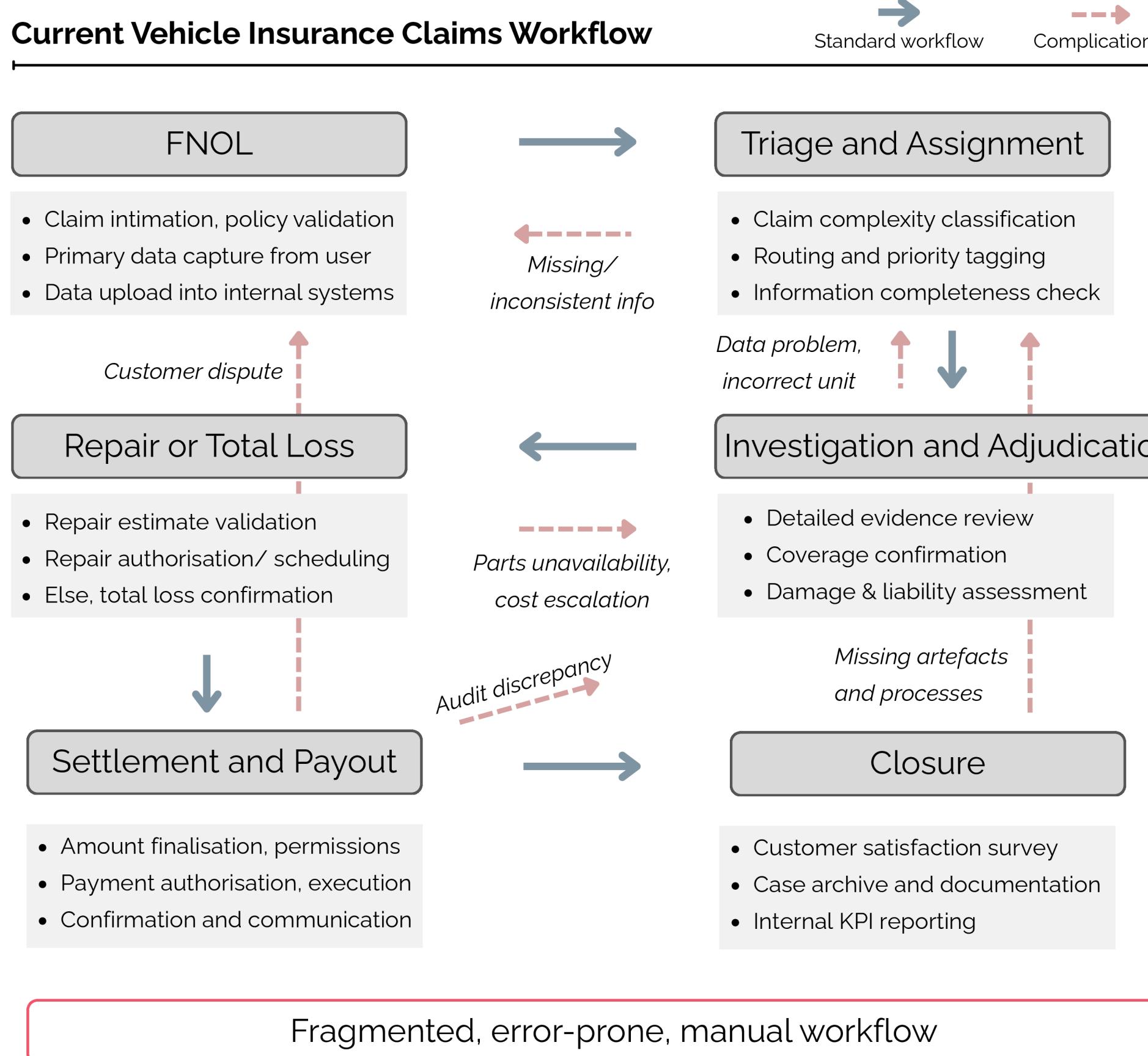


Rethinking the Vehicle Insurance Claims Processing Workflow

Objective: To design a next-generation claims processing product for vehicle insurance companies that leverages agentic AI benefits

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**User Personas****Neha, a Policyholder (Claimant)**

Just had a minor accident and reports it over call; repeats info across forms.
Pain: Confused, anxious, no visibility on claim progress.
Goal: Wants quick, transparent updates and reassurance.

Rita, an Intake Specialist

Handles Fnol calls daily; re-keys customer info into multiple legacy systems
Pain: Tedious manual entry, missing documents.
Goal: Wants smoother digital intake and faster calls.

Lata, a Claims Adjuster

Reviews photos, validates coverage, and compares repair estimates manually.
Pain: Overload, repetitive checks, fragmented data.
Goal: Wants less chaos; focus on complex decisions.

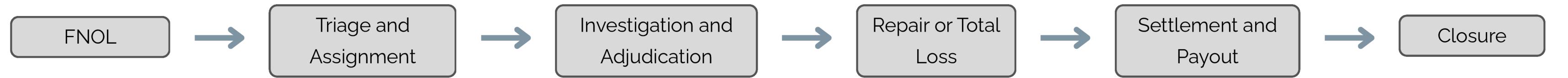
Alka, a Claims Manager

Oversees adjusters, tracks claims via Excel exports and email escalations.
Pain: Poor visibility, reactive management.
Goal: Wants live dashboards to balance workloads.

Introducing Agentic AI

- 1 **Generative AI** - predicts/generates content; one-step output; no ability to "take actions"
- 2 **What makes a task a good fit for Agentic AI?**
It is operationally heavy, repeatable, multi-modal data, requires adaptive reasoning, low risk
- 3 **Motor Insurance Claims Workflow** is extremely suitable to be 'agentified' as it meets the above requirements; I have identified specific use-cases at every step below:

Agentic Opportunities across the Claims Workflow

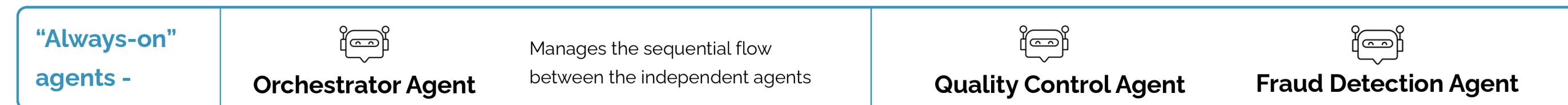


1 FNOL Agent	3 Complexity Agent	5 Liability Agent	7 Repair Agent	9 Settlement Agent	11 Servicing Agent
Ingests & consolidates info, detects & follows up for missing info	Classifies claim complexity based on consolidates input data	Determines fault using narratives, photos and policy clauses	Validates repair estimates across vendors; fills out paperwork needed	Matches invoices to approvals and triggers final payment	Sends personalised claim status updates to policyholders
2 Verifier Agent	4 Assignment Agent	6 Remedy Agent	8 Valuation Agent	10 Escalation Agent	12 Documentation A.
Validates coverage in active policy; performs consistency checks	Routes the claim to the appropriate team with complete context	Chooses repair or total loss path based on damage assessment	Pulls current market data and depreciation to assist human in valuation	Aggregates decision points that user wishes to challenge	Documents the entire process and stores for multiple future use-cases

Human-in-the-loop

For enterprise products, it is crucial that there is a human who can check and override the output of AI. Based on the complexity of a claim, there may be varying degree of human involvement required. I am focusing on standard claims in this MVP.

Complexity	Orchestration	Decision Making	Output
One-step rule-based			
Standard multi-step with reasoning reqd.			
One-off cases/outliers			



MVP Objective

IMO, the MVP should be the **simplest** agentic workflow that can achieve product objectives:

- 1 **Seamless integration:** Given the existing legacy workflows, the new feature must integrate seamlessly with intuitive human-agent handoffs; reduced coordination overhead are crucial
- 2 **Efficiency increase:** Given the massive existing inefficiencies, even a small but consistent efficiency (speed, accuracy) improvement will be crucial to assess the utility of agentic AI
- 3 **Strong governance:** Given the heavy focus on compliance in this industry, the agentic AI feature's actions must be explainable, auditable, and continue to allow human-overriding



MVP Feature Prioritisation

Criteria for prioritisation: have been selected such that we are able to isolate the features that would be best suited to our MVP's objective

1. **Business impact** that can be achieved: Man-hours saved and quality improvement
2. **Feasibility** of technical implementation and integration into legacy workflow
3. **Risk:** Ease of catching mistakes divided by the risk associated with erroneous AI judgement

Key Constraints and Assumptions

A key constraint is that we are considering medium complexity cases that can't be solved with simple RPA/ML, and yet are not so complex as to not follow any historical patterns. An assumption made is that we can readily utilise existing Legacy System data through APIs.

MVP Definition: The MVP will have an agentic AI-driven data collection and validation feature. Once the consolidated (user + policy) data is ready, it will be shown to human specialists to verify and assess complexity. Next, an AI agent will send package and send this claim to a human team. The rest is manual.

Feature Prioritisation Matrix

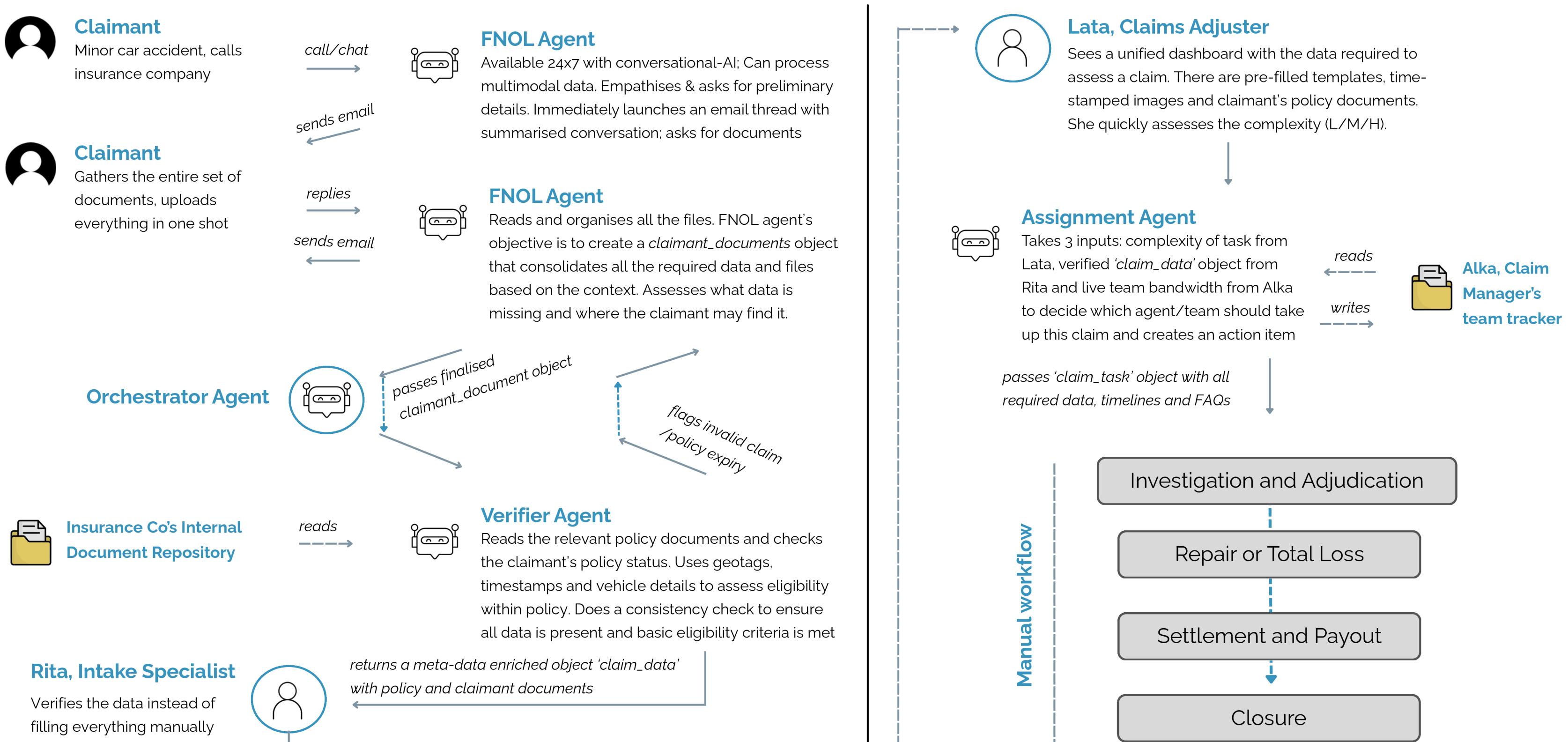
Feature / Agent	Business Impact	Feasibility	Risk-free	Total	Priority
FNOL Agent	3	3	3	9	P1
Verifier Agent	3	3	3	9	P1
Complexity Agent	2	3	3	8	P1 (secondary)
Assignment Agent	3	3	3	9	P1
Liability Agent	2	2	1	5	P2
Remedy Agent	2	1	2	5	P3
Repair Agent	2	2	2	6	P2
Valuation Agent	2	1	1	4	P3
Settlement Agent	2	2	2	6	P2
Escalation Agent	1	2	3	6	P2
Servicing Agent	2	3	3	8	P1 (secondary)
Documentation Agent	2	3	3	8	P1 (secondary)
Quality Control Agent	3	2	3	8	P1 (secondary)
Fraud Detection Agent	2	1	1	4	P3
Orchestrator Agent	3	3	3	9	P1

Reduces 1hr manual calls and logging to 5 mins of verification

Saves 20+ weekly man-hours through intelligent routing within the org

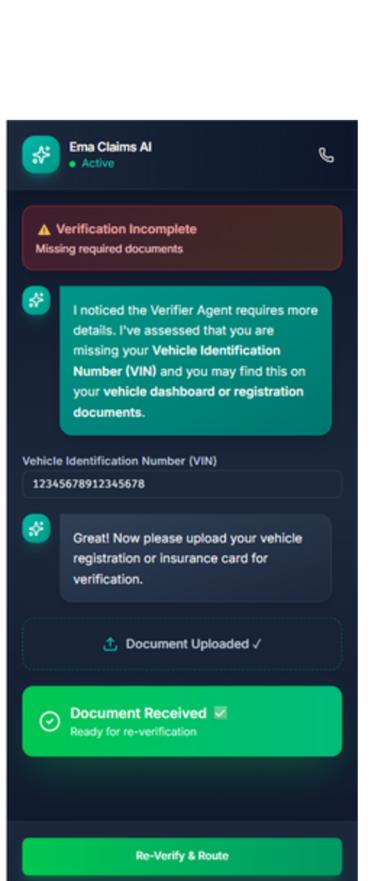
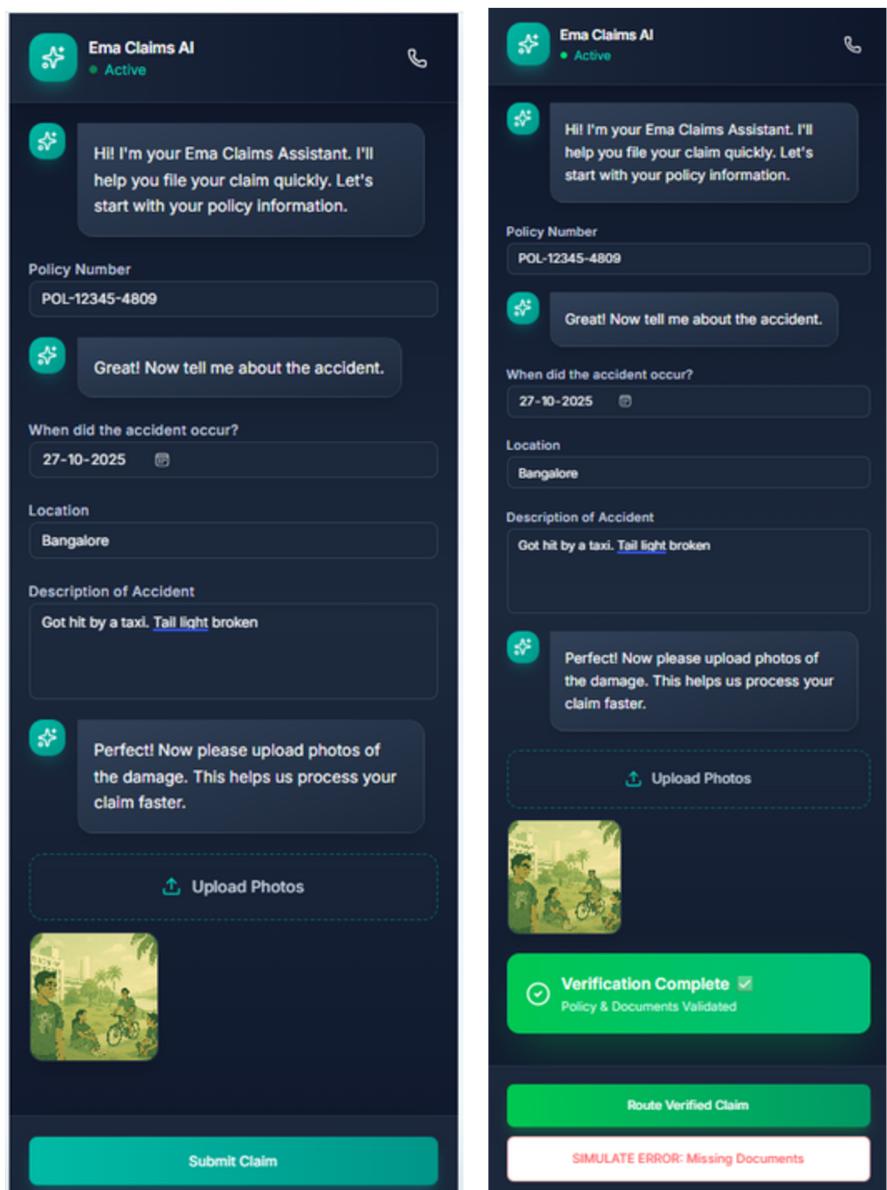
Skipped as these more nuanced functions with complex implementation; not "low hanging fruits"

Reimagined MVP Workflow

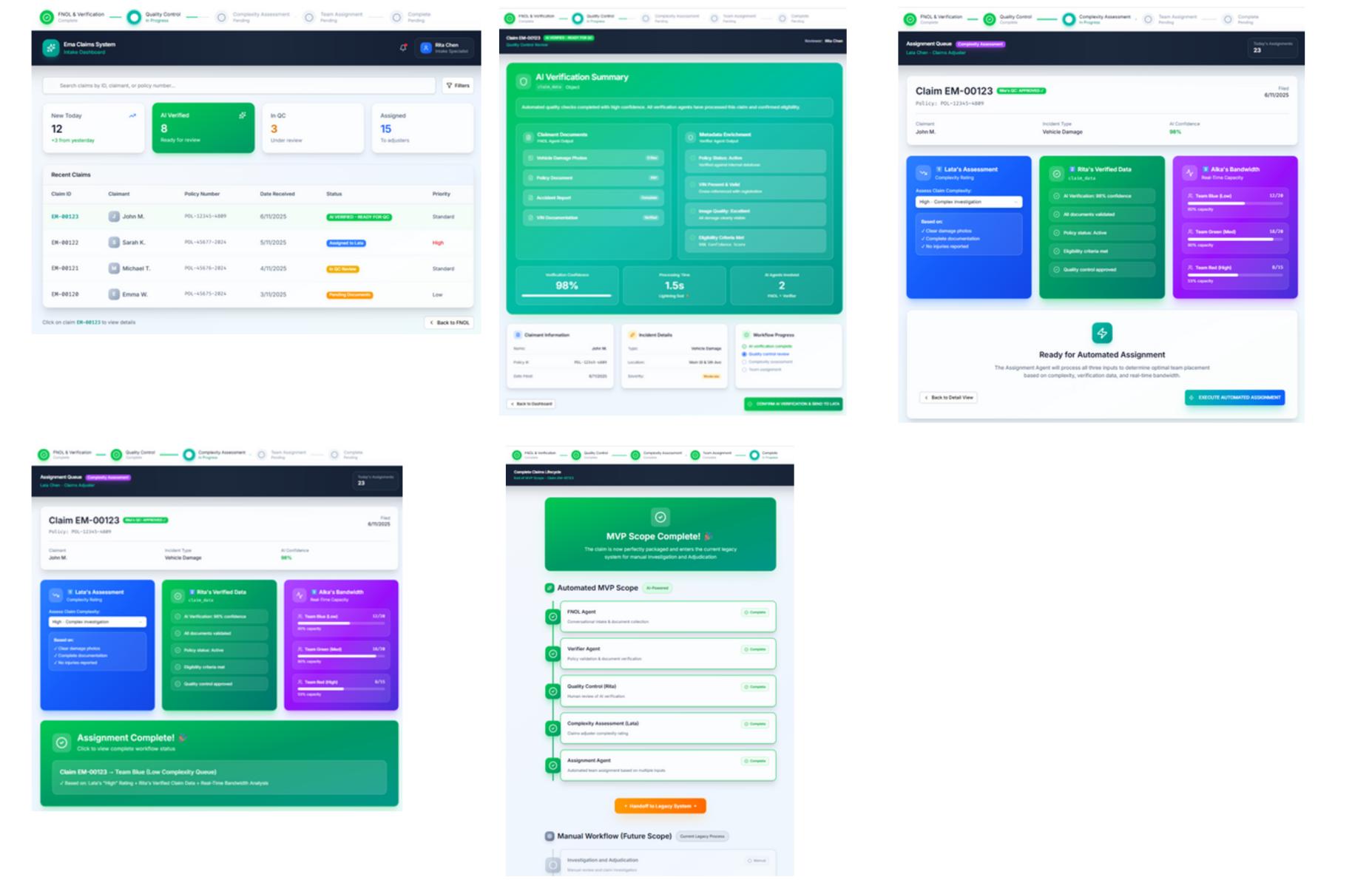


[Link to MVP*](#)**Screenshots**

Claimant's device (e.g. Phone)



Insurance Claims Company Device



*Used Figma to vibe code since Replit / Lovable public link deployment was paid; if needed I will pay and share, or can screen share

Key Metrics to Track in the MVP

Perform A/B tests with the following hypothesis:

The higher, the better ↑ *The lower, the better* ↓

1. Average time to process a claim has reduced ↓

This is our north star metric. Ultimately, we want to process claims quicker - by doing more at once, and making less mistakes

2. % of *claim_data* objects approved by Intake Specialist has increased ↑

This will measure how cohesively the FNOL + Verifier agents are able to collectively obtain and parse all the required data/ documents

3. % of claims that are redirected by investigation to another team has decreased ↓

This will measure how effectively the Assignment agent is allocating and prioritising tasks within the team

4. Number of data-related queries tickets generated after the assignment phase has decreased ↓

The objective of the agents in the MVP is to solve the data inconsistency problem throughout the process, and this measures it

5. Customer satisfaction (CSAT) has increased ↑

Measuring the impact on a key stakeholder: the user

Risk Factors and Mitigation

1

Risk: It becomes challenging for humans to verify the agent's mapping between the claimant data with policy rules, and are forced to re-do it themselves.

Mitigation: Focusing on explainability by ensuring that the *claim_data* object provides a traceable audit log. Example "Car geotag (40.7128° N, 74.0060° W) matches covered range in Policy (within India)"

2

Risk: The FNOL agent is not able to read document data correctly and is continuously asking the user for more information

Mitigation: There should be two steps here. One is to always have a 'call for human support' option available to the user. The second is that the Quality Control agent should be called in every time FNOL reads a document to verify it, else flag it to human

3

Risk: Increased data in early stages adds to confusion and information overload in the manual steps later on (investigation and beyond)

Mitigation: Create an updated SOP manual for claims processing human agents at later stages; will be helpful to train our future AI agents

Future Roadmap

Phase 1: Scaling Efficiency

Goal: Automate non-core tasks to free up Adjusters and Specialists.

New Agents: 📱

1. Servicing Agent - Handles 80% of claimant status inquiries
2. Documentation Agent - Auto-creates summary reports
3. Quality Control Agent - Constant data consistency checks

Phase 2: Increasing Autonomy

Goal: Expand claim type scope and automate the complexity assessment

New Agents: 📱

1. Complexity Agent - Independent L/M/H assessment
2. Liability Agent - Reads event data (pics, reports, etc.) and creates an explainable fault assessment for simple claims

Phase 3: End-to-End Agentic Workflow

Goal: Achieve end-to-end automation from FNOL to Settlement seamlessly for medium complexity tasks

New Agents: 📱

1. Repair Agent - E2E coordination of repair-related logistics
2. Settlement Agent - Intelligent verification of financials
3. Escalation Agent - Smartly tackles claimant disputes