



 VITRIA[®] VIA

Retail & IoT Analytics

*One Platform for
All Your Use Cases*



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I. RETAIL & IoT ANALYTICS – A SINGLE PLATFORM FOR A RANGE OF USE CASES

Manufacturing and other industrial scenarios often get a lot of the attention for IoT Analytics use cases, but the retail industry is getting increased attention as the richness and range of use cases become more apparent. The increasing competitiveness in the market is driving all retailers to place a premium on major improvements in customer experience. It has become the central focus in modern retail innovation and market leadership.

This focus on customer experience has created a concept that could be called - “Creating a market of one - at Scale and Speed.” This slogan is meant to capture the idea that the focus on customer experience has become so strong that each customer is being treated to a high degree of customization and service. “Mass Customization” is a complementary concept along the same lines. While these concepts are not necessarily novel, the reality is that actually implementing mass customization is not easy to do. The “Scale and Speed” part of the concept above is a major challenge – and indeed one that many retailers are simply not capable of implementing – even sophisticated ones with strong IT assets, systems, skills, and experience.

Successfully implementing highly customized customer experiences at scale requires a new way of thinking about analytics. Furthermore, it also requires leveraging many of the new IoT-based data sources that are now available because of new device, sensor, and software innovations. Using these new IoT hardware and devices paired with advanced analytics can bring about the customization required for a market of “one”, including a higher degree of contextual and situational awareness to a given opportunity or challenge.

II. INTEGRATING THE FULL RANGE OF USE CASES

In addition, the full range of use cases themselves need to be considered such that analytics and customization can be done all the way from the sources in supply chains to the final purchase in the store or web site by a customer. Some of the use cases that IoT Analytics can redefine include:

- a) **Supply Chain sourcing choices** – IoT Analytics can help determine which vendors are best based on numerous cost, performance factors, speed and availability
- b) **Logistics on inbound shipments** – Analytics on various transportation options can help to choose the fastest and/or lowest cost options for the choices
- c) **Cold Chain management for food/beverage goods** – IoT Analytics can monitor temperatures and pre-emptively flag issues before they cause spoilage
- d) **Mid-front shipment optimization to retail store network** – IoT Analytics can help manage the distribution of inventory and supplies from centralized warehouses to a wide retail network

- e) **Demand shaping to match inventory** – any retail network – no matter how well managed – has to make constant adjustments to balance supply and demand. Promoting certain goods to stimulate demand to address over supply issues is often required. IoT Analytics can help by driving demand based on in-store behavior
- f) **1/1 in store promotions based on loyalty profile** – one of the most tangible and visible use cases for IoT Analytics is promoting specific offers and products to a customer based on their profile. By combining in-store behavior with a loyalty profile, IoT Analytics can drive sales via a promotion specific to an individual customer using a smartphone in the store or shopping online.

III. MOVING TO THE IoT ANALYTICS FUTURE

As retailers look to take advantage of IoT Analytics across this wide range of use cases, there are two foundational issues they need to consider.

First, IoT Analytics is not simple or easy. IoT Data comes in high volumes and at high velocity. A unified set of software tools and technologies is necessary for analyzing the high volumes of IoT data, building predictive models based on that analysis, and then putting it in context for decision-making and/or actionable items. Traditional data projects, designed and developed around a single focus or issue, tend to be monolithic in size and deployed function by function. Homegrown projects that focus on integration or isolated analytics tools are therefore very risky. The speed of innovation is only getting faster and with it, we will see many new use cases that previously were not available. The constantly evolving nature of technology means we will see new advances in existing technology, as well as the availability of new IoT sensors and new complementary IoT data sources and software. As one can imagine this is why IoT Analytics development is likely to become even more complex. Therefore, a consistent development approach is necessary for keeping up with the speed and scale.

Second, the “market of one at scale and speed” movement around customer experience means that we can no longer look at these use cases in isolation, as it is no longer a viable conceptual approach. Customer expectations, when it comes to customer experience, have greatly changed. Customers are beginning to expect a level of highly personalized and instantaneous service that previously was not available. In this new environment, where customer experience is king, these use cases must be considered as a complete set for optimization. They can no longer be looked at as a series of steps to be optimized, as was common in previous retailing and supply chain eras. Subsequently a re-conceptualization is needed. Each of these use cases can no longer be their own island and must now interact with each other. All of the raw data on each customer can now be cross referenced to create this new retail experience that is sufficient to support the expectations of the customers.

Considered together, the two issues above combine into this magnified challenge - trying to optimize multiple use cases across multiple technologies and platforms. This, as you can imagine, is very risky and introduces a large number of integration issues beyond the core challenges. An approach that enables integration of the use cases over a single platform can simplify the challenge to some degree and also set the

IV. WHERE TO START

When it comes to IoT Analytics and Retail there are a myriad of use cases and where to start is really up to each organization. The outline above covers a wide range of use cases. However, the best choice



on where to begin will vary depending on each organizations particular circumstances and preferences. In addition, each of these outlined areas will vary in operational maturity and so decision-makers must assess what is best for their company at this time. No matter where one begins, the ultimate goal will remain the same in the IoT era – unification of analytics across all IoT use cases, so that retailers can achieve the maximum business value and take full advantage of the tremendous opportunities IoT and advanced analytics affords them.

V. VITRIA VIA – IoT ANALYTICS PLATFORM

Vitria's VIA IoT Analytics Platform provides retailers with a solution for the two-pronged challenge outlined above. First and foremost, it is a platform dedicated specifically to support the myriad set of requirements needed for IoT Analytics. The multiple challenges associated with the volume and velocity of IoT Data – processing speed, fast and integrated analytics, and fast action in real-time – are all addressed in VIA.

Furthermore, VIA's self-service tools and visual modeling environment enables retailers to start rapidly and solve the initial use case that is most relevant to their business. Once that is completed, more use cases can easily be integrated into a long term and unified plan for that company. Choosing a comprehensive platform like VIA enables both a quick start as well as a sustainable solution for the future that can address all the myriad use cases.

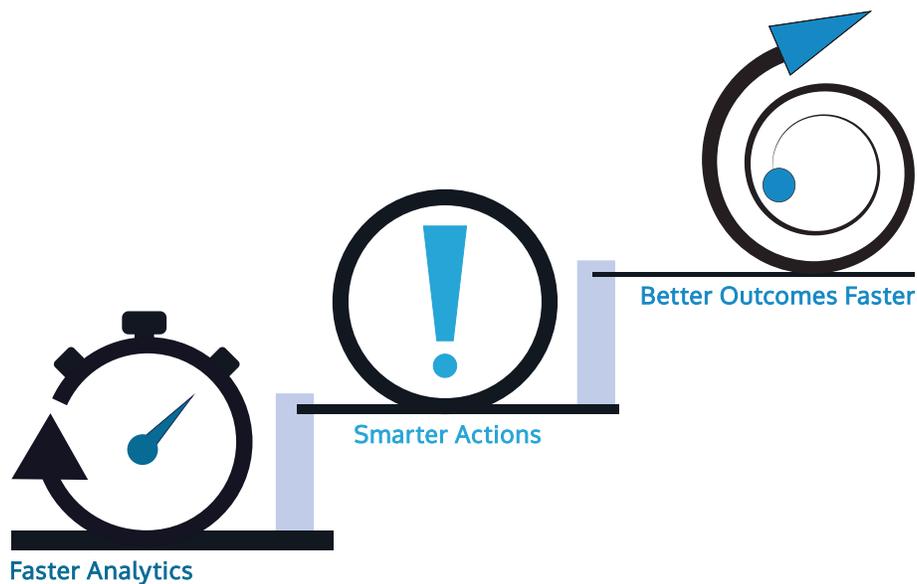
Customer experience excellence in modern retailing is already a major challenge, and the accelerating adoption of IoT technology is going to raise the competitive stakes further for retailers. Choosing a platform like VIA that is designed for IoT Analytics will provide the stage to capture and retain customers in this new level of competition.

ABOUT VITRIA

Vitria's advanced analytics solutions empower enterprises and industrial customers to achieve better outcomes faster in their business operations.

The company was founded in 1994 and has a long history of success in streaming analytics, business process management, enterprise application integration, and operational intelligence. Vitria is also a leading player in the rapidly growing IoT (Internet of Things) analytics market. Customers include Fortune 500 companies and enterprises across a wide range of industries, including finance, manufacturing, telecommunications, utilities, retail and more. For more information, visit www.vitria.com

Contact us to learn more about how our platform can help you achieve better outcomes faster



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