AI-Powered Contact Center Automation

Rebuilding the Chatbot & IVR Experience for a Leading Automotive Services Brand – Case Study

Project Overview

This project focused on transforming the digital and voice support systems of an automotive glass repair company. Their existing chatbot and IVR systems failed to manage common inquiries, escalating even simple requests to agents and leading to high workload and inefficient operations.

Over a 2-month engagement, I reimagined the customer support journey using Genesys Cloud CX—designing intelligent chat and voice bots, structuring an automation-ready knowledge base, and integrating escalation logic for seamless agent handoff.

My Role

- Lead Contact Center Developer & AI Automation Specialist

- Designed and built conversational flows for chat and IVR

- Created an NLP-optimized knowledge base

- Integrated automation with backend systems and CRM

- Measured and optimized bot performance over time

Challenges

- Poorly designed bot flows with minimal automation logic

- High agent workload due to repetitive, unresolved interactions

- No visibility into automation effectiveness

- Lack of structured knowledge base content for bots

- Limited escalation control between bots and agents

Approach

1. Analyzed existing bot logic, customer pain points, and business goals

2. Rebuilt chatbot flow using Genesys Cloud CX web messaging

3. Designed and implemented IVR flows with smart routing

4. Created a structured, FAQ-driven knowledge base from business data

5. Integrated escalation logic to seamlessly route to agents

6. Monitored interaction analytics and tuned for performance

Tools & Technologies

- **Genesys Cloud CX** (Voice and Chat Bot Development)

- **CRM Integration** (for customer data access and routing)

- **Custom Knowledge Base** (structured from website/business content)

- **Automation & Routing Strategies**

- **Natural Language Processing (NLP) Best Practices**

Outcome

Note: 4-week States

- Reduced agent handle time by **40%**

- Decreased inbound volume to agents by **30%**

- Shifted **45%+ of all interactions** to fully automated self-service

- Enabled consistent customer responses and 24/7 support

- Created a scalable framework for future AI-driven improvements

Visual Showcase

Panel 1

Message Us

This is the beginning of your conversation with us. Please send a message to get started.

Hi
You · 5:19 PM · Sent

We offer lifetime warranties on glass replacement workmanship excluding accidental damage and insurance.

What would you like to do?
Test Glass · 5:19 PM

Send a message...

Panel 2

Message Us

How do you determine prices?
You · 5:21 PM

Our pricing is based on type of glass and vehicle model. We do not accept any insurance.

Did this answer your question?
Test Glass · 5:21 PM

Yes
You · 5:21 PM · Sent

I hope I answer your question. Is any thing else you want me to do?
Test Glass · 5:21 PM

[Yes] [No]

Send a message...

Panel 3

Message Us

Yes
You · 5:22 PM

What would you like to do?
Test Glass · 5:22 PM

Do you provide service to vintage cars in your area?
You · 5:23 PM · Sent

Yes we cover 50 kilometers radius including vintage cars. We do not accept any insurance.

Did this answer your question?
Test Glass · 5:23 PM

[Yes] [No]

Send a message...

Panel 4

Message Us

accept any insurance.

Did this answer your question?
Test Glass · 5:24 PM

Yes
You · 5:24 PM

I hope I answer your question. Is any thing else you want me to do?
Test Glass · 5:24 PM

No
You · 5:24 PM · Sent

We're here if you need more help. Take care!
Test Glass · 5:24 PM

Send a message...

Panel 5

Message Us (mirrored)

Fri
You · 1:21 PM · Sent

We offer lifetime warranties on glass replacement workmanship excluding accidental damage and insurance.

What would you like to do?

I'd like to learn about appointment preparation
[Learn about appointments]

Test Glass · 1:21 PM

Send a message...

Panel 6

Message Us

Learn about appointments
Test Glass · 1:23 PM

Learn about appointments
You · 1:24 PM · Sent

What would you like to know about appointments?

Scheduling tips
[What are some tips for sc...]

Test Glass · 1:24 PM

Send a message...

Panel 7

Message Us

ion   Scheduling tips
mo...   [What are some tips for sc...]

Test Glass · 1:24 PM

What are some tips for scheduling an appointment?
You · 1:24 PM · Sent

Schedule your appointment early and have your vehicle details ready We do not accept any insurance.

Just double checking, Is there anything else you would like to do?
Test Glass · 1:24 PM

[Go back to main menu] [End chat]

Send a message...

Panel 8

Message Us

else you would like to do?
Test Glass · 1:24 PM

Go back to main menu
You · 1:24 PM · Sent

What would you like to do?

I want to book mobile service
[Book Mobile Service]

Test Glass · 1:25 PM

Send a message...

Panel 9

Message Us

I want to book mobile service
[Book Mobile Service]

Test Glass · 1:26 PM

Book Mobile Service
You · 1:26 PM · Sent

What is the vehicle make
Test Glass · 1:26 PM

[Toyota] [Honda]

Send a message...

Message Us (Chat 1)

I want to book In-Shop Service

Book In-Shop Service

Test Glass · 1:27 PM

How long does special vehicle glass replacement take?

You · 1:28 PM · Sent

Glass replacement time depends on vehicle type and damage usually between one to three hours. Insurance is not accepted.

Did this answer your question?

Test Glass · 1:28 PM

Yes   No

Send a message...

Message Us (Chat 2)

AM to 5 PM and closed on Sundays. We do not accept any insurance.

Did this answer your question?

Test Glass · 1:30 PM

Yes

You · 1:30 PM

Just double checking, Is there anything else you would like to do?

Test Glass · 1:30 PM

End chat

You · 1:30 PM · Sent

Thanks, goodbye

Test Glass · 1:30 PM

Send a message...

Architect / Digital Bot Flow — Muhammad Irfan

This flow is not currently open for edit.

Test Glass Digital Assistant IM-Dev-Lab

Save As... | Version 5.0 | Export | Validate 2 | English (United States) | Edit | Execution History...

Search flow

Flow diagram

What Next 15

Start

16 Ask for Yes / No
Question: I hope I answer your question. Is any th

Yes   No

18 Wait for Input
Question: What would you like to do?
And 2 more...

End of Task

21 Update Data
1: Flow.WhatNext – Disconnect

19 Exit Bot Flow

End of Flow

Update Data 21

Name
Update Data

Update Statements

1 Flow.WhatNext
A Disconnect

Variable Name 1
A Flow.WhatNext

Value To Assign 1
Disconnect

Architect / Digital Bot Flow — Muhammad Irfan

This flow is not currently open for edit.

Test Glass Digital Assistant IM-Dev-Lab

Save As... | Version 5.0 | Export | Validate 2 | English (United States) | Edit | Execution History...

Search flow

Knowledge

Default Knowledge Base

Once you select a Knowledge Base, you can enable Knowledge on one or more Ask for Intent actions. Only published Knowledge Bases whose language is compatible with the flow's supported language are available for selection.

Test Glass   135 Article(s)
professional auto glass repair and replacement services

Date Created: June 27, 2025 2:39:27 AM
Last Modified: June 24, 2025 5:34:35 PM

Test Glass

Note: Alternative Knowledge Bases can be managed in Supported Languages.

General   Answer   Disambiguation   Feedback   Follow up   Standard Custom

Feedback
Configure feedback for full Knowledge answers & answer highlights.

Knowledge Confirmation
Enables or disables the 'Knowledge Confirmation Response' confirmation once the answer has been presented.

🔵 Knowledge Confirmation enabled

Knowledge Confirmation Response
Wording the bot will use after speaking or printing a single Knowledge answer. For example, 'Did this answer your question?'

Did this answer your question?

Conclusion / Key Takeaway

This project proves that with the right conversational design and platform (Genesys Cloud CX), even legacy support systems can evolve into intelligent, AI-powered customer experiences. The combination of structured knowledge, automation logic, and smart routing drastically reduced manual work and enabled fast, scalable service for both customers and agents.