

# CASE STUDY

## UTILITIES INDUSTRY

Test and validate AI IVR ensuring flawless, compliant deployment

Project: IVR Platform Upgrade



### KEY OUTCOME 1

Zero critical defects identified in UAT or production



### KEY OUTCOME 2

Proven system resilience and fallback



### KEY OUTCOME 3

Verified AI transcription accuracy

## BACKGROUND

A major state-owned retail water corporation embarked on a contact centre transformation to replace its legacy Avaya IVR platform with Amazon Connect. The objective was to deliver a more scalable, intelligent and customer-centric experience using AI-enabled features, real-time insights and omni-channel capabilities.

This transition supported the utility's broader goal to streamline service delivery and improve responsiveness during seasonal and emergency peaks.

The new IVR system aimed to empower agents with predictive analytics and integrated workflows including enhancing support for vulnerable customer segments.

The KJR team was engaged to lead the testing program to verify the functionality, end-to-end integration and facilitate user acceptance testing.

## CHALLENGE

Testing the newly implemented Amazon Connect IVR presented several challenges related to its complex, AI-driven nature and integration with downstream systems. The new IVR solution relied on intelligent routing logic using caller ID (ANI) and account numbers to prioritise calls and streamline support for flagged vulnerable customers.

Testing had to ensure this logic worked under user input combinations, including error states and fallback scenarios.

Additional complexities included policy playback via agent quick connect, supervisor escalation workflows and queue diversion based on call wait times or priority.

Edge cases including special key inputs, out-of-hours, public holiday and evacuation behaviours required validation under real-world conditions.

## SOLUTION

KJR developed a targeted testing strategy to validate the new IVR platform to ensuring alignment with business goals, compliance standards and user expectations. This included verification of intelligent routing using ANI and account-level flags, real-time transcription and dynamic call summaries. Agent workflows were tested for policy playback and supervisor escalation handling. System fallback logic, call transfers and conference calling were validated through scenario-based testing.

Testing also confirmed alignment with privacy and regulatory requirements by verifying sensitive data, such as payment information, was successfully redacted from call recordings and transcripts

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## DELIVERABLES

KJR delivered testing services to the customer encompassing system integration, end-to-end functional validation and UAT coordination. Test coverage included AI-generated transcripts, predictive topic selection and intelligent routing using both caller ID and account numbers.

IVR path testing validated the IVR menu flows, including edge cases like pressing \*, #, navigating backwards and error handling across menus. Scenarios validated sticky customer context across call transfers and returning caller recognition.

KJR also tested agent-initiated policy playback, supervisor flagging and response flows, as well as voicemail and outbound call handling.

## KEY OUTCOMES

The KJR testing program enabled a confident and defect-free deployment of the customer's advanced IVR system, designed to enhance both agent productivity and customer experience. Intelligent routing based on ANI and account-level flags was tested, ensuring that callers, especially those flagged for hardship, emergency support or vulnerable callers were seamlessly directed to the correct queue.

Sticky customer context was preserved across complex menu transitions, reducing the need for customers to repeat information. The agent experience was improved through tested workflows for flag raising, quick policy playback and seamless call transfers or supervisor conferences.

The system's resilience was proven through fallback testing, confirming that calls were correctly redirected in the event of system errors. Queue management logic was also validated to support call prioritisation and reduce wait times. Transcripts and summaries accurately captured interactions, while sensitive data was successfully redacted to meet compliance standards.

No major defects were found during UAT or production rollout. Post-launch feedback led only to enhancement requests, demonstrating the effectiveness of KJR's testing strategy and services delivery.

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### VALUE TO CLIENT

The customer's transition to a next-generation IVR platform using Amazon Connect was significantly de-risked by the KJR structured, end-to-end testing program. The KJR test strategy validated not only functionality but also user experience and integration accuracy across Salesforce and billing platforms. The result was a smooth go-live, with zero critical issues raised in UAT or production. The outcome underscored the value of rigorous, scenario-based testing across core, edge and exception flows.

Intelligent call routing, real-time transcription and AI-generated summaries were verified for reliability and accuracy, while sensitive data handling met privacy requirements. The KJR validation of policy playback, supervisor escalation flows and queue management logic gave agents and supervisors confidence in their tools and workflows. The customer now benefits from real-time visibility through supervisor dashboards, dynamic queue control and better support for vulnerable callers through prioritised routing.

By embedding testing throughout the agile delivery lifecycle, KJR was able to help the customer reduce the risk of implementing a new AI enabled IVR solution. The result is the new IVR solution is now in production supporting the customer's strategic service objectives.

### TOOLS & TECHNOLOGIES

Avaya, Amazon Connect, Amazon Transcribe, Amazon Comprehend, Salesforce

