Integrated Content Management Solution for Maintenance and Operational Information

Abstract

To support the operation of their aircraft fleet, airline customers require a comprehensive set of technical maintenance and operational information. To make this technical maintenance information highly integrated, easily deliverable and maintainable, our client sought to manage this information in a single repository that would enable cross referencing, customer configuration, version control and integrated data releases. The repository would support the master data management function for over 18 business units that created and maintained the maintenance data as well as the enforcement of a standardized format that could easily be customized and released electronically.

The Challenge

- Data for the core technical maintenance information, amounting to 10Tb of data/month, was inconsistent, modified by disparate systems and released in an uncoordinated manner.
- Lengthy cycle times to deliver content updates caused inefficiencies for airline customers' processes.
- Source systems creating the data and delivery applications to the customers maintained independent initiatives leading to competing functional requirements priorities with sub-optimal knowledge sharing and intellectual property reuse across teams.
- Lack of a unified architecture across business unit IT systems led to inconsistent data deliveries and duplicated efforts.
- Consistent development policies and processes were lacking.

How We Helped

- We helped define the application of a standardized data format (S1000D) across all 18 data creation and delivery systems to the customer.
- We defined an integrated architecture to support consistent and expedited data flow and drove usage of common data parameters.
- We defined a common process for integrating with all data creation systems and coordinating the release of data from those systems on a monthly basis.
- We architected and built a common data configuration engine to support real time updates of customer ownership information in a single location.
- We defined cross-team initiatives and led the effort to prioritize over 1000 business and system requirements.
- We instituted a common development process ensuring required artifacts were developed to document the system and enable cross team collaboration.

End Result

- Reduced total cost of ownership and improved release cycle time through successful delivery of an integrated architecture and development policies that enabled more tightly coupled and accurate data deliveries.
- Increased knowledge sharing and IP reuse across delivery teams by defining the information architecture supporting the S1000D standard which enabled consistent adoption across multiple source and delivery systems.
- Increased accuracy and decreased cost and time to deliver large data volume to customers.
- Improved business insight and increased speed of decision making through increased data reliability and interoperability.