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# Lanessio the Power of Big Data

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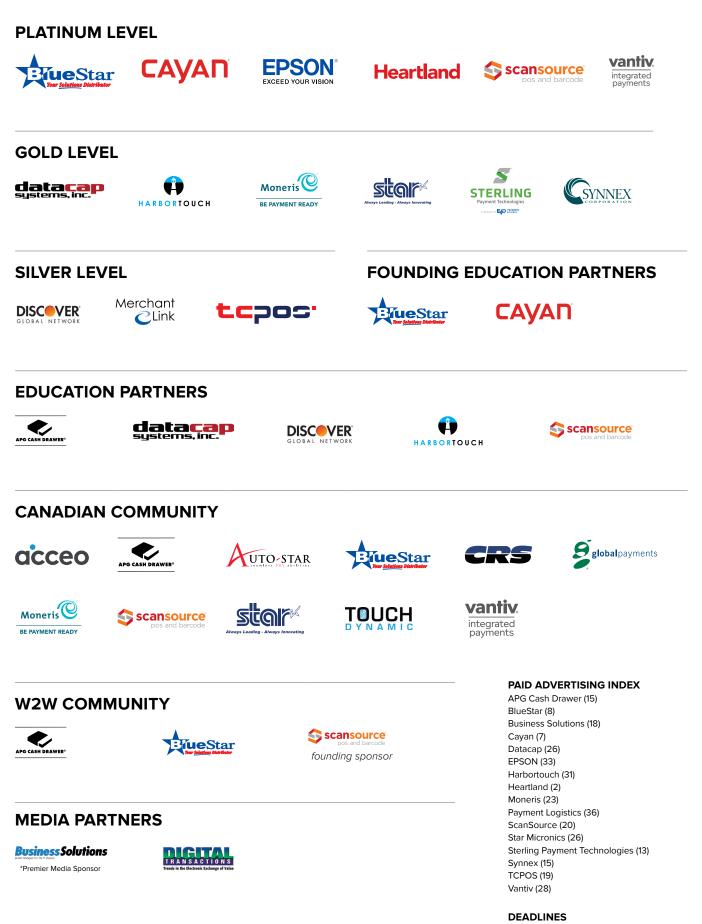
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September/October 2017 issue Ads & Content Due: August 14, 2017

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### Kelly's Corner



ig data is a BIG topic. Do a quick Google search and in 1.03 seconds over 327 MILLLION results appear ... now THAT'S big! So is it big business or big buzz? Is it a verb? A noun? An opportunity?

### WHAT IS BIG DATA REALLY?

In its simplest form big data means taking large data sets and analyzing them to look for trends and patterns. But that is just the beginning and, while I'm certainly not an expert in that arena we are fortunate to have several RSPA members that ARE very knowledgeable in this space. This issue features several industry thought leaders sharing their different perspectives on big data. I'd encourage you to read this month's feature articles to gain access to their thoughts on big data, as well as other information on more traditional POS solutions.

Speaking of thought leaders and harnessing power, over the last few months I've spent a lot of time on the road and at shows talking with members. Sure, big data and IOT and omnichannel are the latest buzzwords, but you know what else is on the minds of members? Evolving business models, good foundational business practices (like hiring and marketing), security challenges and continuing to find ways to add value to the customer. RSPA is continuing to help source content to help you in these areas and more. I'll tip my hand a bit and share that we are VERY excited about two upcoming launches to provide our members with knowledge:

• The debut of our new RSPA Smartbrief, a digital newsletter to deliver the most relevant industry news to you daily, starting later in May.

and

 The fantastic educational lineup that you'll find at RetailNOW<sup>®</sup> 2017. Due to popular demand, we are heading back to Las Vegas and will be at the Paris Hotel August 6-9. A full agenda, hotel information and a link to register will be available in early May at www.GoRSPA.org/RetailNOW.

I genuinely believe that Big Data, like most anything in life, is what you make of it. Large or small, service provider or merchant, no matter what part of the globe you call home, looking at data and making better decisions is something everyone can benefit from. How do YOU intend to harness the power of Big Data?



Kelly T. Funk RSPA President & CEO Phone: 704.940.4274 Email: KFunk@GoRSPA.org

# IN THE NEWS

### Industry event calendar | APRIL – JUNE 2017

<b>25</b> APR	<b>CRS Profit Booster</b> <b>Conference*</b> Charlotte, North Carolina
<b>27</b> APR	<b>CRS Profit Booster</b> <b>Conference</b> * Atlanta, Georgia
<b>03</b> MAY	<b>RSPA Canadian Community</b> <b>Networking Event*</b> Toronto, Ontario



NRA – National Restaurant Association Chicago, Illinois



**Channel Transitions\*** Chicago, Illinois

\* indicates RSPA presence at event.

Have an event you'd like other RSPA members to know about? Submit to us (at least six weeks in advance) at Publications@GoRSPA.org.

**TRANSACT 17\*** Las Vegas, Nevada

### **Our members have** news to share

- Retail TouchPoints Unveils 2017 Outlook • Guide: 13 Experts Share Insights on the Hottest Trends
- CISO of Netsurion and EventTracker Named to PCI SSC Small Merchant Task Force
- iPayment Holdings, Inc. and iPayment Inc. Announce Comprehensive **Refinancing Agreement**

### WANT TO PUBLISH NEWS **ABOUT YOUR COMPANY?**

If you are an RSPA member, you may send your business announcements and press releases to Publications@GoRSPA.org. WE WANT TO HEAR FROM YOU!



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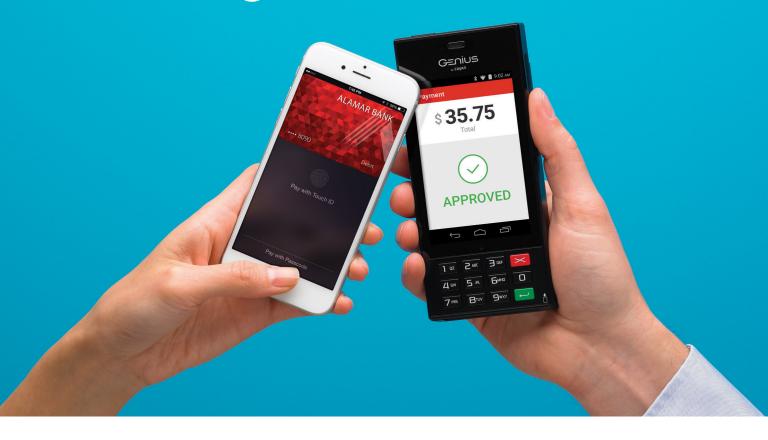
Our Guest Speaker on the W2W Community webinar, Kendall Reed has done both, and is ready to tell her story! Join us for this inspirational webinar, that's bound to help you add adventure to your to-do list.

### Guest: Kendall Reed, NCR

Kendall Reed is a marketing professional currently working in solution marketing and channel enablement for NCR, Corp. NCR was her first role after graduating with a dual degree in Advertising and Communications from the University of Georgia, and over her 6 years with the company, she has implemented a new demand generation strategy, launched a new solution brand message and has learned the pros and cons of working remotely in over 12 different countries.

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# How to Be Ready for the Unexpected



By Bob Goldberg, RSPA General Counsel

eemingly every week, a natural disaster strikes the United States, profoundly affecting those in its path. As an industry association, we know our members will come together to assist those subject to a significant loss. While industry assistance can be counted on after disaster strikes, the best support we can provide in a crisis is helping you to develop a disaster plan for both your business and your family — before one ever occurs.

### FAILURE TO PREPARE IS PREPARATION FOR FAILURE

Natural disasters are not the only critical occurrences that can affect a business. The death or disability of a partner or key team member can have significant consequences. While in the midst of a crisis, planning is difficult and the need for swift reaction only increases the pressure and stress of the situation. Having a plan in place before a disaster happens is the most effective way to lessen its impact.

### HOW TO PREPARE FOR AND MANAGE A CRISIS

Develop a team with specific responsibilities for business continuation.

Assign responsibilities to your team members and ensure that each person you designate has an alternate. Emergencies can happen at any time and can affect anyone: Having an alternate is essential. Individuals should be assigned to each of your critical operations: customers, employees, insurance, IT continuation, alternative location, suppliers and shut-down operations.

**Coordinate with local businesses for support in event of a crisis.** Consider establishing an alternative location 100 miles or more from your location to conduct business. If you have a major supplier, one of your fellow resellers may be a good choice. Make the arrangement reciprocal and it will be a win-win.

Document important information regarding your business. Record all the logins and passwords to your network and customers, systems. Organize important documents such as buy-sell agreements, leases, insurance policies, bank statements, tax records and employment records. Create lists of employee telephone numbers, customer contact information, insurance agents, legal counsel, bankers and suppliers. Divide and duplicate the information among your team. Maintain copies securely in an off-site location.

### Communicate with your employees.

Establish a phone number they can use to get information and instructions. A telephone tree is an effective method to get the word out. Recognize that phone lines and electrical service may be down and the cellular network overwhelmed. Employees will be concerned about the future of their employment, insurance coverage, compensation and each other. If possible establish a private Facebook page or blog where information can be posted and shared. Most important, communicate these options well before an emergency happens.

**Provide support for your employees.** In the case of a natural disaster, your employees are likely to be personally affected as well. Recognize the importance of securing their families and have support available for them as well.

Avoid making decisions in the midst of a crisis. Recognize your own stress. Do not make promises you may not be able to keep. The natural tendency is to reassure everyone that their jobs are safe and their compensation and insurance benefits will not be interrupted, however, that may not prove possible down the road.

Do not forget your customers. They too may be affected and request your immediate assistance to get their terminals and systems up and running. If cloud back up is being utilized, this may be possible with simple instructions. Before a disaster is the time to discuss these contingencies and doing so serves to enhance your role as a "trusted advisor."

### Seek support and help from others.

Your suppliers will gladly step in to assist. Consider bringing temporary employees from outside the area. Contact RSPA for assistance. RSPA members are always generous, especially in an emergency. RSPA Legal Services is always happy to review and advise you on documents; simply submit them to us before you sign.

RSPA is here to help you in times of crisis — both in preparing for them and in navigating through them. It is at such times that the full benefit of an industry association becomes even clearer. **c** 



# Prescriptive analytics the next phase of data analysis



By Jordan Thaeler Co-Founder, What'sBusy Too often merchants are distracted by trends. In 2009, it was the perilous daily deal; in 2016, it was delivery and online ordering. Now we are hearing whispers of "big data" everywhere.

ig data certainly has many powerful uses, which we will discuss, but merchants should always evaluate what a solution will *actually* do for their business. Having a "big data" solution simply for the sake of having one is worthless!

Let's say you have a reporting tool that shows revenue up 5 percent comparted to the same

period last year. Now what? Do you know what caused it? Do you know if it can be accelerated?

If big data can't be converted into something actionable, it is useless. Merchants already have more than enough to do; spending hours trying to figure out what data are telling them is not a solution — it's a waste of time!

### CONNECTIONS

### THE HISTORY OF BIG DATA SOLUTIONS

In the vernacular of data science, big data refers to large databases of information that **must** be analyzed by computers: The quantity of data is sufficient to overwhelm our limited brainpower. Collecting, maintaining and analyzing this much data is more than the average individual merchant can afford, so most data solutions did not start this way.

The first evolution of data solutions was historical analysis. It was the capture, organization and presentation of "the rear-view mirror." These reports would tell you what happened in the past, but the user would need to interpret what might have caused the outcome.

The next phase was predictive. It was evaluating what happened in the past, identifying trends with algorithms and forecasting future events. This phase is often associated with big data as computer systems ingested loads of information to improve the accuracy of outputs — think weather, GDP and other factors. Spreading this cost over multiple clients made big data affordable for the masses.

### MAKING BIG DATA ACTIONABLE

The most recent phase — and what merchants should demand — is prescriptive analytics. Prescriptive analytics take the predictive output of big data and recommend an action. The action is clearly outputted in dollars and cents so a user doesn't need to spend hours looking at charts and tables. For example, prescriptive analytics might tell an employer that "working Bob next Thursday will lose you \$48." Now the employer only needs to decide whether to work Bob.

Sadly, the majority of merchants have never even had access to basic data solutions. Simple reporting tools from their own POS transaction data were often too expensive, and some POS systems (like Micros 3700) would dump the data needed to do the analysis! Predictive solutions had a hard time being cost-competitive because most POS data was a nightmare to access.

### TECHNOLOGICAL PROGRESS OPENS DOOR TO BETTER USE OF BIG DATA

Luckily for merchants, technological democratization is happening at an amazing rate. Cloud POS enables application program interfaces (APIs) that make interacting with transaction data easy. In legacy POS systems, data was stored locally and in mostly odd formats. Connecting to a local machine, with its weird guirks and instabilities, made data access expensive. Cloud POS pushes neatly formatted transaction data to the cloud automatically, making usability easy. With quick access to data, analytic software providers can focus on delivering higher quality products at lower costs.

Keep in mind that POS transaction data, while arguably the most important data set to a business, is not the only data that should be considered. Data from your marketing programs, inventory software and payments providers should be examined (and often combined) with your POS data to produce even more value. Good solutions here will have an interface — usually called an application programming interface, or API — that can seamlessly extract and join data with other sources. Again, choosing the right POS will make a world of difference in this regard. In another positive turn of events, merchants are seeing a leapfrog effect common in third-world countries. For instance, because Kenya lacks major infrastructure, many residents have progressed straight to mobile phones for communication and payments. Merchants are likewise benefitting from advanced analytics proven in other industries over the past several decades.

### WHERE BIG DATA CAN BEST BE USED

Labor. We've seen prescriptive analytics that not only produce more accurate forecasts, but also identify the right people for the right shifts. Merchants admit that overstaffing bleeds profits while understaffing yields poor customer service that lowers revenue. More accurately forecasting customer demand enables improved business alignment. Further, in an environment with labor shortages and increased labor costs, it's critical to identity the top performers and keep them motivated, while dropping dead weight as fast as possible. Prescriptive labor solutions do both.

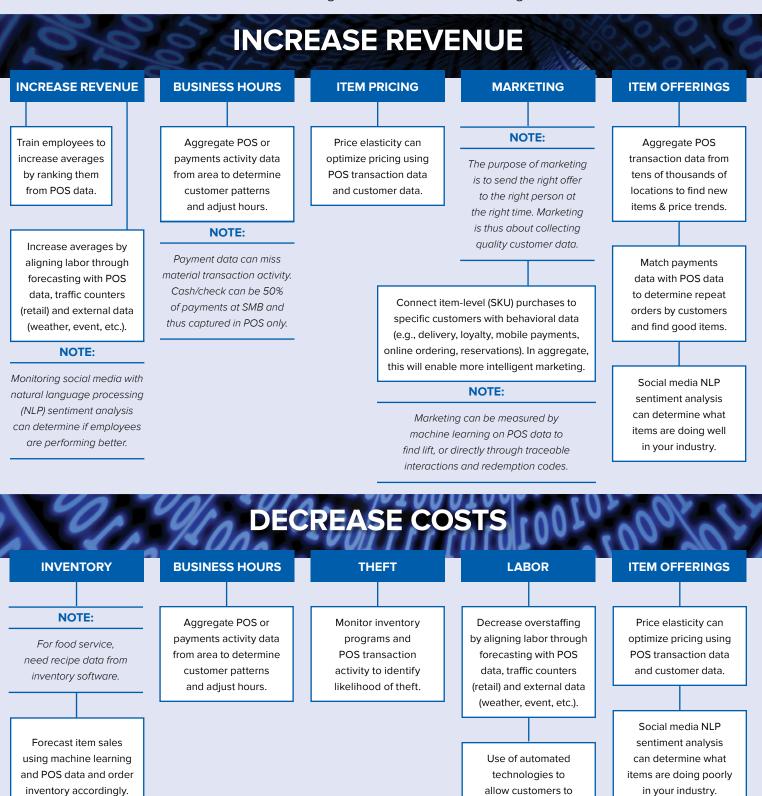
**Supply chain and inventory.** Prescriptive solutions are more accurately forecasting what to stock, and when. These solutions require merchants to keep detailed inventory information,

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### A GUIDE TO SOLVING MERCHANT DATA NEEDS

A high-level overview for solving merchants' most pressing issues with data, including where to turn and what to grab.



order and perform service themselves

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which is something many food-service merchants unfortunately ignore. However, with such data, prescriptive solutions alert them to buying patterns, keeping the right amount onhand while avoiding overstocking.

Marketing. Most merchants spend non-trivial amounts on marketing. Determining if that marketing works is difficult. Using the same forecasting tenets in the above solutions, prescriptive solutions can back out external influences — like weather and holidays — to determine more objectively if marketing is successful. The solutions will recommend when to run (or not run) campaigns and what the expected outcomes are.

**Pricing.** Determining how to price items to maximize revenue (or profit if you keep your cost-of-goods data) is another easy win for prescriptive analytics. The tools can recommend pricing changes and the net impact that will have on your business.

There are a number of applications for prescriptive solutions that can provide these data-based solutions. When evaluating such an application, remember to ask this question: What problem needs to be solved?

The right answer might require data from a number of sources, not just the POS. Learn about other solutions and the types of data they are collecting. Ask solution providers about what they are seeing; we are always open to sharing unfiltered opinions with those looking to get better.

Big data holds enormous value for merchants of all sizes. You can earn a piece of it by becoming the expert. That said, don't forget: If the solution is not actionable, if it requires more work and time or if it's unclear or ambiguous, then it is **not** prescriptive analytics and you do **not** need to use it.

It doesn't matter what is trendy, what matters is finding effective solutions to business problems. **c** 





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# People You Need to Know to GET CONNECTED

# **RSPA Scholarship Application Time Is Here**



By Sarah Brennan RSPA Administration

Are you an owner or employee of an RSPA reseller member company? Do you have children or grandchildren who are or will be attending an accredited post-secondary school? If so, they are perfect candidates to apply for an RSPA Scholarship! There are many benefits to being an RSPA member, but we as an association are particularly proud to be able to ease the cost burden of higher education.

Since the inception of the RSPA scholarship program in 1987, more than \$2 million has been awarded to families of our reseller member companies. Scholarships are available to employees of all qualified reseller members and to owners' and employees' children and grandchildren as well. For the company to qualify for a scholarship, the reseller must be an RSPA member in good standing and have been so for the last three years.

The candidate must be at least 16 years old on the day the application is due, have graduated from high school or its equivalent before July 1 of the year in which the scholarship will be used and have sufficient achievement to be accepted by an accredited post-secondary school. A student can receive up to a total of four awards; they do not need to be in consecutive years. Students must re-apply for the scholarship each year they wish to be considered. Once the application is completed, it should be e-mailed with the necessary attachments to **Scholarships@GoRSPA.org**. Note: Part-time employees and their children and grandchildren are not eligible.

Applications were made available online on February 1, 2017, and are currently being accepted. Application submissions are due to RSPA no later than Friday, May 19, 2017, at 5 p.m. ET. If any part of the application is missing or incomplete after this date, the application will be considered void. An RSPA associate however will send out an email to all students who may be missing materials to their application. In July, applicants will be notified of their scholarship status in writing. At RSPA's RetailNOW® event in August 2017, scholarship winners will be announced. Scholarship checks will be made out and sent to the educational institutions of the winners in August as well.

Visit www.GoRSPA.org/ Scholarship to download the application. Send any questions or concerns to Scholarships@GoRSPA.org and an RSPA associate will get back to you. If you are looking to give back to the industry and want to make a difference in the retail technology community, visit www.GoRSPA.org/ Scholarship to donate to the scholarship fund and be part of the legacy. c



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# **BIG DATA:** what it is, its challenges and opportunities

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By Dan Ourada Technology Evangelist, Vantiv

henever your credit card is swiped or inserted into a chip reader, that transaction begins its journey through the data collection process to becoming part of what is known as big data. A few 1s and 0s are transferred into the POI device, where more data are added — especially if there was a PIN entered or encryption performed. Those data move out of the POI via a cable attached to a computer, where it is further appended to other transactional data (invoice number, transaction amount, etc.), encrypted again for good measure, sent through a few more cables and blasted out of the merchant environment onto the public Internet enroute to a processor. The processor takes the data, decrypts the payload, parses the data, performs some validation, converts the data into a different format (or 2 or 3), packages it back up again, potentially routes it to another processor and finally to the card brands.

### WHAT IS BIG DATA

At each step in its journey, the data are annotated with more and more data. By the time the data make it to the processor, a few flakes have become a virtual data snowball. The annotation does not end at the processor. Processors link the transactional data to merchant data. Based on the merchant data, the location where the transaction originated is known. That piece of data can be annotated with census data to determine the socioeconomics of the area in which the merchant operates and, generally, the types of customers that the merchant serves. The merchant category classification (MCC) provides a way to categorize merchants into verticals. Multiple timestamps are added to the list: time of transaction, time sent from device, time of arrival at processor, etc. The geographic and temporal data can be matched to weather and other geographically pertinent news items that will further define the transaction.

The above scenario is just one of the seemingly innumerable ways that customer data can be collected by merchants. Data collection on this scale provides nearly untold opportunities for uncovering patterns, correlations, trends and customer preferences. The challenge is how to effectively analyze the data and generate actionable information — a challenge posed primarily 73646A686741534420363741373641534446203741 562034424E20565344414620415344373 KNOWLEDGE 041 739204153204446415344204647484A4147534444



<u>AMRRANE CRANTER CAMPERER A TRANSMERANDA A TRANSMERANDA A T</u>

by the three Vs of big data: volume (the amount of data), variety (the different formats in which date are stored), and velocity (the speed at which data are collected).

In the transaction example, the volume of data or the size of the "virtual snowball" is relatively small, and the number of formats the data are stored in is not significantly high. However, the number of transactions arriving every second is large (a back of the envelope estimate is ~800 transactions per second). The data over months and years and across hundreds of thousands of merchants obviously increases the volume.

### THE UNTOLD POTENTIAL OF BIG DATA

Anyone can intuitively grasp that having access to this amount of customer information is valuable, but there is another level to its potential that is less obvious. Statisticians attempt to

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### KNOWLEDGE





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### Free 2017 Event Registration For RSPA VAR & ISV Members bsminfo.com/go/register

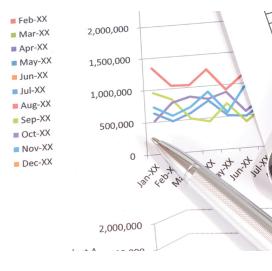
Contact Tim.Ulrich@BSMinfo.com for event sponsorship details.

### continued from page 17

infer truth via a specific sample size, but with big data, there is a trend toward full census. The answer *literally* is in the data. Large amounts of data have proven to shift models that were merely interesting and moderately useful into models that have significant real-world applications.

In 2001, Michele Banko and Eric Brill from Microsoft wrote a seminal work on using big data to improve natural language processing. In the beginning of their research into natural language processing, they were receiving error rates around 25 percent. With "cutting edge techniques" they were reaching 19 percent error rates. Taking advantage of the enormous amount of text online, they used that massive amount of data and eventually obtained 5 percent error rates, which allowed real-world applications of the models. They also found that as data increased they were able to use traditional algorithms rather than newer algorithms that might have simply been overfitting the data.

The important takeaway from this is that as data increase (by orders of magnitude), predictive power increases, error rates drop and the subsequent products built on top of the data will lead to better decision making. Assuming the data are cleaned and the analysis is correct, more data equal a better product.



### KNOWLEDGE

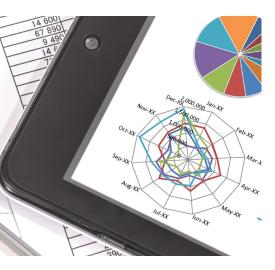
The potential applications of successful data analytics using truly big data in our industry are untold: Everything from fraud detection to detecting customer churn to external facing products that help customers analyze and/or market to their customers. The product list is large and limited only by human imagination.

### THE FUTURE OF BIG DATA

If you are a customer or partner of a processor you have likely already benefited from big data analytics. As tools, analysis and pipelines become more efficient, the time to market for big data analytic products decreases, resulting in better decision making for everyone.

There is of course a flipside to all of the opportunities that big data makes possible, namely privacy concerns. While there is tremendous value in the virtual snowball of data, there is also an obligation to handle the data with great care and consideration. As an industry, we must protect and secure all the data flowing through the system while working to deliver products that customers love.

That said, there is no denying that big data with all of its benefits and dangers will be an increasingly important factor in our industry. Your understanding of big data and, more important, your understanding of the products that sit on top of big data, will be an essential tool in building trusted-partner relationships with customers. **c** 







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# Big Data and the hardware hat feeds It

Smartphones, video cameras, POS terminals, email providers, websites, cars, watches, thermostats, motion sensors, building security systems and credit card terminals are but a handful of the machines that are collecting information about people's daily activities, patterns and preferences. The problem is that this information often stays in its operation workflow without changing and improving the consumer behavior and experience. We have not yet fully made the leap from data collection to real-time analysis that distills big data into actionable information.



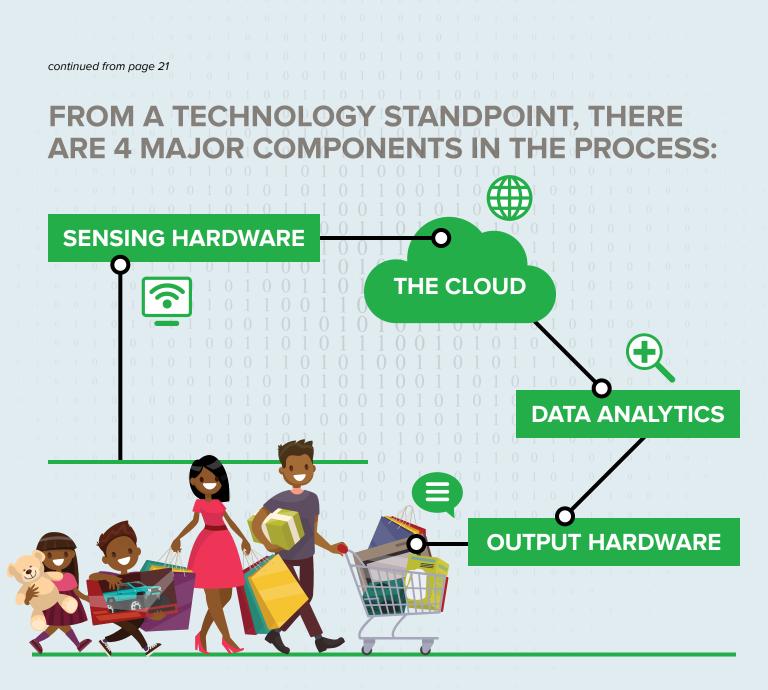
By Luis Artiz, Group Product Manager, Epson America, Inc.

ery few companies have figured out how to effectively improve a consumer's experience — in real time — based on information about location, environment, time or the consumer profile. However, we know that the number of merchants testing information-based messaging is growing as they continue to understand the power of targeted advertising.

Ideally, the merchant will want to turn the data into usable, intelligent information to better understand customers, supply chains, employees and product offerings. Then the intelligence turns into real-time action: targeted digital signage messaging, automated inventory purchasing, instant coupons, employee-performance feedback and in-store attach sales.

The primary goal is to properly analyze the data collected to drive measured improvement in the consumer's overall experience with the retailer. This improvement should then lead to incremental revenue growth.

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**SENSING HARDWARE.** Equipment that collects consumer inputs: smartphones (as personal location and activity sensors), security cameras (collect timestamp data and gender and age bracket), sensors (motion and temperature), POS terminals (collecting consumer purchasing behaviors), beacons (connecting with people's smartphones), etc.

**THE CLOUD.** Where all the data collected from the sensing hardware is stored.

**DATA ANALYTICS.** Where all the data gets analyzed and interaction decisions get made (can be housed in the cloud).

**OUTPUT HARDWARE.** How the customer gets the desired experience.

The primary goal is to properly analyze the data collected to drive measured improvement in the consumer's overall experience with the retailer. This improvement should then lead to incremental revenue growth.

### THE SENSING HARDWARE

Our focus here is on the sensing hardware. Hardware manufacturers have a huge responsibility as they provide the inputs to big data. As the eyes and ears to the world, they need to ensure that the proper information reaches the data analytics engine. There are four main things the hardware providers need to ensure:





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### 1. Data Accuracy

The sensing hardware has to capture correctly the intended information because it is the only way to get the system to provide strong analytics and output. Remember: garbage in, garbage out. Accuracy in time-stamping, location tracking, transaction ID and the actual raw data are key. Thermostats have to be calibrated, cameras need to have strong resolution to capture facial features, motion sensors have to accurately sense time/ date and duration of the motion, and POS hardware and software have to correctly deliver transaction data to the cloud.

Hardware manufacturers have to ensure a high level of equipment reliability and compatibility. Down equipment means lost opportunities to affect consumers and a possible loss of ad revenue. VARs should make sure that they are installing professional, highly reliable equipment that collects accurate data - not a discount alternative. Spending less upfront could create downtime for the system and cost more in replacement equipment purchase and lost potential revenue. For example, there are retailers using the security cameras at the front of the store to record the gender, age bracket and timestamp of everyone passing through its doors. The retailer then uses the information to drive messaging in the store and to optimize checkout lane staffing. The data needs to be accurate to ensure that the correct activity is being performed.

### 2. Real-Time Data Stream

For the analysis and output to be meaningful, it must be pushing data to the cloud continually. Delays to the flow means that the real-time

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consumer interaction and activity will not happen at the right time. If the network is down, in-store instant coupons based on customer proximity will not work, dynamic advertising will not be aligned to customer behavior and merchandise could stock-out without inventory visibility. The best deployments in the market are able to sense who is in the store using beacon technology, drive messaging to the consumer's smartphone, use digital signage to gently suggest complementary sales based on purchase history and offer coupons at checkout. Strong companies also do a

The best deployments in the market are able to sense who is in the store using beacon technology, drive messaging to the consumer's smartphone, use digital signage to gently suggest complementary sales based on purchase history and offer coupons at checkout. good job of managing their entire inventory (in-store, warehouse, transit) by tying it to the analytics engine to ensure that the consumer gets what they want, when they want it.

To ensure uptime, the network infrastructure has to be strong. The reseller should be using commercial-grade routers, switches, cabling and servers to build mesh networks to introduce redundancy in the system. They should also add 3G/4G and battery back-up capability if the network could be unstable. A wireless network without sufficient capacity means that only a fraction of the consumers in the store (or a fraction of the fulfillment workers) are transmitting and receiving key information.

#### 3. Hardware Agnostic

Hardware manufacturers not only have to ensure accuracy and uptime, they also need to be independent of the cloud and analytics system. They The hardware that senses the environment is big data's window to the consumer, and integrators need to make sure that they are choosing the best equipment possible to enable the system to deliver great experiences to the consumer and incremental revenue to the retailer.

need to anticipate that the merchant is going to continually experiment with their system as they optimize sensor location and efficacy. They will find new and better hardware as technology improves. The assumption is that no single hardware manufacturer will provide all the equipment for a store. Motion sensors, cameras, computers, tablets, displays, thermostats, and beacons may all be made by different companies, but they all need to provide information to a common cloud.

The integrator and store IT leadership should verify that all the hardware uses standard protocols for communications: IEEE 802.11, Z-Wave, ZigBee, VESA, MP4, USB, Bluetooth, etc. along with well-defined, well-documented, and simple-to-use APIs that allow developers to quickly integrate a cloud solution with the hardware. Best-in-class hardware manufacturers will have a strong in-house technical services team to work directly with developers and retailer during the pre-sale process and the deployment stage. For smaller merchants, the VAR should do their best to deploy the entire infrastructure instead of using existing equipment, so that they can control the experience.

### 4. Show the Vision

Hardware manufacturers tend to be technologists and engineers. This means that marketing is limited to spec sheets, explanation of speeds and feeds and product samples. It is



key that the hardware partner provides the developer and retailer a vision for the technology. They should create strong solution demonstrations and stories to help the customer to catch the vision. For example, chipmakers like Intel, Qualcomm and nVidia actually build high-performance computers and tablets to demonstrate the power of their semiconductors. Strong hardware providers will even build small ecosystems to show how the entire consumer experience will lead to increased revenue. For example, GoPro does a great job of making first-person videos — with their cameras — showing people having fun. They do not market the camera: They market the result.

### LAST WORDS

Terms like big data and the cloud are meaningless unless they can help you find solutions to your customer's problems. What are actually important are the actions that the retailers take after they analyze the data. The actions made based on the data analytics are what make the consumer experience special and impactful. The hardware that senses the environment is big data's window to the consumer, and integrators need to make sure that they are choosing the best equipment possible to enable the system to deliver great experiences to the consumer and incremental revenue to the retailer. Stores will get better at communicating with customers with distributed beacons, at delivering stronger targeted advertising with demographic-sensing cameras and at using POS data to improve operations. C





# The Info You Need to Be

## Low-Tech Products in a High-Tech Industry

The DC/POS world is filled with the latest high-tech devices and software. When assembling bundled POS solutions, the first thoughts are getting the POS software loaded, key injection for pin pads, or how the latest RFID chips will track purchases at retail. Often overlooked (or last to be considered) are the basic — but most essential - pieces of hardware, which complete and support the entire POS system: cash drawers, payment terminal stands and other secured mounts.

The reliability of the drawer is a key factor. Considering the environment where the equipment will be deployed is essential to selecting the right option for your customer.

### TOP 10 QUESTIONS TO CONSIDER WHEN SELECTING A CASH DRAWER

 Will the cash drawer connect directly to a POS system (regular PC/all-inone) or a printer?

- 2. If connecting to a POS system, does it need a USB, RJ-12 or Bluetooth connection?
- What is the volume of cash transactions? Light, medium, or heavy?
- 4. Does the drawer offer Loss Prevention features, such as illumination for an optimal security camera view, that help prevent cash shrinkage?
- Can it help identify counterfeit bills in dimly lit or outdoor environments?
- 6. How flexible is it for indoor/outdoor environments?
- 7. What is the footprint needed to fit into the available POS counter space?
- Will the other POS peripherals be sitting on top of it? Is a platform needed to help organize and secure those peripherals?
- 9. Are extra cables needed, especially if there are multiple drawers at each station?



10. For expedited cashier turnover, are additional tills required? (This could provide additional revenue!)

### **CUSTOM OPTIONS**

Does the situation require a part that's totally custom or will a customized existing part suffice, such as a different color, logo imprint or minor modification? The challenge is that the cost of low-volume quantities can be price prohibitive. Longer lead times can also be a factor. The key questions are: How many? How soon? How much?

### NOW WHAT?

After you've answered these questions, the next step is to contact a reputable manufacturer and evaluate their hardware offerings with your system.

- Look for a manufacturer that has capabilities in more than one material or offers products not available through other sources.
- Find out if they have a good-better-best or light-medium-heavy offering.
- Ask for samples or demos for internal testing and evaluation.
- 4. Compare cost and lead time. Remember that you get what you pay for.
- Make sure the products are readily available through your current channels of distribution. c



By Larry Greenberg Director, Sales and Marketing, MMF POS

### DON'T FORGET THE DETAILS.

Check out RSPA's newest tool to help you as you advise your customers: the POS Cash Drawer Setup Checklist. All the questions you should be asking your customer about their cash drawer needs (but might not remember to) are found on this checklist — in a fillable pdf format for your sales or tech teams to use on site!

Access the checklist here:



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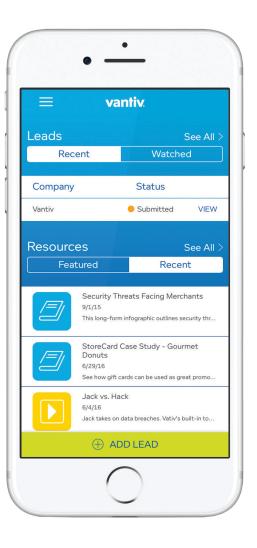


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RESOURCES

# SMB and big data: what is in it for me?

By Velda Goodin, Manager, Tech Services and Solutions, ScanSource and Nick D'Alessio, Sr. Business Development Manager, Brother Mobile Solutions

In an environment where every retailer, brick-and-mortar or e-commerce, is competing for every wallet, how does an SMB level the playing field when larger stores have deeper pockets to invest in tools to optimize their business? The answer may lie in the big data arena.

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Don't assume that your customers don't have the resources to make big data work for them. There are many ways to access effective data to optimize your customer's business practices. You have to know what your goals are and have the ability to analyze and turn that knowledge into sound business decisions.

VARs who provide effective data analysis may uncover a new potential revenue stream. It's up to management to turn data into action, but relevant, actionable data will whet a customer's appetite for more. Demonstrating the possibilities presents the opportunity to upsell more of your services.

#### THE SECRET SAUCE

The answer isn't big data as much as it is finding smart data, the data that can facilitate measuring and prescribing a course of action to effect the desired change. To arrive at smart data requires creating a process to properly sort big data. Therein lies the secret sauce and, as we know, "where there is mystery, there is margin."

### THE TOOLS OF THE DATA TRADE

A great place to start is with a CRM system. You can gather a great deal of customer information from a well-maintained and purposeful CRM system. Find one that can scale and grow with your client's business, but remember it's only as good as the information entered. One invaluable tool is available at no cost: Google Analytics Tools. Sign up and track your customer's website and social networks and analyze what aspects of their social media presence is working and what is not. Google's reports on keywords, traffic, visitors, behaviors, searches, top content and e-commerce can yield directed statistics for the decision maker.

Your payment processing partner may offer the ability to access online reporting and analytics: consumer buying habits, industry trends, location/ terminal performance. It's very common for them to offer a loyalty card and/or gift card that is labeled with your customer's brand that provides a great deal of specific data about a

### RESOURCES

customer's buying behaviors, creating a detailed customer profile. Payment processors may also help facilitate a mobile POS strategy and allow for analysis of response/receptiveness to mobile purchasing behavior.

There are several vendor manufacturer partners who have introduced hardware designed to capture data and help VARs deliver value-added cloud services, such as delivering personalized customer experiences without making changes to the POS software. Data analytics, coupons, rewards, promo marketing and digital receipts are all delivered by the Epson OmniLink TM-T88V-I. Star Thermal printers with the AllReceipts customer app send transactions to the cloud and allow VARs to send promo info, images and alerts to customer phones. Customers can choose digital receipts and opt for device management. These features differentiate their product and offer potential revenue streams as well as business data needed in order to provide analysis.

Strategically placed sensors can track shopper traffic within the walls of a store. These sensors can provide



a wealth of intelligence concerning customer behavior. A solution could offer a cloud-based, managed-wireless infrastructure that could track customer traffic patterns by monitoring the MAC address on smart phones. This does not create personal information security concerns because there is no app to have to opt into. So, out of the box, the Meraki Cloud provides location analytics using their APs to gather real-time information: how many visitors, how many returning visitors, visit duration, time stamps, passers-by and visitor patterns inside store.

Regardless of the resources available to a retail/hospitality location, there are tools to accelerate adoption of a smart data strategy. By using low cost and no cost tools to help mine for information, a value-added VAR can quickly become the provider of figures that could change the course of a customer's business and possibly determine an outcome of success. The availability of and practicality of providing big data isn't coming, it's here.

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### **DEVICE MANAGEMENT AND ANALYTICS**

In addition to providing smart data for the retailer to understand the customer better, an area that is gaining a lot of IT traction is mobile device management (MDM) and analytics. One of the toughest challenges a retail enterprise faces is configuration, deployment and maintenance, especially on larger deployments of untethered or mobile devices. This pain point provides yet another perfect opportunity for VARs to leverage the same sorts of technology (Wi-Fi device tracking and device monitoring).

Many of these solutions have grown out of local network monitoring and control packages and have become large companies such as AirWatch-VMware, SOTI, Symantec, MobileIron, B2M, and ProxToMe, to name a few. These companies are working with many different hardware manufacturers to embed various levels of remote management capabilities into future generations of devices, including basic diagnostic features such as battery condition, usage statistics, firmware version control, network configuration, consumables information, etc. The actual monitoring and managing of this information remains an opportunity for VARs.

Some of these MDM companies, like SOTI and B2M allow VARs to take on the role of offering the service of monitoring and managing these devices for a fee to the retailer. As an example, VARs can operate their own SOTI network operations center, with dedicated staff to take care of their most important customers. This drives incremental recurring revenue, which also cements a closer working relationship with the IT customer. VARs then are more than just a hardware provider, they are a trusted IT partner, working as a



team to make the deployment and management of mobile devices go more smoothly, ensuring faster ROI to the retailer. Better still, it opens the door to the notion of hardware as a service (HaaS).

If a retailer wants to ensure that the investment in the technologies is being used, the same MDM platforms can track how (and if) employees are using the technology. The same Wi-Fi location services that you can use to monitor customer traffic can help retailers do a better job with their own in-house mobile technology. VARs can play a crucial role in managing these devices as a service to their customers, providing customers with the smart data they need to get the most out of their IT investment. **c** 

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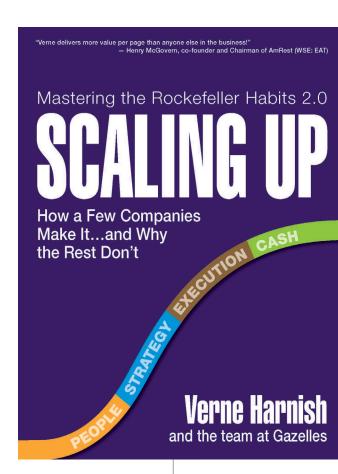


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# What You Need TO SUCCEED

## The Vigilix Leadership Team Scales Up





By Andrew Kurtz CEO, Vigilix

Want to read Scaling Up? Complete our connect reader survey at www.GoRSPA.org/connect readersurvey to receive a chance to win a FREE copy of the book! (Books provided by Vigilix) Scaling Up by Verne Harnish stands out in the category of business books. It provides an actionable, pre-defined framework for growing your company, complete with valuable forms and exercises that enable you to incorporate the book's lessons into your business.

Scaling Up is completely customizable — a hundred different CEOs could read the book and use it to navigate a hundred different paths to success. My team and I started with Harnish's meeting cadence, setting up daily, weekly, quarterly and annual meetings, each with a different emphasis. For example, at our daily meetings, our focus is the immediate obstacles in our path: What is standing in the way of an incredible 24 hours?

We found the most revolutionary forms in the book to be the One-Page Strategic Plan and the Face and Pace. The One-Page Plan enables you to identify the core values of your business - things that should never change, no matter what. You then sketch out your 10-year, blue-sky goal and a three to five-year outlook. Finally, you outline your next 365 days: pinpointing five to seven major objectives, developing a quarterly plan and choosing your primary goal for the next three months. It's more work upfront, but your daily goals feel more motivated.

The Face and Pace is a functional accountability chart that establishes who is responsible for what. Harnish believes that every line item on your profit and loss statement should be owned by someone. We struggled with this form; it was painful to see areas where no one was responsible or where responsibilities overlapped. When we completed the chart, it didn't follow the book's framework at all, but it accurately described us.

With any practical guidebook, outcomes are everything. The meeting cadence has given us a structured way to address common goals. Initially, I was afraid of the daily huddle, but now I can't imagine running my business without it. Any business leader knows that there's a disconnect between what's really going and what should be going on. Adam describes the daily huddle's effect on communication as being like going into battle with two-way radios instead of couriers.

The framework has enabled me to delegate more effectively. Once we restructured to match the framework, the Face and Pace exercise went from being discouraging to exciting. Recently, the Vigilix Leadership Team met to review the 2017 budget. I brought the administrative budget, Kevin brought the operational budget, and Adam brought the marketing budget. We have never had a clearer view of the year ahead, our risks and opportunities and what we need to do.

Scaling Up is a valuable book for any business leader, especially one reflecting on past performance or formulating plans. The book's framework is both prescriptive and, simultaneously, a process of discovery. After three iterations, our process continues to become more refined and our team continues to gain clarity — as though we have cellophane wrapped around our heads and each year we get to remove another layer. c





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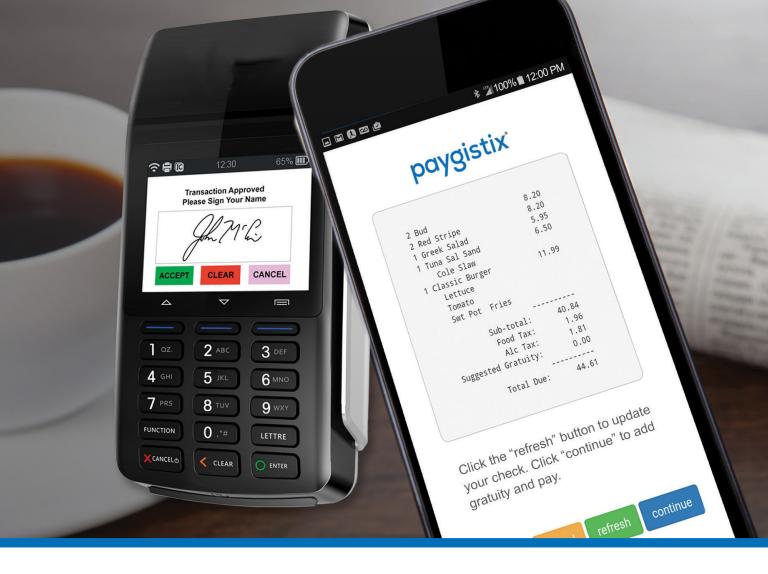
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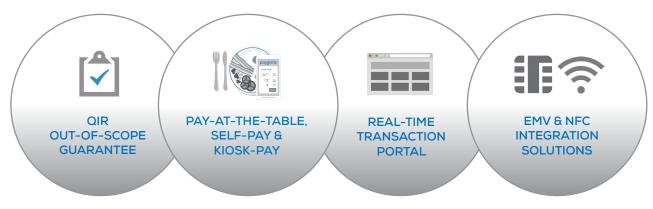
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