Population Management and Cost Containment Solution framework
SITUATION OVERVIEW

The customer provides integrated service solutions to the healthcare industry with an emphasis on the accountability of their services. They are focused on improving the quality of healthcare and outcome, through the compelling combination of physician expertise and leading technology.

THE CHALLENGE:

The customer had a legacy application developed resting on older technology, which was unable to handle large data. Furthermore, this application was not scalable, to address multiple clients and was not web based. This ultimately became a major bottleneck as they were expanding business. In this system, members and clients did not have the provision to refer their claim status.

THE REQUIREMENT:

This project aimed at reducing the cost of care before it becomes an irreversible medical trend. To address this, the customer required a system that handled the end-to-end claim processing which included automated edits, manual edits and third party claim editing tool integration. Their multi-disciplinary team of industry experts had to provide innovative, evidence-based intervention programs across the continuum of care.

- The complete suite of services had to provide seamless integration between resources and flexibility, to increase and decrease utilization as per the patient’s care level. It had to ensure that the company remained connected and apprised of patient care levels. The proximity promoted real-time collaboration between clinical and financial departments, as it was the combined strength of all the people and the processes that matter most.

- The system had to certify the claim and care management and the end to end process across the continuum, which is a 360° solution in medical management. Integrating cost and care management is a smart move for any company as it raises the bar higher by making the need for a piecemealed cost containment and care management systems, obsolete. Such a system, provides perspective into the experience of healthcare individuals and groups. It proactively identifies outliers in utilization and triggers interventions that reduce risks, lower costs and prevent gaps in care management.

THE SOLUTION:

The proposed suite of solutions enables real-time communication and connectivity between all care and cost interventions. By proactively engaging these cost containment strategies, we can ensure the care for members received is appropriate and cost-effective while searching for ways that impact their patient-experience. One source. One solution. One outcome.

- **Claims Surveillance:** Real-time, continuous surveillance of claims identifies the appropriate strategies for clinical and financial impact. Utilizing physician logic, the platform continuously builds a robust utilization history and identifies members for care management opportunities.

- **Claims Code Editing:** Our claims code editing system automatically checks each claim for errors, duplicates, omissions and suspect coding relationships by referencing the data against an expansive database containing millions of government and industry clinical and administrative rules, coding conventions, national and regional determination policies. The database is updated as changes are released from governing and oversight bodies. Administrative and clinical edits are configurable to meet your business requirements, group specifics and plan language.

Domain - Health Care
Deployment – Web and Windows
• **Clinical Audit:** After claims are identified for intervention, they are triaged by a Clinical Nurse Auditor for initial review then sent to a physician based on claim complexity and specialty. Provider issues are minimized by leveraging the credibility of our physicians for peer-to-peer discussions about care.

• **Negotiations:** Professional negotiators can address savings for cost containment for in or out-of-network claims and often achieve greater reductions than PPO discounts. We achieve 100% signed negotiations with the provider to avoid the risk of balance billing to the member.

• **Third-Party Network Administrator:** This is a continuously expanding solution that evolves based on our client’s needs and includes over 800,000 credentialed medical providers including physicians, ambulatory surgery centers, skilled nursing facilities, hospitals and durable medical equipment (DME) suppliers from over 35 different networks. The system continuously monitors out-of-network utilization to understand patterns and look for additional savings opportunities.

• **Specialty Contracts:** To achieve savings beyond our multi-specialty networks, we also secure direct contracts based on necessity and includes specialty injectable, DME, transplant centers of excellence and dialysis networks. Utilization of specialty contracts delivers quality care at the best prices.

• **Technology Used:** The technologies used for the project were BizTalk 2010, SQL Server 2008 R2, ASP.Net MVC 3.0, C#, Entity Framework 4.1/5.0, Ajax, DynamicPDF, Telerik MVC, Panorama Necto, SSAS, SSIS and SSRS.
The solution utilizes Microsoft’s BRE (Business Rule Engine) capability for evaluating claims. The system also has a custom rule engine for claim evaluation.

The platform uses the third party claim evaluation system to identify manual errors.

The platform uses the capabilities of Microsoft’s Workflow Foundation for tracking and routing claims.

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The Surveillance engine built in this platform has the capability of evaluating the claims and routing to the respective applications.

Developed different web applications for tracking and editing/ tracking claims and care details

- Cost Containment
- Client Portal
- Member Portal

The platform uses Telerik MVC controls to provide an enriched UI for the internal and external users to view/track the claims, care details and patient details.

The system also integrated to a third party online document management system for managing documents.

A separate report viewer application is developed to access SSRS reports

Panorama Necto tool is used to provide efficient business intelligence.

A custom Common Service Framework is built to provide unified solution for all application needs like logging, exception handling and data access layer (Entity Framework 4.1).

LINQ and lambda queries used to access object collection and SQL data

- Using Unity framework, Dependency Injection is introduced to reduce dependencies between components in software.
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THE BENEFITS

This project aimed at reducing the cost of care before it becomes an irreversible medical trend. To address this, the customer required a system that handled the end-to-end claim processing which included automated edits, manual edits and third party claim editing tool integration. Their multi-disciplinary team of industry experts had to provide innovative, evidence-based intervention programs across the continuum of care.

- Continuous: Uses active claims surveillance and building rich history for mining in real-time
- Collaborative: Promotes collaborations between clinical and cost solutions. Provides options for:
  - Claims Code Editing
  - Cost Containment
  - Case Management
  - Utilization Management
  - Disease Management
  - Billing

- Comprehensive: Applies expert evidence based strategies to coordinate the most appropriate and cost-effective care; allows a 360° view of the entire healthcare experience

Using Unity framework, Dependency Injection is introduced to reduce dependencies between components in software.

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