Business challenge

To help customers plan more accurately for order demand, logistics solution provider Ehrhardt + Partner Group (EPG) wanted to create a new predictive component for its enterprise software.

Transformation

For logistics companies, managing human resources effectively within a warehouse environment is an ongoing challenge. With IBM® Cloud™ hosting infrastructure provisioned by IBM Cloud Services, EPG launched a platform that uses IBM Watson® technology to predict order fulfillment demand and prepare customers to cover workload peaks with optimal staffing levels.

Olexander Tokunov
Manager of Product Development
Ehrhardt + Partner Group

Results

90% accuracy
in forecasting demand for order fulfillment

Rapid solution development
with intuitive Watson™ technology

Competitive advantage
with AI capabilities to draw in new customers

Ehrhardt + Partner Group

Launches AI logistics platform to forecast warehouse workloads

Founded in 1987, EPG provides integrated warehouse logistics solutions to companies across five continents. With more than 630 employees at 15 locations worldwide, the organization is recognized internationally as a logistics expert. EPG's product portfolio includes LFS—its cornerstone warehouse management system—and additional offerings that span all aspects of the supply chain management process: contract and billing solutions, pick-by-voice and workforce management solutions, material flow controllers, and warehouse seminars.

"It's simple to use Watson services and we saw our first positive results very quickly."

— Olexander Tokunov, Manager of Product Development, Ehrhardt + Partner Group

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Forecasting needed for better resource planning

For logistics companies, managing human resources effectively within a warehouse environment is an ongoing challenge. Order fulfillment demands constantly fluctuate, making it difficult to have the appropriate staffing in place at all times.

To help its customers plan more accurately, logistics solution provider EPG wanted to create a new predictive component for its workforce management software. While developing a process model for its new module, the company's dedicated research team began exploring predictive analytics technology.

"We were looking for a solution that would allow us to work with more than historical data," says Olexander Tokunov, Manager of Product Development for EPG. "We wanted to be able to integrate additional factors into order predictions for the next day, the next week and the next month."

An IBM Watson model for predicting demand

Evaluating leading AI platforms, EPG chose Watson technology for developing its new forecasting solution. "The partnership with IBM was important to us and we also saw the flexibility and simplicity of the Watson platform," says Tokunov.

With the IBM Watson Studio platform, EPG used two and a half years of order data from a pilot customer to create a time-series model for predicting daily and hourly demand. By integrating IBM Watson Discovery technology, the company incorporated additional customer-specific data elements—including holidays, seasons and special offers—into the platform for even greater forecasting accuracy.

The predictive model generates and exports data to an IBM Db2® on Cloud database, which synchronizes data hourly and feeds a dashboard for customer viewing. To support users in extending the offering as needed, an IBM Cloud Services team provisioned scalable IBM Cloud technology to host EPG's solution, running the dashboard and database on IBM Cloud Virtual Servers.

Accurate insight to prepare for peaks

The successful launch of EPG's new offering provides its pilot customer with graphical representations of predicted order loads by the day and by the hour. Using the platform's feature for retrospectively comparing predictions with actual order quantities, the company has determined that the solution is forecasting demand with 90 percent accuracy. Plus, the platform offers insight into the storage locations and transport capacity required for each order.

"Our customer is very happy with the results we've delivered with Watson and we're continuously improving," says Tokunov. "Our customer can now prepare for peaks based on our predictions and arrange for employees and other resources to manage them."

For EPG, the new predictive capabilities provide a strong competitive advantage. The company anticipates both drawing in new business with its AI-based innovation and expanding its footprint with legacy customers. In the near future, EPG plans to continue developing its offering to work with different data sets and present it to its customer base for additional pilot implementations.

EPG credits the Watson platform's ease of use for its rapid solution development. "Our team didn't have experience with AI and our initial thought was that it might be very complicated to develop with it," says Tokunov. "But it's simple to use Watson services and we didn't need to develop features from scratch. We saw our first positive results very quickly."

Solution components

- IBM® Cloud™
- IBM Cloud Virtual Servers
- IBM Db2® on Cloud
- IBM Watson® Discovery
- IBM Watson Studio

Take the next step

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