

Case Study



CENTRALIZED REAL ESTATE TRADING PORTAL



“Idhasoft is a global world-class organization providing best-of-breed localized business and technology solutions, with continuous innovation and quality backed by best-in-class people”

Client Requirement

The site will centralize the client's widespread resource database to provide users with an exhaustive catalog of real estate opportunities that can be easily accessed through the website.

The 'Search' option featured on the site will be capable of examining the entire centralized database of franchisee offices to help visitors locate the real estate openings of their choice throughout the U.S. and Canada.

The site will incorporate Google maps that provide precise location pointers (Geo markers) to franchisees offices using standard and advanced search options.

The site will allow visitors to view a property and its related statistics online, along with options to contact the related agents and franchisees or arrange a property showing through mutual agreement between the associated parties.

The site will be capable of managing and tracking visitors' search queries in order to provide the best possible service and gauge the current developments in the real estate market via visitor preferences.

The site will offer high browser compatibility with '508 compliancy' in an effort to be easily navigable for all visitors irrespective of their physical or technological handicap.

Challenges

Implementing and managing a legacy of property database located across a large geographical territory & ensuring the backend maintenance of enormous amounts of data through a dependable framework.

Migrating an enormous amount of data that goes back over 15 years in to the new system architecture and integrating the Franchisee Toolkit Intranet Application used by the franchisee offices into the new system.

Managing the synchronization of new leads entered in the centralized tables of the intranet application along with the leads generated via other mediums and sources.

Ensuring a high level of browser compatibility and providing detailed search options based on various property-related criteria, through Google maps and displaying accurate information for buyers and sellers alike.

Making the site provide webmaster controls for managing animations for displaying latest homes on sale and change in backdrop based on seasons on the main portal pages and the franchisees home pages, effectively portraying a realistic view of the property listed online.

Maintaining security and good load balance for the site while thousands of users access and execute numerous features available on the site.

Technologies Used

.NET (Visual Studio .NET)2005	A suitable managed code development environment for handling the extensive project.
Windows 2000	Sturdy and stable operating system with high level functionality for online development.
MS-SQL 2005	Versatile, scalable, secure and low-maintenance DBMS.
Rational Rose Enterprise Edition	Integrated tool best suited for modular architecture and iterative development of software.
Microsoft VSS (SCM & Backup)	Ideal client/server application providing stratified storage system of files.

Manpower

Project Leader	1
Developers	3
Designers	2
Quality Assurance Testers	2

Planning

The following four-tier development approach was adopted to equip the site with numerous features and functionality mentioned before:

- o The Database layer containing MSSQL Server Database, Tables, stored procedures and so on.
- o The Data Access layer containing the Data Access DLL responsible for accessing data from database.
- o The Business Layer DLL consisting of all business logic procedures for modules like Offices, Properties, Maps etc.
- o The User Interface Layer which forms the Graphical User Interface of the website.

Architecture

Developed in C#.NET, the Business Layer DLL consisted of all business logics for modules like Offices, Properties, Maps etc and they were compiled to a single Business DLL that directly interacted with the UI layer. DLL consisted of all Business logics used for respective modules like Save [Add/Update], Delete, Get single object, get multiple objects for listing and were designed to be capable of handling many more logics which were not related to the database. The Data Access layer contained Data Access DLL responsible for accessing data from database and built a generic query for insert, update, delete and select, depending on the business class. All business layer components were coded to use this DLL for data accessing process from database. Stored procedures were used only for complex retrieval of data from multiple tables and were entirely avoided with conditional syntax to ensure smooth performance of the website. The UI layer was kept free of any business logic with images, applications and data being called from their respective servers. Sub-domains were used for the different areas of the website to guarantee scalability.

Development Highlights

Data migration formed the core of application development as a massive amount of data going back over 15 years was to be integrated into the new system. Optimized query features were specifically designed offer ease in accessing various property-related criteria through Google maps and displaying accurate information for buyers and sellers as well. The integrated Franchisee Toolkit Intranet Application required the synchronization of new leads entered in the centralized tables of the intranet application along with the leads generated via other mediums and sources. The scalable architecture was designed to provide robust backend maintenance of enormous amounts of data. High browser compatibility and '508 compliancy' were incorporated along with web usability principles to ensure greater visibility for the site. Web usability guidelines were strictly followed during development and the interface was made easily navigable through judicious use of AJAX, CSS and HTML controls. The site was developed and fully functional within a span of 4 months.

Client Feedback

“GMI did an amazing job with developing our site and they have excelled our expectations in every way. We are very happy with their professionalism and technology expertise. We would recommend them to anyone interested in developing a large scale web application.”