

Delivering Business and Technology Transformation for a Healthcare Giant

Client is a giant in the healthcare segment in the European market. It has close to 400 associates serving more than 40000 global customers. The client offers IT concepts and solutions for a wide range of medical and paramedical professionals.

Situation analysis

Market leader with an installed database of thousands of pharmacies distributed across locations, the client manages and analyzes data from these pharmacies to facilitate their centralized purchasing.

The existing system developed around traditional .NET architecture was not sufficient to perform all operations of efficient pharmacy software. Distributing updates across thousands of pharmacies faster and easier was a growing necessity.

Faced with some key business and technological challenges with their existing system, they felt a pressing need for a web-based solution with a technological upgradation.

Vision

- To facilitate an efficient centralized purchasing system to a wide network of pharmacies
- To upgrade their old system of client operations and pharmacy software to a web platform with improved features and user experience
- To overcome the challenges in their existing central pharmacy software and also to make it more scalable and easy to maintain

To meet their vision, the client partnered with e-Zest as their transformation partner for migrating their Central Desktop solution to a Web platform.

Key business and technological challenges faced by the client

- **Individual Installation:** Hassle of installing the desktop application individually on thousands of pharmacies
- **Application Updates:** Distributing application updates and patches across thousands of pharmacies
- **Multi-location Constraint:** Inability to scale up and manage the application from multiple geographies

- **Operational Expenses:** Significant capital and human resource investments for deploying in-house technology team
- **Sync Issues:** Frequent issues regarding deployment and data synchronization
- **Confusing Interface:** Poor user experience and design causing confusion amongst pharmacists
- Client partnered with e-Zest to carry out the vision of Technology Transformation and overcome these challenges

Solution

I. Development phase

e-Zest, after thoroughly understanding client's vision, went ahead with the migration of existing central desktop solution to a web platform leveraging Microsoft solution stack. To deliver the solution as required by the client, the team chose to use high performance web interface using a combination of ASP.NET MVC, NHibernate, NUnit and SQL Server.

The technologies used were chosen for their ability to exercise all the functionalities and ease of system updates to central web app through centralized web deployment.

The centralized web platform was developed with the ability to generate reports as per individual pharmacy or a group's needs using DevExpress Report Engine. It was further designed to perform all operations as an independent installation can along with extended group level features.

As the pharmacies regularly face scenarios such as price updates, central ordering system and promotions – synchronization and centralization process was used to enable pharmacies to easily manage such scenarios through this web app.

Agile execution approach was used to deliver the project right from discovery phase to delivery phase. This consisted following:

Discovery phase

- Business Analyst and Technical Analyst from e-Zest discussed with product owner to understand the requirement
- Product owner and e-Zest onsite team had regular product sprint planning and meeting in coordination with e-Zest offshore team

Delivery phase

- Followed 2 week sprints with 24 hour scrums
- Scrum master has daily scrum meetings with the teams
- Task breakout with scenarios, wireframe, visual design, development, QA and user acceptance test
- Sprint review and retrospective
- Finished product

II. UX Enhancement phase

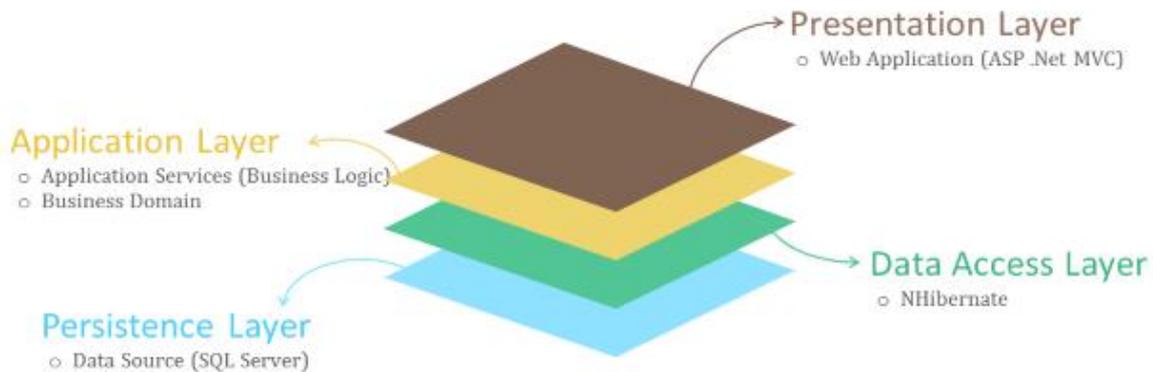
To deliver a richer and more intuitive app, the UX team followed a design approach. This included:

- Ensure users feel confident when interacting with the application
- Give indication of state-changes with clear messaging and contextual indicators
- Keep it simple but allow for complexity at the same time

Four stages in UX enhancement that lead to successful redesign:

- Research: Comprehensive research to understand the journey users took while accessing the application
- Branding: Developed user experience adhering to client's new branding guidelines
- Information Architecture: Revisited information architecture with simplified user interactions
- Responsive Web Design: Responsive web design using modern technologies like HTML, CSS and Bootstrap

Technology stack



Benefits

- 100% availability of the application ensuring accessibility to users across the globe
- Analysis of data from various pharmacies and providing insights with the help of reports
- Increased productivity and reduced operating expenses by leveraging offshore talent
- Effective resolution of deployment and data synchronization issues
- Easy, rich and intuitive user experience adhering to client's branding guidelines

Conclusion

e-Zest leveraged its expertise in Healthcare and Pharma to provide the best pharmacy solution to the client that meets their vision. The use of Test Driven Development (TDD) encouraged code quality and shortened feedback time resulting in frequent deliveries through parallel development and collaboration.

e-Zest's Agile approach for fast and successful project delivery not only led to client satisfaction but also resulted in long term engagement with the client.

