GUIDE

TESTING AI IN CONTACT CENTERS:

From Complexity to Confidence

A Strategic Guide for Contact Center Leaders

KENWAY CONSULTING

EXECUTIVE SUMMARY

The AI Testing Challenge

Contact centers are undergoing a profound transformation. AI—from Generative to Conversational to Predictive to Agentic—has fundamentally changed how organizations design, build, and test their customer experience applications.

While these innovations unlock tremendous potential, they introduce unprecedented testing complexity. Organizations still relying on manual testing can validate only a fraction of critical conversation paths before deployment.

The Gap Is Widening

The gap between AI development velocity and testing capacity has become the primary bottleneck in contact center transformation initiatives—creating costly compliance issues, reputational risk, and erosion of customer trust.

25x
Faster testing vs. manual approaches

UP TO
85%
Test coverage achieved with automation

50%
Reduction in defect-related costs

$1.4M
Annual savings (client example)

The Evolution of AI in Contact Centers

4 Types of AI

Generative AI Delivering personalized, real-time responses that adapt to customer context and history

Conversational AI Enabling natural, human-like interactions across voice, chat, and digital channels

Predictive AI Anticipating customer needs and routing interactions intelligently

Agentic AI Autonomously coordinating tasks across systems and workflows without human intervention

The Breaking Point

Even before AI, testing contact center applications posed significant challenges. The introduction of AI amplifies these challenges exponentially. Manual testing can validate only 25% of critical paths and takes days to complete, while traditional automation struggles with high maintenance overhead and cannot handle AI's non-deterministic responses—leaving organizations trapped between two inadequate approaches that both fail to scale with modern complexity.

The Real Consequences

Rising Costs	Deployment Bottlenecks	Customer Trust Erosion
Firefighting defects post-deployment	Weeks-long validation cycles	Broken experiences in production

UNIQUE AI TESTING CHALLENGES

What Makes AI Different

Non-Deterministic Behavior

AI models can generate different responses to the same input. Testing must account for tolerance ranges and confidence thresholds, not exact matches.

RISK: Unmanaged variability leads to false test failures, missed defects, and unpredictable customer experiences.

Intent Recognition & NLP Performance

Testing must confirm that the NLP engine accurately interprets diverse language patterns—including informal speech, accents, and dialects.

RISK: Small model changes can cause major drops in intent accuracy, increasing transfers and frustration.

Multi-Turn Dialog Management

Robust testing must evaluate how the system maintains context across multi-turn interactions, including interruptions and branching paths.

RISK: AI assistants lose context mid-conversation, creating broken journeys and customer abandonment.

Omnichannel Complexity

Conversational AI must be tested across channels (web, mobile, SMS, voice), each with unique formatting and interaction patterns.

RISK: Experiences break inconsistently across channels, damaging trust and inflating support demand.

THE POWER OF TEST AUTOMATION

The Modern Solution

Test automation is the use of software to automate parts of the testing process, enabling comprehensive validation with minimal human intervention.

Speed & Efficiency

Reduce validation time from days to hours. One client shortened test cycles by enabling faster feedback and improved efficiency.

Comprehensive Coverage

Validate thousands of intent variations and conversation paths that would be impossible to test manually—achieving 85% test coverage.

Scalable Quality

Maintain consistent quality standards as conversational AI systems grow across new channels and use cases.

Continuous Monitoring

Provide continuous validation against live systems, detecting performance degradation before it impacts customers.

Real Impact

In one enterprise implementation, Kenway's automation framework helped identify defects **40% earlier** in the testing lifecycle, preventing issues from reaching production.

Teams reported a **25% reduction in post-deployment incidents** within six months.

Get the Complete Testing Framework

Transform Your Testing

Download the Full White Paper and Access:

- A detailed Fortune 500 case study with implementation roadmap
- All four unique AI testing challenges with mitigation strategies
- Botium platform capabilities and integration guide
- Kenway's proven 4-step methodology
- Technical dependency framework including critical success factors

Download Full White Paper

If you're ready to build a scalable, future-ready AI testing foundation, Kenway is ready to lead you forward.

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