In January 2017, the AURELIUS Group (Germany) acquired the European operations of Office Depot, creating Office Depot Europe, which is now the leading reseller of workplace products and services. Office Depot Europe operates in 14 countries through its two main brands, Office Depot and Viking. With paper, pens, flip chart pads, sticky notes, ink, toner, archiving/filing and storage equipment, computers, printers, tablets, furniture and more, Office Depot has all you need for your office. But disruptors have completely reshaped the market.

Centralizing data to respond to retail challenges

The traditional retail industry is changing with new competition coming into the market and going after corporate customers as well. This is a direct challenge to office supply stores, pulling away some business from their core customer base. Unlike many traditional companies that chose to build online as a completely separate business, Office Depot chose the path of online/offline integration.

Unlike many traditional companies that were banking on a mix of online/offline business and technology services to drive revenue, explains Matt Steell, Director of Information and Integration Architecture, Office Depot Europe. "But there were questions we couldn’t get answers to, like Why have we lost certain customers in certain segments and gained in others? What would it mean if we were to increase our spending on certain channels? We needed to be a lot more predictive and be able to test various hypotheses."

The challenge was that data at Office Depot Europe was stored in silos and managed separately by each function, which prevented senior management from getting an enterprise-wide view of customers, operations or finances. "Getting answers to high-level questions that crossed different functions like supply chain, e-commerce and marketing required pulling data together from different systems in different countries, which was too time-consuming," says Steell. "We knew we needed to centralize data and have it managed by one group, so we could get an integrated view of operations and customers and use that instead of intuition to drive our decisions."

Office Depot was receiving data from three channels: the offline catalog, the online website, and customer call centers. Internal source systems providing data included order entry, ERP and fulfillment systems; online data included click-stream data from the company’s online presence. "All data is an asset to drive competitive advantage, so we wanted to integrate and validate data across all source-systems before aggregating it into a single-source data repository," says Steell. "Our longer-term strategy is to have a hybrid-cloud deployment so we are able to take advantage of the elasticity and scalability of the cloud for certain workloads."

Office Depot envisioned a three-tiered data hub, with a data lake, a data warehouse where data is modelled for broader business consumption and data marts, optimized for specific application workloads. To find the right vendor for the integration functions in the new architecture, the company did a proof-of-concept (POC) and created an evaluation matrix that compared solutions from five vendors.

Stitching together the customer journey across multiple touchpoints

Integrating online and offline data with Talend helps us develop more ways to communicate with our customers across channels. That kind of interaction drives loyalty.

Matt Steell, Director of Information and Integration Architecture, Office Depot Europe.
**Why Talend?**

Steell says the POC convinced Office Depot to adopt Talend as its integration solution. “We feel the Talend data platform has technology that’s complementary to what we’re using and plan to do,” says Steell. Key features in Talend’s favor were its ability to help speed delivery of IT solutions through its code-generation capabilities, and its open source nature, which delivers flexibility while providing a framework for standardization. Office Depot was also attracted by Talend’s simple commercial pricing model, and its component-driven framework for rapid development—which combined to make it the most cost-effective choice.

The Office Depot architecture includes an on-premise Hadoop cluster using Hortonworks, and an Oracle relational database. “We want to minimize data movement,” says Steell, “by storing data and executing workloads on the most-effective platform, using the most-effective compute engine. Talend gives us the flexibility to do that, by allowing us to use a relational database alongside distributed computing with Hadoop, or the native Talend engine.

Office Depot is also using Talend Data Quality to perform checks and quality control on data before ingesting it into the Hub’s data lake. “We have a data quality framework for all data flowing through the data hub to ensure that consumers are accessing the most complete, accurate and trusted data to answer their specific business questions,” says Steell. “We want to make complete, integrated data products available to users, but we also want to make sure it’s quality data that can be trusted if it’s going to be used for predictive analytics and business-critical decisions.”

Among the benefits Office Depot is receiving from Talend and the new data hub architecture are increased efficiency and reduced costs. “Our focus is on building reusable components, which makes development more agile and lowers costs. And we can do more with increased efficiency, which reduces total cost of ownership.”

**Powering use cases from supply chain to finance**

Integrating online and offline data results in a unified, 360-degree view of the customer and a clear picture of the customer journey. Office Depot can now create more-specific audience segments based on how customers prefer to buy, and tailor strategies to reach the most valuable consumers whether they buy online or in-store. They can compare different offline customer experiences to see how they are influenced by digital ads. Customer service operators have complete information on a customer, so they can talk to them as they know their details.

Office Depot’s data hub approach also provides high-quality data to all back-office functions throughout the organization, including supply chain and finance.

Office Depot can now integrate data from the range of supply chain back-end systems in use in various countries, and answer questions such as which distribution center has the most efficient pick-line and why; or which center is in the risky position of having the least amount of stock for the best-selling products.

The company’s finance systems differ by geography and the new approach integrates them further to make available a standard, accurate view of data that can be considered the single view of financial information.

“Our Enterprise Data Hub, powered by Talend and Hadoop has transitioned Office Depot from being application-centric to truly data driven; senior managers through to business analysts have access to the right information at the right time in order to make better business decisions”. Ultimately, this helps drive continuous improvement to the customer experience and revenue growth for the company. Steell says future plans include implementing a self-service model so that business users can ask data questions and get answers without directly involving IT staff, and modernizing our master data management deployment to improve data governance.

“We’re very pleased with Talend,” says Steell. “It helps us serve up information to our users faster and do it at a lower cost. It also saves money by enabling us to build frameworks that others can configure and reuse.”