

AdHoc Web Reporting for Legacy System - *A Case study*

Overview

In an extremely competitive Global Market, Agriculture industry is one wherein the analysis of data is both complex and time-critical. Fundamental to agricultural businesses is the critical needs to track, monitor, investigate and display the vast quantities of data qualify results. The Client is one of the leaders in providing Management Information solutions for Agriculture business in North America with a suite of legacy applications.

The Need

The Client wanted to extend their line of products which would overcome the inherent weaknesses of the Legacy systems. They were looking for a reporting system which would leverage the existing mature solution but at the same time is a value addition to the existing users. Some of the problems faced by the existing reporting solutions were,

- # It required the end users to have more D3 knowledge to generate any new reports.
- # There was too much dependency on the support group to come up with new or addition of reports leading to a lengthy roll out time.
- # It had all the constraints of DOS based text reports, without any rich UI representations.

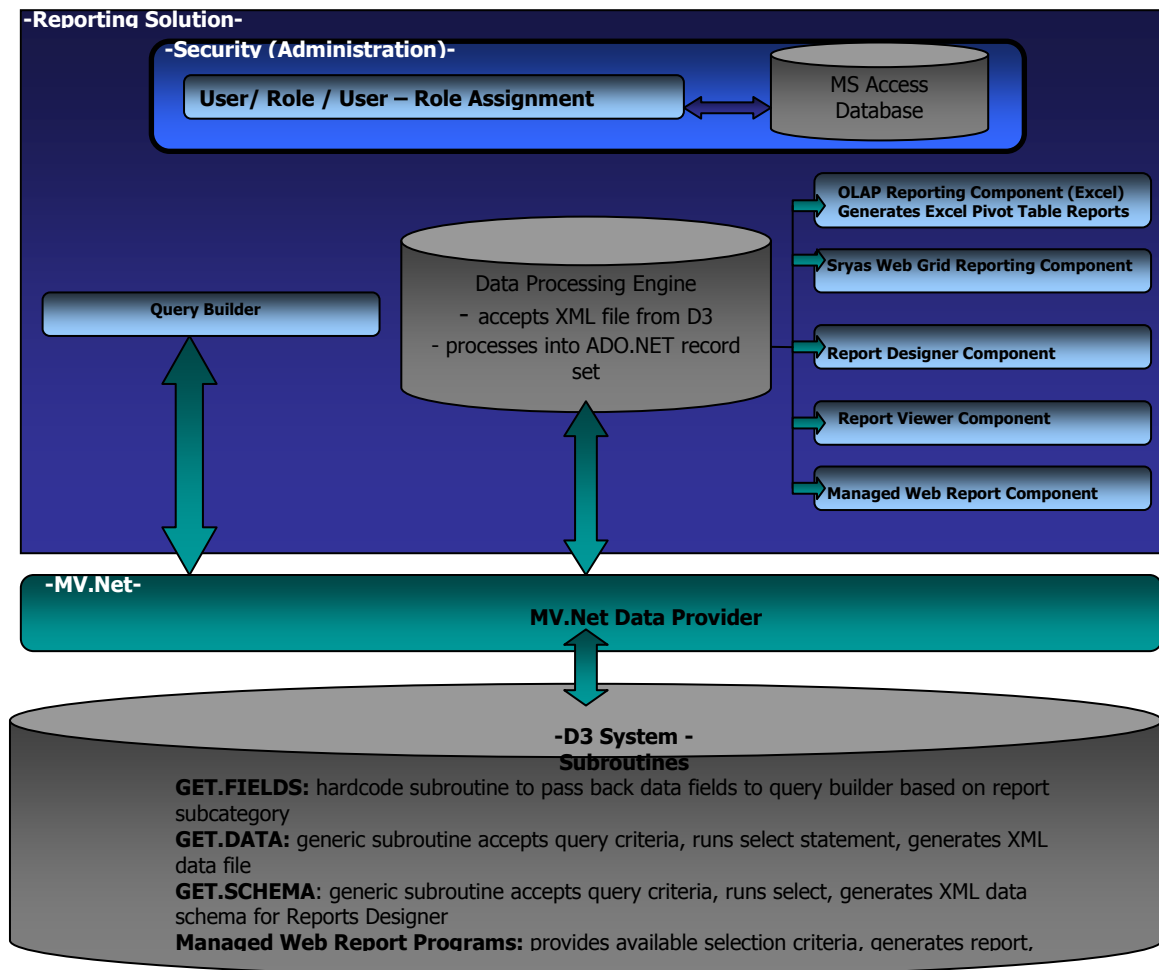
To overcome these, the clients wanted to create an enterprise level web based reporting tool, which their customers could use to generate dynamic and static reports with the existing D3 system as their database.

The Challenges

The challenge was to build a web based query-building tool that would connect to the legacy D3 database, and would allow the users to generate, save and publish ad-hoc reports. The other challenges in the projects were

- ❑ Working with Multi-valued D3 Database which are very different from a conventional DBMS or RDBMS
- ❑ The reporting tools capability to handle large unformatted D3 data.
- ❑ Identify repetitive (duplicate) data and ignore them while performing calculations like group totals and overall report summaries.

The Solution



A .NET based, web reporting tool was designed which was so generic in nature that it works with different database like SQL, Oracle etc in addition to the legacy D3 database. MV.NET was identified as the managed provider to work with D3 database. The final solution comprised of the following components

Ad-hoc Query Builder.

It allows users to create and manager user defined queries by selecting any table and its columns.

Report Designer.

Its allows the power users to design any new reports. Some of the features of the Report designer are

- Data sorting, grouping, applying filters
- Unlimited hierarchical reports
- Unlimited multicolumn reports
- Reports with grouping

Publishing engine: To publish the generated reports in the web server, so that other users can view the reports.

Report Viewer: Provide design time capabilities to view the reports.

Rendering Engine: Will generate reports in different formats like Html /Word / Excel / PDF etc.

Benefits

- User-friendly & easy to learn for new users across the organization**
- Easy user setup and administrative control of rights at multiple levels**
- No need for in-depth database knowledge**
- Reduce reliance on the client's support group.**
- Ability to publish standard company reports for users to access**
- User familiar output formats**
- Save or distribute 'snapshot' reports in familiar Excel/Word/PDF formats**

In a nutshell, the Reporting Module is a user-friendly, web-based reporting and business intelligence tool that gives organizations and their users' the ability to create and distribute business system information to assist in making management decisions.