



Driving digital transformation with Collibra

The Lockheed Martin Story

Learn how building an information marketplace helped Lockheed Martin unleash their digital transformation



Lockheed Martin is renowned as a global leader in the security and aerospace industry. But delve deeper and one discovers that data and technology lie at the core of its operations. The company’s mission to “solve complex challenges, advance scientific discovery and deliver innovative solutions” can only be achieved using a rigorous data-driven approach.

Recognizing the importance of data to this mission, Adam Mohr, software engineering manager in the analytics and enterprise information management team at Lockheed Martin, has been driving the rollout and adoption of the company’s data governance and catalog initiative.



Locking in on your target

Lockheed Martin had a simple set of goals for its digital transformation program. It wanted to drive speed, competitiveness, insight and agility across its operations. “Our job was to help by providing the means to meet those outcomes,” says Mohr.

The company had a wealth of data assets stored across a variety of functions, from engineering and quality assurance through to supply chain, finance and production operations. Maximizing the value of those assets has been Mohr’s mission.

He had spoken with many business analysts who were analysing data using tools from a variety of vendors - including Tableau, Alteryx, Domino Data Lab and Mendix. Everyone had common questions about the data they were accessing: how clean was it, how current was it, which was the best instance to use?

These questions were being answered in a slow and time-consuming manner. Business analysts had to find the right subject matter expert to provide them with contextual information about the data. Mohr cites research from the Harvard Business Review that 80% of analysts’ time is spent discovering and preparing data for use, as opposed to analysing it. To turn that statistic on its head, he knew he needed an automated solution.



Building an information marketplace

Mohr and his team partnered with Collibra to build out an internal marketplace and make its information assets more accessible. The goal was to quickly populate the marketplace with as much data as possible, so business analysts could immediately derive value from it. In the first instance, the team on-boarded all of the content from its SAP Hana architecture as well as its TIBCO Logical Data Warehouse. “We found that immediately gave us about 75-80% coverage of data in our analytic architecture, which was a great place to start,” says Mohr.

Building a critical mass of data meant that analysts and data scientists were drawn to the marketplace for their data. The next step was to on-board Tableau reports so users could share their insights. “Tableau’s availability within Collibra has been key to engaging with business users. They can immediately share their reports and show where the data in those reports has come from, even down to specific calculations,” says Mohr.

The value of data lineage

A key benefit from the rollout of its information marketplace has been the way data lineage is captured. The integration between Collibra and Tableau enables users to trace sources of data populating a workbook. This capability has not only provided assurance to business users, but also yielded technical benefits by mapping out dependencies and enabling the organization to better manage the impact of change to its systems.

“It used to be a science project just to figure out where all the data is coming from. The value that we get out of this is not just visualising these dependencies. You actually get to see the specific transformations that are happening along the way. If there are calculated fields coming out of our SAP HANA warehouse or custom SQL built into your Tableau workbooks you can see that within Collibra itself,” says Mohr.

Building trust in data

In tandem with onboarding data and reports into its marketplace, Lockheed Martin has been executing on its data governance strategy to build trust in its information assets. This leg of the journey has elicited engagement from across the organization.

“Tableau’s availability within Collibra has been key to engaging with business users. They can immediately share their reports and show where the data in those reports has come from, even down to specific calculations.”

Adam Mohr

Software engineering manager, Lockheed Martin

Ensuring data subject matter experts play a key role in the certification process has been a crucial factor in the governance program. “By having experts take the time to put their knowledge into the system, we are getting away from potential bottlenecks. We also enable those data subject matter experts to focus on their core responsibilities instead of answering ad hoc requests,” says Mohr.

The Next Leg of the Journey

With the company’s journey towards data intelligence well underway, the next leg will involve bringing in information assets from other parts of the business and onboarding more systems, including the company’s AWS and Hadoop architectures.

Its initial implementation has focused on Lockheed Martin’s largest business unit – Aeronautics – but the company has three other such units that stand to benefit from this initial groundwork. Mohr notes that the Aeronautics division’s information marketplace has already helped consolidate operational silos, promote better governance, reduce duplication of efforts and eliminate manual dependencies. Bringing other business units on board can enable those benefits to be realized across the enterprise.