

Case Study:**A single analytics solution, a slew of business challenges solved: stabilizing an avalanche of data****Overview**

By revenue, Comcast Corporation is the second largest broadcasting and cable television company in the world, and the largest U.S. home internet and cable television provider. In the U.S., this media giant provides residential and commercial services to more than 20 million customers across 40 states.

A company of this size and scope was understandably challenged by the volume and variety of operational and billing data. They not only needed to establish standardized processes, they also needed a flexible, scalable and sustainable solution to automate data flows and overcome a wide range of billing, finance, compliance, supply chain and marketing challenges.

Business challenge

In 2009, massive amounts of data at this media giant were causing major revenue assurance challenges. The customer billing review interface required the processing of a billion records every month, in very tight timeframes. Comcast needed a solution that enabled accurate, fast and flexible data analysis for this business-critical process. Compounding these issues was the company's decentralized accounting and finance operations, with 20 different regions and 30 different accounting practices.

Solution

Comcast was looking for an agile data preparation solution that could natively connect to a wide range of data sources, and join, blend, transform, analyze and publish results into BI visualization tools. They needed a tool that could interface from the billing system to the general ledger, revenue at a customer level, and present accurate data while identifying anomalies in a clear and graphic manner. Their greatest challenge, however, was finding a tool that could handle extremely large data volumes, quickly perform analysis to meet SLAs and compliance standards, and help Comcast standardize processes across the enterprise.

Comcast considered customizing modules in their existing financial enterprise resource planning (ERP) system to try and solve these challenges but determined that forcing an improvised solution was like trying to fit a square peg in a round hole. After exploring both internal and external options, Comcast chose Data360 Analyze as an enterprise solution for data preparation and analysis for its scalability, flexibility and ability to quickly handle, control and accurately present revenue information.

Client

Comcast

Industry

Telecomm

Challenges

- 20 different regions with 30 different accounting and finance practices created inconsistencies, inaccuracies and data risk
- Strict SLAs around billing revenue required fast processing of more than a billion records monthly
- Compliance standards like ASC 606 demanded large-scale blending of data sets for reporting and revenue reallocation
- Manual legacy processes for a variety of payments (e.g. franchise, regulatory, revenue sharing, etc.) resulted in rampant data inaccuracies
- Ongoing regulatory concerns like ensuring customer service packages were accurately tracked, reported and compliant
- Fraud prevention and establishing processes to identify previous bad debt customers to recoup money owed and prevent future fraud

Solution

Data360 Analyze

Results

- Established a standardized enterprise billing revenue process that accurately handles more than a billion records in 6 hours
- Mitigated risk and ensured compliance with regulatory standards and requirements with fast and agile data preparation and analysis
- Automated dozens of critical business processes and data flows to increase efficiency, assure data quality and ensure data integrity
- Created a process to identify potential fraudulent behavior for bad debt recovery and fraud prevention
- Improved customer experience, trust and confidence

Data360 Analyze was initially deployed within the accounting and finance areas to automate data flows and streamline revenue assurance in the customer billing revenue interface. Because of the solution's ease of use and effectiveness, additional use cases were quickly identified within finance and beyond. Through Data360 Analyze process automation, slow and manual processes that relied on spreadsheets were transformed into self-service data analytics. The solution was then implemented in diverse areas such as billing assurance, commission payments, fraud detection, supply chain inventory tracking, revenue share accruals and payments, and franchise fee regulatory payments. In all, more than 50 data flows deliver automation to a variety of business-critical process, with new use cases regularly being explored and implemented.

Results

This initial Comcast use case for Data360 Analyze was driven by a need to standardize and streamline the company's customer billing revenue interface. This process required accurate processing of a billion records on a monthly basis, with very stringent SLAs.

An automated system was built using Data360 Analyze, which initially reduced the time to process to 30 hours, and with further refinement, reduced that to just six. Not only did the tool deliver a robust and flexible solution, it enabled users to see the results every step of the way. High-level data profiling quickly revealed irregularities and any fall-out from data joins. Seeing these potential issues alerted users to the possibility of wrong data sets selected, stale data and other problems that could result in flawed results. The visibility into the process of automating workflows and ability to quickly troubleshoot problems not only ensured accurate data preparation, but eliminated wasted time and effort for timely processing.

As powerful as this billion-record use case is, it represents just one of the many use cases Comcast implemented to ensure fast and accurate data processes. Once it was clear that Data360 Analyze delivered fast and accurate results, as well as impressive ROI, other use cases where Data360 Analyze provided automation and transformative results were implemented. Some of the many business-critical processes that were refined through Data360 Analyze are detailed below.

Revenue reallocation under ASC 606

Automating the billing revenue process laid the groundwork for ASC 606 compliance. ASC 606 is the revenue recognition standard that applies to all companies that enter into contractual relationships with customers to provide goods or services. The Comcast accounting system was unable to meet some of the requirements under ASC 606, so they used Data360 Analyze on top of the billing interface to blend revenue streams for revenue reallocation and reporting to meet compliance standards.

“Data360 Analyze provides a level of standardization, a level of predictability, and a level of analysis that frees us up to provide a better experience for our external and internal customers.”

– Comcast Executive Director of Finance

Franchise fee/regulatory fee payments, voice regulatory payments and revenue share accrual and payments

These three use cases presented similar challenges—ensuring that all customers and revenue were captured for every payee. All of them required up-front data quality assurance and monitoring to reduce data risk and verify data accuracy. Data360 Analyze ensured standardized code use and billing set up, and made sure that elements like data fields were properly linked and in the right format. Automating the process and auditing files revealed inaccurate data that was corrected to reduce risk and increase customer confidence and trust.

Customer package audits

Similar to revenue reallocation, this use case applied to the process of ensuring accurate discounts and proper reporting of packaged services for customers. Inaccuracies could create financial, reputational and compliance risks. Data360 Analyze enabled an audit process to ensure data cleanliness and quality for more than a billion records.

Billing and collections fraud detection

Auditing billing and collections data to identify customers with a previous bad debt who are once again seeking services, this use case helped sideline additional fraud and recoup debt.

Data360 Analyze speed to insights and data quality helped Comcast develop accurate and timely revenue and payment processes to ensure customers are appropriately billed, managed and cared for—all while lowering costs and increasing efficiency and productivity.

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