talk-talk!) Same with Twitter. Twitter is a fun way to talk with customers and potential customers -- and blab some more. Besides, is there a better way to fritter time when I can check on @IngridMusic, @David_Unique, and @MCHammer all in one spot? (Oh, and me: @CarlBrown)

Without giving away any secrets, how do you see the future for Carl and SimplyRFiD?

I really just hope we continue to create a great company that is great to work at. Honestly, we sit down every quarter and plan for what we think the next big thing is. We're always wrong. But, we do enjoy a bunch of beers, bourbon, and cigars.

Carl, thank you so much for taking part in this interview.

You're putting together a great, informative newsletter! Thanks for having me and SimplyRFiD in it!

Labeling News Interviews

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