



# Enterprise Applications using Microsoft® Dynamics CRM

## Client Case Study

### Overview

A national provider of credit counseling services asked Innovative Architects (IA) to migrate their legacy resource scheduling application off of a mainframe platform to a modern extensible framework. The application targeted for replacement managed the core day-to-day business processes for the client, but was difficult to customize, and expensive to maintain and operate.

IA successfully completed the migration and delivered the application by applying agile development practices and a “quick win” approach that demonstrated in a concrete way how the project could succeed. A key to the success was leveraging the built-in service management capabilities and customizable data entities of Microsoft Dynamics CRM, allowing IA to focus on the core business needs.

The end result was an extensible solution that reduced operating costs, simplified regulatory compliance reporting, and enhanced the client’s ability to manage and track customer interactions.

### Solution Summary

IA migrated the mainframe application to an enterprise solution using Microsoft Dynamics CRM customized with HTML forms and C# plugin assemblies.



The figure above shows a high-level overview of the migrated solution. The customer service representatives in the call center use HTML forms to gather client data. These forms leverage the CRM API with asynchronous service calls to deliver a highly responsive and interactive UI. As this data is gathered, the compliance rules engine searches for qualified counselors based on over 100 business rules. Once the session is scheduled, the time is blocked off on the counselor’s schedule.



## Extensibility

Many counseling programs delivered by our client have specific requirements that call for system customizations. The legacy mainframe application had limited customization capabilities, all within the confines of a “green screen” terminal user interface. This severely limited our client’s ability to deliver new services in a cost-effective manner.

The migrated application uses industry standard HTML5/CSS3 forms that connect to the Dynamics CRM API. In addition, IA developed a system that focuses on “configuration over coding.” Common system modifications and customizations are now performed via configuration, which dramatically reduces the cost, effort, and time required to implement new programs.

## Managing Regulatory Requirements

Regulatory rules dictate many aspects of our client’s day-to-day business. For example, there are many rules that must be enforced to select the proper qualified counselor for a client. Historically, this was managed through the training of the call center representatives (CSR). During the counselor scheduling process, the CSR would use a set of “cheat sheets” to help navigate these rules.

As part of our solution, IA built a business rules engine for client scheduling that automatically matches qualified counselors to the inbound call. As client data is gathered through the call process, the rules engine selects qualified counselors who have availability in the desired time block. This has resulted in a dramatic drop in regulatory issues due to improperly qualified or certified counselors.

The screenshot displays a Microsoft Dynamics CRM interface for a 'Scheduling Form'. The status bar indicates 'Data received. Qualification: BudgetAndCredit. Number of Qualified Counselors: 20'. The main area is a calendar grid for 'Jun 9 — 15 2013'. The grid shows time slots from 6am to 2pm for each day from Sunday to Friday. Counselors are assigned to specific time slots, with names like Joshua Firestone, Laura Sampson, Trishette McClain, and Maria Davis appearing in the cells. On the left, there is a 'Budget and Credit Counseling Search' sidebar with fields for Client (Test User), Language (English), Delivery Method (Telephone), Preferred Counselor (None), Atlanta Branch (01), ZIP Code (30309), Current on Mortgage (Yes), and Referral Code (001). A 'Search' button is at the bottom of the sidebar.

In addition, the application was written to allow the client to manage the business rules through CRM entities and forms. Through this innovative extension to CRM, the client is able to edit, test, and implement rules without writing code.



## Enhanced Client Management Capabilities

Our client communicates with their customers through multiple channels, including email, letters, phone calls, and faxes. Prior to the system migration, these interactions were documented in plain text notes attached to the mainframe record. This made reporting on activities a manual process which literally involved reading through every text note entry that was attached to the customer.

Microsoft Dynamics CRM provides a means to track all of these communication activities in records that support full reporting. Our client's counselors are now able to see all of the contacts that have been made by date and channel without having to read through a plain text register of notes. This has allowed our client to deliver better service at a lower overall cost.