CRM: Sales Force Automation Plan

Introduction

This document represents a general plan and set of estimates for functionality to be added to the OFBiz open source project, mostly in the area of CRM functionality.

The primary intent is to create a set of screens and supporting logic and data structures that will facilitate general marketing, sales, and service processes and seamlessly integrate with the quote, order, configuration, manufacture, and delivery of the product (existing functionality, mostly the ERP side of things). By seamless integration it is understand that the integration will be implicit through shared data structures and references within the same system, and does not represent any mapping of data or processes between systems.

This plan and estimate is focused on additional functionality in the CRM area, and mostly for Sales Force Automation, so the functionality described in those documents will not generally be included except for special cases referencing existing functionality in OFBiz, or functionality to be added as part of the manufacturing extensions, which includes extensions to the quote (estimate), order, and fulfillment areas as well as the core manufacturing management application.

General Functionality Not Included

This plan and estimate will not include some of the features described in the Specification document, including and offline application for the sales force and Microsoft Office and Outlook integration. These features can certainly be developed though it is recommended that they be done in a separate phase to make it easier to define the touch points once the rest of the functionality has been implemented.

Depending on what sorts of integrations are desired with Microsoft Office and Outlook it may be necessary to create such applications with something like .NET instead of with Java. The client application could communicate with the server via SOAP just fine, though sharing code, tools, and data structures could not be reused in their current form. Some integrations can be done through standard file formats, like contacts, events, tasks, and such through vCalendar (vEvent and vTodo).

The implementation proposed here is not an exact reproduction of SugarCRM nor does it represent any attempt to reproduce the same data structures and tools in OFBiz. So certain things like defining your own lists and screens and reports and such is not included in this plan and estimate. Note that some of these tools could certainly be created in OFBiz, and those would be additional efforts outside the scope of this document.

For the data structures they are mapped to OFBiz data structures in this document. The proposal is to use the existing OFBiz data structures where possible and add to them as needed. Using custom data structures identical to those of SugarCRM would result in an application that while written in OFBiz does not seamlessly integrate with OFBiz (ie sharing and reusing data structures with other parts of the software) and so an integration would have to done. That would be easier because the application is written in OFBiz, but would basically include all parts of a classic integration with any external system on a data or process level.

Marketing Campaign Management Detail

Campaigns
A Campaign corresponds to a Marketing Campaign in OFBiz. There are a few different types of marketing campaigns, and various related information to them.

The following are screens and details for them related to a campaign. These may be best as separate screens or as desired certain ones can be combined.

- Find Campaign
  - Will be restricted to only the Campaigns that the current user has access to.
- Campaign Home/Summary
- Create/Edit Campaign
- Accounts
- Tracking Codes
- ProductPromo (Promotions)
- Contact Lists
- Parties/Roles

Customer Support Management Detail

Cases
A Case corresponds to a Request (CustRequest) in OFBiz. There are many types of requests including RFI (for information), RFQ (for quote), RFS (for support), and so on.

The following are screens and details for them related to a case (request). These may be best as separate screens or as desired certain ones can be combined.

- Find Request
- Request Home/Summary
- Create/Edit Request
- Accounts
- Contacts
- Parties/Roles
- Request Items
- See other Request and Request Item screens in the OFBiz Order Manager

Sales Force Automation Control Detail

Accounts and Account Teams
In OFBiz an Account would be a Party Group, which is a type of Party (the other main type being Person, which would correspond to a Contact). In OFBiz a Party Group can be any type of group including formal and informal organizations. Party Groups can in-

clude (through Party Relationships) any type of Party, including Persons and other Groups. Each account will be in the Account role.

Through such relationships company organization hierarchies can be defined with contacts associated with whichever part of the organization is desired. To simplify things a single Party Group can be created that represents the company and all Contacts (Persons) can be directly related to it. It appears that both are desired through the concept of Parent Accounts.

In the description of an Account in the Specification document it mentions 3 roles that an Account might be in, and it should be noted that a Party Group in OFBiz can potentially be in many different roles. The three roles mentioned are: customer, competitor, and partner. In OFBiz the Customer role is also split into 4 more detailed roles that would describe a Party's (could be Group or Person, ie Account or Contact) including Placing Customer, Billing Customer, Ship-To Customer and End-User Customer.

The following are screens and details for them related to an account. These may be best as separate screens or as desired certain ones can be combined.

- Find Account
    - Accessed from the application/header level "Accounts" tab
    - Includes a search fields entry form and a search results display form
    - All search results will be filtered by accounts the current user is associated with unless the user has permission to view all
    - Like the normal Party Search except with a filter on partyTypeId=PARTY_GROUP and include a PartyRole record for the "ACCOUNT" roleTypeId
    - Includes a link to the Create/Edit Account page with no "partyId" to identify the account for the purpose of creating a new account
- Account and Contact Hierarchy View/Browse
- Account Home (Summary)
    - This page will include summary information for the account including basic account fields, contact mechanisms (addresses, phone numbers, etc) activities, opportunities, contacts, cases, partners, contracts, account teams, and notes.
- Create/Edit Account
    - If a "partyId" parameter is passed in this page will act as an Edit Account page, if not it will act as a Create Account page (both being very similar)
- Contact Mechs (Contact Info)
- Work Efforts (Activities/Events and Tasks)
- Opportunities
- Campaigns
- Contacts (Contact Persons)
- Cases (Requests)
- Partners (pty rel)
- Contracts (Agreements)
- Teams (Team)
- Notes

- Merging Duplicate Accounts
- Clone Account

Contacts
In OFBiz a Contact is a Person, which is a type of Party (the other main type being Party Group, which would correspond to an Account). For a more general description of of the Party structure see the Accounts section above. Each contact will be in the Contact role.

The following are screens and details for them related to a contact. These may be best as separate screens or as desired certain ones can be combined.

- Find Contact
  - Accessed from the application/header level “Contacts” tab
  - Includes a search fields entry form and a search results display form
  - All search results will be filtered by Contacts the current user is associated with unless the user has permission to view all
  - Like the normal Party Search except with a filter on partyTypeId=PARTY_GROUP or PERSON and include a PartyRole record for the “CONTACT” roleTypeId.
  - Includes a link to the Create/Edit Contact page with no “partyId” to identify the account for the purpose of creating a new Contact; note that for Edit Contact the partyId can correspond to either the Group or Person
- Contact Home (Summary)
  - This page will include summary information for the account including basic Contact fields plus other related information (to be defined....)
  - Will have link to and information about Account associated with contact; since this is modeled as a PartyRelationship can theoretically have multiple Accounts but the UI will limit the setup of a single Account per Contact.
- Create/Edit Contact
  - If a “partyId” parameter is passed in this page will act as an Edit Contact page (the partyId can for the Group or Person), if not it will act as a Create Contact page (both being very similar)
- Contact Mechs (Contact Info)
- All other information will be associated with the Account and not with the Contact. If needed we could add screens without too much trouble for any/all of those things to associate them with a Contact though. (for now not estimated here)

Leads
The proposal includes treating a Lead as both a Person and PartyGroup (related by a PartyRelationship) because much of the information in a lead translates directly into Account and Contact information and this way the Lead records can either be duplicated, or simply modified adding the Account and Contact roles. For the Person and PartyGroup parties will be in the Lead role.

The following are screens and details for them related to a lead. These may be best as separate screens or as desired certain ones can be combined.

- Find Lead

- Accessed from the application/header level "Leads" tab
- Includes a search fields entry form and a search results display form
- All search results will be filtered by leads the current user is associated with unless the user has permission to view all
- Like the normal Party Search except with a filter on partyTypeId=PARTY_GROUP or PERSON and include a PartyRole record for the "LEAD" roleTypeId; may also constrain by existing PartyRelationship to join the Lead Group to the Lead Person.
- Includes a link to the Create/Edit Lead page with no "partyId" to identify the account for the purpose of creating a new lead; note that for Edit Lead the partyId can correspond to either the Group or Person

- Lead Home (Summary)
  - This page will include summary information for the account including basic lead fields plus other related information (to be defined....)
- Create/Edit Lead
  - If a "partyId" parameter is passed in this page will act as an Edit Lead page (the partyId can for the Group or Person), if not it will act as a Create Lead page (both being very similar)
- Contact Mechs (Contact Info)
- Work Efforts (Activities/Events and Tasks)
- Opportunities
- Campaigns
- Teams (Team)
- Notes
- Convert Lead to Account/Contact
- Merge Leads
- Clone Lead
- Import Leads (formats?)
- Automatic Lead Assignment Rules (constraints?)
- Capture Leads from Web Site (ecommerce or other public facing)

Competitors & Partners

Competitors and Partners will be parties (generally PartyGroup) and are related to other items including Accounts, Opportunities, and so on. These screens can probably be considered a lower priority as the most important use of the information is on the other side of the relationship and not on the Competitor/Partner side.

The screens for Competitor would include: Competitor Home, Accounts, Opportunities.
The screens for Partner would include: Partner Home, Accounts.

Activities/Events/Tasks

Activities (Events) and Tasks are different types of Work Efforts in OFBiz. They share much of the same information though events are more oriented to blocks of time and tasks are more oriented to priorities, but either can have both types of information.

The following are screens and details for them related to a work effort (activity/event/task). These may be best as separate screens or as desired certain ones can be combined.

- My Tasks
- My Calendar (activities/events)
- Find Work Effort (Event or Task or other type)
- Work Effort Home/Summary
- Create/Edit Work Effort (Event or Task or other)
- Accounts, Contacts, and Leads
- Opportunities
- Cases (Requests)
- Campaigns
- Parties (invite process: invite, accept, reject, etc; send invitation email; assign work efforts: assign, accept, reject)

Documents

The functionality described in the Documents section of the Specification document should work fine as a sub-set of the Content functionality in OFBiz. There would be a special area for documents for each internal sales organization in the overall Content structure. Some effort would be required for custom browsing and document upload and viewing pages in the CRM application.

Additional time will also be estimated for extending existing functionality in certain areas. For example the search functionality that already exists in OFBiz may need to be customized to limit results to those that are available to the current user (based on existing permissions functionality in the Content manager of OFBiz). There is another Content based project currently underway and other things might be taken care of, but if indexing binary files such as Word or Excel or PDF files is necessary some work might also be required for that.

Forecast

An Forecast will be represented by a new entity in OFBiz as defined in this document (SalesForecast).

There won't be very many screens for a Forecast, but the few there will be can possibly get complex. For this initial estimate all calculations for the Forecast will be included, but for the first phase not to include any sort of a pie or other chart.

The screens will include:

- Find Forecast
    - Will be a fairly simple list showing most recent first and paginated; only those associated with a sales organization that the current user is associated with will be shown
- Create/Update Forecast
- Forecast Summary
    - Statistics about Forecast based on information in SalesForecast record and associated SalesOpportunity records (with matching organizationPartyId for the Internal Sales Organization)

Opportunities
An Opportunity will be represented by a new entity in OFBiz as defined in this document (SalesOpportunity).

The following are screens and details for them related to an opportunity. These may be best as separate screens or as desired certain ones can be combined.

- Find Opportunity
- Opportunity Home/Summary
- Create/Edit Opportunity
- Competitors
- Tracking Codes
- Parties/Roles
- Work Efforts (Activity/Event, Task)

Data Model Changes

Add to the Party entity:
- preferredCurrencyUomId
- description (very-long)
- createByUserLoginId
- modifiedByUserLoginId
- dataSourceId (should already exist)
- isUnread (null defaults to N, if on un-read list if Y only)
- statusId (for leads only? others? examples include: Open, Contacted, Qualified)

Add to the PartyGroup entity:
- groupNameLocal
- officeSiteName
- annualRevenue (perhaps classification?)
- numEmployees (perhaps classification?)
- tickerSymbol

Add to the Person entity:
- firstNameLocal
- middleNameLocal
- lastNameLocal
- other local?

Add to the PartyRelationship entity:
- permissionEnumId: admin/full, view/update, view only, none (used for account/contact permissions for internal sales people, etc)
- positionTitle (for employees, managers, etc to contain the exact wording used within the company instead of just a general relationship type)

Important Party Role Types:
- Account
- Contact
- Lead

- Customer (and Customer sub-types)
- Owner (used to denote that a party owns some other record)

Party Relationship Types:
- Account (from Contact to Account, or perhaps type Contact from account to contact)
- Owner
- Reports To (manager of Contact)
- Assistant (of Contact)
- Parent Account (from account to parent account)

Party Classification Types:
- Industry
- Ownership (private, public, etc)
- Value Rating (hot, cold, etc)
- SIC Code (add all SIC seed data)
- Annual Revenue
- Number of Employees

Data Source Types
- Advertisement
- Web
- Partner

Add to the MarketingCampaign entity:
- isActive (leave out, use date and/or statusId)
- actualCost (calculated? from?)
- budgetedCost (calculated? from?)
- createByUserLoginId
- modifiedByUserLoginId
- convertedLeads (calculated? CommEvents and Orders)
- expectedResponsePercent
- expectedRevenue
- numSent (calculated? from CommEvents)
- startDate
- statusId (may already exist; planned, in progress, completed)

Add to the WorkEffort entity (for Activities/Events and Tasks):
- showAsEnumId (includes Busy, Out of Office, Free Time, etc)
- sendNotificationEmails (indicator)

Add to the WorkEffortRole entity:
- response (long-varchar, up to 255, description of response to involvement/ assignment)
- important role types: Assigned To, Contact, Account, Lead,

Add to the CustRequest entity:
- currencyUomId
- openedDateTime
- closedDateTime
- internalComments (very-long, best on CustRequestItem)

- reason (very-long, best on CustRequestItem)
- priorityEnumId (High, Medium, Low, whatever)
- submittedByPartyId (may already be there)

Add to the CustRequestRole entity:
- important role types: Account, Contact, Owner

New SalesOpportunity entity:
- salesOpportunityId
- opportunityName
- description (very-long)
- nextStep
- estimatedAmount
- estimatedProbability
- estimatedValue (calculated based on estimatedAmount and estimatedProbability)
- currencyUomId
- marketingCampaignId
- dataSourceId
- estimatedCloseDate
- stageEnumId (including Prospect, Proposal, Quoted, Closed, etc; what more?)
- typeEnumId (including Existing Business, New Business, etc)

New SalesOpportunityCompetitor entity:
- salesOpportunityId
- competitoryPartyId
- positionEnumId (includes Existing Vendor, New Vendor, Dropped Vendor)
- strengths (very-long)
- weaknesses (very-long)

New SalesOpportunityRole entity:
- salesOpportunityId
- partyId
- roleTypeId (important ones include: Account, Owner, etc)

New SalesOpportunityTrackingCode entity:
- salesOpportunityId
- trackingCodeId
- receivedDate

New SalesOpportunityWorkEffort entity:
- salesOpportunityId
- workEffortId

Add to InvoiceItem and OrderItem entities:
- salesOpportunityId

New SalesForecast entity:
- salesForecastId
- organizationPartyId - sales group within company

- customTimePeriodId - represents artificial time period for organization or parent organization, ie a quarter or any other sales or fiscal period
- quotaAmount
- forecastAmount
- bestCaseAmount
- createdByUserLoginId
- modifiedByUserLoginId
- *CalculatedFields
    - Percent of Quota Forecast (= (forecastAmount/quotaAmount) * 100)
    - Closed Amount
    - Percent of Quota Closed (= (ClosedAmount/quotaAmount) * 100)
    - Pipeline Amounts (one for each Opportunity Stage - stageEnumId)

Estimates

These estimates are based on implementation of the described functionality using the general patterns and tools available in OFBiz. The intent is to make all functionality available to the user in an accessible way, but not to make it look/feel in exactly a certain way. The estimates include time for one round of feedback for each item to make simple changes. More complex changes may require more time than is estimated here. The look and feel is a good example of that and can be improved iteratively once the basis artifacts are in place.

The hour estimates here are fairly rough based on an approximate complexity of various items, and given that there are many items here with similar complexity estimates are done based on those groups of items. For some particular items the estimate may be high, and for others it may low, and the hope is that for each group the accuracy will be better than per item, and for the project in general as well as some groups may end up being more or less complex than estimated. In other words, taken out of context the estimates do not have as much meaning.

The estimates also assume the work is done by someone that is familiar with the OFBiz tools and existing business artifacts, and that is familiar with the CRM subject matter described here and the particulars of this design and plan.

- 10 entities to modify (plus review of services/forms/etc) @ 1hr each
- SIC seed data (adjusted hourly estimate based on help from our technical writer who has done this sort of thing before and who we pay quite a bit less than an engineer) @ 6 hrs total
- 7 new entities plus corresponding services and other general artifacts (2 primary entities and one set of 5 secondary entities) @ 3 hrs each
- Documents (Content) improvements including browse and search (filtered by permissions), upload, download/view, etc; this is a very rough estimate and more detailed designs and how they related to what already exists in OFBiz will have to be done; some improvements in this area are underway and if timing works out or does not work out it may increase or reduce this estimate; 24 hrs total
- 8 special find pages to primary items @ 5 hrs each

- 8 special create/update (edit) pages @ 3 hrs each
- 5 + 10 + 10 + 1 + 6 + 2 + 1 + 7 + 4 = 46 secondary items/screens @ 2 hrs each
- 9 home/summary screens @ 8 hrs each
- ~6 special services for duplication, maintenance, etc @ 4 hrs each
- Public facing lead capture pages @ 4 hrs total
- Lead assignment rules (fairly rough estimate as more details are needed) @ 12 hrs total

That brings us to a total estimate of 329 hours.