

## CASE STUDY

# Federal Government Healthcare Agency: Covering More Americans with Better Care and Lower Costs

## Overview

According to a recent report from the Executive Office of the President of the U.S., “big data technology stands to improve nearly all the services the public sector delivers.”

Today, government agencies are leveraging analytics and big data to gain actionable insights to prevent threats, reduce fraud, improve citizens’ lives and much more. Furthermore, more than 60% of agencies are using big data to reduce costs including capital and operating expenses.\*

While these technologies can provide a lot of value, they’re not necessarily easy technologies to deploy.

## The Challenges

When it comes to managing data, government agencies have faced the same longstanding issue – how to effectively manage and deal with massive amounts of data – both structured and unstructured. Also, as agencies are quickly adopting cloud technologies, interoperability is fundamental in supporting high-velocity data analysis that is required of these agencies. With that, maintaining a 360-degree view across their data sets is not only critical but required.

This was the scenario at a federal government healthcare agency.

The agency was processing medical claim data that would range in size from 10GBs to 1TBs per day. While the daily volume of data wasn’t overwhelming, the processing time was. It was taking 27 hours to process a day’s worth of data. The agency was relying on hand coding to blend varying data sources together but the analysis was not only incomplete but prone to errors.

An incomplete view of their data only compounded the agency’s problem as they struggled to provide answers to simple questions. The team of analysts quickly realized they needed access to the underlying data in order to modify the queries, data sets and filters to understand and address the anomalies within their data sets.

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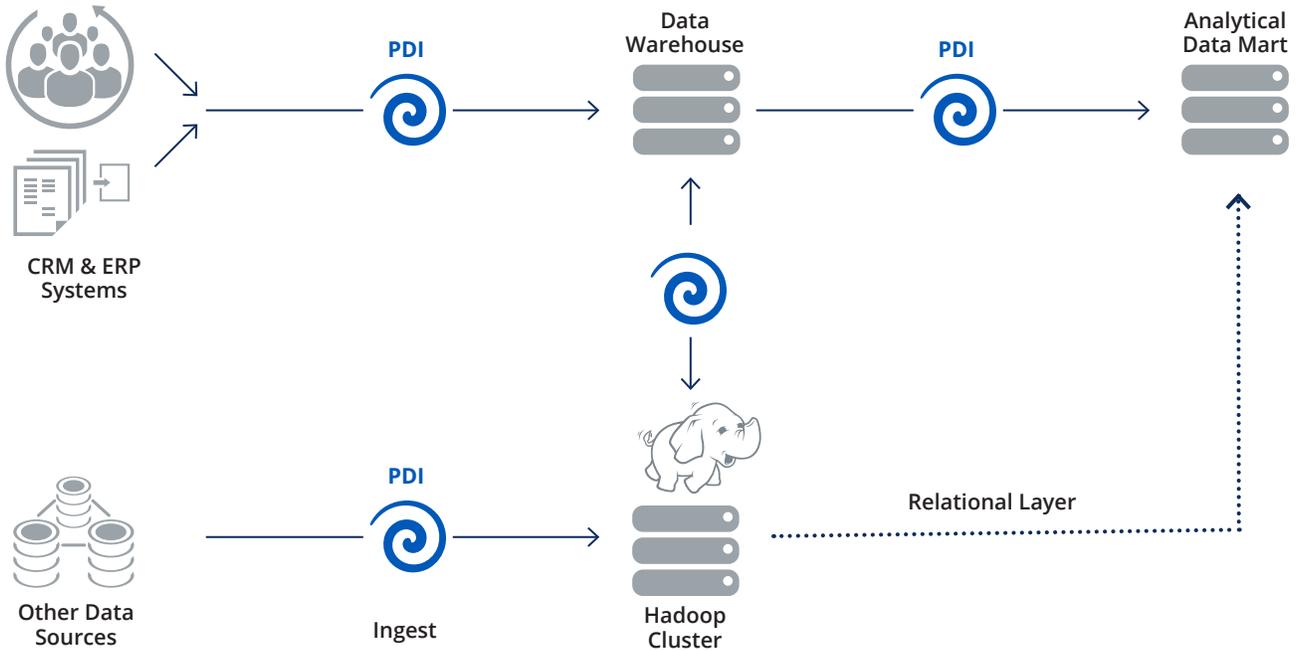
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They, unfortunately, could not overcome these challenges on their own. And it wasn’t for the lack of trying. The agency brought in vendors and consultants to help address this challenge but failed. So they turned to Pentaho.

## The Solution

By leveraging Pentaho’s Streamlined Data Refinery (SDR) methodology, the agency is able to connect to hundreds of data sources and merge them into a single stream of data for analysis. Based on Pentaho’s Data Integration (PDI) and Pentaho Business Analytics (BA) platform, the SDR methodology empowers Government agencies with



the ability to gather timely, relevant and accurate information from a wide array of data sources and produce meaningful information.

With Pentaho, the agency could easily incorporate any new data sets or technologies – such as Hadoop, Spark and other in-memory technologies – without needing to rearchitect their environment.

## Impact and Benefit

Through the consolidation and blending of data sources while providing self-service analytics to the business users, the agency was able to increase productivity while providing a 360-degree view of their constituents.

With Pentaho’s automated, codeless environment, the agency was able to reduce their development time by 15x compared to handcoding. However, It was the agency’s ability to reduce its processing times from 27 hours to under 45 minutes that transformed the agency’s business processes. Not only can the agency provide timely reports to their constituents, they can trust the underlying data that fuels these reports. The agency can now focus on their true mission – improving patient care.