Redesigning

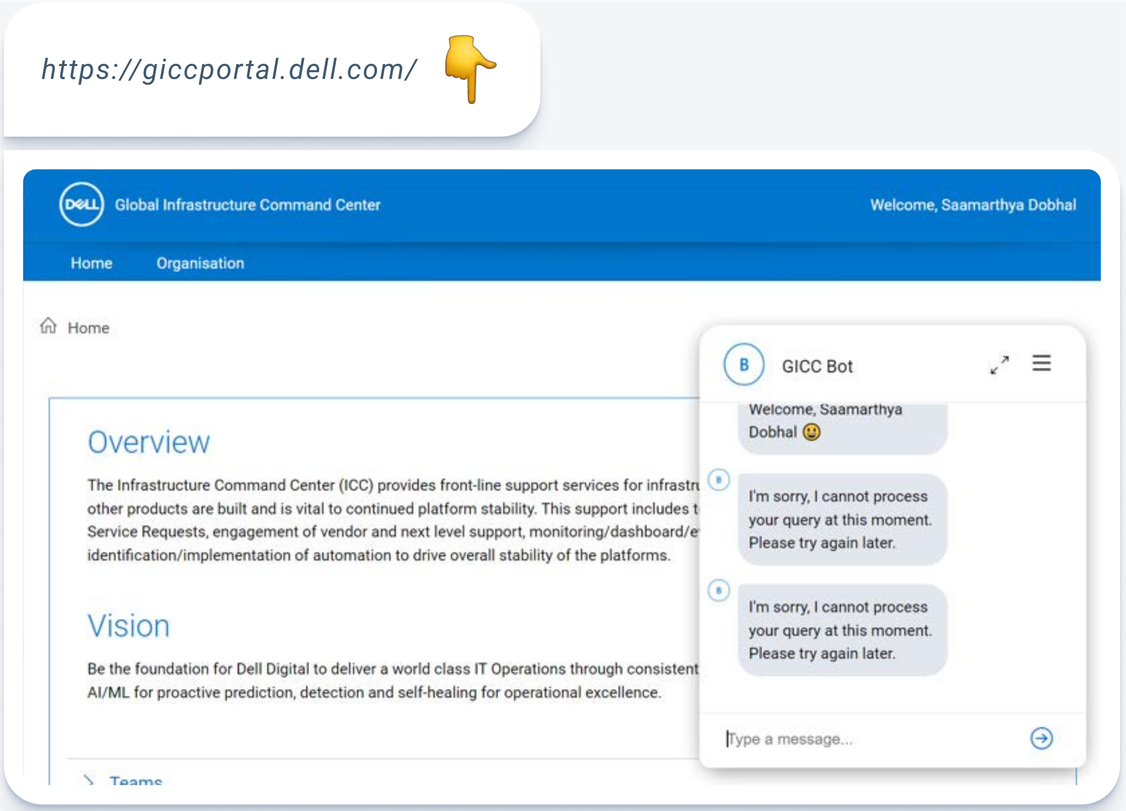
GICC Chatbot

GICC

Global Infrastructure Command Center

provides frontline support for DELL infrastructure

https://giccportal.dell.com/ 👇



GICC

↓

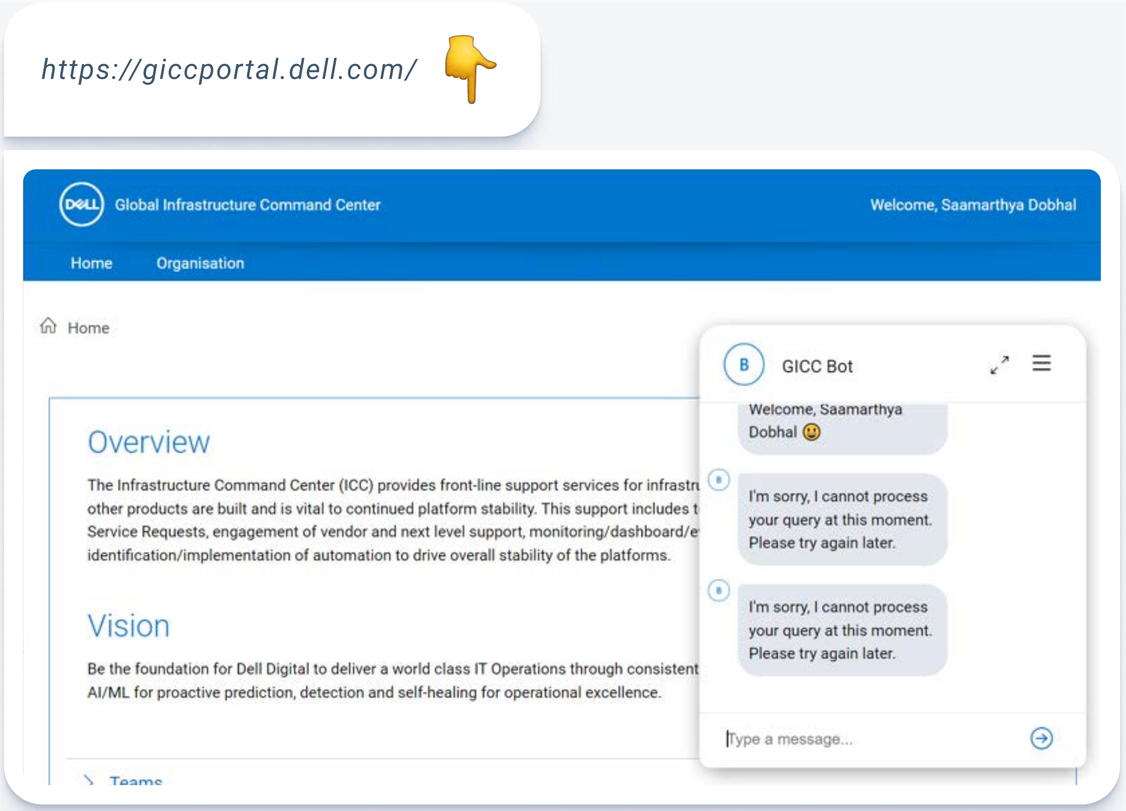
AIOPS

Artificial Intelligence for IT Operations

↓

GICC Portal & Chatbot

https://giccportal.dell.com/ 👇



GICC Chatbot

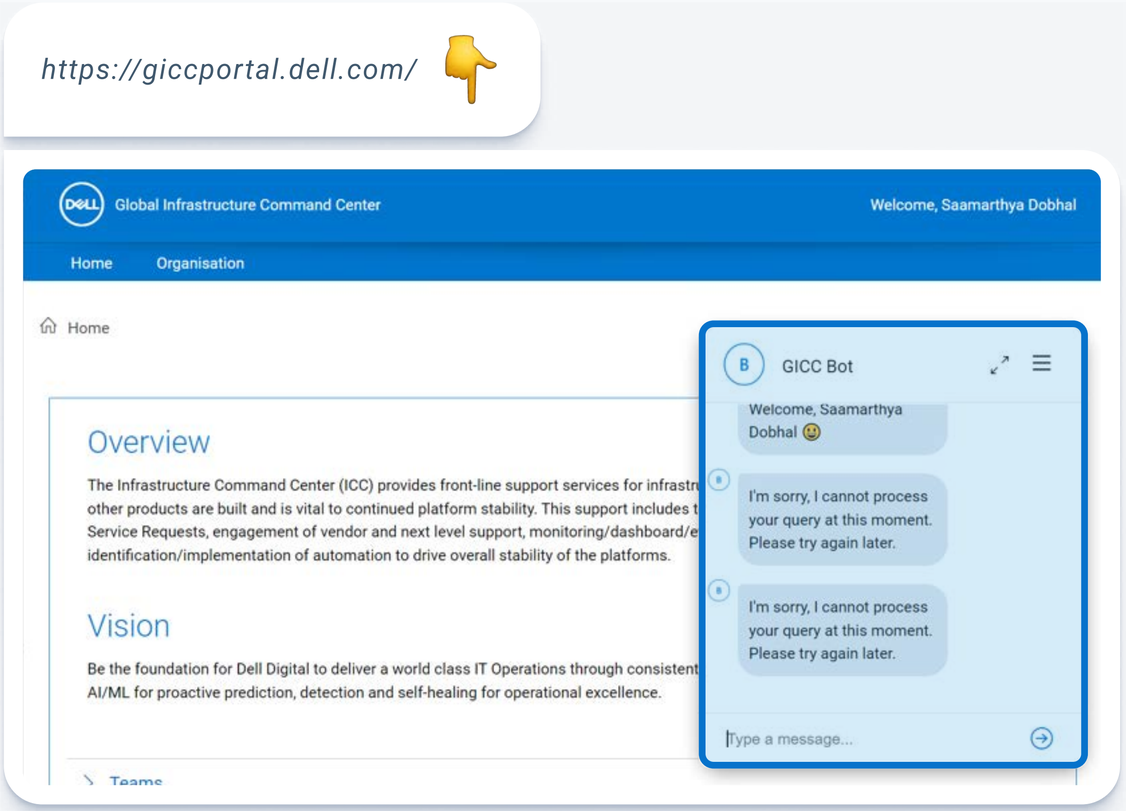
Why Chatbot?

- To reduce the number of tickets being raised in MyIT which can be self-served.
- IT support is able to save its manpower for queries which need actual troubleshooting

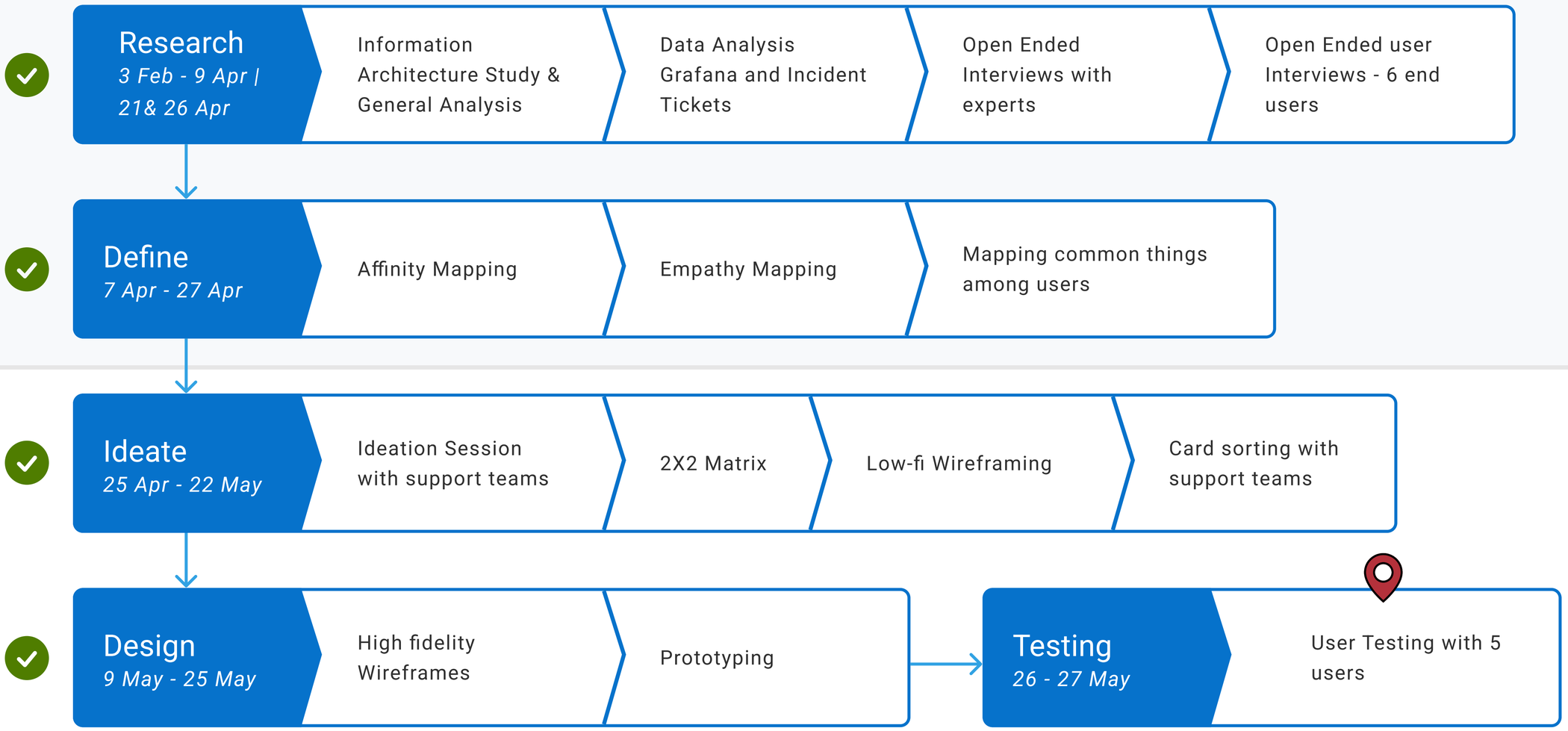
Why Redesign?

- Number of incident tickets raised which can be self served continue to be high even after implementing the chatbot

https://giccportal.dell.com/ 👇



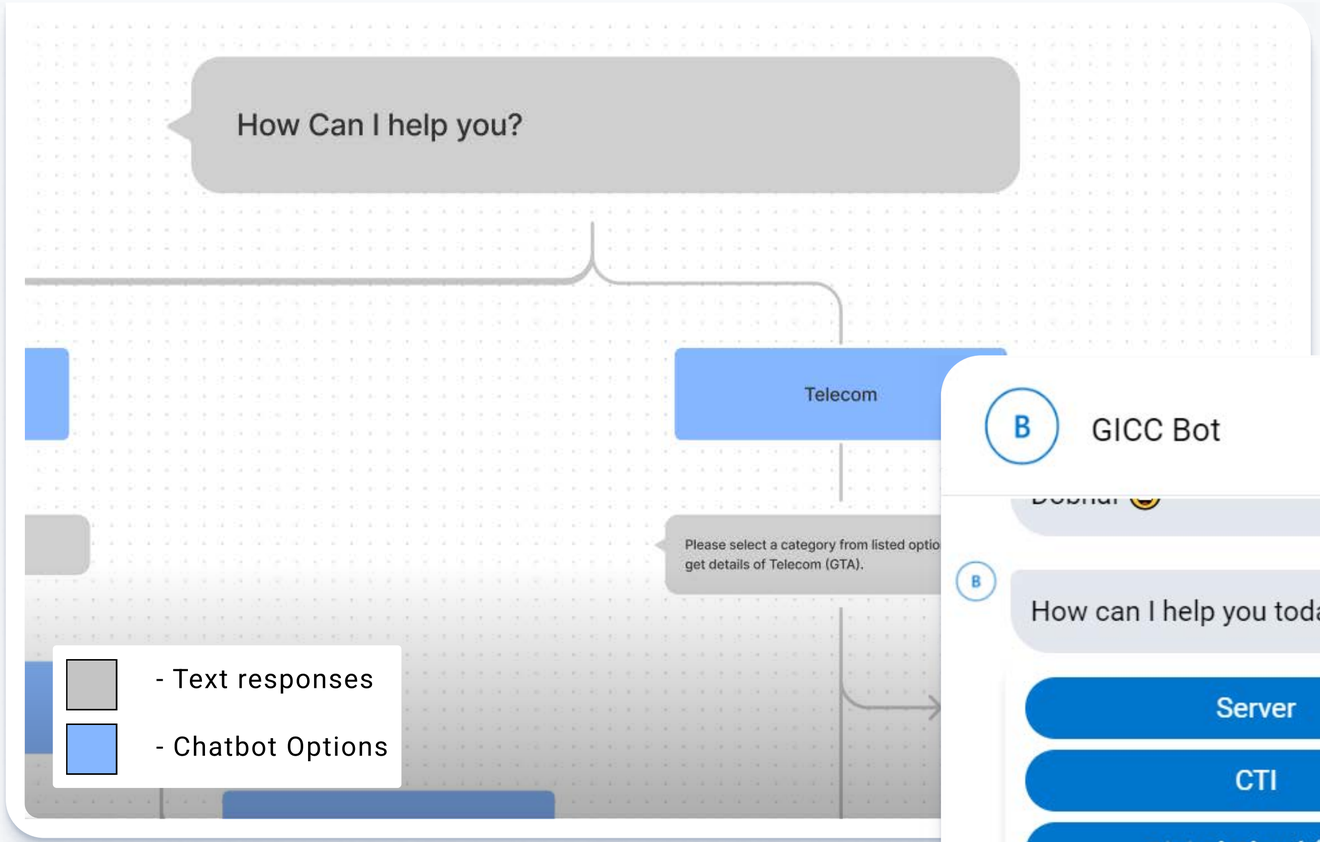
Process Overview



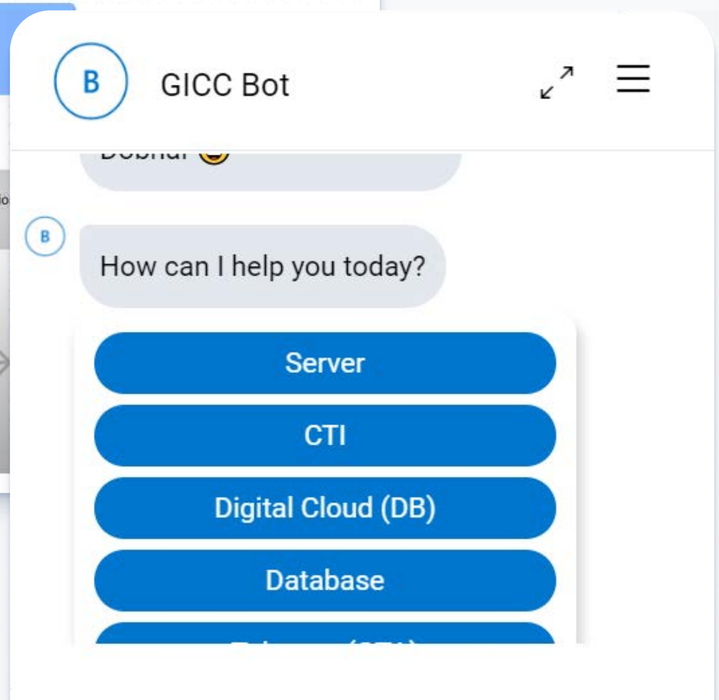
DISCOVERY

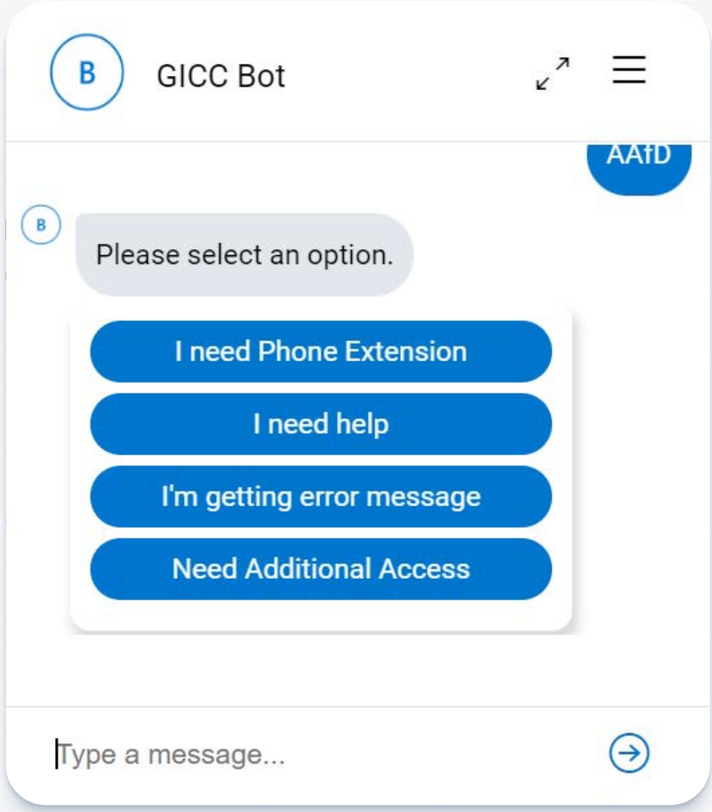
FRAMING

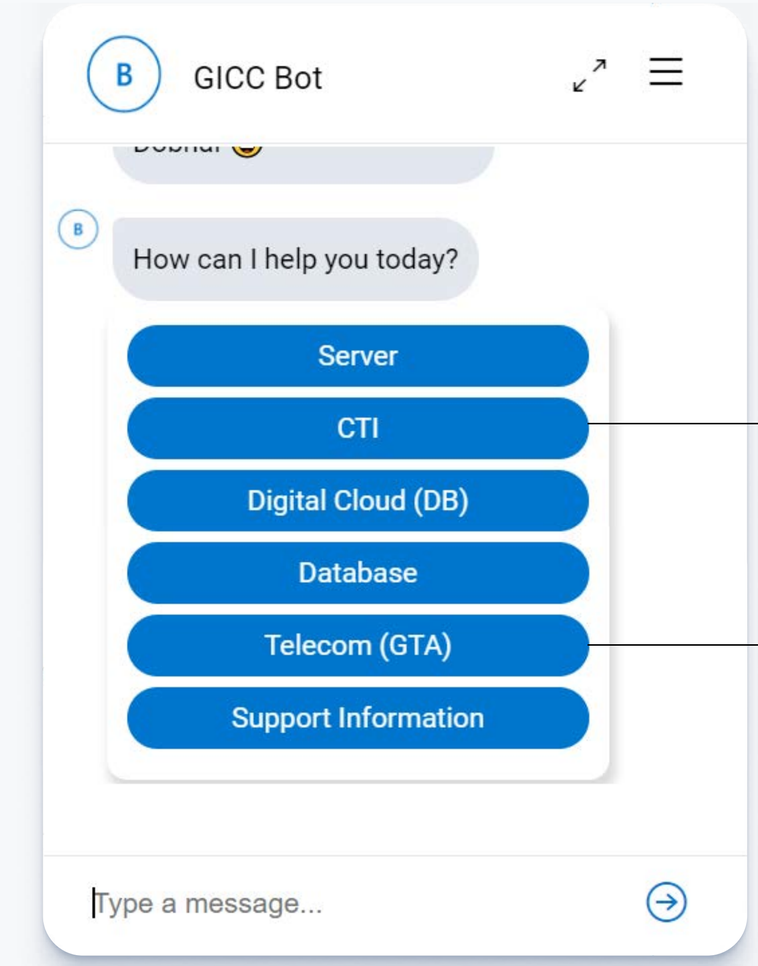
Information Architecture Study & Analysis



- Led to an understanding of the arrangement of options within the chatbot
- Discovery of potential problem areas for the chatbot
- Response mechanics of chatbot were looked at closely







Computer Telephony Integration

- Represents an entire set of options within chatbot
- CTI Team means team that supports CTI in their operations

Global Telecom Admin(also referred to as Telecom)

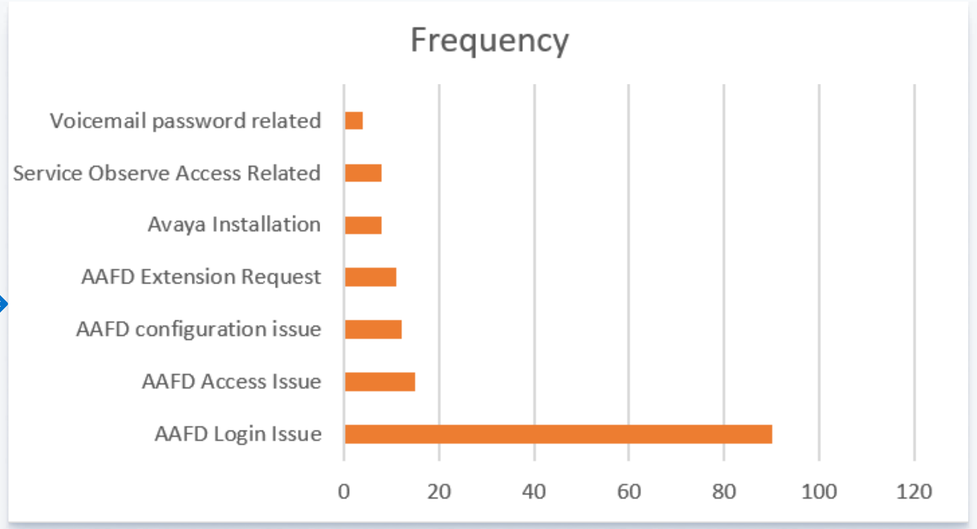
- Represents an entire set of options within the chatbot
- CTI Team means the team that supports CTI in their operations

Data Analysis

Chat analysis & Incident Ticket Data Analysis

- Major objective of these analyses was to identify what is important to work on based on frequency
- Chat analysis helped to identify major flows within chatbot thus guiding us about which flows to focus on
- Incident ticket analysis helped us in identifying which software queries to focus for in for CTI & Telecom domain.

Data from Jan 2022



Avaya Login issues were the most frequently occurring issue for AAfD

Data from 17 Dec 2021 to 17 March 2022

Flows used within CTI

Flow Used	Frequency	Percentage
CTI		
0	0	
Aceyus not loading	11	2.39%
Qfiniti not recording	5	1.09%
Qfiniti client installation	5	1.09%
CTI Password Query	3	0.65%
CTI Aceyus Access	17	3.7%

Flows used within GTA

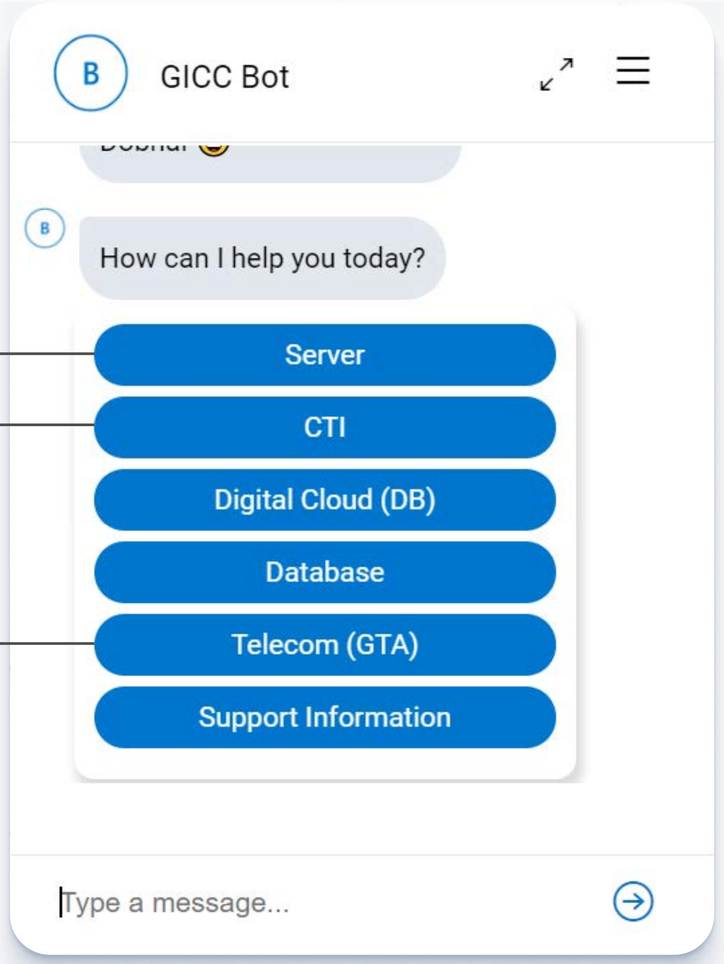
Flow Used	Frequency	Percentage
GTA		
provide guide avaya ix	11	2.39%
0	0	0%
push user submit voice mail request avaya ix	6	1.3%
getting error aafd	1	0.22%
product name	1	0.22%
Teams Zoom Access	1	0.22%
push user check with manager Avaya	6	1.3%
how to configure avaya	24	5.22%
zoom teams assistance	4	0.87%
Avaya oos error	4	0.87%
Agent monitoring tool	4	0.87%

Interviews with experts

- They helped us foresee the bulk of problems and thus helped us scope down effectively
- Through these, we got a better understanding of end-user
- Validating the findings of our interviews & analysis

Server support team was contacted for the initial phases of research only

CTI & GTA support teams were contacted & collaborated with on multiple occasions



Open Ended Interviews with end users

- The objective was to decipher the whole experience of users from start to end
- We understood the team structure and function of managers, coaches and call agents who are the main users using GTA & CTI options.
- Specific issues within the chatbot were pinpointed
- Data analysis insights cross-verified

Can’t understand/ not sure about menu

Improve content (how responses are worded)

Improve flow

6 Users recruited based on their interactions with CTI and GTA part of chatbot

Technical support agents: 2

Call agent manager: 1

Sales Advisor: 1

Account Manager: 1

Tech CCO support agent: 1

No one reached out after selecting No or Send query to agent

Improve Discovery to Chatbot

Next few steps overview

- ## Affinity Mapping

  We used Affinity mapping to organize user interview notes to be later utilized in making of persona and empathy map.

- ## Mapping common things about users

- ## Individual Empathy Maps

  Empathy maps of individuals were made to uncover insights about what they think, say, do and feel.

- ## Empathy Map Of A Telecom User

Empathy Map - Telecom User

Satish Kumar

IT Support Engineer

Primary Tools: AAfD, Avaya IX**(Telecom related)**

Main Activity: Calling

Goal

- Mitigating issues faced with software used by him

Major Pain points

- Response options recommended by chat lack clarity
- Rechoosing options take a lot of effort

Says

- I do not know meaning of CTI & GTA
- AAfD related issues are seen more than any other software we use

Thinks

- It would be nice if I was able to rechoose my responses easily
- Simplifying options language would make things a lot simpler
- I would like to know more information about an option I don't understand to get clarity

Does

- Raises an incident ticket on not finding the desired result
- Rechooses upon feeling that the wrong option was chosen previously

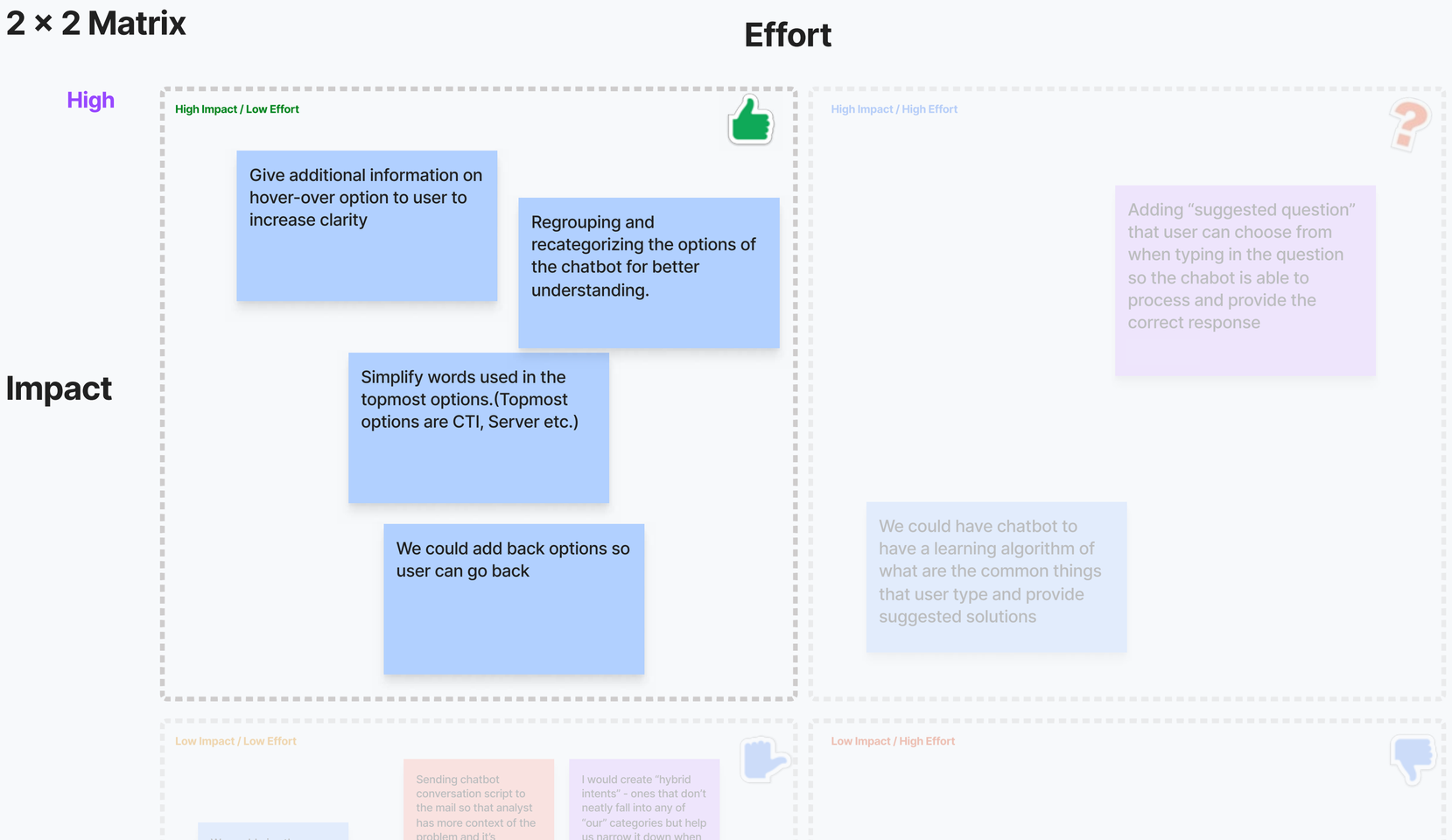
Feels

- Impatient: due to the effort required for rechoosing
- Lost: Not understanding and lack of clarity in terms used in the options

Group Ideation Sessions

Two sessions for ideation were done- one with CTI and one with GTA teams.
GICC Team members were included in both sessions of 2 hours each.

2 × 2 Matrix

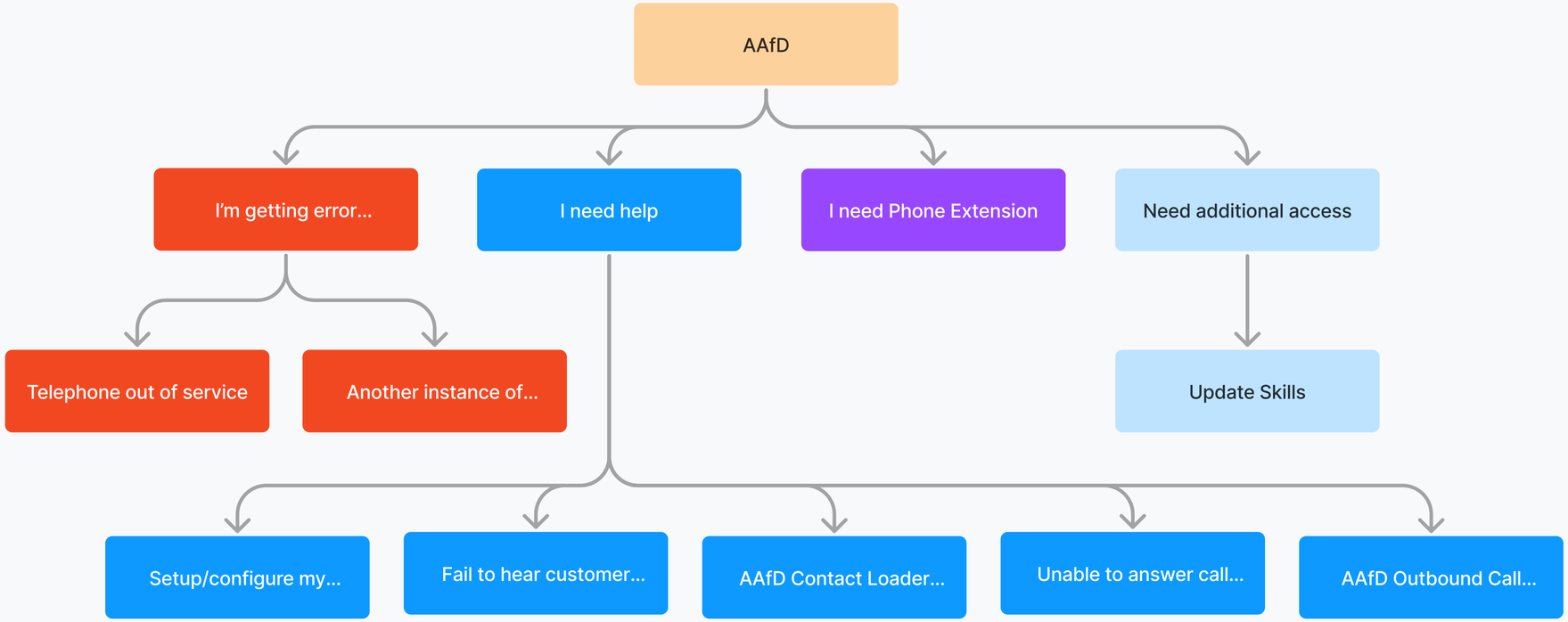


Changing the architecture

- A card sorting exercise with Telecom Support team members was done
- Thinking based on how users explain queries to telecom support on calls
- Rethinking architecture

Regrouping and recategorizing the options of the chatbot for better understanding.

Saamarthya Dobhal



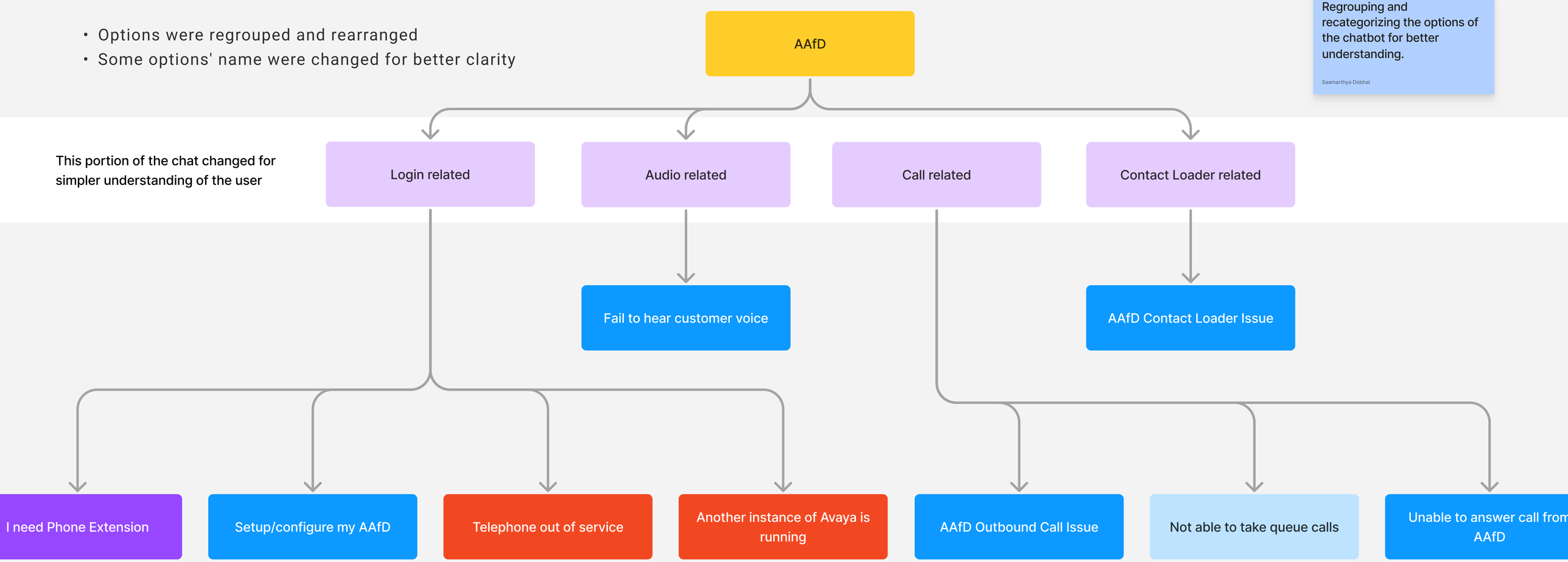
Changing the architecture

- Options were regrouped and rearranged
- Some options' name were changed for better clarity

Regrouping and recategorizing the options of the chatbot for better understanding.

Saamarthya Dobhal

This portion of the chat changed for simpler understanding of the user



Next few steps overview

- ## Ideating for back navigation

  Low fidelity wireframes used for generating various concepts and choosing one

- ## Ideating for information reveal interaction and simplification of first set of options

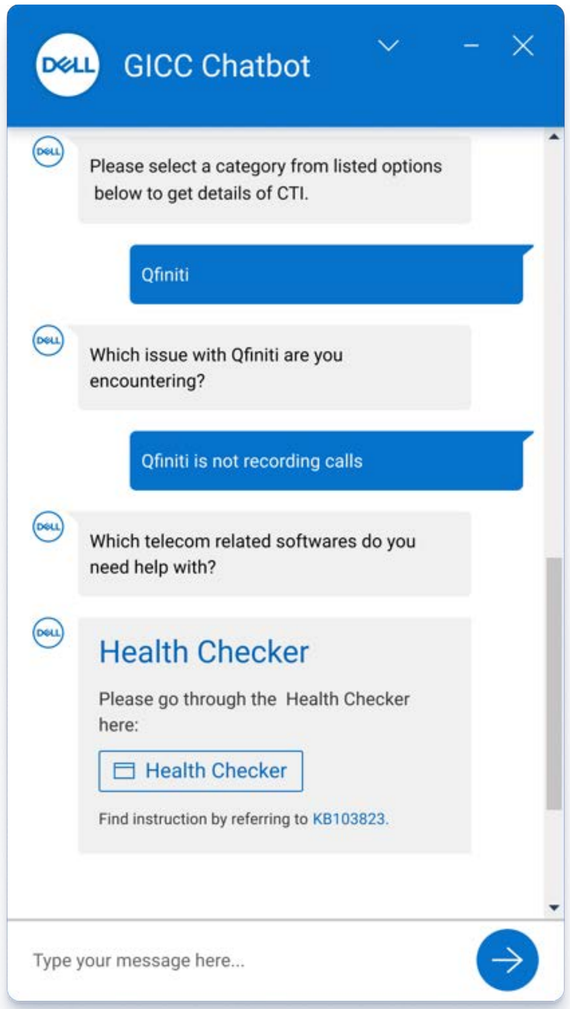
  These ideas were thought about with high fidelity wireframes

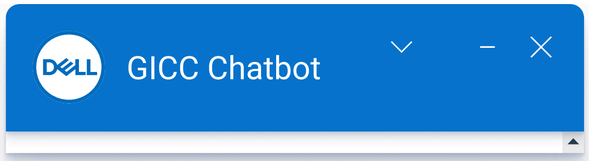
User Interface Elements

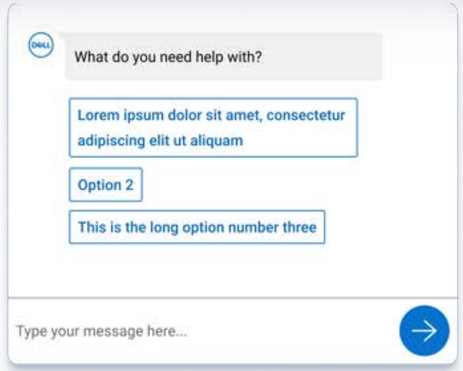
Redesigned elements and new interface elements were added to match the chatbot design with DDS 2.0

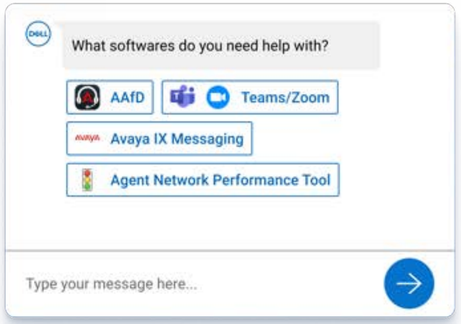
Thinking about edge cases for interface elements

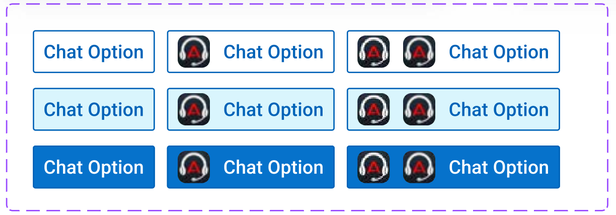
Restructured chat flows and revamped chat content to effectively solve the targeted user problems.

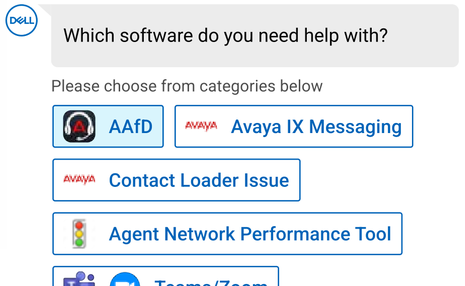


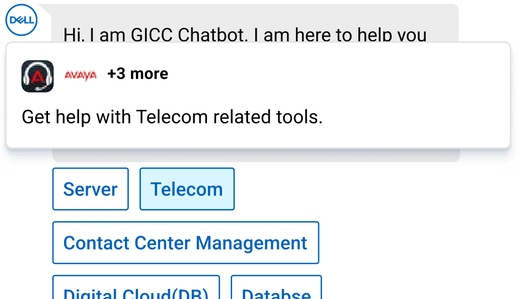












Raise A Ticket

Please submit a DCEC extension request and choose DCEC Extension Request in the Service column through this:

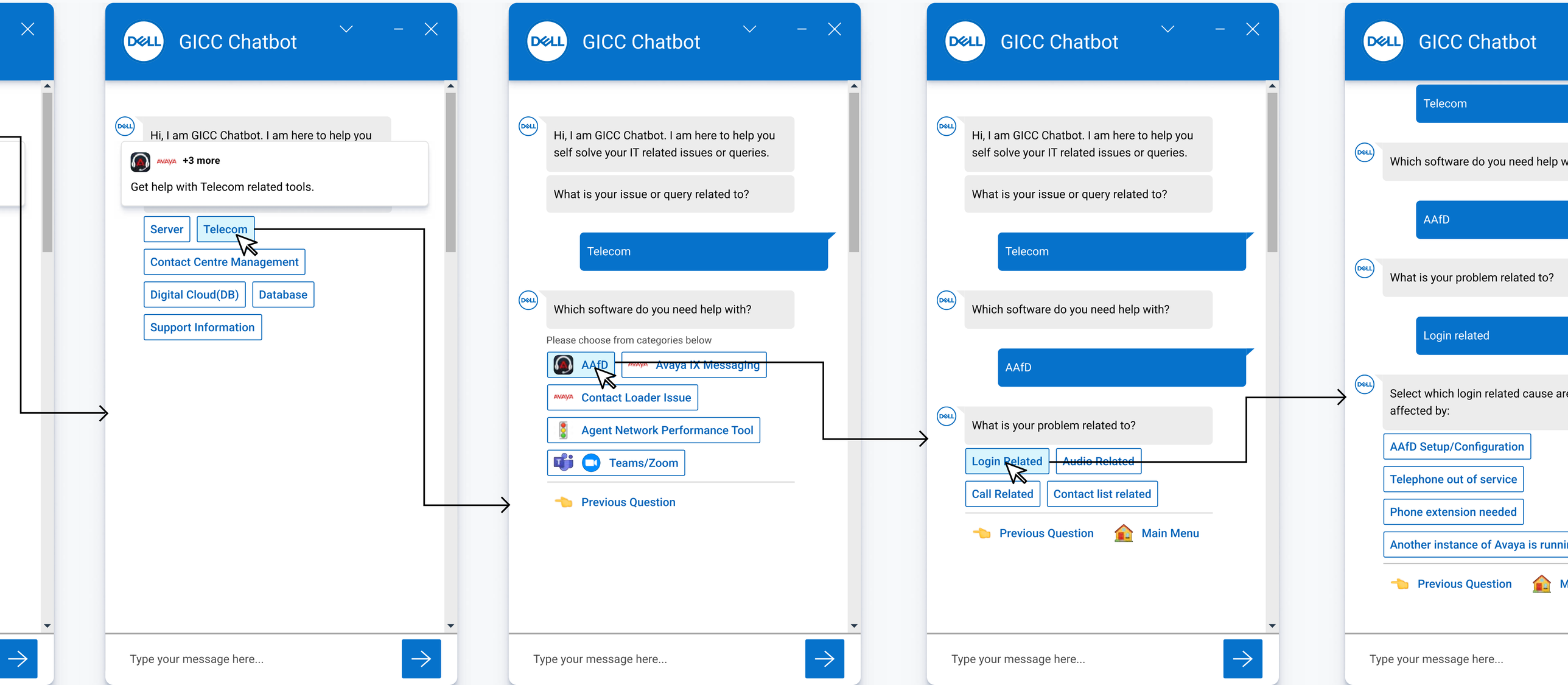
DCEC Request

Send Mail

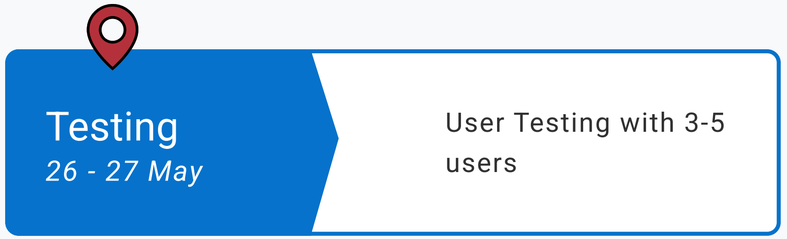
For connection issue, please reach out to CTI team [itops.acc.cti@dell.com] for further assistance. Thank you!

itops.acc.cti.gta.xyz@dell...

Interactive Prototype



Remaining Steps



Ongoing...

My Learnings

- How a real end to end design process feels
- A better understanding of conducting open-ended interviews
- Creating and using components to speed up workflow
- How to work with a team in professional environment

Thank you Telecom Support Team for supporting us!

Thank You!