FOR INSURANCE OPERATIONS & FINANCE LEADERS

Insurance Automation Opportunity Map

A QUICK-REFERENCE GUIDE

Underwriting · Claims · Finance & Accounting · Customer Service

A practical map to help you see where automation can create the most value in your operation.

CELEROPS · INSURANCE AUTOMATION OPPORTUNITY MAP

Why This Matters

For many operational leaders in the insurance industry, the question is no longer whether automation can help, but where it can have the greatest impact.

Across underwriting, claims, accounting, and customer support, teams still spend significant time moving information, reviewing documents, reconciling records, managing exceptions, and completing the steps required to keep work moving accurately and on time. Advances in automation and AI now make many of these activities more practical and economical to automate.

The challenge is determining what can realistically be automated today and where to focus first.

That is why the best place to start is with an assessment: understand how work is done today, identify where automation can create meaningful value, and prioritize opportunities based on impact, feasibility, and effort.

The objective is not to automate everything at once. It is to build a practical roadmap around the opportunities that make the most sense today.

That is what this map is designed to help you do.

> **WHO THIS IS FOR**
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> This guide is built for operations and finance leaders who want a practical read on where automation fits, whether you're evaluating your first project or deciding what comes after it.

How to Use This Map

The map is organized into four zones: Underwriting, Claims, Finance & Accounting, and Customer Service. Each zone breaks the function into its sub-processes and shows what the manual version looks like today, what automating it usually replaces it with, and the primary benefit of the change.

There are two ways to work through it:

- **On your own, in about fifteen minutes.** Jump to the zone that matches your role and read through its map.
- **With your team, in about thirty minutes.** Walk through the zones with your underwriting, claims, finance, and servicing leads and compare notes on what stands out. Expect priorities to differ; that disagreement is useful information, not a problem to smooth over.

As you go, note the one or two sub-processes that stand out. Those are usually worth a real conversation first, ahead of a long list of every possible use case.

At the end of the guide, you'll also see a quick framework for choosing the right automation approach for each opportunity.

> **BEFORE YOU START**
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> Read each zone the way your operation actually runs today, not the way you'd like it to run. That honest baseline is what makes the map useful.

The Four Operational Zones

In insurance operations, automation opportunities tend to cluster in four areas: Underwriting & Submission Intake, Claims, Finance & Accounting, and Customer Service. The table below summarizes each zone at a glance. The pages that follow map each one in full detail.

> **HOW TO READ EACH MAP**
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> Each zone page breaks the function down into its sub-processes. For each one, you'll see the manual task as it typically looks today, the automation opportunity, and the primary benefit of making the change.

ZONE	WHAT IT COVERS	KEY AUTOMATION FOCUS	BEST PLACE TO START
Underwriting & Submission Intake	New business intake through policy issuance and renewal preparation.	Document data capture, risk triage, and system population.	**Submission data capture**
Claims	First notice of loss through resolution, payment, and correspondence.	Intake, triage, documentation, and exception handling.	**FNOL capture**
Finance & Accounting	Bordereaux reconciliation, AP/AR, reporting, commissions and month-end close.	Payment application, invoice processing, compliance and real-time reporting.	**Payment applications**
Customer Service	Routine servicing, billing, renewals, and correspondence.	Self-service workflows and intelligent request routing.	**Routine servicing requests**

ZONE 1

Underwriting & Submission Intake

From the moment a submission arrives to the moment a policy is issued, underwriting runs on data that has to move between people, documents, and systems.

SUB-PROCESS	MANUAL TASK TODAY	AUTOMATION OPPORTUNITY	PRIMARY BENEFIT
New Business Intake	Submission data manually keyed from broker PDFs, emails, and scanned forms.	Automated document extraction and data capture from submissions.	Faster turnaround, fewer data-entry errors
Risk Triage	Every submission reviewed with the same manual effort, regardless of size or complexity.	Automated triage and routing by risk profile and premium size.	Underwriters focus on complex risks
Data Validation	Submission data manually cross-checked against internal records for accuracy or duplicates.	Automated validation and duplicate detection.	Fewer errors, faster clearance
Quote Preparation	Quote documents manually assembled from rating output, coverage terms, and pricing before being sent to the broker or insured.	Automated quote document generation pulling directly from rating and underwriting data.	Faster quote delivery, more consistent presentation
Renewal Preparation	Exposure and loss data manually pulled together ahead of each renewal.	Automated renewal packet assembly from existing data.	Quicker renewal turnaround
Broker/MGA Communication	Manual back-and-forth emails requesting missing submission information.	Automated missing-information requests and follow-ups.	Fewer back-and-forth cycles
Rating & Pricing	Rating factors manually pulled from multiple sources into rating worksheets.	Automated rating data aggregation feeding pricing tools.	Faster data gathering and more consistent quotes
Binder & Endorsement Processing	Binders and endorsements manually drafted from scratch.	Automated document generation from cleared submission data.	Faster policy delivery
Compliance & Filing Checks	State-specific filing and compliance requirements manually verified.	Automated compliance rule checks during intake.	Reduced compliance risk

WHERE TO START

If you do only one thing first, automate submission data capture. It touches every downstream step in underwriting.

ZONE 2

Claims

Claims handling is one of the most document-heavy and time-sensitive parts of the operation. Every manual step adds friction between a loss and its resolution.

SUB-PROCESS	MANUAL TASK TODAY	AUTOMATION OPPORTUNITY	PRIMARY BENEFIT
FNOL Intake	First notice of loss captured over phone, email or documents submitted, then manually entered into the claims system.	Automated FNOL information captured from unstructured documents or communications.	Faster claim opening
Triage & Routing	Adjusters manually review each claim to determine complexity and assign an owner.	Automated triage and routing by claim type and severity.	Faster assignment of adjuster or automated route
Document & Evidence Management	Photos, estimates, and correspondence manually organized and filed per claim.	Automated document classification, indexing and data extraction.	Less admin time per file
Status Updates & Correspondence	Claimant status updates sent manually, one at a time.	Automated status notifications and templated correspondence.	More consistent claimant experience
Exception Handling	Every claim manually reviewed for exceptions or potential fraud.	Automated exception flagging, with adjuster review only on flagged items.	Adjusters focus on true exceptions
Reserve Setting	Claim reserves manually calculated and adjusted case by case.	Automated reserve recommendations based on claim data and historical patterns.	More consistent reserving
Subrogation Identification	Files manually reviewed to identify subrogation potential.	Automated flagging of likely subrogation opportunities.	Recovered costs captured more consistently
Vendor & Repair Coordination	Repair vendors and appraisers manually scheduled and coordinated.	Automated vendor assignment and scheduling workflows.	Faster resolution
Claim Closure & Payment	Final claim payments manually calculated and issued.	Automated payment calculation and issuance workflows.	Faster payouts

WHERE TO START

If you do only one thing first, automate FNOL capture. It's the fastest win, and the entry point for the whole claim lifecycle.

ZONE 3

Finance & Accounting

Finance teams in insurance operations are often the last to see clean, real-time data. Most of the month goes to reconstructing data manually.

SUB-PROCESS	MANUAL TASK TODAY	AUTOMATION OPPORTUNITY	PRIMARY BENEFIT
Premium & Commission Reconciliation	Premium and commission statements manually matched against the general ledger.	Automated reconciliation across systems.	Faster close, fewer errors
Accounts Payable	Invoices manually entered and routed for approval.	Automated invoice capture, matching, and approval workflows.	Faster payment cycles
Accounts Receivable	Outstanding premiums and collections manually tracked and followed up on.	Automated AR aging and follow-up workflows.	Improved cash collection
Payment Applications	Incoming premium payments manually matched to policies and applied against the aging report, with exceptions researched one by one.	Automated payment matching and application against outstanding balances, with exceptions resolved or flagged for review.	Faster payment posting, fewer unresolved exceptions
Financial Reporting	Monthly reports built by manually pulling and combining data from different sources.	Automated, real-time reporting dashboards.	Always up-to-date visibility
Month-End Close	Multi-day close process pulling data from multiple systems by hand.	Automated data aggregation and close checklists.	Faster close cycle
Commission Statement Processing	Agent and broker commission statements manually entered and calculated.	Automated commission statement capture and calculation.	Fewer payment errors
Premium Audit	Exposure data manually collected and reviewed for premium audits.	Automated data collection and audit workflows.	Faster, more accurate audits
Regulatory & Statutory Reporting	Data for statutory filings manually compiled from multiple systems.	Automated data aggregation for regulatory reports.	Reduced filing risk

WHERE TO START

If you do only one thing first, automate reconciliation. It's usually the most time-consuming manual process in finance.

ZONE 4

Customer Service

Most servicing volume is repetitive and low-complexity, which makes it some of the easiest work in the operation to automate first.

SUB-PROCESS	MANUAL TASK TODAY	AUTOMATION OPPORTUNITY	PRIMARY BENEFIT
Policy Servicing Requests	Endorsements, certificates, and ID cards handled manually, one request at a time.	Automated self-service workflows for common requests.	Faster turnaround, less staff time
Billing Inquiries	Staff manually answer the same repetitive billing questions.	Automated billing FAQs and account lookup.	Freed-up capacity for complex questions
Renewal & Retention Outreach	Outreach ahead of renewal handled ad hoc, if at all.	Automated renewal reminders and retention workflows.	Improved retention, less manual tracking
Correspondence & Documentation	Routine letters and confirmations drafted manually each time.	Automated, templated correspondence generation.	Faster response, consistent tone
Call & Inquiry Routing	Inbound calls and emails manually triaged to the right team.	Automated, intelligent routing based on request type.	Faster resolution, less back-and-forth
Policy Changes & Endorsements	Mid-term policy change requests manually processed.	Automated endorsement processing workflows.	Faster turnaround
Complaint & Escalation Handling	Complaints manually logged and routed to the right team.	Automated complaint intake and escalation routing.	Faster resolution, better tracking
Payment & Billing Processing	Premium payments and payment-plan changes manually processed.	Automated payment processing and plan management.	Fewer errors, faster processing
Customer Satisfaction Follow-Up	Post-interaction follow-up handled manually and inconsistently.	Automated satisfaction surveys and follow-up workflows.	Consistent feedback loop

> **WHERE TO START**
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> If you do only one thing first, automate routine servicing requests. They're high-volume, low-complexity, and the easiest to hand off to automation.

Choosing the Right Automation Approach

Identifying an opportunity is only the first step. The next question is how much to automate and which approach fits the process — not every opportunity needs the same type.

APPROACH	BEST FIT	WHAT IT CAN LOOK LIKE
Structured Workflow Automation	Repeatable processes with clear steps, rules, data, and approvals.	Workflows, APIs, or RPA move data, validate rules, trigger actions, and update systems consistently.
AI-Enabled Workflow Automation	Structured processes that also involve documents, language, or exceptions that are difficult to handle with rules alone.	The workflow controls the process while AI interprets information, handles variability, and routes exceptions for review.
AI-Assisted Work (Claude Cowork or ChatGPT Work)	Variable and low volume work, usually knowledge-heavy where a person should remain in control.	AI reads, summarizes, compares, drafts, or recommends; the person reviews and decides what happens next.

Starting with AI-assisted work is often the fastest route, but it doesn't always capture the full benefit. The right approach depends on volume, consistency, system access, risk, and how much human coordination can be removed.

APPROACH	WHY USE IT	WHERE IT CAN FALL SHORT
Structured Workflow Automation	Uses fixed rules and algorithms. Highest predictability, repeatability, control, and auditability.	Less flexible with unstructured inputs or frequent exceptions; requires upfront design and integration.
AI-Enabled Workflow Automation	AI operates inside a designed workflow, adding flexibility for unstructured data, exceptions, and judgment calls — with better risk mitigation than AI-Assisted work, since AI access, actions, and approvals can be explicitly limited.	Upfront design and integration required. AI decisions still require monitoring and governance.
AI-Assisted Work (Claude Cowork or ChatGPT Work)	Fast to deploy and flexible. Best for variable, low-volume knowledge work.	Even with governance, users still direct the AI. Execution can vary by prompt and user, making it harder to constrain, repeat, audit and mitigate data loss and privacy risks.

> **HOW TO CHOOSE**
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> The goal isn't the most advanced technology — it's the simplest approach that can reliably handle the work. Volume, variability, risk, system access, and required human review all help determine the right fit. A single process may combine more than one approach.

The opportunity map shows where to look. A deeper assessment determines which approach fits each priority and how to sequence it into a practical roadmap.

Your Next Step

This map is meant to get you thinking about where automation could help in your operation, as a starting point rather than a full evaluation. If one or two zones stood out as you worked through this guide, the next step is a closer look at those.

THE CELEROPS ASSESSMENT

Instead of starting by offering a generic solution, we run a short assessment to identify which processes are worth automating in your organization, prioritize them by impact to your goals and ROI potential, and give your team a practical roadmap. Interested? Send us a note at jbernardy@celerops.com and we'll set it up.

FREE OF COST

There's no cost and no obligation to take the next step, just a clearer picture of where automation could work for your team.

ABOUT CELEROPS

CelerOps helps insurance organizations modernize how work gets done, turning manual, document-heavy workflows into more autonomous processes. We focus first on streamlining real operational challenges, then apply automation and AI where it creates measurable value.

Request a demo at celerops.com/contact/

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