



Enabling Intelligent Call Routing with UBIX in AWS Connect

Optimize AWS Connect with UBIX for AI-driven customer data enrichment, predictive analytics, and real-time adaptive call routing



Overview

AWS Connect provides a flexible, scalable cloud contact center, but its built-in routing relies primarily on static rules and predefined configurations. UBIX, a powerful data intelligence platform, enhances AWS Connect by integrating advanced AI-driven customer data enrichment, predictive modeling, and real-time adaptive routing, leading to a more dynamic and personalized customer experience. The business benefits include reduced wait times, faster resolution time, and improved customer satisfaction.

Current AWS Connect Limitations

AWS Connect's native capabilities present key limitations:

- **Limited Real-Time Data Processing:** AWS Connect lacks advanced real-time customer data enrichment, limiting personalization during call routing.
- **Basic Routing Logic:** Routing is primarily rule-based, requiring manual updates rather than continuous AI-driven optimization.
- **Lack of Predictive Modeling:** No native reinforcement learning to improve routing efficiency dynamically.

- **Fragmented Customer Data:** AWS Connect does not inherently unify customer data across multiple sources (e.g., Salesforce, emails, phone calls), making it difficult to create a single, enriched customer profile.

Enhanced Call Routing Process

UBIX extends AWS Connect by integrating AI-powered data analysis and machine learning-driven call routing (Figure 1).

- **Data Collection & Enrichment**
 - Ingests real-time data from AWS Connect and other sources (e.g., Salesforce).
 - Performs entity resolution to unify customer profiles.
 - Applies data imputation and feature engineering to enhance missing or incomplete data.
- **Predictive Agent & Queue Assignment**
 - Aggregates agent performance and availability data to optimize assignments.
 - Uses predictive modeling to forecast call duration and resolution likelihood.

- Employs reinforcement learning to continuously refine routing decisions.
- **AI-Driven Call Routing Execution**
 - Classifies incoming calls based on intent, sentiment, and history.
 - Updates AWS Connect's contact flows dynamically via AWS Lambda functions.
 - Utilizes APIs to modify routing rules in real time based on AI-driven recommendations.
- **Continuous Optimization & Feedback Loop**
 - Captures routing performance metrics via AWS Connect Contact Trace Records (CTRs).
 - Adjusts routing algorithms dynamically based on ongoing call outcomes.
 - Enhances AI models with ongoing training from real-world interactions.

Intelligent Call Routing Based on Enriched Customer Data

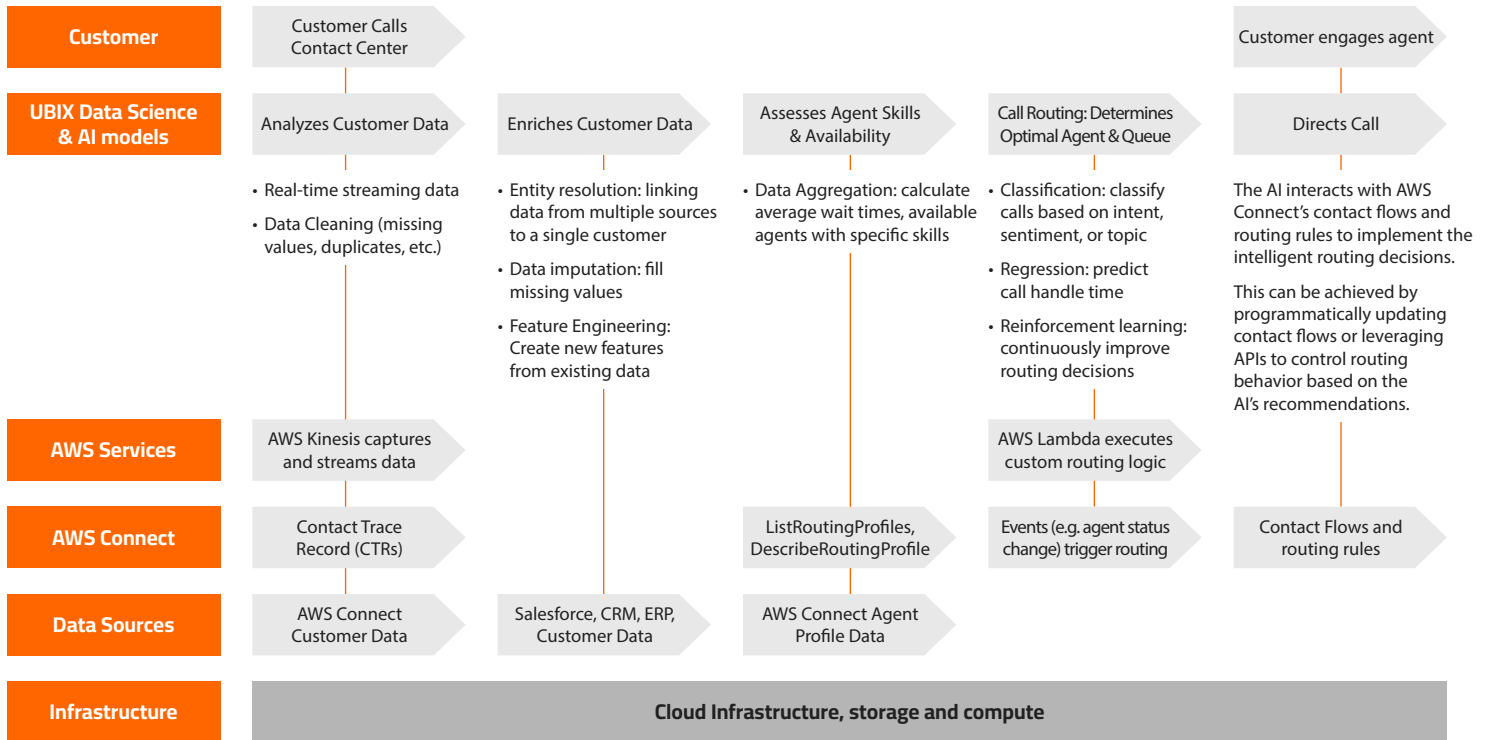


Figure 1. Intelligent Call Routing Based on Enriched Customer Data for AWS Connect



Conclusion

UBIX transforms AWS Connect's traditional rule-based call routing into an adaptive, intelligence-driven system. By enriching customer data, leveraging predictive analytics, and continuously optimizing routing decisions, businesses can enhance customer satisfaction, reduce call handling time, and improve overall operational efficiency.

About UBIX

UBIX, a pioneer at the intersection of Generative AI and Reinforcement Learning, delivers the right data to the right business leader at the right time, improving daily decisions that impact productivity, waste, compliance, growth, and profitability. Our patented no-code SaaS platform optimizes real-time business decisions without the need for specialized

tools and resources by contextualizing and presenting data from inside and outside the enterprise in minutes not days. We modernize AI and ML innovation for digital transformation success enabling businesspeople to directly participate in AI innovation.

For more information please visit www.ubixlabs.com