

# Integrated Solutions For RETAILERS

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## SOURCING

An integrated sourcing software suite helped Kmart Australia achieve a three-week reduction in lead time.



## VIDEO ENCRYPTION

Experts explain how watermarking and video encryption combat videojacking.



## DIGITAL SIGNAGE

Build-A-Bear Workshop uses digital signage messages to reduce perceived wait time at the POS.

## AutoZone's Cloud BI Initiative

A private hosted cloud BI (business intelligence) solution helped AutoZone identify unproductive inventory, improve the returns process, and streamline its internal supply chain.



Chago Santiago,  
VP of IT,  
AutoZone

**INSIDE:**  
The Supply Chain  
Special Report

## The Endless Possibilities Of Cloud BI

A private hosted cloud BI (business intelligence) solution helped AutoZone identify unproductive inventory, improve the returns process, and streamline its internal supply chain.

by Erin Harris

Anyone who knows the automotive aftermarket industry understands that it's a hypercompetitive market. Because factors such as assortment and price point are very similar among the major players in the space, companies are perpetually challenged to quickly create competitive advantages where they can. AutoZone, a retailer and distributor of automotive parts and accessories with more than \$7 billion a year in revenue and more than 4,600 locations in North America, differentiates itself from the competition by providing exceptional customer service. To do that, the company has to be extremely analytical of the exorbitant amount of BI data generated daily throughout the chain. Yet, for years, AutoZone relied on conventional, legacy data warehousing and BI analytics tools. Therefore, Chago Santiago, VP of IT at AutoZone, selected a private hosted cloud BI solution to analyze, manage, share, publish, and distribute data quickly and easily throughout the chain.

### Multiple Users Taint BI Data

It's important to understand the context for SaaS (Software-as-a-Service) BI adoption and why it has rapidly become a viable solution for retailers of every size. Aberdeen Group research shows increasing interest in SaaS BI, with twice as many organizations using this deployment approach as one year ago. The era of high-risk, complex, and time-consuming BI implementations may be finally coming to an end. Time-to-value is imperative in the new era of BI; projects must be implemented in days, not months or years, and provide an immediate return to the retailer. Case in point — AutoZone. To date, AutoZone has generated hundreds of millions of data records, all of which must be analyzed quickly for business purposes ranging from inventory visibility to loss prevention. "We analyze the data generated from cash register transaction logs, sales, lookups by region and by demographics, suppliers, pricing — the list is endless," says Santiago. "Many companies have a BI/data warehousing department, and that department creates the data elements, supports analytical tools, and possibly even develops different analytical scripts for the business. That wasn't the case within our company.

We had a distributed model whereby IT supported the infrastructure. BI and technical analytical activities occurred within the business units (merchandising, supply chain, store development, marketing, etc)." Therefore, these departments use the data stores that IT provides for them, which leads to different people in several different departments massaging data records. Each department extracts data, they create their own queries, they create their own secondary data stores, and they perform their own analyses. That's exactly why AutoZone's data became cluttered and at times inaccurate.

### Don't Waste Time Waiting For Market Basket Analyses

Like most companies, AutoZone wants the quality of its data to be perfect, because the intelligence that BI provides has to be trusted enough to be acted upon. "Even though we pride ourselves on being extremely analytical of the data we produce, we were actually limited in our analyses, because we were relying on a traditional, relational model that took far too long to run," says Santiago. "Or, we were unable to analyze certain things at all because our system was just that prohibitive. Data only grows, and we knew that our legacy BI situation was not sustainable long term." To that end, the merchandising and supply chain departments, which tend to perform sophisticated analytic tasks frequently, had to wait many hours just to extract the right data before feeding results into their models."

About a year ago at a trade show, Santiago discovered 1010data, a private hosted cloud BI solutions provider. At the show, a 1010data representative performed a demo that Santiago describes as "the game changer." 1010data obtained permission to use one of its customer's data in the demo, and the representative accessed the demo data from 1010data's New Jersey-based data center via the WAN. "It took only a few seconds to do a market basket analysis on a few items against a database of 13 billion sales records," says Santiago. "But, 1010data

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Chago Santiago, VP of IT, AutoZone



is a SaaS model — they use sophisticated data access and search algorithms, and they have an analytical tool that allows its customers to perform time series analyses quickly.”

### Foster Interdepartmental Collaboration For Solutions Spending

Impressed by the demo he saw at the trade show, Santiago rounded up an extensive group of executives and departmental stakeholders to discuss the possibility of a paid pilot program with 1010data. AutoZone prides itself on being financially conservative and makes disciplined technology investment decisions. “If we were going to go through with this pilot with 1010data, we wanted to work on actual, existing business problems,” says Santiago. 1010data agreed to the pilot program, and AutoZone tackled 30 different business projects over a six-month period. As part of the pilot, an architect from 1010data was assigned to the AutoZone projects. Prior to the pilot’s launch, the architect met with each of the business units to determine what outcomes they expected to learn as a result of the project. The architect provided training to the AutoZone business unit specialist who was assigned to work

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Chago Santiago, VP of IT, AutoZone

on the pilot so the specialist could learn the system.

### Use BI To Uncover Store Systems, Loss Prevention Issues

AutoZone uncovered real business opportunities as a result of the pilot. “What’s great about BI is that it gives you access to knowledge and insight,” says Santiago. “What you do with that knowledge and insight is up to you.” 1010data’s analytics found stores with unproductive stock levels. For instance, when AutoZone didn’t stock a particular item at the store, the company would typically order that item from outside its own supply chain, because they didn’t have a quick way of determining if the item already existed within the chain. It was easier to just order the item from the suppliers. But, 1010data helped AutoZone determine that it could have sourced those items from within its internal supply chain more than 80% of the time. The moral of that example is that prior to working with 1010data, AutoZone didn’t have speedy access to enough data to even ask these questions about inventory.

AutoZone’s LP department will soon start reaping the bene-



Chago Santiago, VP of IT at AutoZone, states that hosted cloud BI makes sense for a retailer of AutoZone’s size due to the company’s massive amount of data and the significant number of internal and external users desiring access.

Photos by Norman Gilbert

# Feature Story

fits of SaaS BI. Returns are a breeding ground for loss and shrink. From an LP perspective, imagine if you have an environment where you do weekly reports on suspicious returns activities. If your weekly analysis and reports can be received daily, you can identify sources of loss more quickly, contain those sources, and improve your shrink number.

## SaaS Versus On-Premise BI

AutoZone chose SaaS BI, because the company needs to access data in minutes if not seconds. AutoZone's on-premise BI system required IT to purchase and maintain servers and install and configure software. The company would have to expand server capacity as more users were added. Software upgrades were manual and often disrupted existing applications. SaaS BI doesn't require AutoZone's IT department to set up or maintain servers, and it is deployed quickly (AutoZone was live within three days of supplying 1010data with its data). Also, since it's almost impossible for AutoZone to estimate capacity or usage, the private hosted cloud BI makes AutoZone's data volumes manageable.

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company's massive amount of data and the significant number of internal and external users desiring access. But, any retailer finding it difficult to access data and real-time analysis in a meaningful way will benefit from SaaS BI. As

AutoZone discovered, there are plenty of good reasons to adopt SaaS BI. Key among them is lower total cost of ownership, as SaaS solutions are often more affordable than traditional software (this applies to both up-front costs and ongoing maintenance). SaaS solutions often take less time to deploy — AutoZone was live in three days. Retailers typically see value in the first 90 days, instead of waiting months or years for a traditional deployment to roll out. With its contract with 1010data in full swing, AutoZone is on pace to enhance the modeling and forecasting of profitability in new stores, reduce unproductive inventory, and perform item affinity analysis to increase sales. ■



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## Get Fast Answers To Your Difficult BI Questions

Retail is an industry riddled with data, as most retailers generate and store colossal volumes of it on a daily basis. Real opportunities lie in the ability to access raw data, analyze it, and turn it into competitive advantages. Indeed, knowing and understanding things such as who your customers are, what they purchased, and whether they purchased a sale item are critical to transforming your business. 1010data's analytics and reporting solution consists of applications that are hosted by the vendor and allow users to access and analyze mission-critical data. 1010data offers a spreadsheet-like, browser-based user interface that allows true data exploration and ad hoc analysis. AutoZone, an automotive aftermarket retailer that boasts \$7 billion in annual revenue, selected 1010data's private hosted cloud solution to alleviate its BI and data warehousing challenges. "Retailers provide us with their data, and they access the solution via any Web browser," explains Jim Mattechek, VP retail solutions group at 1010data. "We host the data, load the data, and serve the data via our own data center, or we can manage it in the retailer's data center if they prefer."

Until recently, traditional database management software and limited processing power have created costly problems for retailers. Today's retailer needs



**The hosted cloud BI (business intelligence) solution from 1010data helps retailers perform queries that lead to increased basket size.**

to perform queries such as market basket analyses to improve a whole host of things, including customer satisfaction, gross margin, etc. Mattechek explains that with 1010data's hosted cloud analytics and reporting solution, lightly processed or even raw data can be loaded into the database and without the need for denormalization or indexing. The database can therefore be made available to application developers and users almost immediately. Of course, the data has to be cleaned before it is used in analyses and reports, but the implementation of a given application or analysis can include cleaning the relevant data. The clarity that comes with timely analytics on data can be realized by merchandise managers, inventory managers, store managers, site analyzers, supply chain managers, marketing and CRM (customer relationship management) professionals, finance executives, buyers, and more. And, without the ability to access and analyze granular transaction-level data in seconds as opposed to days, retailers lose the ability to make promotions decisions that lead to increased basket size.

**For More Information On 1010data Go To  
[www.1010data.com](http://www.1010data.com)**

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