

Case Studies  
For  
Dynamics CRM 3.0 to 2016

## **Quality Check Process**

Version - CRM 2016 Online

Client based in - USA

### **The Challenge**

The client wants to manage their complete Quality Check Process Functionalities with Microsoft Dynamics CRM 2016 online.

- Manage two different type of users in CRM “Agent” and “QC user”.
- Agent creates a record and sends for Quality Check to QC user specified in Agent user. At this stage record is on “pending submission” stage.
- Add a few custom ribbon buttons to manage the QC process flow and stages of the record.
- Manage these buttons visibility based on the user roles and the records current stage.
- Create email templates for each stage of the record.
- As the record progresses from one stage to another, respective emails must be sent to the respective users.

### **The Solution**

The entire QC Process flow was designed, customized, and developed by our team. Development was done using plug-ins, JavaScript, and work flows. We tried to achieve majority of the features with out-of-the-box functionalities wherever possible. We also configured the queues, security roles and business units for this client. Our work was highly appreciated by the client as the work was completed on time and as per their expectation.

## **Fetch xml based reports**

Version - CRM 2016 Online

Client based in - India

### **The Challenge**

The client wants to develop a few reports for their CRM 2016 online and also wants to do some security role configuration in their CRM instance to manage these reports.

### **The Solution**

We have developed the **Fetch xml** based reports, using the SSDT component using Visual Studio 2015. Also, we have configured business units, users, security roles as per the client needs. We have designed and developed around 10 different reports to meet the clients expectations, the names of those reports are,

- Opportunity pipeline by BU, Field Sales Manage
- Pipeline Conversions
- Lead Conversions
- Conversions by Source
- Forecasting View
- Sales Cycle
- Increase in Reach
- Funnel analysis
- Competition
- Wins and Losses

## **Migrate from Sage ACT to Dynamics CRM**

Version - CRM 2015 on-premises

Client based in - USA

### **The Challenge**

The client manages the licenses of liquor and uses Sage ACT to manage their work, but now the client wants to manage his work with Dynamics CRM 2015 and wants to first customize the Dynamics CRM system and migrate all their data from Sage ACT to CRM.

### **The Solution**

For this project we've been doing all the customizations for almost a year and half now. We have implemented custom grid through JavaScript and HTML. We have used many plug-ins to fulfill their requirements. We have used some third party tools as well like Growl notification tool to send the notification from Dynamics CRM to users task bar on their desktop. We have used QuickNavigation third party tool to set the navigation links on forms. We have also done Data migration for this client. We have turned existing Sage ACT system functionalities into Dynamics CRM and migrated the data from Sage ACT to Dynamics CRM using SSIS packages as well as Custom .Net programs.

## **Design and Develop the entire sales cycle**

Version - CRM 2015 online

Client based in - UK

### **The Challenge**

The Customer wants to manage their Sales Cycle, with Microsoft dynamics CRM 2015 Online. They would like to manage their products, phone calls, orders and quote using the system.

## **The Solution**

The customization and configuration, security roles, top level dashboards, plug-ins, extensive JavaScript on order and order product forms, reports have been developed for almost the entire “Sales” area of Dynamics CRM which includes:

- ❖ Client Management
- ❖ Contact Management
- ❖ Order Management
- ❖ Order Product Management
- ❖ Phone Call Management
- ❖ Products Management
- ❖ Price List Management
- ❖ Sale Type Management
- ❖ Reports
- ❖ Dashboards
- ❖ Plug-ins
- ❖ Workflows

## **Metered Invoicing**

Version - CRM 2013 on-premises

Client based in - UK

The company deals with fitting of meters for water usage and generating and collecting Invoices based on the usage.

### Requirements

- The system shall store the details for Account, primary Contacts of the Account and billing Cycle details.
- The System shall store meter reading details and the Invoice details per account for every billing cycle.
- The user with the Manager role shall have all privileges on Account, Contacts, and Invoice, Billing Cycle and Configuration entities.

●

- The user with the Processor role shall have only read privilege for the entities mentioned in above point.
- Users who have either Processor role or Manager Role shall have all privileges on Meter Reading entity.
- The System should allow import and export of Meter Reading records.

The customization and configuration, security roles, top level dashboards, plugins, reports have been developed for custom entities required to fulfill the requirements.

- ❖ Client Management
- ❖ Contact Management
- ❖ Meter Reading Management
- ❖ Invoice Management
- ❖ Reports
- ❖ Dashboards
- ❖ Plugins
- ❖ Workflows

### **Design and Develop the entire sales cycle**

Version - CRM 2013 on-premises

Client based in - UK

We have a long term contract with one of our UK based customers where we are managing their all piece of software wherein Dynamics CRM is at the middle and it's working as the central database for all these applications.

Refer each following point that we developed and are managing for them:

- ❖ Web application that interacts with CRM. (ASP .Net 4.5)
- ❖ Windows applications that interacts with CRM. Developed. (ASP .Net 4.5)
- ❖ Custom CRM web service. (ASP .Net 4.5)

We are calling it from Dynamics CRM through JavaScript code.

- ❖ SSRS reports that populate the data from Dynamics CRM
- ❖ Managing the custom SQL database with custom stored procedures that interacts with Dynamics CRM live database.
- ❖ Develop custom functionalities in Office applications like Word, Excel, and Power Point that interacts with CRM database and populate the expected data.
- ❖ Apart from these, the CRM customization, workflows, plug-ins, and JavaScript code on regular basis.

### **Upgrade CRM 2011 online to CRM 2013 online**

Version - CRM 2013 on-premises

Client based in - UK

We had successfully upgraded one of our UK based customers from CRM 2011 online to 2013 online. We applied all required changes in customization and JavaScript Code and made them up and running with new system. They remained quite happy with upgrade process and their users are using the all functionalities now in new CRM 2013 environment.

### **Upgrade CRM 2011 on - premises to CRM 2013 on - premises**

**Version - CRM 2013 on-premises**

**Client – UK based**

Same as CRM 2011 online, we also had successfully upgraded one of our UK based customers from CRM 2011 on-premises to CRM 2013 on-premise. We prepared and installed CRM 2013 on brand new server of client and import their CRM 2011 backup database as new organization via CRM Deployment manager. This up gradation process also completed smoothly and successfully.

### **Matching feature for vacancies and candidates**

**Version - CRM 2011 on-premises**

**Client – Australia based**

## **The Challenge**

Customer wants to have the in-built matching feature for vacancies and candidates, a couple of custom entities at their existing CRM 2011 on-premises setup. When a vacancy manager browses the vacancy record, he/she could search the candidates based on the matching criteria like job type, area, region, job skill etc. Similarly, candidate(s) can match the vacancies on candidate record.

## **The Solution**

We had given a solution to implement Silverlight 4 with VS 2010 to have the data grid loaded with the search results. We did it successfully by implementing a Silverlight component, a web resource in managed solution. The XAP file is loaded on Candidate and Vacancy form to show the matching results. We had used the MVVM pattern and have implemented pagination with the Silverlight 4 data grid control. In addition to that user can open a CRM record directly from a grid.

## **Fetch xml based reports**

**Version - CRM 2011 online**

**Client – Australia based**

## **The Challenge**

The customer is using the Dynamics CRM 2011 online and having around 50 to 70 custom attributes, fields on Opportunity and Lead entities. They want the reporting for almost all the custom fields, the different stages of an opportunity, for every sale executives.

## **The Solution**

We have developed the **Fetchxml** based reports, using the BIDS component using Visual Studio 2008. We have designed and developed around 15 kind of different reports to meet the end user expectations which included,

- ❖ Sales representative wise lead and opportunity status
- ❖ Sales period wise lead details
- ❖ Weekly lead details



- ❖ Comparative lead details of current and last financial year
  
- ❖ Report based on a Lead source
- ❖ Performance report of sales representative based on their individual success rate
- ❖ Graphical representation using in-built CRM chart controls

## **Healthcare**

**Version - CRM 2011 online**

**Client – USA based**

### **The Challenge**

Customer wants to produce an automated claim (Order in CRM) to the contractors specifying the total employee usage about the time, mileage and expense on periodic basis which was already there on the contract as frequency (weekly, monthly...).

### **The Solution**

We developed a custom plug-in and configure a workflow for Dynamics CRM 2011 online. You must be aware that 2011 online does not support custom workflow activity, so we have to choose a workflow plug-in route to get rid of that limitation. Let me explain the actual scenario, basically customer needs to produce an automated claims (Order in CRM) to the contractors specifying the total employee usage about the time, mileage and expense on periodic basis which was already there on the contract as frequency (weekly, monthly...). So for this we configured wait workflow which will be fired on due date and create a required claim record into the system, there are certain validation which needs to be checked before configuring the workflow again for the next due date. These checks have been verified inside a plug-in which is registered on a custom entity. So workflow creates a record for this custom entity too, and in turn calls the plug-in to perform the validations say the end date of the contract. This is what we did recently on CRM 2011 online;

## **Distribute the campaign activities as task to the marketing team**

**Version - CRM 4.0 on-premises**

**Client – Germany based**

### **The Challenge**

The Customer wants to use Marketing campaign of Dynamics CRM 4.0. They would like to distribute the campaign activities as task to their marketing team who will be the CRM system users. By design in CRM you cannot create tasks for the selected campaign activity. There is no channel type as 'task' on campaign activity form. The customer wanted to have 'task' option as channel and would like to distribute that campaign activity to marketing team. They would also like to have system users for Marketing List. By design CRM does not allow to create Marketing List for system users, it has only three options like Account, Contact and Lead.

### **The Solution**

We proposed them to have 1: N relationship between Marketing List and system users. So, the customer could assign the system users to one of the existing marketing lists. We changed the campaign activity customization to have task as channel type. Whenever user selects task and click on distribute campaign activity button, the new task activity will be created and distributed to the associated users of the Marketing List which is being related with the system users.

## **Telecommunication Domain**

**Version - CRM 4.0 on-premises**

**Client – Germany based**

## **The Challenge**

One of my customers deals in telecommunication domain and maintains the customer details in Dynamics CRM. They wanted to expand the system further for customer contracts, contract rates, options, contract relationships with customer, customer relationship with service provider, contract traffic directions, tariff plans etc. Analysis of call rates for each customer on type of contract i.e. mobile or fixed line. They are getting the customer calls data in excel files from the providers and importing it through the SSIS package into the SQL server, a standalone database server having no interface. They would like to handle such things directly into their dynamics CRM system.

## **The Solution**

We have designed one Contract entity into the system having relationship with Account which is being maintained for both provider(s) as well as customer(s). There is one more entity which is being developed for contract history. In build product entity is being used to maintain the tariffs. One analysis tool was developed which is a client server application to perform the analysis of customer's data which is already there on a standalone SQL database. The final results of this tool are also migrated into the CRM system so that the sales team could have the results and on basis of that, could do the further discussion with the customer. Customized reports are also developed in SSRS as per the customer needs.

## **The Benefits**

- Delivered consistent customer experience at every touch point
- Single view of customer across the organization
- Automated tool to import the data and analyze it
- Increased efficiency of sales staff
- Full reporting facilities for sales staff

## **The results (Customer feedback)**

*“Our requirements were for a solution that would underpin outstanding customer service and enable us to have world-class systems to support our rapid growth. Inkey solutions have delivered exactly that.”*

## **Migrate from ACT! To Dynamics CRM**

**Version - CRM 4.0 online**

**Client – Canada based**

### **The Challenge**

The Customer wants to replace its current CRM tool, ACT!, with Microsoft dynamics CRM 2011 Online that will enable 3 subsidiaries to grow their sponsorship and delegate sales while aligning and streamlining processes to increase effectiveness and reduce selling costs. They want to reduce the existing manual work, like a number of tasks, activities and reports. This would free up human resources who are now generating the reports, activities and tasks for more productive, and revenue generating activities.

### **The Solution**

The suggested solution for data migration from ACT! To CRM 2011 online is SCRIBE 7.0.2 tool. Our team has used this tool to migrate their existing data from ACT! to CRM 2011 Online.

The customization and configuration, security roles, top level dashboards, reports have been developed for almost the entire “Sales” area of Dynamics CRM which includes:

- ❖ Client Management
- ❖ Contact Management
- ❖ Lead Management
- ❖ Opportunity Management
- ❖ Sales Goals Management
- ❖ Activity Management
- ❖ Reports

- ❖ Notifications
- ❖ One time migration of data from existing CRM systems (ACT! & Sales Force)
- ❖ Training

## **SSRS Reports**

**Version – CRM 2011 on-premises**

**Client – Australia based**

### **The Challenge\_**

The Customer wants to have reports listed like a Rate Card. All the opportunity products are listed according to scale and frequency. The arrangement of data in the required format was the actual challenge.

### **The Solution**

The solution was to arrange data using grouping. Grouping was done on EntityID with child group on GroupID with child Group ProductType. A hierarchy of groups is created. Based on scale the color is also specified using expressions.

The same reports were developed for both SQL Based as well as FetchXml Based. Apart from above case studies we also have our own add-ons please refer them below.

## **Dynamics CRM 2011 and above – Add-Ons**

### **Drag And Drop Listbox**

“Drag And Drop Listbox” is an add-on for Microsoft Dynamics CRM 2011 and above. It allows users to setup two listboxes, one as Source (on left hand side with available values) and another as Target (on right hand side with chosen values).

User can drag desired values from Source to Target listbox and can save a record with dragged values.

Say for instance, on a Candidate form (a custom entity in CRM); user wants to provide a list of below hobbies in Source listbox.

- Music
- Dance
- Reading
- Social Networking
- Painting
- Gardening
- Sports
- Study

While filling the details for a candidate, end user will be allowed to select the hobbies of that candidate from Source listbox to Target listbox and also save a record with elected values. So, as per your business necessity you can configure this tool on built-in as well as custom entities of Dynamics CRM.

Furthermore, this add-on supports following deployment types of CRM.

- On-premises
- Online
- Offline

Below Microsoft technologies were used to develop it.

- Silver light 4.0
- C# .Net 4.0 (CRM plug-ins)
- CRM SDK version 5.0.4

“Drag And Drop Listbox” behaves like a user control which helps customer(s) to design a CRM form with selective values as per their business need and at present, such control is not present out-of-the-box in Dynamics CRM.

## **Expense Note**

“Expense Note” is an add-on for Microsoft Dynamics CRM 2011. It allows users to add more than one record of expense note entity at one time.

## **The Challenge**

The requirement was to create a single form that would be used to add multiple records of an entity at once. The UI should display line item records and the user would input values for each line item. The record consisted of CRM data types like text, option set, and lookup.

## **The Solution**

We gave solution as a Silverlight web resource which would be opened on click of a custom ribbon button. The user can give input for number of line items he wants to add at once. Silverlight grid adds that much number of rows and user can add values and process it. We have used inbuilt lookup windows of CRM in our Silverlight application. Expense Note is a Silverlight application created using controls like data grid, combo box, and image control.

## **Registered Events**

Registered Events is a Microsoft Dynamics CRM 2011 Add-On. This add-on is designed to empower the developer and make the development work more organized. It enables a developer to register all the events and its related functions for an entity. The Registered Event Add On lists all the entities available in an organization. The user can select entities from the list and select to process those entities.

Registered Events Features:

- Registered Event is a Microsoft Dynamics CRM 2011 add-on.
- It resides in your database as a Managed Solution.
-

- You can find the Registered Events entity in Customization Area of Settings.
- Registered Events lists entity name, events attached with functions, function name and library where the function is defined.
- Registered Events also provides a report for the list which could be filtered as needed.
  
- It also supports the following deployment types
  - Microsoft Dynamics CRM 2011 On-Premises
  - Microsoft Dynamics CRM 2011 Online
  - Microsoft Dynamics CRM 2011 Offline

Below Microsoft technologies were used to develop it.

- - Silver light 4.0
- - C# .Net 4.0 (CRM plug-ins)
- - CRM SDK version 5.0.4

### **Filed level security and Role based UI in MS Dynamics CRM 4.0**

The Field Level Security and Role Based UI are two unique assets which were developed for the clients. MS CRM 4.0 does not provide this feature of field level security out of the box. Hence we developed a useful asset to cater field level security on any field of CRM Entity Form & Grid view. We used .Net 2.0 custom binaries & http modules which help to make Entity form fields hidden and read only on execute & create and update plug ins respectively. Some preloaded rule types, custom rule sets and rules are processed in the rule engine to get the admin configured results on Entity Form & Grid view. All custom entities are organization level and are being imported at the time of installation by default.

In Role based UI we cater admin configuration through which admin can setup his/her desired forms by removing some of the predefined fields from the form of any CRM entity like Account, Contact, etc. Aside from this user can configure its own custom JavaScript to be fired on “On Load” & “On Save” events of CRM Form. This forms are then be reusable for creating other records accordingly.



To develop above tools we widely made use of Custom Entities, plug ins, custom .Net pages in IFrame, JavaScript, Sitemap & ISV configuration, organization level entity configuration & role based access on custom entities, web services, .Net Http Context cache object and .Net 2.0 custom code.

Apart from this we also configured the assets in such a way that they can run in on premise as well as IFD mode. These assets are supporting the CRM outlook client too. We made a MSI a deployment package with the help of Build

Deployment System (BDS) tool for the easy deployment with organization specific, non-organization specific, web.config changes and complete as four different options.