

WHITE PAPER

# The Future of Insurance:

## How AI-Powered Workflow Automation is Transforming Insurance Carriers and Agencies

Oryele | AI-Powered Workflow Automation for Insurance Organizations

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### EXECUTIVE SUMMARY

The insurance industry is navigating profound disruption. Carriers and agencies face mounting regulatory complexity, rising claims volumes, intense competition from insurtech entrants, persistent talent shortages, and growing policyholder expectations shaped by digital-first experiences.

While many organizations have adopted policy management and claims platforms, significant operational inefficiencies persist across new business intake, underwriting workflows, claims handling, policyholder communications, and compliance reporting.

This paper explores how insurance organizations can leverage AI-driven workflow automation to reduce loss ratios, accelerate policy and claims cycles, improve policyholder satisfaction, and build a competitive operational foundation for long-term growth.

## THE CURRENT STATE OF THE INSURANCE INDUSTRY

# Manual operations are compressing margins and slowing growth.

Insurance organizations today face a convergence of operational, regulatory, and market pressures that challenge both near-term profitability and long-term competitive positioning.

### Operational and Administrative Burden

Insurance professionals spend a disproportionate share of their time on manual, low-value administrative tasks rather than the judgment-intensive work that drives business outcomes. This mismatch erodes profitability and frustrates high-value talent.

#### Required Security and Compliance Capabilities

- Manually collecting and validating new business application documents
- Routing submissions to underwriters and tracking outstanding items
- Responding to repetitive policyholder inquiries about coverage and claims status
- Generating and distributing policy documents, endorsements, and renewal notices
- Coordinating across adjusters, vendors, and claimants during claims handling
- Compiling compliance reports and regulatory filings across multiple jurisdictions

### Rising Policyholder Expectations

Today's policyholders demand instant policy quotes, real-time claims status updates, digital document delivery, and 24/7 self-service options. Organizations that cannot deliver fall behind on renewal rates and net promoter scores.

**THE PROBLEM IN NUMBERS**

# What operational inefficiency costs insurance organizations.

The administrative burden in insurance is measurable. Every delay in the new business cycle, every manual follow-up, every repeated inquiry handled by a specialist is a quantifiable cost to the organization.

**67%**

**Faster policy processing**

brokerages implementing automation reduce processing times on average

**70%**

**Routine inquiry deflection**

of all routine customer inquiries handled by AI agents

**60%**

**Claims processing time reduction**

for insurers using AI-driven claims automation

**Sources**

→ 67% average reduction in policy processing times: McKinsey 2023 Digital Insurance Compendium, via Decerto Insurance Research (2026)

→ 70% of routine customer inquiries handled by AI agents: Conning 2024 Insurance Industry Survey, via Decerto Future Trends in Insurance CRM (2025)

→ 60% reduction in claims processing times for insurers using AI systems: McKinsey & Company, The Future of AI in the Insurance Industry (2024)

→ 50% of insurance workforce retiring by 2028; automation critical to operational continuity: Talli Claims Industry Statistics (2025); Deloitte Insurance Industry Outlook 2025

KEY USE CASES FOR INSURANCE ORGANIZATIONS

# Five workflows that accelerate policy and claims operations.

01

## AI New Business Intake Agent

Quoting and binding new policies requires collecting applications, loss runs, supplemental questionnaires, and supporting documents. An AI Intake Agent automates document requests, validates completeness, routes submissions to the appropriate underwriter, and creates the policy record, reducing manual handling at every step.

**Key benefits:** Faster submission-to-quote • Reduced NIGO rates • Improved producer experience

02

## AI Claims Document Collection Agent

Claims handling is frequently delayed by missing documentation from claimants, medical providers, repair shops, and third parties. AI systematically requests outstanding items, sends automated reminders on configurable schedules, tracks fulfillment across all open claims, and escalates unresolved items to adjusters.

**Key benefits:** Shorter claims cycle times • Reduced adjuster workload • Faster settlements

03

## AI Policyholder Service Agent

Insurance organizations field thousands of repetitive policyholder inquiries daily. Questions about coverage details, claims status, payment due dates, and policy documents. An AI Service Agent provides immediate, accurate responses integrated directly with policy and claims systems, at any hour without agent involvement.

**Key benefits:** 24/7 policyholder support • Reduced call center volume • Higher NPS scores

**04 AI Underwriting Knowledge Assistant**

Underwriters and agents spend significant time searching for appetite guidelines, coverage forms, state filing requirements, and rating manuals. An AI Knowledge Assistant delivers instant access to approved underwriting guidelines and product documentation, ensuring consistent decisions across the organization.

**Key benefits:** Faster risk assessment • Consistent guideline application • Accelerated onboarding

**05 AI Workflow and Process Orchestration**

Insurance organizations operate across multiple disconnected platforms including policy administration, claims, CRM, document management, and Microsoft 365. AI-powered workflow orchestration automates task routing, approval workflows, escalations, compliance triggers, and status tracking across all systems simultaneously.

**Key benefits:** End-to-end process visibility • Reduced E&O; exposure • Faster cycle times

**EXPECTED BUSINESS OUTCOMES**

# Execution that can be measured.

Insurance organizations implementing AI workflow automation consistently achieve measurable improvements across operational efficiency, policyholder satisfaction, and financial performance.

<b>Productivity Gains</b>	20-40% reduction in manual processing workload, freeing underwriters and adjusters for higher-value work.
<b>Faster Policyholder Response</b>	Near real-time responses to coverage and claims inquiries, improving NPS and reducing churn.
<b>Improved Staff Retention</b>	Underwriter and adjuster satisfaction improves when high-value talent is freed from manual data tasks.
<b>Increased Written Premium</b>	Organizations can grow book of business without proportional increases in headcount or expense ratio.
<b>Lower Combined Ratio</b>	Reduced operational expenses and faster cycle times contribute directly to combined ratio improvement.

**SECURITY AND COMPLIANCE**

# AI without governance is risk.

Insurance organizations are custodians of some of the most sensitive personal, medical, and financial data in the economy. Any AI platform deployed must meet stringent security and regulatory requirements, including state insurance department data privacy rules, HIPAA where health information is involved, and SOC 2 expectations.

### Required Security and Compliance Capabilities

- Encryption at rest and in transit for all policyholder and claims data
- Role-based access controls aligned with lines of business and job function
- Multi-factor authentication across all user and system access points
- Comprehensive audit logging to support regulatory examinations and E&O; defense
- Configurable data retention policies aligned with state and federal requirements
- Support for HIPAA, state insurance department regulations, and SOC 2 compliance

**THE ORYELE PLATFORM**

# One platform. Every workflow. Better results.

Oryele was founded to help professional service organizations modernize their operations through intelligent workflow automation. The platform combines purpose-built AI with deep integration into the systems insurance organizations depend on every day.

### Platform Capabilities

- AI Agents and Intelligent Automation
- Workflow Orchestration Engine
- Microsoft 365 Deep Integration
- Policyholder Communication Tools
- Underwriting Knowledge Management
- Claims Process Orchestration

### The Result

A unified operating environment designed specifically for insurance organizations: faster policy cycles, lower loss adjustment expense, and superior policyholder experiences.

### CONCLUSION

The future of insurance will not be defined by organizations that simply adopt AI. It will be defined by those that successfully integrate AI into their core operational workflows, transforming how they quote new business, collect documents, handle claims, respond to policyholders, and manage compliance.

By automating repetitive operational tasks and enabling underwriters, adjusters, and agents to focus on judgment-intensive work, insurance organizations can improve combined ratios, enhance policyholder experiences, and build competitive advantages that scale with their business.

## Ready to Transform Your Insurance Operations?

Contact Oryele today to learn how AI-powered workflow automation can be tailored to your insurance organization.

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