

# STREAMLINING IVR ROUTING

A Destination Consolidation Case Study for a Fortune 50  
Telecom Provider

## CLIENT PROFILE

- Industry: Telecommunications
- Client: Fortune 50 Telecom Provider
- Solution: Contact Center Solutions

## BACKGROUND

Contact centers are a major driver of operating costs for businesses. While some of these costs are unavoidable, there are other costs that are incurred due to suboptimal call handling and are preventable with a well-designed call routing architecture. For example, there is a cost associated with transferring calls between agents. Transfers are needed when a caller is not routed to the most suitable agent for their purpose of call. Transfer costs can be easily avoided if the routing logic is set up to route callers correctly on the first attempt.

These transfer costs can accumulate quickly for businesses with a large customer base. **One study found that 23.5% of callers surveyed experienced frequent call transfers.** Therefore, if a contact center receives a million calls a day (often a typical call volume for large businesses) and every transfer costs \$5, then even a 1% daily transfer rate would lead to \$2.6 million a year in transfer costs alone. **35% of customers say that resolving the issue in one interaction is the most important aspect of a good customer service experience, while 20% say that not having to repeat information is important to them.**

Suboptimal routing logic can also lead to high and often unexpected technical debt.

In 2021, Kenway identified an opportunity to streamline the agent routing architecture for our client, a Fortune 50 telecommunications provider.

If there is a routing change required and the routing architecture is complex with multiple decision points, large teams must spend extensive hours solutioning and testing the changes before they can be released to production.

Over time, the routing architecture had become very segmented, causing the same rules to be coded in multiple places. This made it very difficult to understand the current state routing flows, impacting the speed and accuracy with which the rules could be updated.

A streamlined routing architecture can significantly reduce the time it takes for routing updates to be implemented and decrease the likelihood routing defects are implemented.

The project included a holistic review of the client's current routing design, identification of redundancies in routing logic, and standardization of the technical design, subsequently reducing the overall complexity in routing.

# PROBLEM

The client offers a variety of products and services to its millions of customers. To support these customers, the client's primary IVR needs to be able to route callers accurately the first time they call. Over time, with customer growth, new products and services, and business segmentation the routing architecture became increasingly complex and difficult to maintain.

Some of the main pain points were as follows:

## Complex Routing Architecture

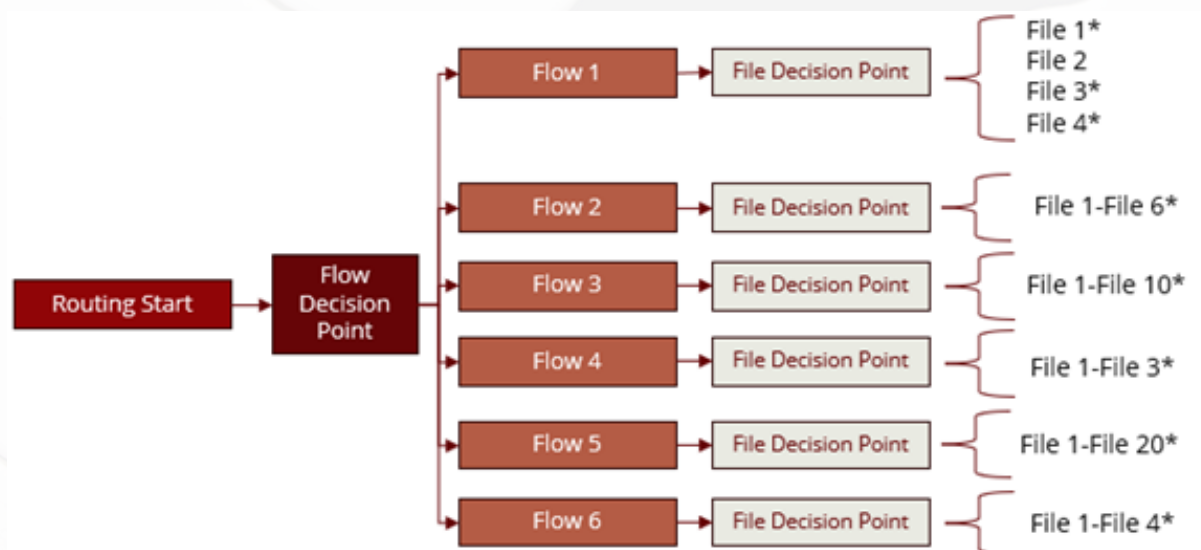
Routing rules were spread across multiple levels in the routing hierarchy. Prior to the consolidation work, the routing rules were segmented across six unique routing flows, each with a unique coding methodology (see Visual 1).

Each of these flow decision points, and routing files had a unique architecture and coding methodology, increasing the complexity to make a routing change.

As an example, routing file 1 was duplicated across six files (I.e., flow 1: code file 4, flow 3: code file 5) due to the way the routing files were organized, causing unnecessary confusion and additional work if changes were needed later.

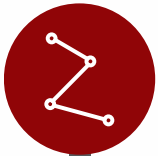
As a result, a change in routing for a specific product, line of business, or type of caller meant making changes in several different sections of code.

This introduced defects such that callers with very similar intents and other properties would route differently. Once identified, it would take considerable time and effort to investigate the root cause for the defects and develop a fix.



\*Indicates Duplicated rules

# PROBLEM



## **Redundant Routing Rules**

The complexity in routing architecture created the need for redundant routing rules spread across multiple code files. This led to increased technical debt and made it more difficult for scrum teams and business analysts when trying to understand agent routing. The redundancies also made it time-consuming to document the rules and routing logic.



## **Unused Routing Rules and Destinations**

There were several routing rules and agent destinations that were no longer used to route callers. Scrum teams and business analysts had to account for this unused logic when making routing changes.



## **Complex and Inconsistent Intent Mapping**

Routing rules leverage different combinations of variables. Ideally, said variables should have a finite number of possible values so that most scenarios can be accounted for. Modern IVRs use natural language understanding (NLU) to recognize and interpret speech. Kenway found that variables used in routing rules were sometimes populated with invalid values, leading to misrouted calls.



## **Inconsistent Design Standards**

Design standards differed across scrum teams and code files. This meant that business units were limited in terms of which scrum teams they could use to implement changes. High risk of introducing defects.

# SOLUTION

Kenway performed a thorough analysis of the client's current routing architecture. This included reviewing the legacy routing architecture, understanding the needs of the various impacted business units, identifying sources of inconsistent and/or redundant routing logic, identifying unused areas of routing, and creating design standards that would be best suited to the client's organization.

## **Simplified Routing Architecture**

- Kenway identified redundancies and inconsistencies in the existent routing architecture.
- Consolidated routing rules, eliminating duplication of logic while ensuring that callers still routed to the same sets of agents as the legacy architecture.
- Re-architected the entire routing flow to reduce complexities and duplication across code.
- Standardized the logic into one coding methodology, improving the readability of the logic by all scrum teams.

## **Elimination of Unused Routing Logic and Destinations**

- Eliminated unused routing logic to deliver a streamlined, more efficient architecture.
- New routing design reduced the number of routing rules in use by 57%.
- Reduced analysis time needed by scrum teams and business analysts by up to 50%.

## **Standardized Data Mapping and Design Standards**

- Kenway established and implemented design standards to ensure consistency across all areas of routing.
- Hosted live training sessions for business analysts and others involved in maintaining the routing logic.
- Ensured that upcoming launches of the new architecture were always communicated before they happened.

## **Implementation & Transition Strategy**

The client's contact centers receive over 500,000 calls per day. Errors can cause unwanted outcomes like misroutes and inevitable transfers, callers being hung up on, calls becoming stuck in loops, and longer wait times. The following steps were taken to ensure a smooth transition that minimized risk while ensuring that the transition was completed in a timely manner.



### **Implementation of a Test Workflow:**

- Designed a test workflow to run the new routing architecture simultaneously with the existing one, providing designers with real time insights into the new routing rules architecture.
- The test workflow showed where the calls would have routed had the IVR used the new routing logic.
- Ensured that any discrepancies were identified and fixed before the new design went into effect, mitigating the potential risk of misroutes and the cost implications for our client.

### **Ability to Switch Between Workflows:**

- Developed a toggle system to allow the IVR to switch between the old and new routing logic.
- If defect was found in the new design, the IVR could be instructed to revert to using the legacy routing within a few minutes.

### **Phased Implementation for High-Risk Areas:**

- Adopted a phased implementation approach to enable the new routing for a percentage of callers and route the remaining callers using the existing design.

# RESULTS

Kenway used its contact center solutions expertise to develop a streamlined routing logic with fewer decision points, without negatively affecting the callers' final agent destination.

The new routing design routes callers using 1,000 fewer routing rules and reduced the number of routing flows by 71% without negatively impacting accuracy.

With a 57% reduction in the number of routing rules and up to 50% reduction in destinations, the new architecture is easier to maintain and update, leading to faster solutions and lower technical debt.

The team executed a carefully planned transition strategy to minimize risk and used Kenway's change management methodology to acclimate stakeholders and users to the new routing.

If you're ready to take the next step in optimizing your IVR Routing architecture, connect with us to discuss how our call center consulting experts can help your company achieve a streamlined IVR Routing.



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