

# **Operational Concept Description (OCD)**

**SnApp - Voice Communication System**

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# Version History

Date	Author	Version	Changes made	Rationale
10/13/14	NG, SN	1.0	Filled in all sections of the Operations Concept	For use as part of the Foundations Commitment Package
10/17/14	NG,SN	1.1	Updated Program Model and Benefits Chain	Incorporating feedback from ARB

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# 1. Introduction

## 1.1 Purpose of the OCD

The purpose of this document, the Operational Concept Document, is to provide a detailed operational concept in order to achieve the shared vision of the success critical stakeholders listed below. It describes the characteristics of the proposed Voice Communication System from the viewpoint of individuals involved with the system.

The success critical stakeholders for this project are:

- Charles Zivko, CTO of SnApp - Dev
- Colin O'Brien, Company Executive
- Sales agents at SnApp - Dev
- Sales managers at SnApp - Dev
- Team 05 of CSCI577a Fall '14 - Divij Durve, Harsh Mhatre, Khyati Thakur, Monica Varhale, Nikita Gupta, Shlok Naik, Shruti Gotmare, Sushmaja Bondili

## 1.2 Status of the OCD

The status of this document is the initial version during the Valuation phase of the project. It comprises of assessments and designs produced after the win win negotiations and initial prototyping of the project.

## 2. Shared Vision

In order to understand or know what projects or related initiatives are required for program management we create a Program Model as shown below. The model helps in designing and managing programs. Understanding the concept of a program – how it is different from traditional projects and what it brings to them – is the first major step to embarking on the route to effective, proactive benefits management.

The Program Model starts out with five components as shown in the table below.

**Table 1: The Program Model**

<b>Assumptions:</b> The current system is inefficient.			
Stakeholders	Initiatives	Value Propositions	Beneficiaries
<ul style="list-style-type: none"> <li>• Developers</li> <li>• Charles (Admin and Maintainer)</li> <li>• Colin (Head of Sales)</li> <li>• Sales Manager</li> <li>• Sales Agents</li> <li>• Company executives</li> </ul>	<ul style="list-style-type: none"> <li>• Develop system</li> <li>• Train personnel</li> <li>• Detail the analytics metric to be tracked</li> </ul>	<ul style="list-style-type: none"> <li>• Improved time and money savings</li> <li>• Better business insights (because of centralized system)</li> <li>• Improved sales monitoring and performance</li> <li>• Increased revenue/profits</li> </ul>	<ul style="list-style-type: none"> <li>• Sales Agents</li> <li>• Sales Managers</li> <li>• Company Executives</li> </ul>
Cost		Benefits	
<ul style="list-style-type: none"> <li>• System hosting costs</li> <li>• Maintenance costs</li> <li>• Twilio usage costs</li> <li>• Client's time</li> <li>• Developers' time</li> <li>• Training cost</li> </ul>		<ul style="list-style-type: none"> <li>• Agents' time reduced</li> <li>• Consolidated app</li> <li>• Ease of management</li> <li>• Simplified calling and call back</li> <li>• Enabled data analytics</li> </ul>	

## 2.1 Benefits Chain

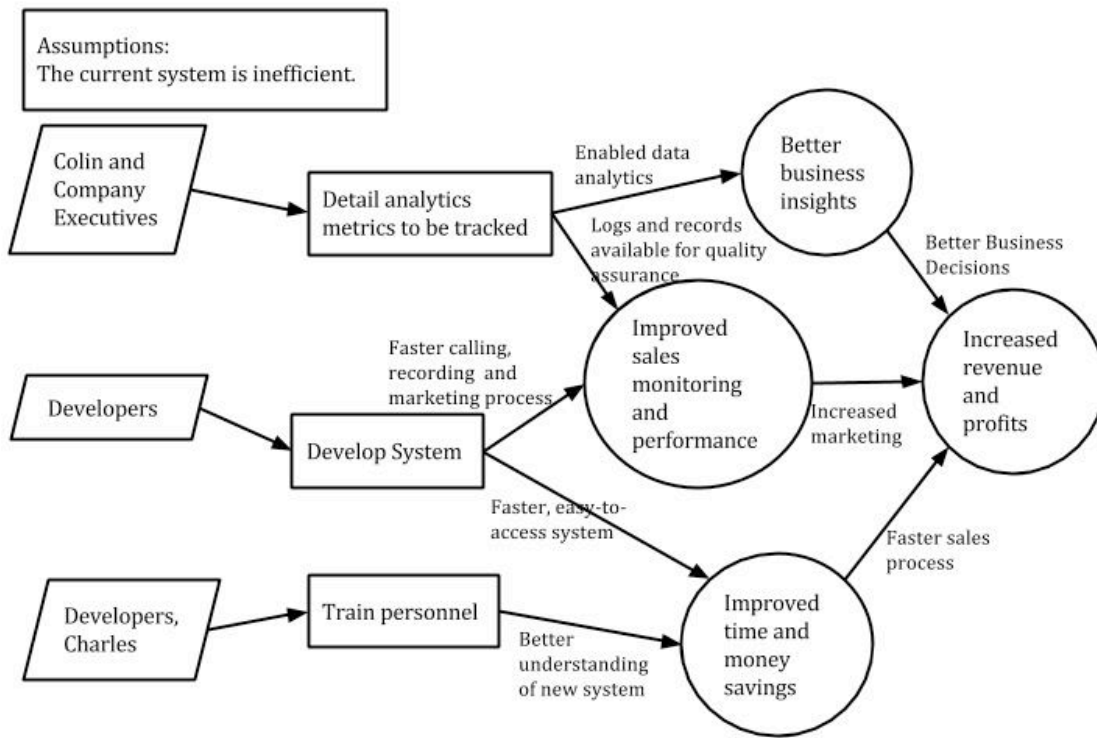


Figure 1: Benefits Chain Diagram for Voice Communication System

## 2.2 System Capability Description

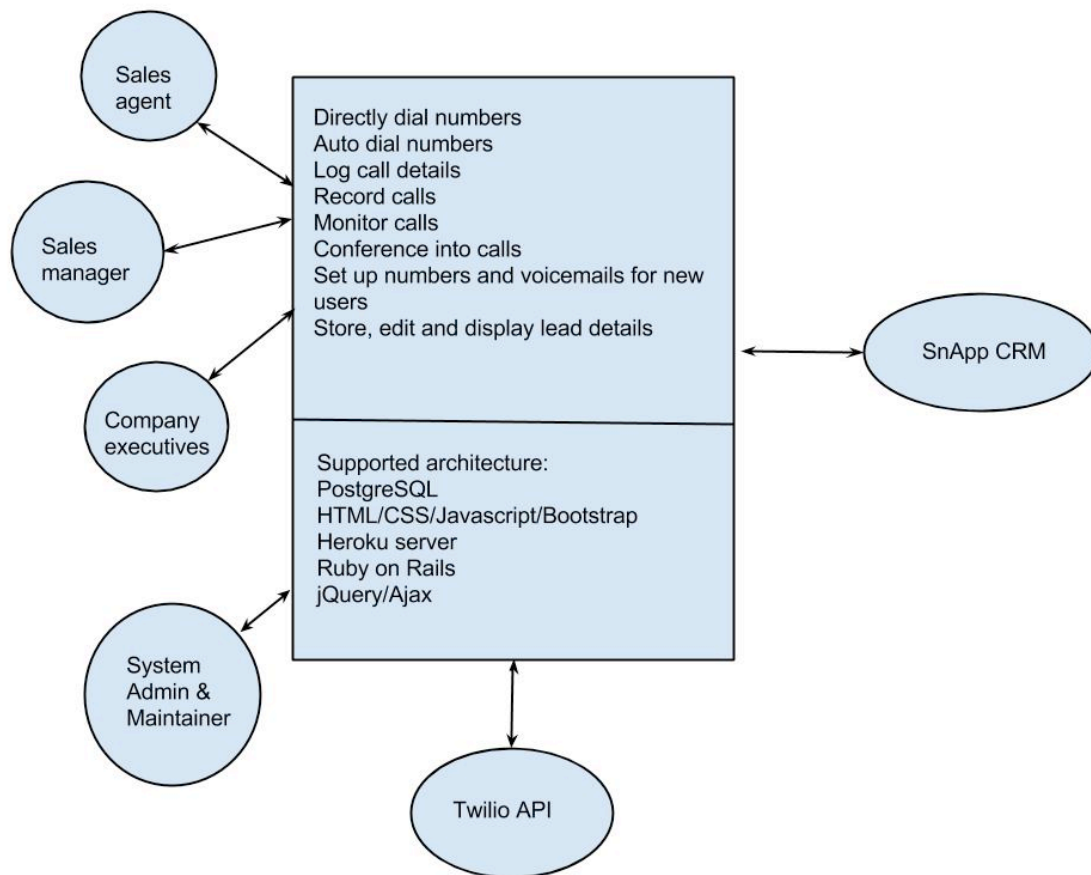
Our project is to develop a voice communication system to be used in-house by the sales team of SnApp-Dev. The voice communication system is an automation and enhancement of the existing system that will lead to increased revenue for the client by providing him with an opportunity to:

- Improve time and money savings
- Obtain better business insights
- Improve sales monitoring and performance

Unlike the current system which is time consuming and scattered requiring more human effort, our system will simplify the workflow of the sales team by integrating all components into one place.



## 2.3 System Boundary and Environment



**Figure 2: System Boundary and Environment Diagram for the Voice Communication System**

## 3. System Transformation

### 3.1 Information on Current System

#### 3.1.1 Infrastructure

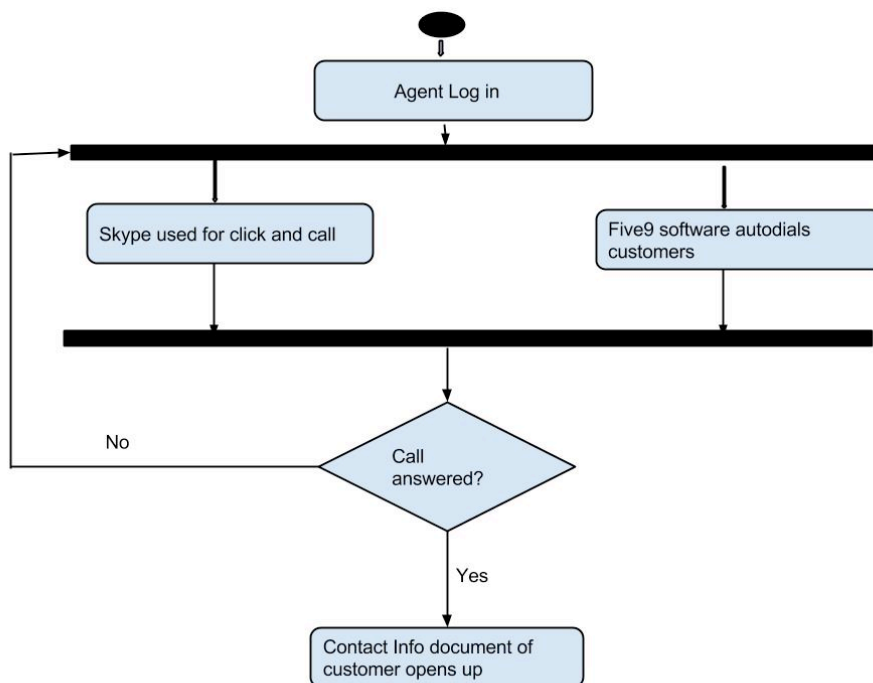
Currently the sales team at the client's organization using multiple systems to address their calling and reporting needs.

- The sales team uses Skype for calling a lead's number directly.
- A sales agent logs into Five9 for auto-dialing from a pool of potential leads.
- Whenever a new agent is added, the organization uses Freedom voice to allot an 800-number and voice-mailbox for the agent.
- Call details are downloaded manually from Skype in CSV.
- An in-house CRM deployed on Heroku is used to store and display details of a lead.

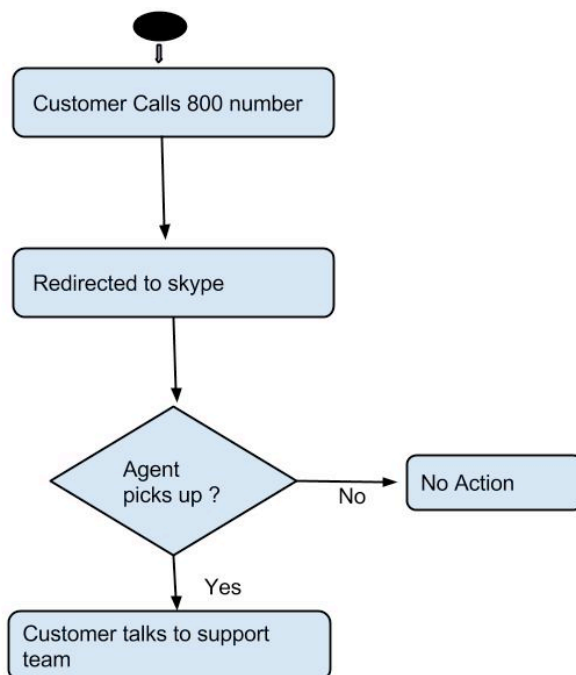
#### 3.1.2 Artifacts

- Requirements Specification - this document will describe the requirements of the system being developed, along with priority levels assigned to each document.
- Design Specification - this will contain the various UML diagrams that will denote the flow of activities, the users & their use cases, the interactions between the different components, the entities & their relationships and the sequence of processes in the system.
- Project plan - This will provide an estimate of the cost and schedule for the project. It will include a detailed plan of the various phases of the project, including a schedule for meetings and deliverables.
- Risk plans - a detailed analysis of all the risks that are identified, their impact and the way to mitigate them.
- Feasibility evidence - this will provide evidence of the progress of the project, including milestones that have been achieved or not achieved.
- System mock-ups - this will provide a prototype of the system and denote the end-user's interaction with the system.
- Test plans - This will provide testing methods and cases to test the system at a component level and at an integrated level.
- User manual - this will document how to use the system and will allow users to get trained in it.
- User profile - the system will generate a profile for each user (sales agent, manager, company executives)
- Lead profile & status - the system will store and provide detailed information about a lead and status updates on his interaction
- Call logs - the system will produce records of call details
- Recordings - the system will provide access to records of past calls
- Personnel mapping - the system will denote a mapping between a sales agent and his manager and between a lead and the agent interacting with him

### 3.1.3 Current Business Workflow



**Figure 3: Current work flow for a sales agent**



**Figure 4: Current work flow for a customer/lead**

## 3.2 System Objectives, Constraints and Priorities

### 3.2.1 Capability Goals

**Table 2: Capability Goals**

Capability Goals	Priority Level
OC - 1: Log call detail information	Must have
OC - 2: Directly dial leads	Must have
OC - 3: Conference into calls	High
OC - 4: Provide voice-mailbox	Low
OC - 5: Auto dial from pool of leads	Very high
OC - 6: Listen to call recordings	Must have
OC - 7: Handle incoming calls	Nominal

### 3.2.2 Level of Service Goals

**Table 3: Level of Service Goals**

Level of Service Goals	Priority Level	Referred WinWin Agreements
<b>Scope:</b> The auto dialer should be able to make 10 simultaneous calls to find an available customer for the agent.	High	WC_3468
<b>Efficiency:</b> The system should be able to route calls within a 2 seconds to an open agent.	Nominal	WC_3467
<b>Scalability:</b> The system should be able to handle 200 simultaneous incoming and outgoing calls.	High	WC_3466

### 3.2.3 Organizational Goals

- **OG-1:** Improve time and money savings
- **OG-2:** Improve sales monitoring and performance
- **OG-3:** Improve business insights via analytics

### 3.2.4 Constraints

- **CO-1:** The system must run on Linux.
- **CO-2:** The system must be deployed on Heroku cloud.
- **CO-3:** The system must use PostgreSQL as the back-end database.
- **CO-4:** Ruby on Rails will be used as the development language and platform.
- **CO-5:** Twilio must be used for enabling calling features.

### 3.2.5 Relation to Current System

**Table 4: Relation to Current System**

Capabilities	Current System	New System
Roles and Responsibilities	The current system has only the role of a sales agent.	Along with a sales agent, the new system will provide roles for sales managers and system admin (maintainer).
User Interactions	The current system requires the user to interact with multiple different applications.	The new system will provide the user with different screens to interact with the system for different functionalities.
Infrastructure	The current infrastructure for the system comprises of Skype, Five9 and Freedom Voice.	The new infrastructure will consist of the Voice Communication system built using Ruby on Rails and hosted on Heroku server that integrates with the SnApp CRM and the Twilio API.
Stakeholder Essentials and Amenities	Sales agents use the current system to click-to-call, autodial, setup account and download logs.	Sales agents, sales managers and system admins will use the new system to make calls, autodial, monitor and record calls, log call details, update lead information, and conference into calls.
Future Capabilities	N/A	Company executives can use the new system to gain better business insights by analyzing data.

## 3.3 Proposed New Operational Concept

### 3.3.1 Element Relationship Diagram

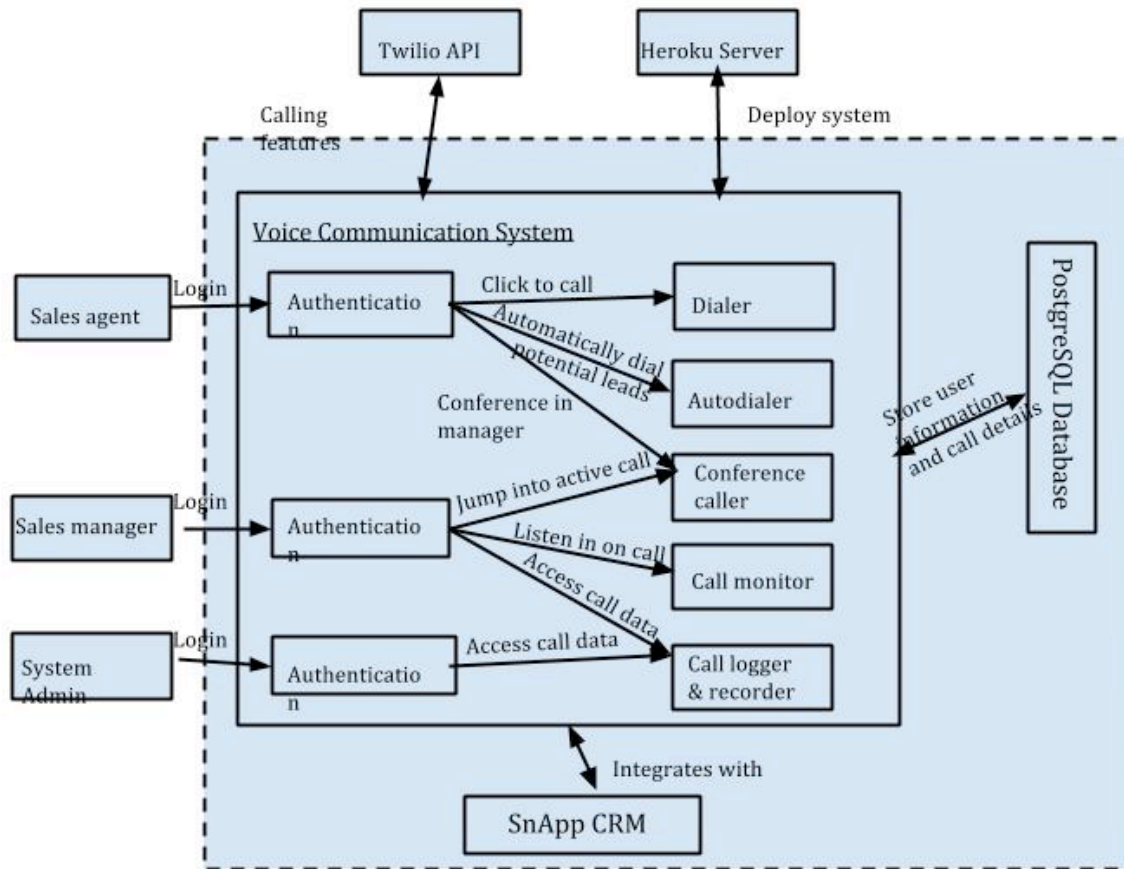


Figure 5: Element Relationship Diagram

### 3.3.2 Business Workflows

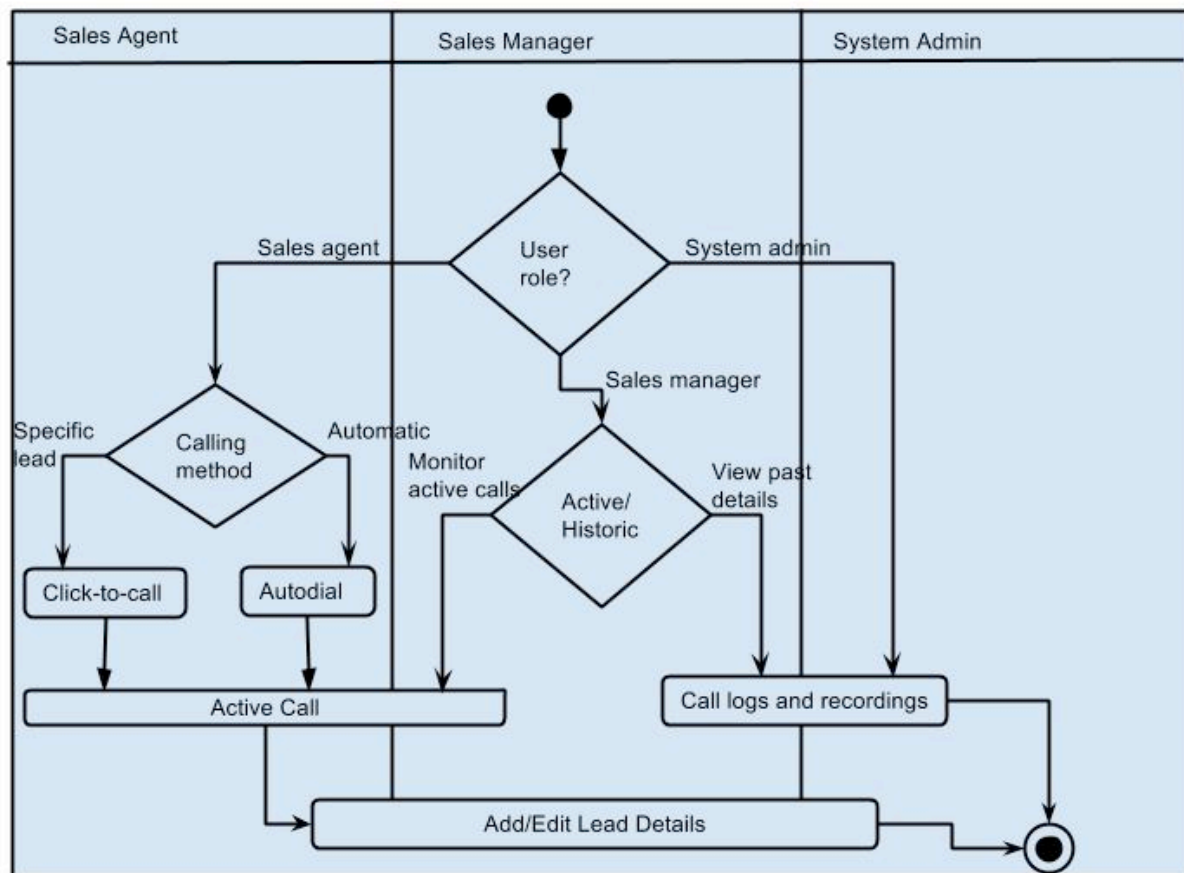


Figure 6: Business Workflow Diagram of Voice Communication System

## **3.4 Organizational and Operational Implications**

### **3.4.1 Organizational Transformations**

- The need to assign a new system maintainer role to take care of the system.
- The need to assign sales agents to sales manager to moderate agent call logs and conference in when required.
- The need to assign sales manager privileges to listen in and view sales agent calls.
- The need to integrate CRM using Twilio API to consolidate prior distributed systems.
- The need to deploy VCS on Heroku Cloud.

### **3.4.2 Operational Transformations**

- VCS will become a new portal for the sales agents to ascertain the client requirements
- Members will have benefit of viewing the call logs and recordings for each Calls made to Leads and monitor the calls.
- VCS will be integrated with the in-house Client-developed CRM.