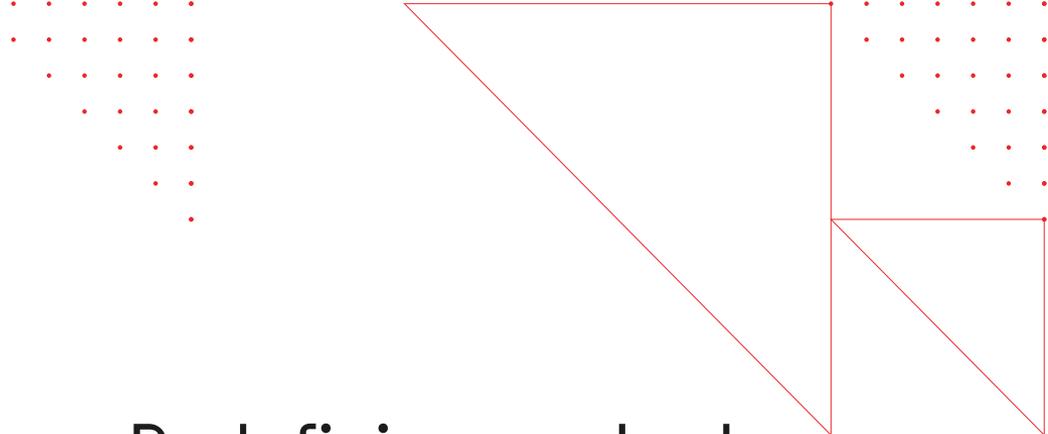


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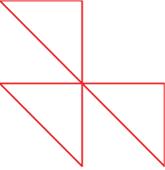


# Redefining contact center experiences with Generative AI

Adopt GenCARE Framework to raise efficiency levels, streamline processes and reduce Opex in contact centers

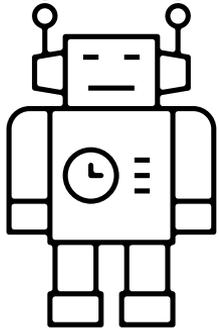
**Participants:** Rajesh Khanna, Richard Abraham, Vimalraj, Deesha

# Customer service contact centers grapple with human language understanding, seeking a breakthrough with Generative AI



The market size of Generative AI in Chatbots is expected to be worth around **USD 1,224 Mn** by 2032 from **USD 119 Mn** in 2022, growing at a **CAGR of 27%** during the forecast period from 2023 to 2032. [MarketResearch](#)

## Decoding the challenges of current contact centers



**Natural Language Understanding (NLU):** Inability to accurately understand and interpret the complexities of human language like slangs

**Context Retention:** Struggle to retain context, leading to disjointed and frustrating exchanges, especially in longer or more complex conversations

**Multilingual Support:** Requires additional resources, training and coordination, especially for languages with limited training data

**Emotional Intelligence:** Empathy and emotional understanding are challenging to replicate in AI systems



## Impact on service providers

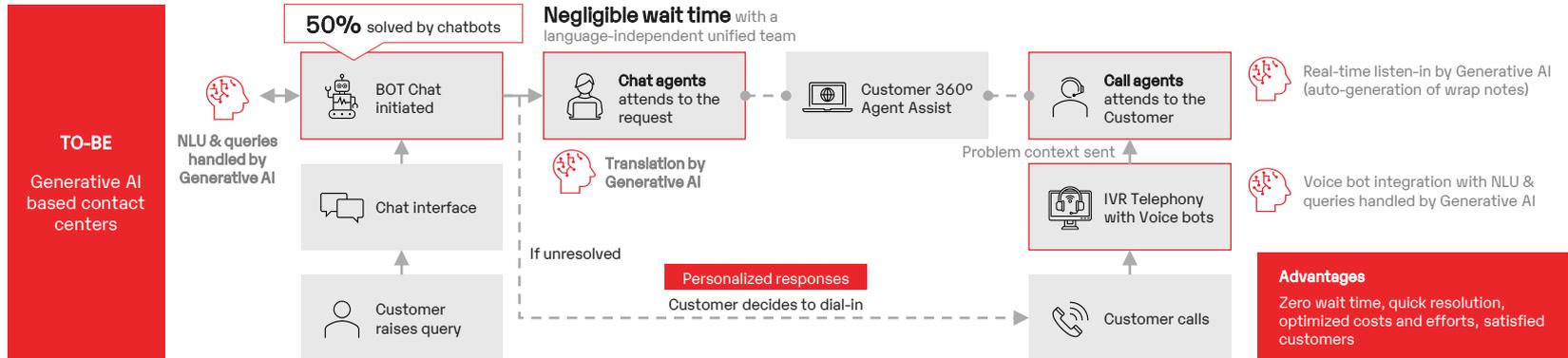
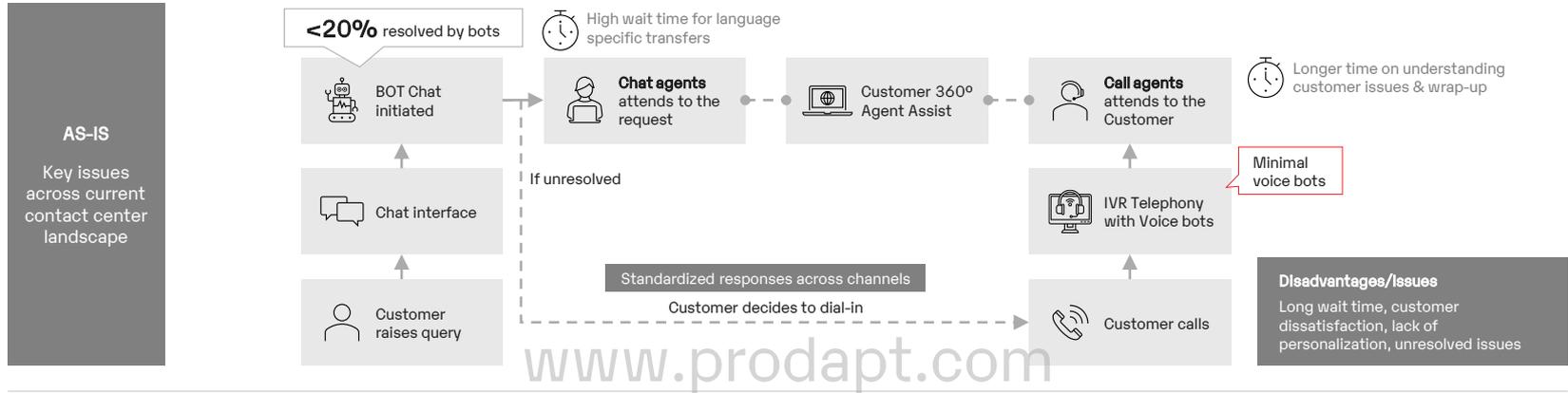
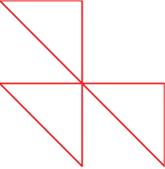
**20%-30%** higher costs for multilingual support in contact centers

Low chat containment [**< 20%**] necessitating more live agents

Customer dissatisfaction and risk of churn with prolonged wait times

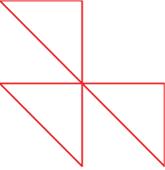
[McKinsey](#) - Applying generative AI to customer care functions could increase productivity at a value ranging from **30 to 45 percent** of current function costs.

# Generative AI wields a transformative impact in revolutionizing current contact centers



# Adopt GenCARE framework to enhance contact centers through Generative AI

## Achieve 40% cost optimization while boosting customer satisfaction



### Context-enhanced agent support

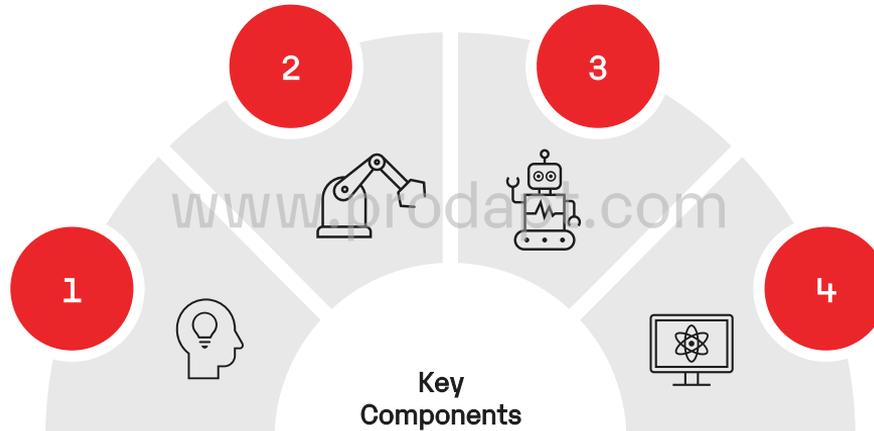
Leverage context retention capabilities to quickly identify customer issues and generate automated notes to boost agent productivity.

Eliminates 30-40% agent time spent on non-value-added tasks

### NLU-based intent identification

Integrate the chat platforms with domain customized Generative AI models for quick and accurate query handling.

Reduces 50% of the calls going to the agents



### Real-time sentiment analysis

Classify and score sentiments using the sentiment analysis module. And respond as per the customer's emotional status.

Controls customer frustration and reduces churn

### Multilingual query resolution

Use language translation options to achieve zero wait time with a language-independent unified team.

Eradicates resource loading at near shore centers

The insight further details the key components and recommendations to revolutionize the contact centers ensuring a remarkable customer experience.

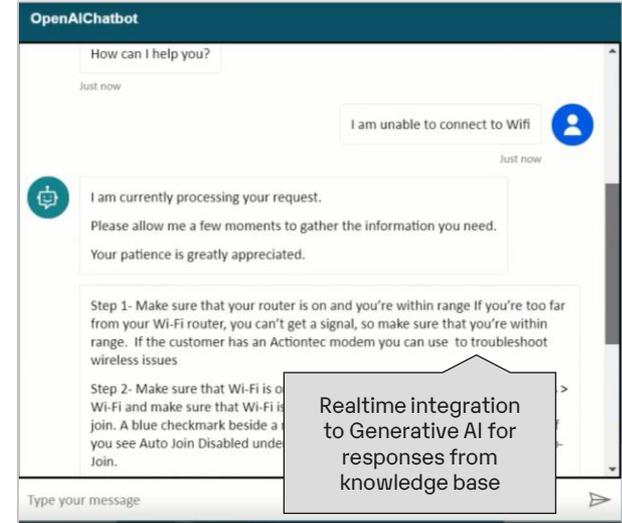
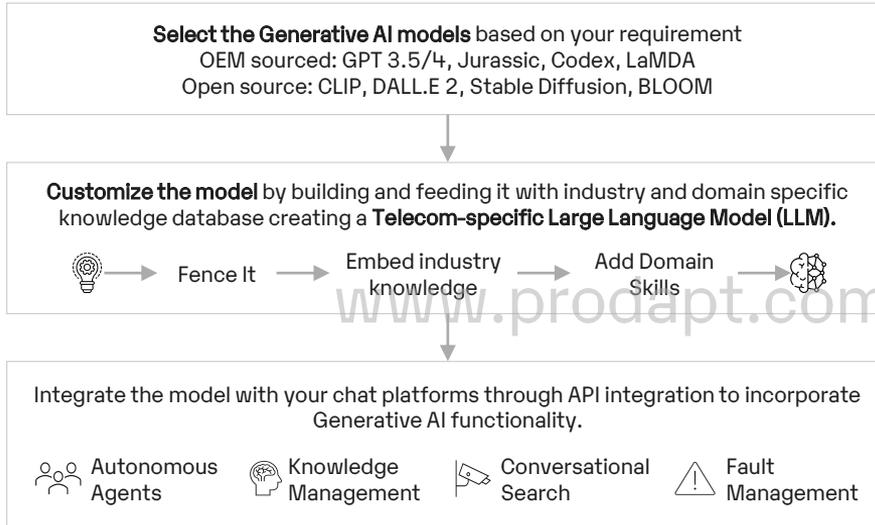
# NLU-based intent identification: Assist your chatbots to formulate accurate responses to customer queries with zero training



## Intent training for current chatbots require:

- Lengthy intent training (10-15 phrases, necessitating a massive repository of **1000 phrases**)
- **Q&A frameworks** for intents creation even for simple queries
- **Weeks** to design complete conversation flows

Simplify the intent training for your chatbot with generative AI in 3 easy steps



Snapshot of Generative AI integrated chatbots

## Recommendations

- Leverage tools such as **MLFlow**, **Amazon SageMaker Model Monitor**, and **Vertex AI Model Monitoring** to monitor the models for data quality and scalability
- Integrate response rating UI, persist feedback, iteratively retrain model using collected data for continuous improvement

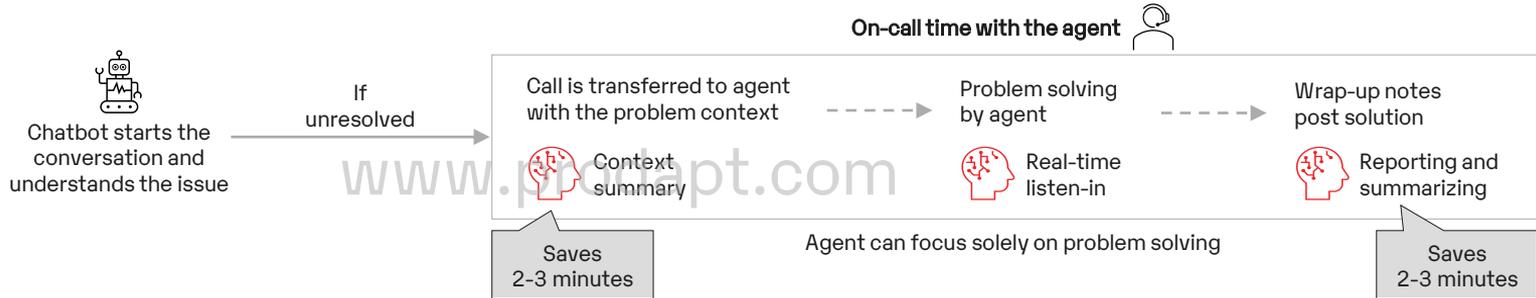
Achieve 40-50% of chat containment rate by bots.

# Context-enhanced agent support: Empower agents to deliver personalized, and effective customer service

The contact center agents devote around **30-40%** of their time on non-value-added activities like understanding the customer problem and preparing wrap-up notes post-resolution.

Generative AI's context retention ability in chatbots empower agents in contact centers

- Use generative AI to pass the conversation context to the agents, eliminating the need for the customer to repeat the issue
- Generate summaries of previous interactions and background information to understand the customer's history and previous concerns, leading to more effective and personalized issue resolution
- Leverage the reporting and summarizing capability to prepare automated wrap-up notes, reducing admin tasks



## Scenario: User reaches contact center for billing dispute

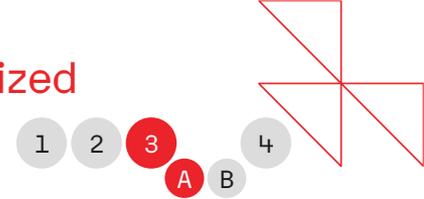
Generative AI helps Chat/voice bot identify and understand disputes and transfers the Chat/Call to the specialized live agent with the dispute notes. Contact Center Agent quickly understands the dispute, starts the investigation immediately, and resolves the dispute. Generative AI also provides wrap notes which can be used by the agent for quick closure.

## Recommendations

- Utilize token-level instructions from Gen AI to Agents to adeptly establish context and enhance interactions with customers
- Implement customized API to send conversation for summarization and receive coherent & condensed wrap notes to seamlessly enhance content comprehension

Reduce 30% of agent efforts with shorter calls; improve customer satisfaction.

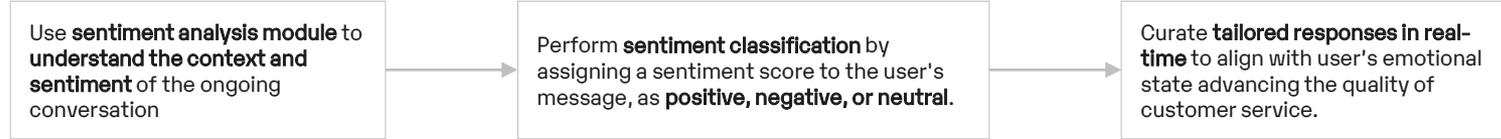
# Real-time Sentiment Analysis: Deliver empathetic, relevant, and personalized interactions, enhancing customer satisfaction and user experiences



Current chatbots lack empathy, resulting in:

- User frustration
- Misinterpreted context
- Reduced Engagement
- Negative brand image
- **Missed opportunities for personalization**

Use generative AI to analyze and understand emotions and attitudes expressed in conversations

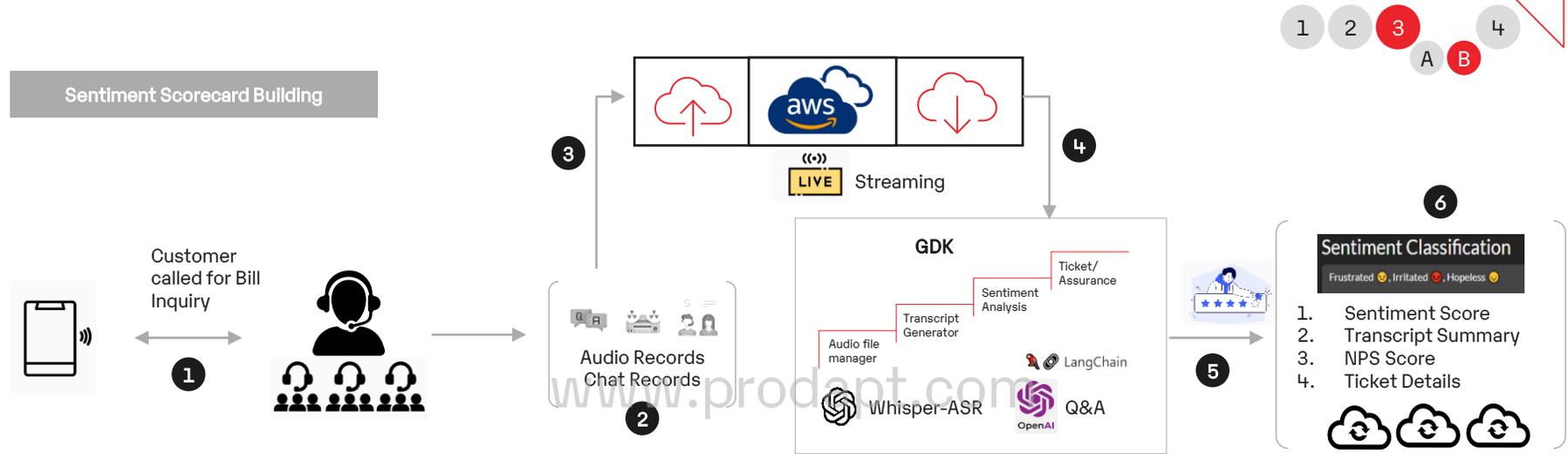


Sample sentiment analysis- Prodapt Sentiment Analyzer

**Customer Sentiment Analytics**

<b>Customer Comments</b> It was a mistake switching to your service for fibre net. And more frustrating is no person to talk or complain to. All I can do is wait for another reply where you are gonna extend the date again.	<b>Customer 's Intentions</b> The speaker is expressing their anger and frustration. They regret switching and feel that there is no one to talk about their complaint.	<b>Sentiment Analysis</b> Angry, Disappointed, Frustrated <a href="#">Submit</a>
<b>Agent Handler Actions</b> "We apologize for the inconvenience caused. Our team is working to resolve the issue as soon as possible. Please share your contact details via DM so that we can assist you better."	<b>Action to Operation</b> <ol style="list-style-type: none"><li>1. Acknowledge the complaint and express empathy</li><li>2. Investigate and determine the root cause</li><li>3. Provide regular updates to customer on resolution</li><li>4. Take necessary actions to fix the issue and ensure it doesn't happen again</li><li>5. Follow-up with the customer if they are satisfied</li></ol> Ticket Number: 2383 (This will be pushed to ticketing tool)	<b>Impacted Service</b> The customer is using Fibre service <a href="#">Download</a> <a href="#">Share</a>
		<b>Sentiment Scorecard</b> <ol style="list-style-type: none"><li>a. Estimated NPS- 1 out of 5</li><li>b. Estimated estimation score is - 0.8 (very negative)</li></ol>

# Sample Flow: Sentiment Analysis from "Call Center" Recordings



## User Journey

- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>1. Customer contacts call center</li> <li>2. Conversation is recorded</li> <li>3. Audio recording is stored in Amazon Web Services (AWS)</li> </ol> | <ol style="list-style-type: none"> <li>4. Recording is inputted into the sentiment analyzer</li> <li>5. Sentiment analyzer processes audio</li> <li>6. The analyzer generates true sentiments</li> </ol> |
|--|--|

## Recommendations

- Utilize asynchronous processing to analyze the sentiment of real-time call conversations between agents and customers
- Optimize real-time sentiment analysis through parallel processing, pre-trained models, streaming analysis, dynamic thresholds
- **Cache the sentiment analysis results** for previous responses to avoid re-analyzing similar responses, optimizing processing time

Achieve 20-30% improvement in the Customer Satisfaction (CSAT) score.

# Multilingual Query Resolution: Understand and communicate in multiple languages ensuring inclusivity and enriched user experience

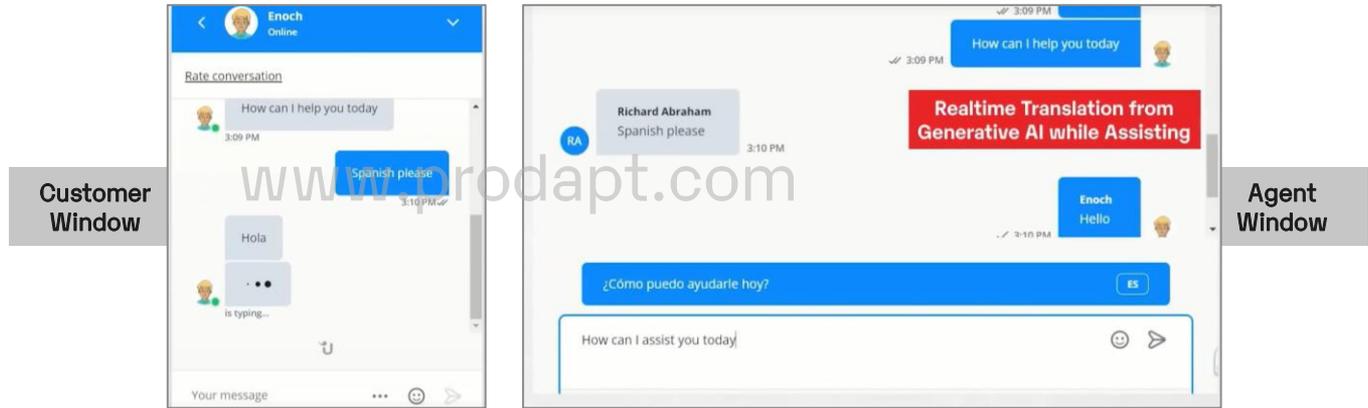
Catering to multilingual support in contact centers requires a different set of agents for each language. It leads to extended wait time due to chat transfers, **increasing the Opex.**

Use language translation options to eliminate the dependency on language specific resources

Choose the suitable **language translation model** within generative AI. Integrate model with chatbots using APIs

Enable **language selection** with user-friendly dropdown menus from the chatbot

Leverage **real-time translation** while assisting the customers in real-time

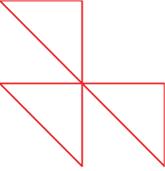


## Recommendations

- Curate parallel sentence datasets in multiple languages to enable cross-lingual comprehension and response generation, enhancing multilingual capabilities
- Evaluate language translation model performance using metrics like BLEU, METEOR and improve the model efficiency

Accomplish 90% language independent L1 support chats.

# Transformative benefits realized through the implementation of Generative AI integrated chatbots



**40%**

Cost Optimized  
Operations

**40- 50%**

First Contact  
Resolution of  
queries

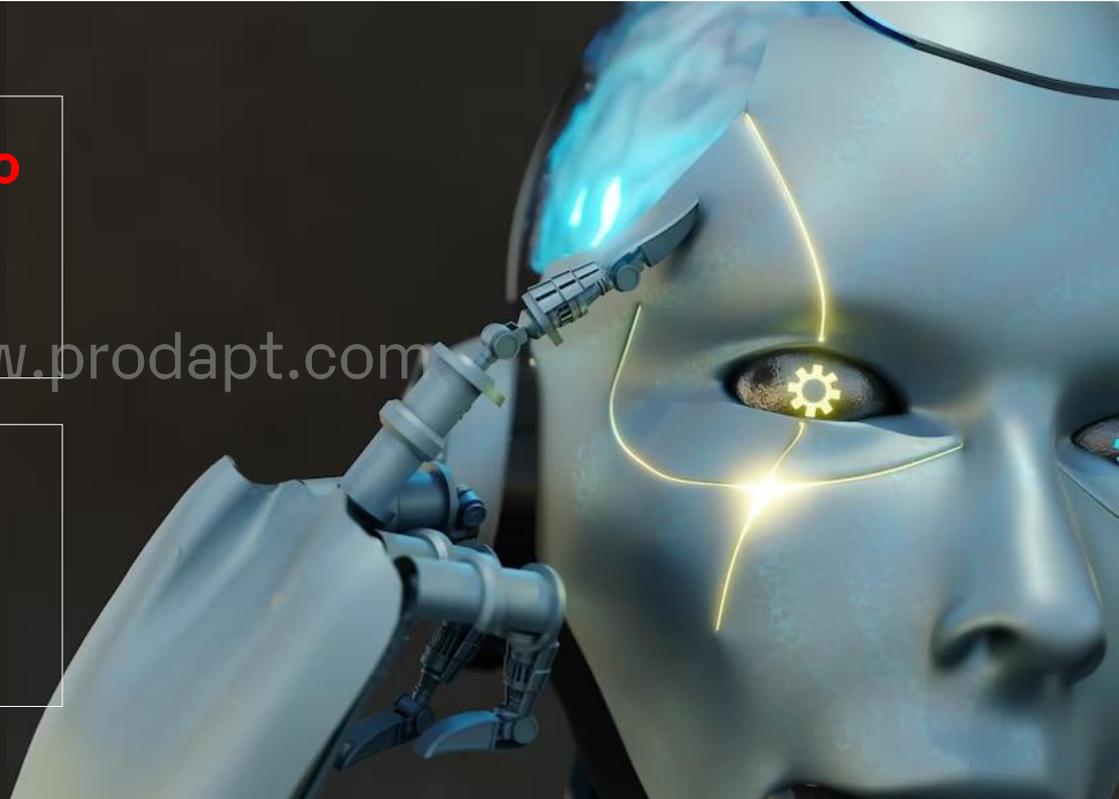
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**30%**

Improved NPS

**>30%**

Agent effort  
reduction



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