Lexmark® revamps its cloud services reporting with a scalable UX-driven engine powered by Jaspersoft®

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Challenge

Lexmark needs to maintain a high bar of customer experience as its business expands

Besides printers, Lexmark offers a suite of cloud solutions to help companies of all sizes manage their fleet of printers and print activities. Two applications, Lexmark Cloud Print Management and Cloud Fleet Management, provide customers with critical usage insights. These insights help small businesses and large enterprises alike reduce the financial and environmental costs of printing.

Lexmark's Cloud Services customer base rapidly grew, reaching over 23,000 customers — which was exceeding the ability of its current analytics architecture to support and scale. The software architecture team, led by Patrick Deters, sought a replacement solution that could support such growth.

- Lexmark's growing number of customers posed multiple challenges for its previous solution:
- Other reporting servers had high failure rates when processing large datasets.
- Software developers needed to write new data application programming interfaces (APIs) for new reports, which would take too long and wouldn't support agile report development.
- Dashboards would fail to populate with data, creating negative customer experiences and risking a decline in usage.

23,000

customers (and climbing)

MANY MILLIONS

of reports

99%

uptime

"Our error rates and downtime [are] close to zero with Jaspersoft. Our customers' reports work every time, and they've noticed a big difference in their uptime."

— Patrick Deters
    Software Architecture Team

To maintain growth and customer satisfaction, Patrick knew Lexmark Cloud Services needed to modernize — and quickly. The company's value had outpaced its technology, and its teams couldn't keep up with customer requests.

Solution

A reporting engine with speed-to-market, reliability, and scalability

Patrick found Jaspersoft while searching through a charting library and was impressed by his initial review. He and the software architecture team chose Jaspersoft for its turnkey solution, reliability, scalability, and flexibility. Additionally, the security model perfectly matched Lexmark's multi-tenancy needs. Enabled by Jaspersoft, the software architecture team at Lexmark hoped to build a UX-driven reporting experience that was simple and quick for end-users.

A turnkey solution that decreased development time

Lexmark's developers needed a solution with a short development time. This would let them focus less on rewriting their current reporting system and more on modernizing their customer offerings. Due to the ongoing impacts on customers, Patrick and his team also needed a reporting solution that was ready to deploy as soon as possible.

Jaspersoft offered agility, ease of implementation, and support for Lexmark's custom UX. Jaspersoft also included a ready-to-use engine that lets users visualize, create, manage, and distribute reports.

"One of the key things that I thought was most successful is that Jaspersoft is a turnkey out-of-the-box solution that just worked," said Patrick.

Their team also values Jaspersoft's REST API options, which lets Lexmark easily incorporate reports and embedded analytics into the company's website and mobile apps.

Reliability that Lexmark and its customers can count on

The company needed a reliable reporting engine that could keep up with its growing customer base. As an out-of-the-box reporting solution, Jaspersoft is well tested across a vast number of customers processing large datasets. It's proven to work in any environment, decreasing the risks of bugs and maintenance issues.

Jaspersoft offers a reliable multi-tenancy model, easy-to-reach support, and a well-documented API framework. These ensure that its reporting features stay current without requiring constant developer maintenance. Jaspersoft also enables Lexmark self-hosting in accordance with General Data Protection Regulation (GDPR) privacy requirements.

Scalability and flexibility that support user growth

As Lexmark's user base and data volume continue to grow, its new reporting solution must handle and process hundreds of millions of records. This must occur without requiring extensive configuration or compromising speed or performance.

Many Lexmark users generate and view reports simultaneously, frequently, and in rapid succession. Jaspersoft efficiently manages resources, such as memory and storage, to maintain performance and limit "bottlenecks" across varying loads. As a result, Lexmark's reporting engine can dependably handle concurrent usage without delays or errors.

Jaspersoft also stands out for its ability to customize reports and visualizations. As Lexmark's business expands, Jaspersoft lets the software architecture team rapidly develop solutions for customers' evolving needs.

UX-driven approach to reports and visual dashboards

UX-driven reports and dashboards are easier for users to learn and use, reducing the need for extensive training. Lexmark's target users generally aren't reporting experts or business intelligence professionals. So, user-friendliness is critical.

Lexmark's reporting developers build dashboards with the user in mind. They make them easy to navigate so customers can effortlessly access the insights they need. With Jaspersoft, developers can build HTML visualizations and embed them directly into their custom apps. This makes reporting and visualizations more consistent and reliable.

Jaspersoft Visualize.js™ makes it easy to embed pixel-perfect data visualizations that are scalable, interactive, and user-friendly. The software architecture team can create robust reporting processes without impairing users' experiences.

"We have a great experience using Visualize.js," Patrick added. "It's well-documented, simple, and filled with examples."

"It's very valuable to be able to rapidly develop, deploy, test, and adapt based on internal and customer feedback. We didn't have that kind of agility before Jaspersoft."

— Patrick Deters
   Software Architecture Team

Lexmark creates cloud-enabled imaging and IoT technologies that help customers worldwide quickly realize business outcomes, and are recognized as a global leader in print hardware, services, solutions and security by leading industry analyst firms.

Founded in 1991 as a spin-off of IBM, Lexmark serves customers in more than 170 countries across manufacturing, retail, financial services, healthcare, education, government and more.

Through a powerful combination of proven technologies and deep industry expertise, they accelerate business transformation, turning information into insights, data into decisions, and analytics into action.

Results

Jaspersoft reliably captures and reports on millions of records, maintaining high customer satisfaction as the business expands

The number of customers served by Lexmark Print and Fleet Management continues to climb beyond 23,000. The company's reporting engine, now powered by Jaspersoft, pulls reports for many hundreds of thousands of printers, devices, and end users. Additionally, Jaspersoft captures hundreds of millions of records and creates reports and visual dashboards with over 99% uptime.

According to Patrick, building a system in house with equal power, reliability, and scalability would have taken about two years. Instead, Patrick and the software architecture team established a reliable, customer-ready solution in under six months.

Patrick expresses optimism about his team's product roadmap with Jaspersoft. Following this success, Lexmark plans to build various enhancements in the near future, including:

- Scheduling reports with multiple formats
- Drill downs from summary data to causal factors
- Custom report options for Lexmark users

Jaspersoft is a leading provider of developer-grade reporting software, with over 1,000,000 downloads per month globally. Jaspersoft provides developers and business users the ability to create, embed and distribute highly interactive, pixel-perfect reports, ad hoc reports, dashboards and analytics into their applications to enhance the end-user experience. These tools give Jaspersoft's over 1,100 customers around the world the ability to meet their reporting requirements, gain insight from multiple data sources and ultimately make better decisions. For more information, visit www.jaspersoft.com.