

Modernizing a request-review workflow

A fictional scenario demonstrating the structure and judgment in a Protabyte technical brief. It contains no client information or project results.

RECOMMENDATION

Build a bounded intake and review layer around the existing system of record. Complete one request type from receipt through reviewed handoff, preserving the current application's business rules. Evaluate AI extraction against a representative baseline after the workflow and validation rules are explicit.

The situation

An operations team receives requests by email, checks details against an existing application, and tracks exceptions in a spreadsheet. Leadership wants to introduce AI extraction. Before choosing a model, the team needs a consistent way to capture requests, validate fields, assign review, and understand what happened to each record.

Alternatives considered

OPTION	TRADEOFF	POSITION
Extend the spreadsheet workflow	Small initial change; ownership, history, and reconciliation still depend on manual coordination.	Useful for establishing a baseline
Replace the operational platform	Broader redesign; requires migration of business rules and integrations before the first workflow is proven.	Defer until a wider replacement case is established
Add an intake and review layer	An additional component to operate; creates a bounded way to test the workflow while preserving the current platform.	Recommended first increment

Proposed workflow

01 Capture Retain the request and its source reference.	02 Validate Check required fields, identity, and duplicates.	03 Review Assign exceptions to an authorized reviewer.	04 Handoff Record the reviewed outcome in the existing system.
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Read left to right. The existing application remains the system of record; review precedes handoff.

Constraints that shape the decision

- The existing application remains the system of record.
- Reviewers need clear ownership and a recoverable exception path.
- A repeated request must not create a duplicate record.
- Source material and review history must remain traceable.

02 / DELIVERY & ACCEPTANCE

One request type, one review queue, one verified handoff

A first release defined by a complete user workflow and observable behavior.

01 / Establish the evidence

Walk through real user tasks, map identifiers and permissions, inspect a representative request sample, and measure handling time and rework. Record the baseline and acceptance criteria.

02 / Build the complete path

Implement intake, validation, review ownership, durable status, and the agreed integration. Keep the scope to one request type so the full workflow can be demonstrated.

03 / Demonstrate and decide

Exercise normal and failure paths with users, compare behavior with the baseline, and document open issues. Choose whether to expand intake coverage or evaluate AI extraction next.

What must be demonstrated

- A valid request reaches the agreed destination with a traceable source and review history.
- Missing or conflicting information enters a visible exception state with an assigned owner.
- Repeated delivery does not create an additional operational record.
- Access checks cover both the interface and the underlying record operations.
- A failed handoff can be investigated and retried without losing the request or its status.

Questions to resolve before committing scope

- Which identifiers can the receiving system reliably match?
- Who can resolve each exception, and what evidence do they need?
- What data access and retention constraints apply to any extraction model?

Where AI fits

Use AI to assist code investigation, implementation, and test development under engineer review. Evaluate an AI extraction feature separately using representative requests, field-level error analysis, and reviewer effort. Release decisions depend on observed behavior and agreed criteria.

What the team takes forward

A working increment, recorded architecture decisions, validation evidence, known issues, operating instructions, and a prioritized next milestone.

Expand only after the first workflow can be operated and evaluated. Use measured handling time, error patterns, and reviewer effort to choose the next investment.

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