

<b>BTOES CATEGORY</b>	<i>BEST ACHIEVEMENT IN PROCESS AUTOMATION (RPA, INTELLIGENT AUTOMATION, DIGITAL PROCESS AUTOMATION, MACHINE LEARNING, COGNITIVE LEARNING, BLOCKCHAIN ETC)</i>
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## Revolutionizing Revenue Cycle Management with Intelligent Automation

Revenue cycle management (RCM), the process to track patients' revenue, from their initial encounter with our brand, Acuity Eyecare Group (AEG) Vision, to their final payment of balance, is crucial.

Daily processes that are decisive to RCM, including patient appointment booking, insurance eligibility for patients coming through scheduled appointments, claims management across 30 plus insurers, were demanding 30% of the days' time of our skilled resources. With the rapid acquisitions of eyecare groups and independent optometrists, we had to manage islands of information systems manually; inflexible core systems lacked system-wide integration capabilities. Manual operations caused unnecessary delays in patient care, cashflow issues and depleted customer experience. Any human errors could lead to further missed revenue.

AEG Vision is growing 35% YOY growth and consists of the finest eyecare professionals operating in 230 optical practices across U.S. With an ambitious goal to reach 500 stores in the next two years and a focus on delivering top notch eyecare services, we are on a journey to revolutionize RCM.

Intelligent automation technologies are perfectly suited to automate manual tasks while improving our cash flow, patient care, and operational efficiency.

We partnered with Nividous, a global intelligent automation company, to develop a unified RCM solution that is built using their platform. It natively combines the capabilities of Artificial Intelligence, Robotic Process Automation, and a workflow engine. **This combination of technologies has enabled us to achieve \$4M ROI in a year.** This document details the project scope, objectives, approach, timeline, organizational impact, and value.

## Project Scope and Objectives

AEG Vision, with 230 eye doctor practices operating in 12 states providing best in class comprehensive eyecare to more than a million patients, established a strategic objective to modernize obsolete operational models and digitize manual operations across several business functions by creating a standardized RCM solution. The solution was built to overcome the following key challenges:

- Considerable investment to train new staff due to inorganic growth
- Under-utilized skilled staff, including doctors who performed tasks manually
- Manual operations causing significant delays and poor customer experience
- Inflexible core systems that lack the system-wide integration capability
- Claims/Eligibility management
- Missed revenue opportunities
- Receivable to cash cycle

We wanted to take a holistic approach to digital transformation. The team started evaluating several digital technologies keeping in mind the ease of use, scalability, and ROI. The Nividous Intelligent automation technology was a perfect match. The combination of RPA, AI, and workflow engine-Business Process Management Suite can radically reduce manual effort, handle complex processes, and help effectively orchestrate work between humans and Bots without making any changes to the underlying systems. Nividous' unique and well-thought-out strategic approach to holistic automation guaranteed high scalability and quick ROI with the lowest total cost of ownership.

The scope of project was determined based on the following key data points:

RCM Functions	Volume	Staff Hours Before Automation	Staff Hours After Automation
Managing patients' medical cards during appointment booking	30000+ medical cards/patient IDs need to be handled every month	3000+ staff-hours were required to extract info from medical cards and update it on an internal core system	2500+ hours/month
Claims benefit verification	100,000+ patients' documents are pulled from 3 <sup>rd</sup> party insurers' websites every month	7500+ staff hours were required to manage this function	5000+ hours/month
Finding patients' insurance eligibility	15000+ patient records need to be processed per month	No efforts were made to find the missing eligibility info and update the core system	2500+ hours/month
Claims submission	1500 claims are submitted on 30+ insurers' websites monthly	125+ staff hours were required and there was a high risk of human errors	110+ hours/month
Informing patients about their unclaimed benefits at the end of the year	350,000 eligible patients per year missed out on using their benefits	No effort was made to extract the eligible patients' data and inform them	8750+ hours/month
Managing patient statements	Monthly 8000+ statements need to be downloaded and uploaded	650+ staff hours were required	380+ hours/month
Updating patients' payment info	Payments of 1000+ claims are done monthly by patients online	50+ staff hours were needed to update this on system	30+ hours/month
Claims posting and reconciliation	40000+ claims/month need to be posted and reconciled	This process involved 6 different payer extractions and posting requiring 2000+ staff hours.	1400+ hours/month
Aged Claims Adjustments	25000+ claims are adjusted every month	1250 staff hours were required every month	834+ hours/month

### Implementation Approach and Timeline

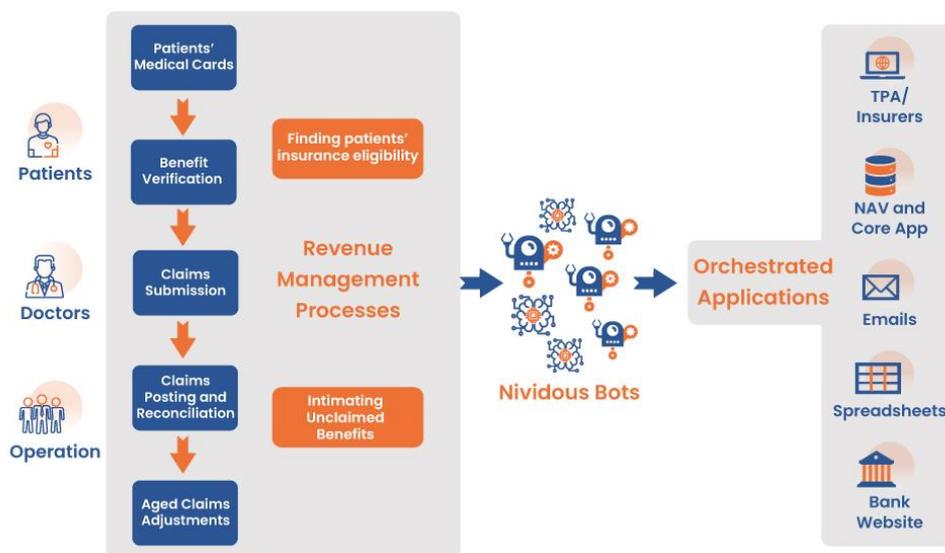
The following criteria were identified to establish an effective approach towards holistic automation.

- Rol and revenue generation
- Availability of API
- Maintainability
- Structured VS. Unstructured data
- Number of applications
- One time VS. repetitive
- Task VS. business process
- Human involvement

The program was delivered iteratively with an initial focus on deploying Nividous Bots within 3 days to automate checking of patients' claims eligibility on one insurer's website and then replicating it for a pool of 30 insurer's websites. Further, the end-to-end claims submission process was automated over 2 months. All the other processes mentioned above in the tabular format that have direct impact on the management of RCM were automated within the next couple of months. With an active collaboration of the AEG Vision's business team and Nividous' implementation team, the standardized RCM solution included an automation of at least 28 other processes. The solution was also extended to automate other critical processes such as, data migration, accounting, report automation, new store and employee onboarding, price change management, and many more.

### Project Size and Organizational Change

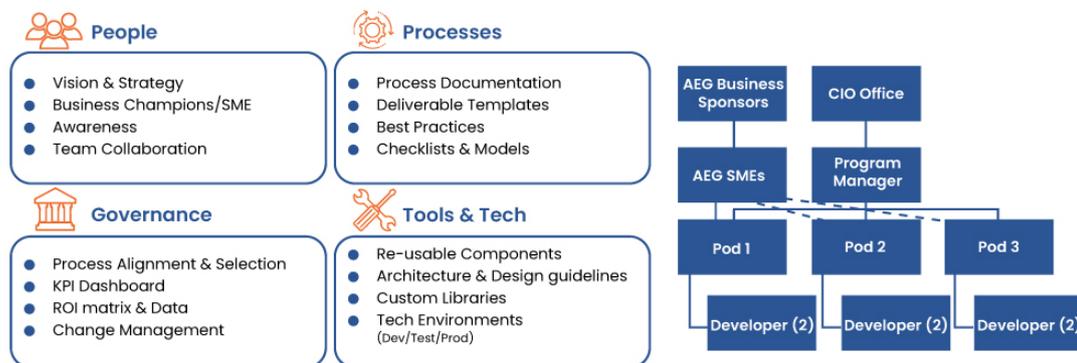
Nividous intelligent automation platform was deployed as a standardized platform to automate a series of cross-functional RCM operations that require involvement of doctors and administrative staff, and transcribing data between multiple legacy systems.



- Intelligent Data Extraction from Patients' Medical Cards While Appointment Booking:** When a patient uploads her medical card while booking an appointment, Nividous Bot with native AI capabilities extracts the patient's details along with its claims eligibility info from the card and uploads it on the core system.
- Benefit Verification and Claim Submission:** We need to know insurance benefit eligibility **to upsell** before a customer walks into the store with a scheduled appointment. Once the visit is completed, the claim needs to be filed in time for a quick payment. Nividous Bots navigate through internal legacy system and 30+ insurers' websites to automate the benefit verification and claims submission process.
- Finding patients' insurance eligibility:** If a patient has booked an appointment but her insurance info is not available, Nividous Bot finds the patient's eligibility across the five most common used insurance websites and updates the info on our internal core system.
- Managing Patient Statements:** When the patient doesn't pay during her appointment, Nividous Bot downloads her statement from InstaMed and uploads it on internal core system. The statements are sent to patients through InstaMed.
- Updating Patient Payment Info:** Once the patient receives the statement and pays online, Nividous Bot updates the payment info to that patient's profile on the internal core system.

- **Claims Posting and Reconciliation with Bank:** The Nividous Bots post and reconcile monthly 40000+ claims by handling different formats of PDFs and update it on our internal billing system.
- **Aged Claims Adjustments:** If an outstanding claim amount is not settled after a specific duration, Bots manage the claims write off process on our internal core system.
- **Year End Intimation of Unclaimed Patients' Benefits:** Nividous Bot checks if there are any unclaimed benefits for those patients who have not taken any appointments throughout the year and sends a reminder to those asking them to use the benefits. **This process alone can generate over \$5M revenue annually.**
- **Data migration and synchronization:** The Nividous Bots have migrated data for over 170,000 patients between legacy systems in the span of two years.

The holistic approach to address organization's need to achieve operational excellence across all critical business functions led us to eventually create a center of excellence.



Having most of the RCM processes being automated, we are now introducing Intelligent Automation to transform other two core domains namely accounting and patient/customer care.

### Project Impact and Benefit

This holistic automation has delivered an immense value. For instance, each successful document processing by Nividous Bot using natively embedded AI capabilities takes only 5 minutes and saves \$15 per hour. The efficiency of the claim processing cycle was improved by more than 80%, which enabled faster customer communication and an ability to upsell the services 10 times effectively. It has been more than two years, and the project benefits have left a tremendous impact on the overall business practices and dependant operations.

- 10% YoY increase in patient appointments without increase in call center FTE
- 250K Hours of valuable time every year is saved for highly skilled staff
- \$75M Claims payments per year
- \$6M plus worth claims are adjusted yearly
- 40% Improvement in time to integrate new acquisition
- 9 Days DSO Reduction in claim to cash
- \$4M yearly savings

### Summary

This is an excellent example of how holistic approach towards automation can enable you to transform end-to-end processes at scale achieving quicker ROI at the lowest cost of ownership. AEG Vision will continue to use the disruptive platform while enjoying an unparalleled competitive edge.