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VALUE FORWARD

CMS Quality Payment Program

A data conversion case study

Challenge

The Centers for Medicare and Medicaid Services (CMS) created the Quality Payment Program (QPP) as a response to legislation that was passed to give clinicians incentives for providing quality patient care while reducing their reporting burden. To help Medicare providers submit their data, CMS switched to a simplified standard that accepts JSON and XML using equivalent data models and validation rules. Since many reporting systems and providers still used the previous data format (QRDA-III), CMS wanted to build a tool to convert data into the new simplified form to support their partners who had invested in previous data submission formats and might have been nervous about transitioning to a new standard.

Solution

Flexion was awarded a competitive task order to build a tool that converted data from existing formats to the new, simplified standard. We assembled a scrum team of five developers, a data scientist, a scrum master, and an agile coach. Since CMS was quite new to agile development methodologies, having a part-time agile coach on the team was instrumental in the project's success and CMS's continued growth in agile practices.

We provided an open-source tool that allowed Medicare providers to convert files using the official web interface, REST endpoint, or by running the local command line application. The design featured a modular converter that let the team build plugins for each conversion measure, which could be independently developed and tested using JUnit. The core Java-based converter was made accessible using a modern Java web service tech stack running in AWS.

We also built a new validation path for CPC+ QRDA-III files and collaborated with other vendors to incrementally develop an API that indicated the location and details of QRDA-III errors. This enabled them to direct users to the specific file location, measure, and type of error to correct.

Results

We delivered the tool into production within nine months, in time for providers to make their annual submission deadline. Due to the real-time nature of the new QPP system, providers submitting their QRDA files found out within seconds if it would submit correctly, rather than finding out a month or more later, which is how the old system functioned.