

Data Synchronization



The Challenge

A large manufacturer was experiencing issues related to data synchronization within their website architecture. The synchronization of this data was responsible for providing details for their entire product catalog directly to their live website. Synchronization was taking 8-12 hours to complete and intermittent failures had caused nearly 60% of their catalog to go missing from the website. Due to these inconsistencies, our client estimated they were missing out on nearly \$100,000 of revenue per day in ecommerce.

The Solution

Our engagement began with an exploration of their existing website synchronization architecture. From this assessment, we identified two main areas for improvement: optimization and logging. With a product catalog consisting of 150,000+ items, we first needed to adjust the process to only sync the differences from latest state, updating/adding new products while leaving any unchanged products alone. We then set forth building a detailed sync logging system. This feature began tracking all details related to sync failures and communicated them with the appropriate individual. If the system identified an error, it would first trigger an immediate retry. If the error persisted, details such as what, when, and how were recorded in an Excel spreadsheet and distributed accordingly. Lastly, we developed a stage environment that allowed for testing of additional features and updates to the sync functionality before they went live.

The Results

Given the volume of products in their catalog, our client needed to trigger this web sync every day. What had once taken upwards of 12 hours to complete was now taking just 15-20 minutes. Any products that failed to upload were communicated within minutes and their internal development team, that used to spend multiple hours each day maintaining the site, were now spending mere minutes addressing a short list of failures. Deleting products from the catalog was previously managed by an outdated legacy system, taking nearly a week to remove products from the site. With the implementation of our solution, deletion was now managed alongside all the other catalog updates. Our team continues to assist in maintaining this synchronization process and has become a trusted resource for our client's internal teams.