Variance InfoTech Pvt Ltd

www.varianceinfotech.com

Telecommunication CRM Implementation

White Paper

COVER LETTER

CRM for Telecommunication Industries

This document contains Case study on various implementations of CRM for Telecommunication industries. Variance has an experience of more than a decade in offering CRM to Telco, Fiber Network, GSM, MVNO , MVNE platform.

OVERVIEW

This document is aimed to showcase implementation of CRM of various nodes of telecommunication industries.

ABOUT Variance

We are a Technology Consulting company with expertise on Enterprise Softwares offering Development, Integration, Business Process Management and Implementation with Training.

With the growing Team of 75+ we have built our expertise in Industry specific solutions. We help Enterprises and Entrepreneurs to stay ahead in their markets by enabling their business with the right technology.

Our well defined processes and proactive approach helped us deliver on schedule with the best time and cost combination to our clients.

Variance having Dedicated 40+ Team member working on CRM for the industry verticals

We passionately enjoy helping

Startups and **MSMEs**

to **Market leaders** and **Large Corporates**

in making them *Tech Enabled*

OUR ASSOCIATIONS

- Active member of GESIA (Gujarat Electronics and Software Industry Association)
- Member of Microsoft Programmer community
- Active member of vTiger and Sugarcrm Forum

ACHIEVEMENTS

- Successfully completed 50+ Software project
- Best Supplier recognition for CRM Implementation from an American (US) corporate.
- Successfully implementation of Scrum methodology for quality software development

ACRONYMS AND DEFINITIONS

- SRS - **S**oftware **R**equirements **S**pecifications
- TSD - **T**echnical **S**pecifications **D**ocument
- TBD - **T**o **B**e **D**iscussed
- PMP - **P**roject **M**anagement **P**lan
- WFD - **W**ire**F**rames **D**ocument
- CRUD - **C**reate, **R**ead, **U**pdate and **D**elete

Telecommunication Work and Case Study

## Case Study # 1 : CRM for Botswana Fiber Networks

Customer :   BOFINET   (**https://www.bofinet.co.bw/**)

Project Duration : 6 months

Team Size : 10 members

Project Overview : Implementation of CRM module will support the Sales and the Ordering process, establishment of the Customer Organization, Lead and opportunity Management, Customer Order management, Customer Contact, Information management and Trouble Ticketing module

Implementation Flow :
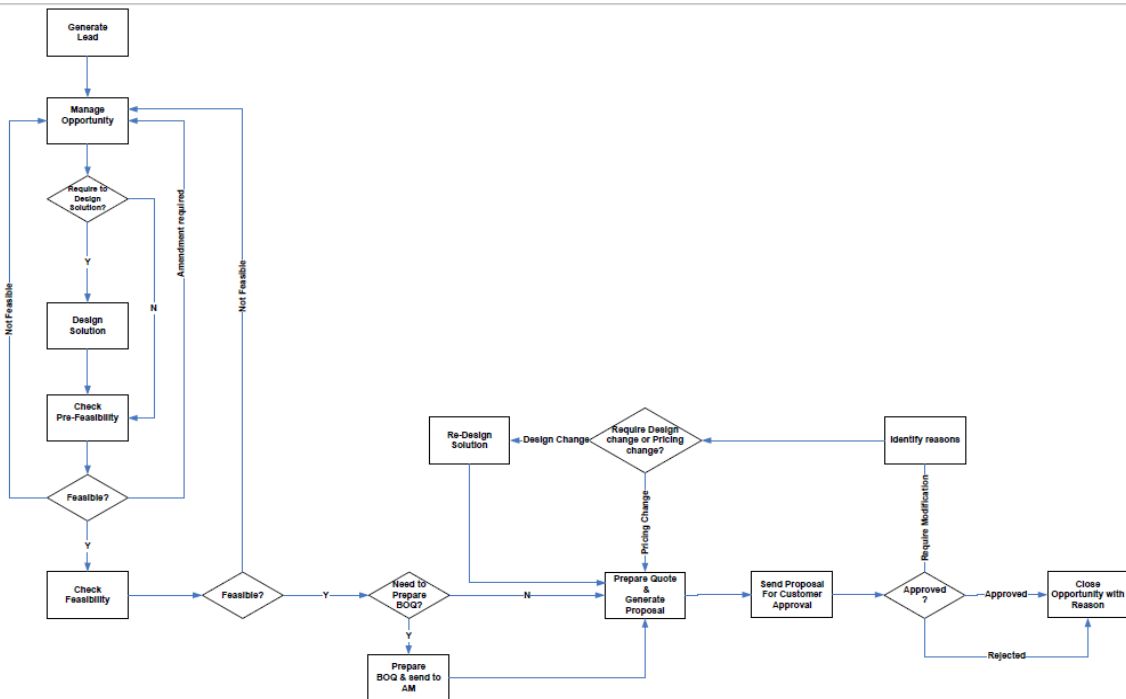
Features & functions :
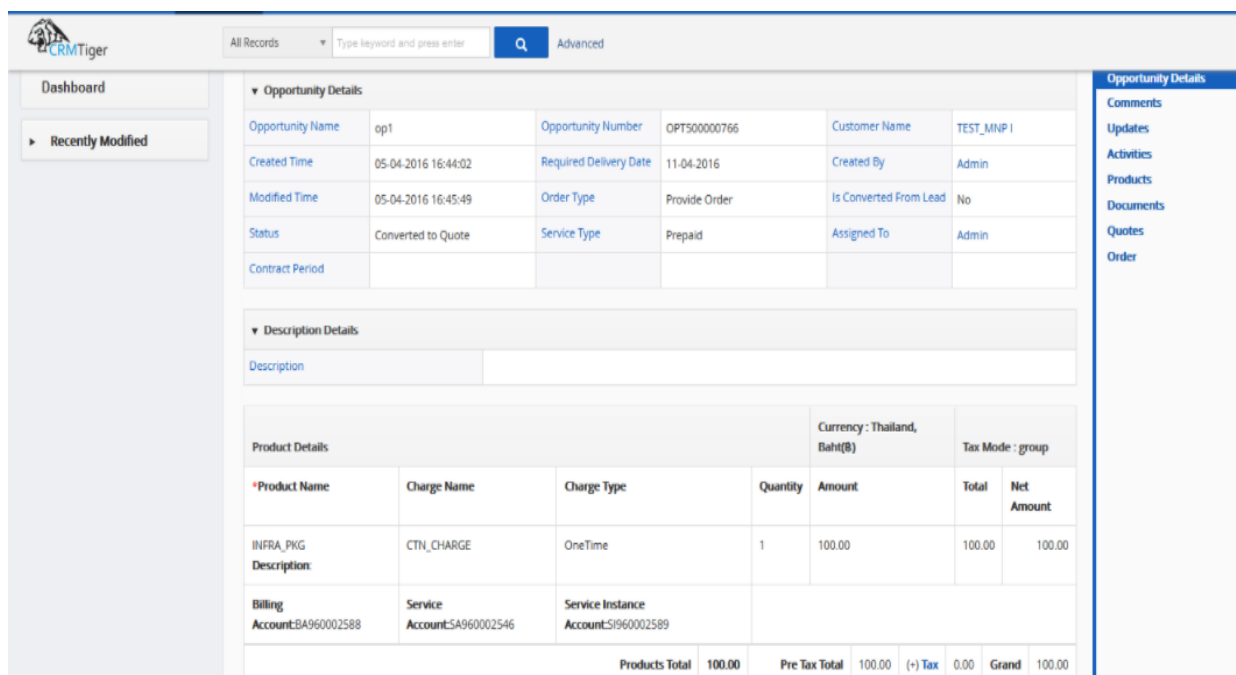
Customer 360 degree view
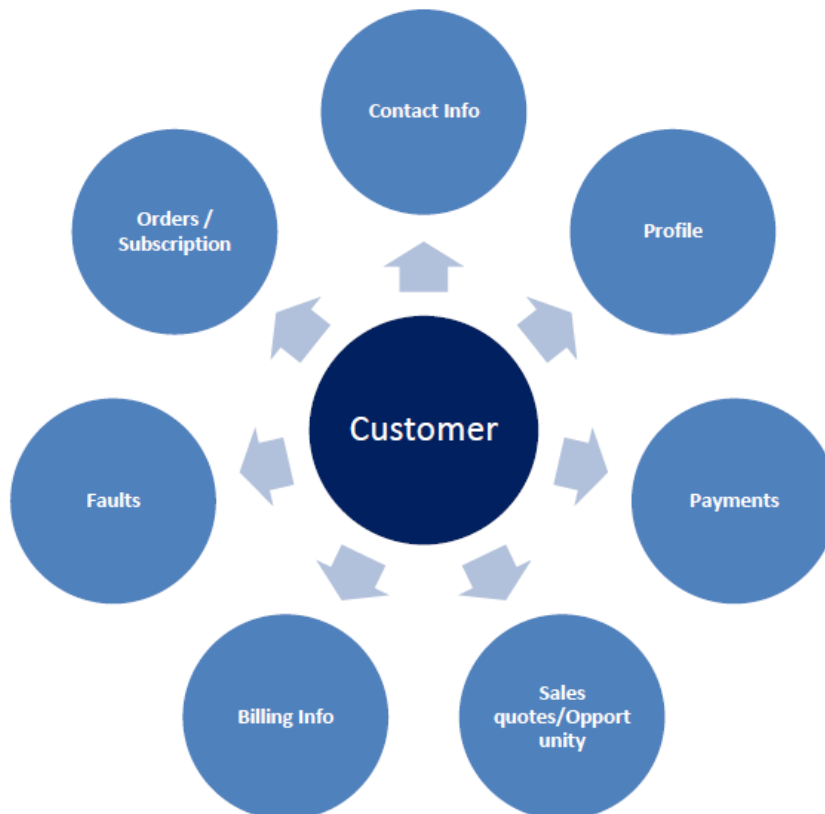
Key Features :

- **Lead Management**
- **Opportunity Management :** different status of the Opportunity needs to be maintained which will be configurable
- **Solutioning :** solution design based on the products selected in the opportunity offline
- **Feasibility :** products captured as part of the opportunity details would flow in to the NOC team to do the pre-feasibility check
- **Quote & Proposal Generation :** Account manager would have an option to prepare the quote which would have product details along with the charges such as One Offs, Recurring/non Recurring, and Discount etc.
- **Customer Order Management :** All the required information would automatically flow to the order entry screen post conversion of opportunity to an order
- **Modify Order :**
  - Upgrade/Downgrade – request to change bandwidth on the installed product.
  - Transfer within premise – In this scenario when customers request to shift within the same premise or the building, this order sub type would be selected.
  - Transfer within City – When a customer requests to transfer the current site location to a new location within the city limit, this order type would be selected.
  - Transfer outside City – When customer request to transfer the current site location to a new location outside the city limit, this order type would be selected
- **Order Validation and Order Booking :** CRM will create one Validation request for one Order.
- **Customer Order Life Cycle management :** CRM would manage the overall customer order life cycle

- **CRM Report List**
  - Account Manager wise sales pipeline
  - Source Wise Leads Generated Daily/monthly
  - Total Opportunities Created Daily/Monthly
  - Lost Opportunity
  - Lead not converted into Opportunity
  - Total Order Generated Daily/Monthly
  - Daily Sales Report
  - Out of the Box report

- **CRM Integration with API**
  - PLM Module
  - Billing Module
  - OSS – Provisioning module
  - SMS Gateway
  - Email Gateway

Screens :

Case Study # 2 : CRM for GSM Provider from Thailand

Customer :   (**https://www.cattelecom.com/**)

Project Duration : 1.5 Year

Team Size : 20 members

Project Overview : CRM module will support the Sales and the Ordering process, establishment of the Customer Organization, Lead and opportunity Management, Customer Order management, Customer Contact, Information management and Trouble Ticketing module for Prepaid and Postpaid business for Retail & Enterprise segment

The CRM system should support multi-tenancy features. The business model is MVNE (network Operator) and MVNO (the franchises). The data of one MVNO should not be accessible to another MVNO though MVNE can see data of all the MVNOs

It should also support multilingual (local Thai)

Key Feature :

- **Customer life cycle management**
  - Registered - Assign 'Registered' status to newly created account when inventory is not associated
  - Active - Activate account when an account is ready for service usage after inventory association
  - In-Active – Account is inactive
  - Suspend- Temporarily suspend either customer requested or due to non-payment
  - Terminate – Account terminated either customer requested or due to non-payment
  - On-Hold – System should allow to hold the order for a specific reason
- **Customer escalation management**
- **Automation of business letters**
- **Customer management**
  - **Hierarchical representation**
  - **Billed to party**
  - **Lead Management**
  - **Opportunity Management :** different status of the Opportunity needs to be maintained which will be configurable
  - **Quote & Proposal Generation :** Account manager would have an option to prepare the quote which would have product details along with the charges such as One Offs, Recurring/non Recurring, and Discount etc.
- **Customer Order Management :** All the required information would automatically flow to the order entry screen post conversion of opportunity to an order
- **Modify Order :**
  - Upgrade/Downgrade – request to change bandwidth on the installed product.
  - Transfer within premise – In this scenario when customers request to shift within the same premise or the building, this order sub type would be selected.
  - Transfer within City – When a customer requests to transfer the current site location to a new location within the city limit, this order type would be selected.
  - Transfer outside City – When customer request to transfer the current site location to a new location outside the city limit, this order type would be selected
- **Order Validation and Order Booking :** CRM will create one Validation request for one

Order.

- **Customer Order management :** CRM has the following order management feature for GSM service providers.

Sr. #	Type of Order
1	New Device - Phone, Dongle (Pre/Post) Postpaid & Prepaid
2	New Service with MNP Port In Request Postpaid
3	Direct Debit Account Association Postpaid
4	Provide Additional Service/No under same account Postpaid
5	Provide Service with activation of IDD ServicewithDeposit Postpaid
6	Provide Service with activation of IDD ServicewithNoDeposit Postpaid & Prepaid
7	Provide Service with Data activation Postpaid & Prepaid
8	Provide - Activation of Self Care feature Postpaid
9	Provide VAS Service (Data, RBT, Audio Text, SMS (Vote/Announcement)) Postpaid & Prepaid
10	Provide Black Berry Services Postpaid & Prepaid
11	Call barring/unbarring of specific Nos in Bulk for an account Postpaid & Prepaid
12	Activation/ Pre-provision of SIM delivered to Dealers/retailers Postpaid & Prepaid
13	Block/Unblock IMEI Phones Postpaid & Prepaid
14	Prepaid Registration Process Prepaid
15	New Prepaid service activation - Starter Kit Prepaid
16	Create Shared Balance Group Prepaid
17	Sell E-Voucher/paper voucher Prepaid
18	Add CUG Plan Postpaid & Prepaid
19	Add FnF plan Postpaid & Prepaid
20	Add Add On Package/Plan Postpaid & Prepaid
21	Activation of IDD (if it not default activated) Postpaid & Prepaid
22	Activation of Roaming services(National/International) Postpaid & Prepaid

23	Block/Unblock IMEI Phone Postpaid & Prepaid
24	Return/Replace/Scrap SIM Cards Postpaid & Prepaid
25	Provision of MNP _port in Postpaid & Prepaid
26	Add/Remove DND service Postpaid & Prepaid
27	Change Plan/package Postpaid & Prepaid
28	Remove Add On Package/Plan Postpaid & Prepaid
29	Payment against Invoice and receipt generation Postpaid
30	Advance Payment and receipt generation Postpaid
31	Deposit and receipt generation Postpaid
32	Number & SIM Management Postpaid & Prepaid
33	Add/Remove DND service Postpaid & Prepaid
34	MNP Port Out Request Postpaid & Prepaid
35	Raise on Demand Bill Postpaid
36	Create Adjustments Postpaid
37	View Adjustments Postpaid
38	Override Credit Limit Postpaid
39	Bind Inventory Postpaid & Prepaid
40	Change Plan Priority Postpaid & Prepaid
41	View Account Statement Postpaid
42	Takeover (Change of Ownership) Postpaid
43	Block Handset/device Postpaid & Prepaid
44	Pre to Post Conversion and Vice Versa Postpaid & Prepaid
45	Change/Drop CUG Group Postpaid & Prepaid
46	Change/ Remove FnF Postpaid & Prepaid
47	Remove Shared Balanced Group Postpaid & Prepaid
48	Modify Direct Debit Account Association Postpaid
49	Modify CUG Plan/Remove from CUG group Postpaid & Prepaid
50	Modify FnF Plan/List Postpaid & Prepaid
51	Modify Customer Data like Address , Contact details, billing details, emaild Postpaid & Prepaid

52	SIM Replacement (SIM Number Change (Sim Swap/SIM lost/stolen)) Postpaid & Prepaid
53	Conversion of Post to Pre and vice versa and adjustment pending unpaid amt Postpaid & Prepaid
54	Billing Cycle Postpaid
55	Customer Category (say Entp to Retail or Govt to Internal) Postpaid
56	Modify Contracts on Service/ Customer Level Postpaid
57	Cancel IDD Service Postpaid
58	Blackberry Plan add/change/remove Postpaid
59	Outgoing Barring/Unbarring of Post Paid Subscriber Postpaid
60	Activation of IR - International Roaming /National Roaming Postpaid
61	Itemisation of Bill Postpaid
62	Override Charges (like Penalty, One Time Charges) Postpaid
63	Activation of 3G Postpaid
64	Cancel the Provide Order (at some stage) Postpaid
65	Cancel the Modify Order (at some stage) Postpaid
66	Suspend the Service Postpaid
67	Reactivate the Service Postpaid
68	Cease the Service/Subscriber Postpaid
69	Cease Black Berry Services Postpaid

- **Customer Order Life Cycle management :** CRM manage the overall customer order life cycle
    - Post entry validation
    - Configurable order status
    - Unique order ID generation
    - Various POSTPAID/PREPAID requests such as
        - Service activation
        - Call barring
        - VAS
        - SIM provisioning/replacing
        - CuG

- ■ FnF
- ■ Roaming Domestic and International
- ■ Payments/Advance/Deposits
- ■ Pre-to-post conversion
- ■ Suspend/reactivate
- **Customer Contact management**
- **Customer 360 degree view**
- **Information management/KB engine**
- **Campaign management**
  - ○ **Marketing list**
  - ○ **Notification via SMS/email**
  - ○ **Promotions**
  - ○ **Reporting**
- **User role management**
- **CRM Report List**
  - ○ Account Manager wise sales pipeline
  - ○ Source Wise Leads Generated Daily/monthly
  - ○ Total Opportunities Created Daily/Monthly
  - ○ Lost Opportunity
  - ○ Lead not converted into Opportunity
  - ○ Total Order Generated Daily/Monthly
  - ○ Daily Sales Report
  - ○ Out of the Box report
- **Trouble tickets management**
- **CRM Integration with API**
  - ○ Crestel Partner/MVNO Portal
  - ○ Crestel BSS Platform
  - ○ Crestel Work Order Management
  - ○ Crestel PLM
  - ○ Crestel PLM
  - ○ Crestel LnR
  - ○ Crestel LnR

Case Study # 3 : CRM for 24Online Service Management System

Customer : (http://www.24onlinebilling.com)

Project Duration : 6 months

Team Size : 10 members

Project Overview : CRM is an organised approach utilised to manage user's details and evaluate customer interactions throughout their lifecycle. CRM system is designed to compile complete information of customers in to a single database useful for tracking workflow performance and business productivity

Key Feature :

- **User integration**
    - Search user
    - User migration through CSV
- **Trouble ticketing management**
    - **Support engineer details**
    - **Ticket life cycle**
    - **Issue category**
    - **Ticket status management**
- **Reports**

Case Study # 4 : CRM for GSM Provider from Thailand

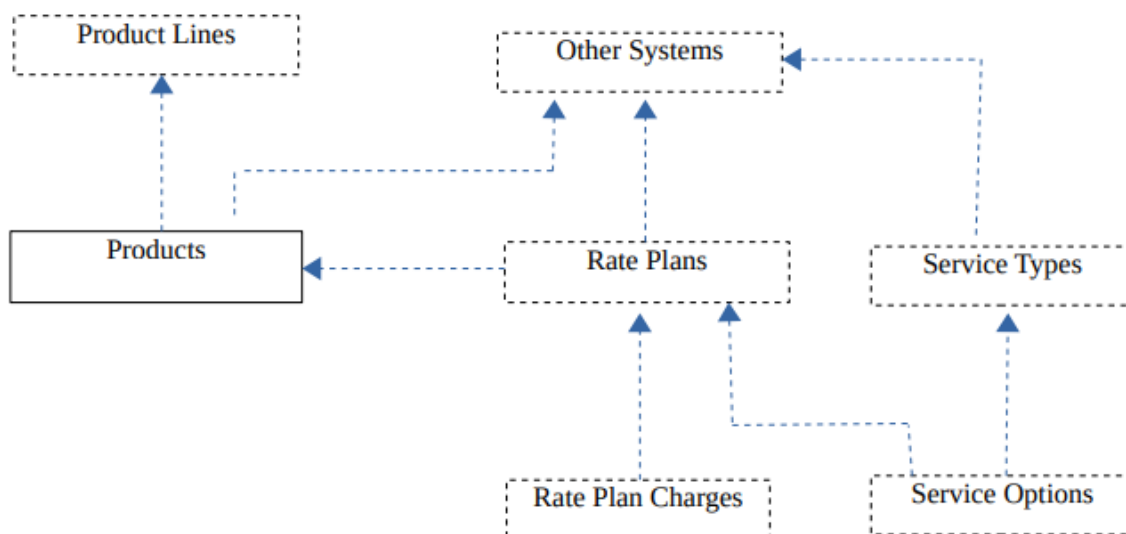**Customer :**   (**https://www.ipnxnigeria.net/**)

Project Duration : 6 months

Team Size : 12 members

Project Overview : Implementation of CRM for VOIP Telephony and Internet service provider having Integration with Billing System.

Data Model

Key Features :

- **Lead Management**
- **LDAP Integration**
- **SMS/Email Integration**
- **Call centre integration with Elastix (an asterisk implementation)**
    - Click to call from CRM to Leads and Contacts
    - Incoming call from any lead or contact's number will open that record in detail view
    - In an incoming call does not match with any of the Leads or Contacts in CRM, it will open a new Lead form to save data related to the new number
- **Live Chat Integration**
- **Customer Satisfaction Survey tracking**
    - a feedback mechanism that can be triggered manually or automatically
- **Customization of Product catalogue to address the full range of ipNX's services portfolio**
    - **Products in ipNX tend to be 'services' that people or organisations subscribe to, rather than physical items that they purchase.**
    - **Integrate Product with various system**
        - Voice, Data and Public/Managed Wi-Fi service plans on Freeside (Retail) Billing system
        - Point-to-point and Mult-point links for Enterprises on Freeside (Enterprise) Billing system
        - Email, domain and website hosting service plans on WHMCS
        - Event Wi-Fi

- **Freeside System Integration :** for seamless access to information on Freeside (open source billing system) such as service plans, telephone call rates, service accounts, payment records, billing records, call detail records, data usage records
- Integration with core billing systems, Freeside (Retail) & Freeside (Enterprise), for 360 degree view of our most important customer relationships
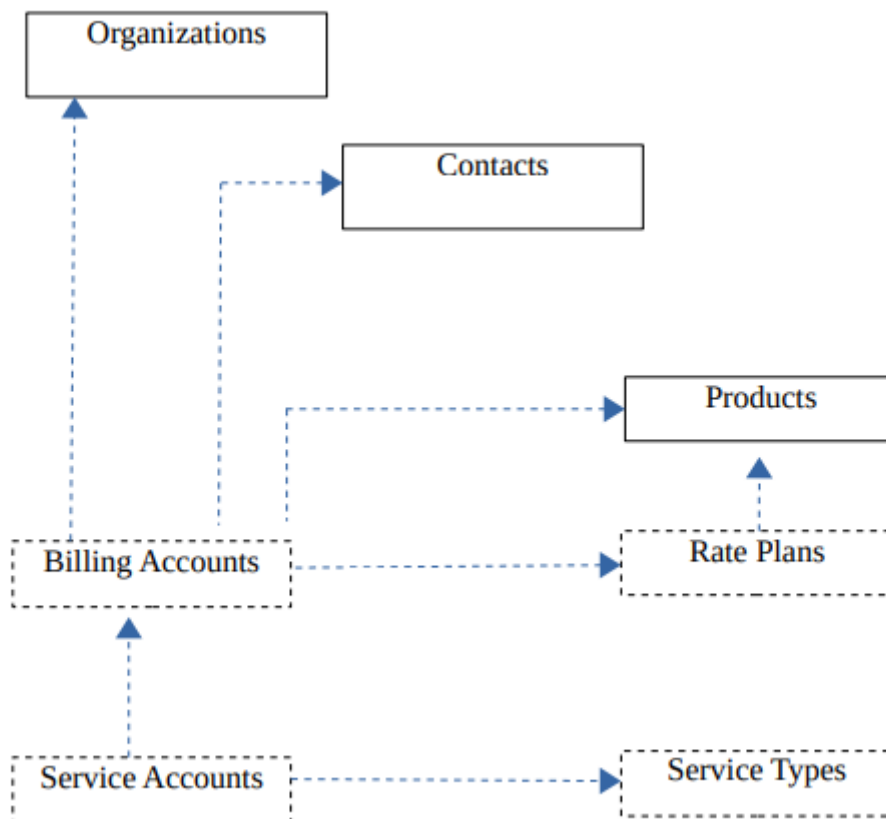
Development Methodology

Being certified professional stands as testimony to our commitment to our development methodology. For this project, we propose to follow the Agile Methodology.

In the Development Migration and Integration phase, we'll be using the Scrum methodology for Agile development with details below:

Application development, using Scrum, occurs in small pieces, with each piece building upon previously created pieces. Building applications one small piece at a time encourages creativity and enables teams to respond to feedback and change, to build exactly and only what is needed.
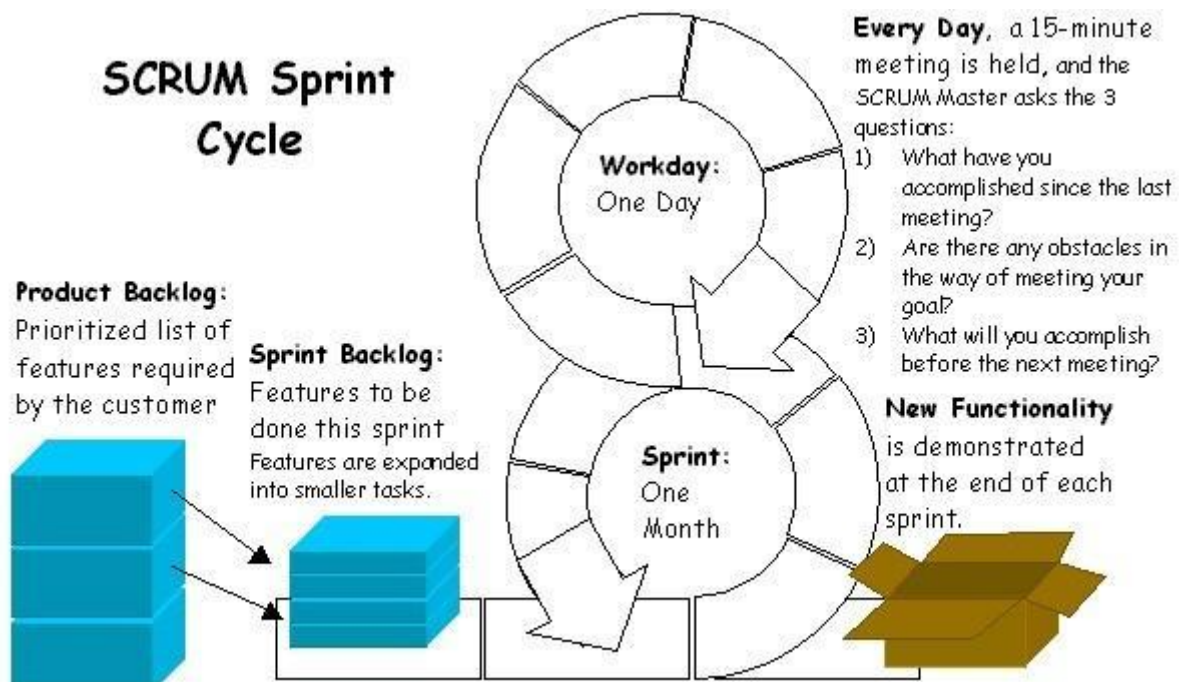
Sprints: Short development process – Each phase is divided in small sprint of 4 to 5 days.

Stand up meeting: Daily 15 minutes internal meeting status of the work to be done that day, progress from the day before, and any blocks that must be cleared

Scrum Master: The Scrum Master is the person responsible for managing the Scrum project

Sprint backlog: Sprint backlog is the list of backlog items assigned to a sprint, but not yet completed.

Burn down chart: This chart, updated every day, shows the remaining work within the sprint. The burndown chart is used both to track sprint progress and to decide when items must be removed from the sprint backlog and deferred to the next sprint.

Product backlog: Product backlog includes a complete list of requirements.

Quality Control Implementation

- Variance will develop and implement a quality control process designed for the CRM project. This process will work towards a number of objectives:
- Reduction of unanticipated problems
- Streamlined execution
- Rapid resolution of problems that will arise and reduction in the re-emergence of these problems
- Optimal communication among work teams and individual staff
- Frequent checks against overall project quality standards

Testing Methods

Below is a list of types of rigorous testing that are performed by Variance during software projects:
- Unit testing
- Module/Integration testing
- System testing
- Performance testing
- Acceptance testing
- Testing Tools: QA team at Variance use **Selenium** (http://docs.seleniumhq.org/) for automatic testing.
- Variance will provide all the necessary test scenario reports for all the above tests conducted during the course of the project.

Backup and Recovery

Backup Plan

Electricity backup: Variance has a power backup solution integrated with all the computers in our development centre. Variance has a UPS system installed in the development centre to maintain 1-hour battery backup so developers working on the various projects never lose the work.

Source Code backup: Variance have 3 Step backup feature

Step 1: Source code Backup at developer's own computer

Step 2: Source code sync with central server using SVN / Visual source safe.

Step 3: Source code sync with Google Drive / Dropbox to sync central server backup to distributed location.

Source Code Repository

Source is an important asset for any client who asks Variance for software development. Variance use proper source code management tool like SVN (Open source) and Visual Source safe (Licensed version)

Resource Timings

- Allocated resource will work on 10:00 AM IST to 7:00 PM IST
- Working hours: 8 hours a day
- Working Day : Monday to Friday
- Except Public Holidays

IP

Ownership of any work product or output created by Variance in the performance of services under the Statement of Work shall belong to the Client. Such works will be the Intellectual Property of the Client