

CASE STUDY

UTILITIES INDUSTRY

Validating the reliability of a new website chatbot & omni-channel platform

Project: Chatbot Widget Testing



KEY OUTCOME 1

Increased confidence in solution reliability



KEY OUTCOME 2

Reduced Go-Live implementation risk



KEY OUTCOME 3

Validated stronger security controls

BACKGROUND

A large Victorian water authority introduced a chat widget for its public website and portal users with omni-channel messaging as part of their digital customer experience transformation. This initiative aimed to extend their customer service reach beyond the call centre by providing a seamless digital channel for account-related, billing, and service enquiries.

The automated agent chatbot was designed to triage initial questions, verify customers, and escalate complex cases to live agents within their omni-channel platform. To enhance security during customer validation, Multi-Factor Authentication (MFA) via One-Time Password (OTP) verification was introduced.

This project represented a key step in the customer vision to provide customers with consistent, connected, intelligent and secure self-service options across messaging channels.

CHALLENGE

Testing the chat widget and omni-channel platform presented several complexities, including validating the new MFA/OTP verification processes, ensuring smooth self-service navigation, and confirming seamless routing to live agents when requested. A testing framework was required to ensure accuracy across verification steps, escalation paths and customer handoffs.

Challenges included verifying multi-step data capture for customer identity, maintaining chat continuity during agent transfers and confirming transcripts were properly recorded for future dispute resolution.

Additional considerations included validating out-of-hours handling, escalation logic and ensuring the chat flow could recover gracefully when customers navigated backward or posed unstructured or unexpected questions.

SOLUTION

KJR developed a comprehensive testing approach covering both functional and experiential aspects of the messaging chatbot and omni-channel systems. Test scenarios validated all initial customer queries, MFA/OTP verification flows, data handling, and escalation triggers to human agents. Structured test cycles replicated real-world conditions—verifying chatbot behaviour across supported topics, response accuracy, and fallback handling for unknown queries.

End-to-end tests confirmed verified customer information and conversation transcripts were maintained with full context. Testing also ensured agents could manage up to three concurrent chat sessions while maintaining quality. Out-of-hours and public holiday routing were validated for compliance with the customer's operating model.

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DELIVERABLES

KJR delivered a complete suite of system integration and user acceptance tests across the public website and portal chat widget and omni-channel platform. Test assets included coverage of automated agent logic, identity verification using MFA/OTP and escalation processes to human agents. The testing validated key agent functions including agents managing up to three concurrent chats, searching customer accounts, transferring conversations and raising supervisor flags.

KJR's testing also confirmed that chat transcripts were captured and archived for future dispute resolution. Reporting dashboards summarised outcomes, coverage metrics and incident classifications.

KEY OUTCOMES

The testing engagement ensured the customer's website chat widget and omni-channel system launched smoothly, providing customers with a secure and efficient digital channel for resolving enquiries. End-to-end testing validated the chatbot accurately recognised and responded to common queries including billing, payments and moving house, while escalating complex queries to a live agent when necessary.

MFA/OTP verification was successfully tested, ensuring customer identity was securely validated before account access or sensitive discussions.

The omni-channel integration maintained complete conversation transcripts for every interaction, enabling dispute traceability and continuity across transfers.

Self-service features including "More Time to Pay" (MTTP) requests, access to bill copies and links to other helpful URLs. Out-of-hours testing confirmed the request to chat with agents were handled gracefully, maintaining a good customer experience.

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VALUE TO CLIENT

KJR provided the customer with confidence in the reliability, security, and compliance of its new website chat and omni-channel platform through their structured testing approach.

The testing process provided validation of all customer touchpoints from automated chatbot interactions to live agent engagements, ensuring MFA/OTP verification, data integrity, and service continuity were maintained at every step.

The project delivered measurable business value by reducing call centre load and providing customers with convenient digital self-service features, including more time to pay requests, bill copies and other essential links. Verified integration between the chatbot and omni-channel system ensured agents had full visibility of prior conversations and access to complete transcripts, improving handling time and supporting dispute management.

KJR's testing also verified agents could efficiently manage up to three simultaneous chat sessions. Usability enhancements identified during testing including improved backward navigation and handling of non-standard queries.

By applying rigorous quality engineering practices, KJR ensured the delivery of a stable, secure, and intelligent digital service channel that enabled the customer to strengthen its customer engagement strategy.

TOOLS & TECHNOLOGIES

Adobe Experience Manager, AWS Omnicat, Amazon Connect, Amazon Comprehend, Salesforce,

