

Blue Yonder launches Machine-Learning-Based Replenishment Optimization for Distribution Centers

Blue Yonder's end-to-end replenishment solution closes gaps in the supply chain execution using customer demand to enable grocers to provide the best customer experience and increase profitability

Blue Yonder, 16th January – From today, retail supply chain teams will be able to use the Blue Yonder Replenishment Optimization solution to overcome two key challenges they face in ordering and distributing stock:

1. Predicting store demand and using these predictions to automate the stock ordering process.
2. Deciding how to distribute and ration the available stock when the store orders differ from the deliveries into the distribution center.

Blue Yonder's Replenishment Optimization for Distribution Centers uses artificial intelligence to optimize and automate these decisions to better balance oversupply in the warehouse with out-of-stock and waste situations in the store. The new solution ensures that the distribution center has exactly the right amount of products available that the stores will need (not more, or less).

Currently, most supply chain managers use a mix of manual processes and rule-based logic from their fulfillment systems to decide what to order and where to send available stock. With this new solution from Blue Yonder, machine learning enables grocery retailers to calculate the likely demand from each store based on individual customer purchasing patterns, including the potential profitability of the decision.

In today's fiercely competitive grocery environment, shifting consumer lifestyles means the battle for profit – and therefore survival – is won and lost based on delivering the best customer experience, this is even more mission critical for fresh items. Decisions at the distribution center need to be optimized to ensure business success.

Customer demand for individual products are calculated at the store level and harmonized across the demand chain to optimize order intake. This allows stock ordering to be based on

the most granular level of information; knowing true customer demand ensures increased accuracy and optimal stock investment, synchronizing the demand between the store and the distribution center. It can automatically include events like promotions into its calculations. This helps to reduce inventory costs and therefore frees up resources for other business operations, without adversely affecting the service level in store.

Blue Yonder's Replenishment Optimization uses artificial intelligence to enable supply chain and replenishment teams to make the best distribution decisions each day by:

- Replacing manual processes and rule-based logic with automated decisions.
- Accurately predicting the demand of each individual product, each day, across all store and distribution center locations.
- Understanding the exact impact of over and under ordering on each individual store, and calculating which store can optimize the sales of available stock on hand.

Professor Michael Feindt, Chief Data Scientist and founder of Blue Yonder says: "Our Replenishment Optimization for Distribution Centers (DC) moves the Blue Yonder solution further along the supply chain into the warehouse and forms part of a complete end-to-end solution for demand planning and replenishment, synchronizing the whole process. The solution is based on two optimizations. Our first optimization uses actual customer demand at the store level to predict the purchase orders for the DC, removing "gut feeling" and work-around spreadsheet calculations from the process. The second optimization applies ordering constraints such as minimum order quantities, rounding requirements and shelf life inputs.

"For too long warehouse managers have lacked an automated process for dealing with oversupply and undersupply of stock. Processes used today are either outdated, based on inflexible rules or non-existent. We can now predict which stores will better utilize the stock that is available at the DC and use this to determine how to distribute the stock. This balances oversupply in the warehouse with out-of-stock situations in stores, ultimately reducing costs and improving the customer experience."

Replenishment Optimization for Distribution Centers is available from Q1 2017 and forms part of the end-to-end Blue Yonder Replenishment Optimization solution that uses machine learning and customer demand, not store-level aggregations, to accurately predict distribution center purchase orders.

It will be available to all current customers as part of the existing Blue Yonder Replenishment Optimization solution and to all new customers. For more information, please visit www.blue-yonder.com.

About Blue Yonder

Blue Yonder is the leading provider of cloud-based predictive applications for retail. Every day, we deliver decisions to our customers that boost revenues, increase margins and enable rapid responses to changing market dynamics. Our replenishment and pricing solutions are driven by sophisticated machine learning algorithms, developed by one of the largest teams of PhD-level data scientists in retail. Founded in 2008 in Karlsruhe, Germany, by former CERN scientist Professor Michael Feindt, Blue Yonder now operates in both Europe and the United States. We are backed by leading private equity firm Warburg Pincus and the Otto Group. Our Data Science Academy provides businesses with relevant data science know-how for retail. Blue Yonder has been awarded the Gartner Cool Vendor Award 2015, the Experton Big Data Leader Award 2016 and the BT Retail Week Technology Award, among many others.

Blue Yonder. Best Decisions, Delivered Daily.

For more information, please contact Sian Hobday or Claire Williamson on blueyonder@brightbee.co.uk or +44 (0)20 8819 3170.