



Business challenge

Rapid changes in healthcare regulations and laborious claims processing have led to inefficiency in the US healthcare revenue cycle, with billions of dollars tied up in insurance claims denials.¹

Transformation

Using IBM® Cloudant® to underpin its CAVO tool, Advent decreases time taken to review claims by up to 500 percent, accelerating healthcare revenue cycles and helping hospitals to recoup millions of dollars.

Business benefits:

Up to 500%
faster claims review

Millions
of dollars returned to hospitals for services provided

Improves
efficiency of analysts so they can review more claims annually

Advent Health Partners Revolutionizing healthcare claim denials with up to 500 percent productivity lifts

Part of the Powered Health group, Advent Health Partners (Advent) drives maximum financial returns for healthcare providers. It uses its CAVO technology to provide claims appeal services, coding corrections of denied claims—both as an outsourced service offering and as a standalone product.

“Recently, a hospital used CAVO to overturn a million-dollar claim that the insurer was refusing to pay.”

Bill Butler
Vice President, Software Architecture
Advent Health Partners

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Accelerating the healthcare revenue cycle

Rapid changes in healthcare regulations in the United States, such as re-introduction of the Recovery Audit Contractor (RAC) program and the move to Electronic Medical Records (EMRs), have left many hospitals struggling to keep pace. At least 48 rural hospitals have closed since 2010, partly due to inefficiencies in the healthcare revenue cycle, leaving people in remote areas without easy access to healthcare.²

Mark Thienel, CEO of Advent Health Partners, comments: “New laws and policies are creating confusion, resulting in more denied insurance claims. There’s sometimes an adversarial relationship between insurance providers and hospitals, with billions of dollars wrapped up in denials.

“What’s more, hospital data, both structured and non-structured, is generally stored in siloes, with a lack of communication between different departments, and some processes are still heavily reliant on paper records.

“With claims-related data scattered across different locations and stored in multiple formats, it can be very difficult for analysts to bring together all the information required to review a denied claim and decide whether there is a case for appealing the decision.”

Advent was established to help healthcare and insurance providers optimize the claims appeal process, reviewing vast volumes of documents to determine the root causes of denials and identifying opportunities for process improvements.

Bill Butler, Vice President of Software Architecture at Advent Health Partners, adds: “Originally, each of our analysts was processing up to 5,000 pages per day when reviewing claims. There was a lot of paper, a lot of scanning, and a lot of effort. It became clear that we needed to streamline the process to deliver faster results for our clients, while also enabling our highly-skilled teams to work more quickly and cost-efficiently.”

Revolutionizing claims appeals

In order to improve hospital profitability and provide a superior service, Advent needed to streamline the insurance claim process to help hospitals settle disputes with insurance providers faster and with greater efficiency.

This realization led the company to develop CAVO—technology that integrates multiple sources of data, including paper documents, indexes them and simplifies access to disparate data related to a claim. CAVO allows users to instantly develop a smart search for text for a particular claim, across all of a provider’s claims, or even across an entire health system, significantly accelerating information retrieval.

At the heart of this revolutionary technology is IBM Cloudant, a NoSQL database platform built for unstructured data stored in the cloud.

Butler comments: “To support fast, reliable information retrieval, storage and management, we knew that selecting a high-performing database layer would be key. We wanted to build CAVO on a NoSQL database that was fully compliant with the Health Insurance Portability and Accountability Act (HIPAA), which sets the standard for protecting patient data.

“IBM Cloudant was a perfect fit. We were very impressed by the solution’s scalability and speed. What’s more, because the platform is offered as a managed cloud service by IBM, we don’t have to invest precious time and resources in database management, which is a big plus.”

Close collaboration with the Cloudant team helped Advent ensure a smooth implementation.

“We received very personal support during the implementation process,” says Butler. “The Cloudant team was excellent – when I got stuck, they would jump in to build a view and walk me through it within a couple of days.”

The platform's impressive scalability makes it easy for Advent to manage growing data volumes.

"If we need to grow, we can add nodes horizontally and have the same database doing all the work," explains Butler. "Unlike SQL, Cloudant's CouchDB implementation doesn't block queries, allowing massively improved scalability over SQL alternatives. There's no blocking with Cloudant, so performance isn't weakened by growth."

Advent has seamlessly integrated the Cloudant platform with the Apache Lucene indexing and search library, providing an easy-to-use search engine.

Butler comments: "When we conduct a search, we're able to find the context around a question – it doesn't just find a word, it finds the answer! It's like having a skilled assistant on the team and then the expert just evaluates the information."

Thienel adds: "And if the result doesn't come up, that's just as good because the goal is to get to a yes or no answer about the viability of a successful appeal as quickly as possible. So if a search returns no information related to a particular claim, it is usually a good indicator that the denial was justified. We also have a utilization process review in place to see why denials are happening in the first place, so we can tell hospitals how to improve their systems."

"Today, healthcare providers can pay a monthly fee to acquire the CAVO tool using a Software as a Service model... Offering CAVO as a standalone product provides our customers with a blend of insourcing and outsourcing options to maximize their ROI."

Mark Thienel, CEO, Advent Health Partners

Gaining a valuable edge

With CAVO, Advent is transforming the way appeals, documents and information is managed, generating valuable returns for its customers.

Thienel adds: "We're no longer just a services provider—CAVO was so successful that we realized we could also market it as standalone product for hospitals to use in-house. Today, healthcare providers can pay a monthly fee to acquire the CAVO tool using a Software as a Service model. Unlike our service offering, where payment is made using a contingency model of successful appeals, offering CAVO as a standalone product provides our customers with a blend of insourcing and outsourcing options to maximize their ROI."

Furthermore, in the saturated denial of claims market, CAVO has allowed Advent to be highly competitive with the pricing for its services because it is able to review and process claims denial cases much faster than other service providers.

Butler comments: "With CAVO, our teams gain rapid access to all the information they need to make a yes or no decision about appealing a denied claim. As a result, they can quickly discard lost causes and move on to the next case that has a better chance of recovery. All of the information is stored, found, assembled and sent within the application. This allows Advent to run a more competitive business."

Improved efficiency has also delivered impressive savings on the highly-skilled staff needed to perform such work. As teams can work through a higher volume of cases, Advent has been able to maintain relatively flat staffing levels, even as its business has grown. What's more, the time saved on low-level work empowers these clinical workers to focus on more value-added tasks.

Delivering real results for clients

Advent's new approach is delivering a massive financial impact for clients too. As CAVO makes it less expensive and time-consuming for hospitals to appeal claims, they are more likely to recoup valuable dollars from appeals.

Butler says: "There is a considerable amount of money to be made from appealing denied claims; returns can amount to anything upwards of thousands of dollars to over a million dollars per claim. All of which we are successfully appealing using CAVO for our clients."

"More importantly, while labor costs are skyrocketing upwards across the industry, we have a tool that is scaling our operational costs significantly down because our analysts can decide what claims they are going to successfully appeal more quickly."

Butler concludes: "Although we have acquired major new clients, we have no worries about scalability. IBM Cloudant takes away any obstacles to expansion, so we can easily scale up the platform as our business continues to grow."

Solution components

- IBM® Cloudant®

Take the next step

IBM Cloud Data Services offers a complete portfolio of data and analytics services providing unique and seamless product integrations to build apps faster and gain new insights easier with flexible deployment and pricing options. For more information about how IBM Cloud Data Services can help businesses solve tough big data problems rapidly and cost-effectively, please visit ibm.biz/clouddataservices.

To learn more about Cloudant, please contact your IBM representative or IBM Business Partner, or visit the following website: ibm.com/software/data/cloudant/

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¹ American Hospital Association: Uncompensated Hospital Care Cost Fact Sheet (<http://www.aha.org/content/12/11-uncompensated-care-fact-sheet.pdf>)

² Rural hospitals, beset by financial problems, struggle to survive (https://www.washingtonpost.com/national/health-science/rural-hospitals-beset-by-financial-problems-struggle-to-survive/2015/03/15/d81af3ac-c9b2-11e4-b2a1-bed1aeea2816_story.html)

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