



IT SOLUTIONS • AI STRATEGY

AI-Driven Fraud & Risk Detection for Hospitality Businesses

Objective

Minimize financial loss, improve guest security, and protect brand reputation by automatically identifying and responding to fraud and risk in bookings, payments, and system access.

Actors

- Security managers
- Finance/Compliance Teams
- Oracle Fusion Cloud Risk Management, Oracle Autonomous Database, Oracle Cloud Infrastructure (OCI), Oracle Hospitality OPERA PMS

Business Problem

Vacation rental providers face rising threats from synthetic bookings, payment fraud, and account takeovers, often orchestrated by attackers using AI tools. Manual fraud checks are slow, error-prone, and outmatched by evolving scams, potentially impacting profitability and compliance.

Solution

AI-enabled fraud detection monitors transactions, booking patterns, and behavioral signals in real-time to identify and flag risks or anomalies. Suspicious activities are escalated instantly for investigation, preventing losses and protecting guest data. This automatic vigilance ensures compliance, boosts stakeholder confidence, and keeps assets safe, without draining staff resources.

Key Functions

- Identifying abnormal patterns, such as rapid bookings, foreign access spikes, or high-risk payment methods
- Verifying guest IDs and documents against unknown fraud signals and deepfake detection databases
- Flagging transactions or profile updates that fall outside normal parameters, triggering real-time escalations for human review
- Continuously updating fraud models based on new detected threats and global trends

Business Flow

- System captures booking, payment, and profile data in Oracle OPERA PMS, storing behavioral data in Oracle Autonomous Database
- AI agents on OCI run fraud analysis models, scoring each transaction/user for risk in real time.
- Oracle Fusion Risk Management automates workflow: alerting staff, restricting suspicious access, generating detailed audit trails, and orchestrating incident handling.
- Dashboards and AI-generated narratives summarize findings for rapid investigator action and regulatory reporting

Business Value

- Reduces **chargebacks, fraud losses, and regulatory fines**
- Accelerates investigation cycles by automating evidence collection and case workflows
- Improves guest trust and retention by protecting personal and financial data
- Strengthens regulatory and policy compliance

Oracle Product Mapping

Oracle Fusion Cloud Risk Management: Embedded controls, role-based access, AI-powered alerts and reporting.

Oracle Autonomous Database: Behavioral analytics, anomaly detection.

Oracle Cloud Infrastructure (OCI): AI agent deployment, orchestration, and secure integrations.

Oracle OPERA PMS: Data source for guest and booking activity.

Deploying Oracle's AI-driven fraud and risk detection delivers robust, scalable protection against rapidly evolving threats—helping hospitality businesses stay one step ahead of fraudsters and safeguard their operations.