

IBM NALAIYATHIRAN PROJECT **REPORT**

Domain: CUSTOMER CARE REGISTRY

**Title: CUSTOMER'S PREFERRABLE
CHANNEL FOR COMMUNICATION**

Submitted by

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1.INTRODUCTION

Communications, a channel is the means of passing information from a sender to a recipient. Determining the most appropriate channel, or medium, is critical to the effectiveness of communication. Channels include oral means such as telephone calls and presentations, and written modes such as reports, memos, and email. Think of customer communication as a person's journey from one place to another. Depending on why the individual is going to the destination, their route will vary. Going to the shopping center for an urgent errand? Take the shortest route. Visiting the store just to browse the collection and kill some time? Might take the longer, scenic path. The same principle applies to the relationship between the purpose of the conversation and the communication channel. According to this survey, 49% of people prefer getting notifications over text messages while 53% of customers contact brands via email for appointment management. When it comes to getting answers to their questions, 45% of customers prefer talking to an agent. For the self-service type of interactions, 48% of customers would rather go for the online chat option. So, the communication channel preferences of customers are often dictated by the purpose of the interaction. The solution lies in using different complementary channels like calling, texting, and email to foster a seamless communication process that presents customers with multiple conversation avenues well-suited for specific purposes.

1.1 PROJECT OVERVIEW

- Many of the consumers say they now expect companies to provide good customer service on more than one communication channel.
- 53% of customers email brands to make appointments, compared to 49% who prefer to receive updates over text messages. 45% of customers say that

speaking with an agent is their preferred method of getting their questions answered. 48% of clients prefer to use the online chat option for self-service interactions.

- Customers' preferences for communication channels are thus frequently determined by the interaction's goal

1.2 PURPOSES

- In customer care, The customers are allowed to use the channel which was preferred by them
- But here, the customer cannot communicate on their preferred channel.
- A lapse in communication would erode the trust relationship, Customer feel dissatisfied.
- They doesn't have the comfort to ask their questions.
- Customer will not feel satisfied until they uses the preferred channel for their communication
- For these purposes ,our project has established the idea.

2. LITERATURE SURVEY

1. **“Event Detection Using Customer Care Calls”** was proposed by Yi-Chao Chen, Gene Moo Lee , Nick Duffield, Lili Qiu, Jia Wan in the year of 2013. By using Regression Approach,the evaluation based on the call records collected from a large cellular provider in US, we show that our method can achieve 68% recall and 86% accuracy, much better than the existing schemes. Moreover, we show that social media can be used as a complementary source to get higher confidence on the detected anomalies and to summarize the user feedback to anomalies with text and location information

2. **“Opportunities and Challenges of Applying Omnichannel Approach to Contact Center”** was proposed by Ruben Pieck, Dijana Peras, Renata Mekove, in the year of 2018. By using the Omnichannel Approach ,the need to define the omnichannel approach to contact centers is more than clear. The main drivers of omnichannel contact center development are technology evolution and changes in customer requirements and expectations. However, to establish it in company could be unexpectedly difficult.
3. **“Intelligent Decision Making and Planning for Call Center”** was proposed by Owais Rashid, Ali Mustafa Qanmar, Sharifullah Khan, Sadaf Ambreen in the year of 2019.By using this technique 3R (Right data to the right CSRat the right time, The idea of using data intelligently in outbound call centers to increase the revenue along with decreasing the expenses. Based on this idea, an automated system can be built in the future. If the steps proposed in our solution of analyzing data and applying filters can be automated, then companies can design smart dialing strategies. This would help increase the revenue by utilizing minimum resources in terms of data, headcount and dialing time.

2.1 EXISTING PROBLEM

- A comprehensive review of the existing literature, knowledge of the extent to which mobile channels influence consumers shopping behavioral patterns will help managers to know how to manage each channel and eventually how to meld them in providing the seamless consumer shopping experience.

2.2 REFERENCES

- <https://www.statflo.com/blog/communicate-with-customers-over-preferred-channels>
- <https://segment.com/recipes/customer-engagement-preferred-communication-channels/>
- <https://www.intercom.com/blog/customer-service-chatbots/>

2.3 PROBLEM STATEMENT DEFINITION

- Many of the consumers say they now expect companies to provide good customer service on more than one communication channel.
- 53% of customers email brands to make appointments, compared to 49% who prefer to receive updates over text messages. 45% of customers say that speaking with an agent is their preferred method of getting their questions answered. 48% of clients prefer to use the online chat option for self-service interactions.
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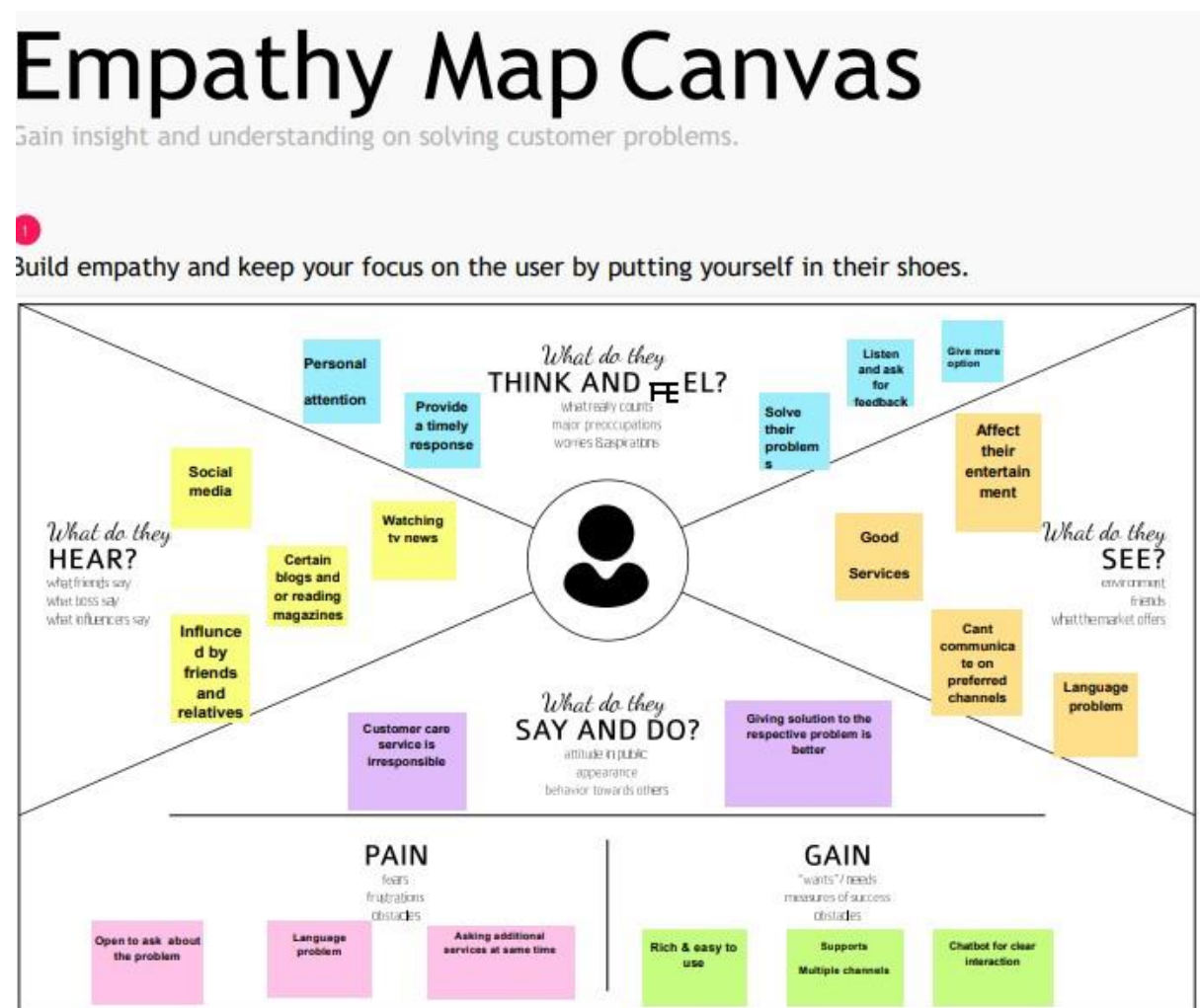
3. IDEATION & PROPOSED SOLUTION

1. Fresh desk is a cost-effective customer support software designed for the small and medium-sized enterprises that require a cost-effective yet fully functional help desk to provide seamless customer support. It allows companies to prioritize, organize and manage all customer requests without increasing workforce or operational costs. Chat bots are increasingly present in businesses and often are used to automate tasks that do not require skill-based talents. With customer service taking place via messaging apps as well as phone calls, there are growing numbers of use-cases where chat bot

deployment gives organizations a clear return on investment. Call center workers may be particularly at risk from AI-driven chat bots

2. A chat bot or chatter bot is a software application used to conduct an on-line chat conversation via text or text-to-speech, in lieu of providing direct contact with a live human agent. Fresh desk provides tools for marketing automation to simplify support, builtin gaming mechanics to increase agent productivity, and robust multichannel capabilities to extend user reach. The award-winning platform features customer-facing capabilities, such as self-service portals and knowledge bases, that help companies strengthen their customer service effort

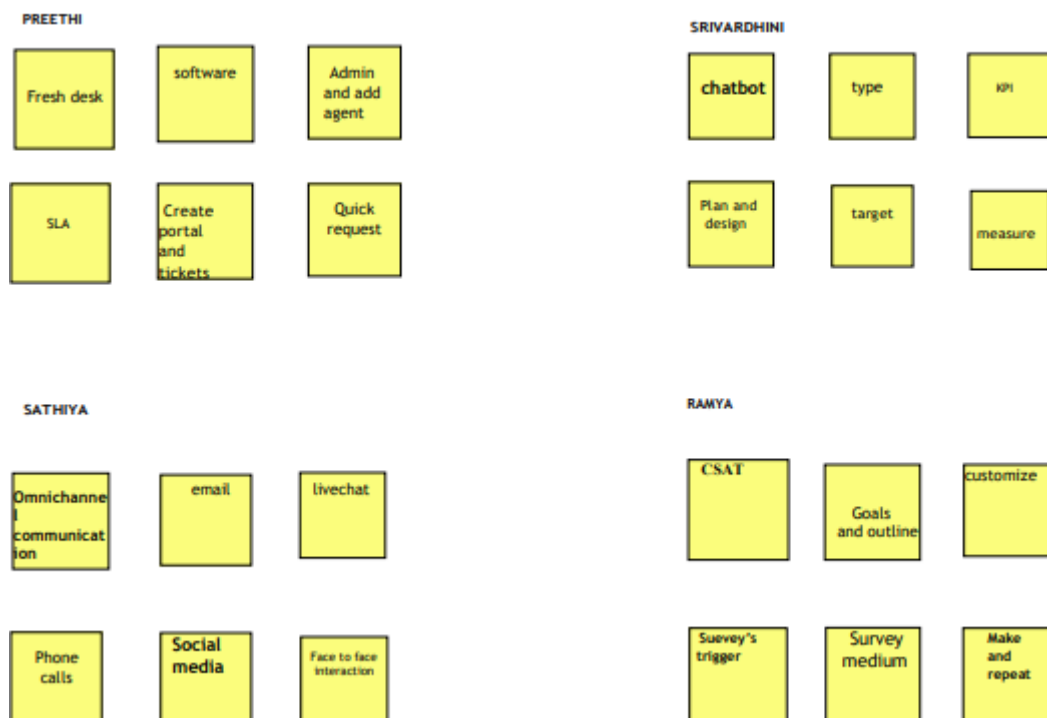
3.1 EMPATHY MAP CANVAS



3.2 IDEATION & BRAINSTORMING

- Fresh desk creates a convenient environment for your users and support staff. Your clients can use a simple self-service option, while your agents can solve more tickets in a short period of time. This lets you reduce the burden on your employees and boost customer satisfaction. Human-like chat bots lead to greater satisfaction and trust among customers, leading to greater adoption of the chat bot. The results of this study showed that a connection between chat bots and customer loyalty is very likely. Besides, some customers suffer from the privacy paradox because of personalization

➤ BRAINSTORMING



3.3 PROPOSED SOLUTION

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3.4 PROBLEM SOLUTION FIT



4. REQUIREMENT ANALYSIS

The major requirement of analysis is classified into two categories

- **FUNCTIONAL REQUIREMENT**
- **NON-FUNCTIONAL REQUIREMENT**

4.1 FUNCTIONAL REQUIREMENT

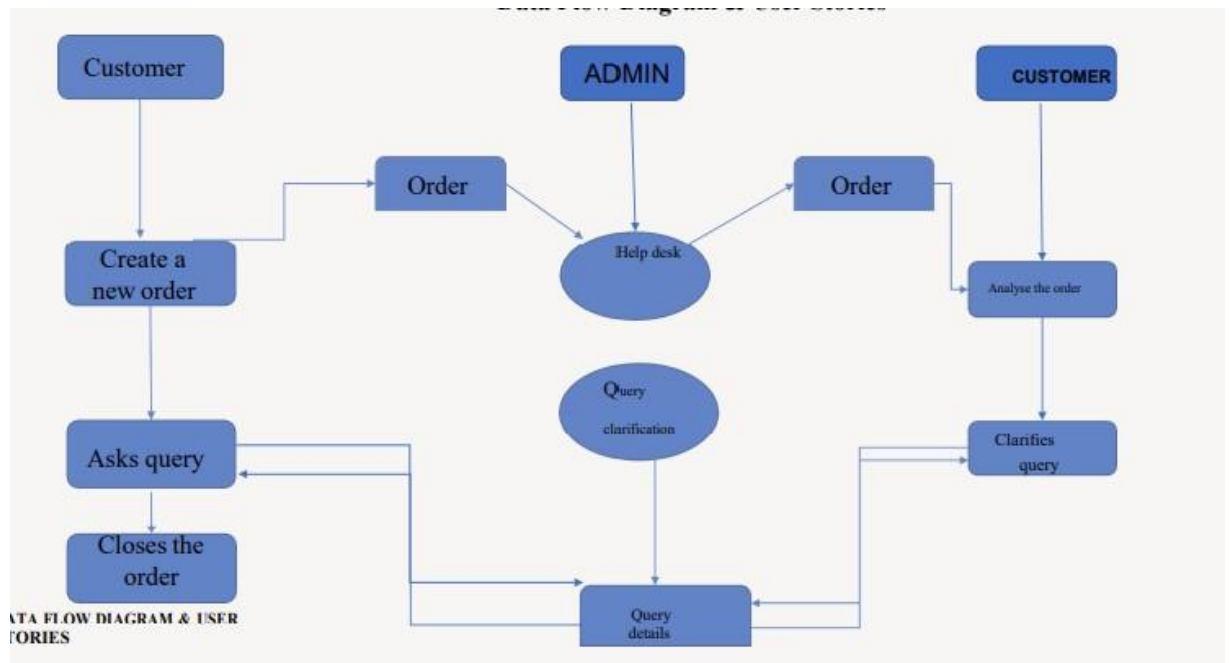
S.No.	Functional Requirements (Epic)	Sub-requirements(story/sub-task)
1.	Download fresh desk	software user or the customer have to download the Freshdesk software.
2.	Create account and sign in	Then the customer should create an account and the sign in to the account which was created.
3.	Choose preferable channel using fresh desk with chatbot	The user can directly talk to Chatbot regarding the services or the preferable channel can be choose by the customer.
4.	Do service for customers and end	Once the above steps are done by the customer,the process is handover to the admin. They do service for thecustomer need.

4.2 NON-FUNCTIONAL REQUIREMENTS

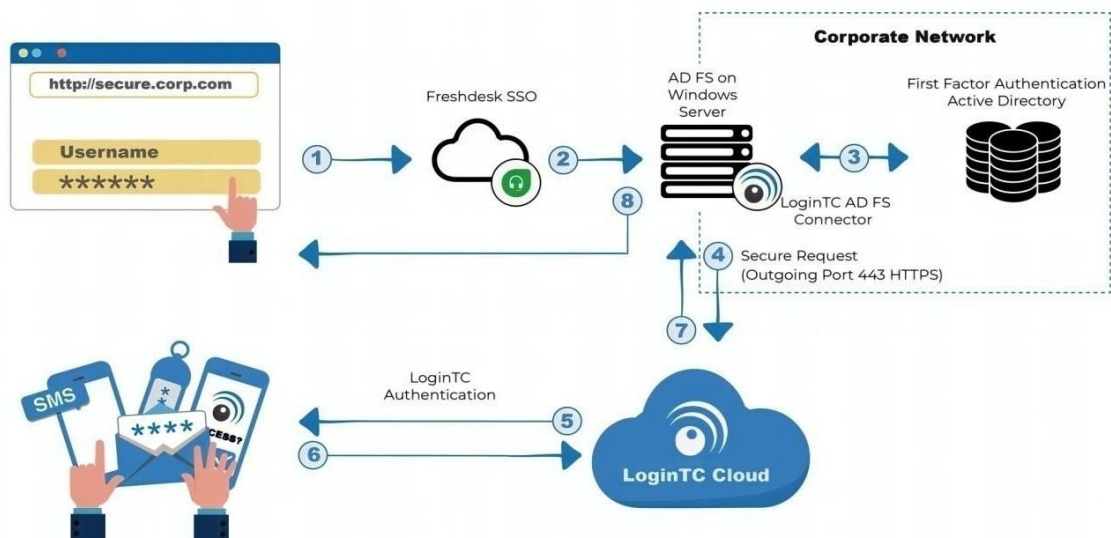
S.No.	Non-Functional Requirements	Description
1.	Usability	To provide the solution to the problem
2.	Security	Track of login authentication
3.	Reliability	Tracking of decade status through email
4.	Performance	Effective development of web application
5.	Availability	24/7 service
6.	Scalability	Agents scalability as per the number of customers

5. PROJECT DESIGN

5.1 DATA FLOW DIAGRAM



5.2 SOLUTION & TECHNICAL ARCHITECTURE



- Recording and submitting a problem experienced by the customer so that existing procedures can resolve the issue.

- Make specific reports of problems that have been overcome in the form of recapitulation.
- Handle and resolve problems from multiple user accounts or company members.

DESCRIPTION TABLE

S.No.	Components	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular Js / ReactJs etc.
2.	Freshdesk SSO	Single Sign-On capability	Clouding Authentication
3.	AD FS on Windows Server	To provide users with single sign-on access to systems	Firewall
4.	Login AD FS TC Connector	To enable active Directory Federation Services to add multi-factor authentication	Authentication
5.	HTTP	Data exchange on the Web and it is a client-server protocol	IP datagram
6.	Login TC Cloud	Database service on cloud	Local Cloud Storage

5.3 USER STORIES

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	Registration	USN-1	As a customer, I can register for the application by entering my email, password, and confirming my password.	I can access my account / dashboard	High	Sprint-1
	login	USN-2	As a customer, I can login to the application by entering correct email and password.	I can access my account/dashboard.	High	Sprint-1
	Dashboard	USN-3	As a customer, I can see all the orders raised by me.	I get all the info needed in my dashboard.	Low	Sprint-2
	Order creation	USN-4	As a customer, I can't communicate with preferred channels	I can ask my query	Medium	Sprint-2
	Address Column	USN-5	As a customer, I can have conversations with the assigned agent and get my queries clarified	My queries are clarified.	High	Sprint-3
	Preferred channel	USN-6	As a customer, I can't communicate with preferred channels	I get access to my account again	Medium	Sprint-4
	Order details	USN-7	As a Customer, I can see the current stats of order.	I get abetter understanding	Medium	Sprint-4
Agent (web user)	Login	USN-1	As an agent I can login to the application by entering Correct email and password.	I can access myaccount/dashboard.	High	Sprint-3
	Dashboard	USN-2	As an agent, I can see the issue details assigned to me by admin.	I can see the tickets to which I could answer.	High	Sprint-3
	Address column	USN-3	As an agent, I get to have conversations with the customer and clear his/er dobuts	I can clarify the issues.	High	Sprint-3
	Preferred channel	USN-4	As an agent I can reset to communicate with preferred channels.	I get access to my account again.	Medium	Sprint-4

	Login	USN-1	As a admin, I can login to the appliaction by entering Correct email and password	I can access my account/dashboard	High	Sprint-1
	Dashboard	USN-2	As an admin I can see allthe orders raised in the entire system and lot more	I can assign agents by seeing those order.	High	Sprint-1
	Agent creation	USN-3	As an admin I can create an agent for clarifying the customers queries	I can create agents.	High	Sprint-2
	Assignment agent	USN-4	As an admin I can assignan agent for each order created by the customer.	Enable agent to clarify the queries.	High	Sprint-1
	Preferred channels	USN-5	As an admin I can reset to communicate with preferred channels.	To communicate with preferred channels.	High	Sprint-1

6. PROJECT PLANNING

6.1 SPRINT PLANNING & ESTIMATION

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Download fresh desk	USN-1	The user or the customer have to download the Freshdesk software	20	High	S. Sathiyakala D. Ramya
Sprint-2	Create account and sign in	USN-2	Then the customer should create an account and the sign in to the account which was created.	20	High	K. Srivardhini D. Ramya
Sprint-3	Choose preferable channel using fresh desk with chatbot	USN-3	The user can directly talk to Chatbot regarding the services or the preferable channel can be choose by the customer.	20	High	R. Preethi K.Srivardhini
Sprint-4	Do service for customers and end	USN-4	Once the above steps are done by the customer, the process is handover to the admin. They do service for the customer need	20	High	S. Sathiyakala R.preethi

6.2 SPRINT DELIVERY SCHEDULE

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	20	3 Days	8 Oct 2022	10 Oct 2022	yes	10 Oct 2022
Sprint-2	20	2 Days	11 Oct 2022	13 oct 2022	yes	13 oct 2022
Sprint-3	20	3 Days	15 oct 2022	17 oct 2022	yes	17 oct 2022
Sprint-4	20	4 Days	18 oct 2022	21 oct 2022	yes	21 oct 2022

7. CONCLUSION:

- Many of the consumers say they now expect companies to provide good customer service on more than one communication channel.
- 53% of customers email brands to make appointments, compared to 49% who prefer to receive updates over text messages. 45% of customers say that speaking with an agent is their preferred method of getting their questions answered. 48% of clients prefer to use the online chat option for self-service interactions.
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8. APPENDIX

<https://github.com/IBM-EPBL/IBM-Project-21646-1659786821>