Matching supplier invoices

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Illustrative case · Example Distribution Inc. · 450 employees · fictitious company

THE WORKFLOW AS IT RUNS TODAY

≈ 1,800 invoices a month · **≈ 75%** match with no discrepancy · **≈ 9 days** from receipt to posting (illustrative, approximate figures)

● friction point

STEP 1 — **Invoice received from supplier**

STEP 2 — **Invoice entry**
- ● Lines rekeyed by hand

STEP 3 — **PO lookup**
- ● Records in separate systems

STEP 4 — **Line-by-line comparison**
- ● Tolerances applied ad hoc

STEP 5 — **Questions to buyers**
- ● Back-and-forth by email

STEP 6 — **Posting**
- ● Discrepancy reasons not recorded

BEFORE YOU START

Get the data in order.

Clean up POs, receipts, and supplier records; write down tolerances; give each rule an owner and a dated version. The tool comes after.

UNDER THE HOOD

Structured extraction of invoices, deterministic matching against the PO and goods receipt read from the ERP, and a match summary drafted by an LLM instructed to cite the line and the tolerance, with input and output guardrails and routing to accounts payable. A learning loop connects the log, AP review, and the evaluation set. Diagram and controls on page 2.

STAGE 1 HUMAN IN THE LOOP

The assistant flags issues, the accountant decides

1. **The invoice comes in** — through the same process as today.
2. **The assistant prepares a match summary** — extracting the lines and citing each discrepancy.
3. **The accountant decides** — approves, corrects, or checks with the buyer.
4. **Every correction is logged** — by purchase category.

What this stage produces: a measure, by purchase category, of how accurate the proposed matches are.
Estimated duration: 2 to 3 monthly cycles.

STAGE 2 THE ASSISTANT POSTS QUALIFYING INVOICES

It posts qualifying invoices, accounts payable handles exceptions

POSTS WHEN
- Invoice, PO, and goods receipt agree
- Any discrepancy is within written tolerances
- The amount is below the threshold and the supplier is on file

ROUTES TO AP WHEN
- The invoice is unusual, incomplete, or ambiguous
- A discrepancy exceeds tolerance or a record is missing
- The invoice involves a new supplier, changed bank account, a credit memo, a large amount, or another red flag

Every week, accounts payable reviews a sample of posted invoices and keeps the tolerances up to date.

WHY HERE, AND UNDER WHAT CONDITIONS

High volume · Clear owner · Clear output · Known pain point

- **POs and goods receipts in the ERP** complete and up to date.
- **Amounts below a set threshold** above it, the accountant always decides.
- **No payment or bank account change** triggered or made by AI.
- **Out-of-tolerance, disputed, or ambiguous** invoices routed to accounts payable.

The risk does not go away, but it becomes more visible, measurable, and manageable.

MOVING FROM STAGE 1 TO STAGE 2

Decided category by category, not in advance, based on what accounts payable observes during stage 1:

- Accuracy of extraction and discrepancies
- Corrections needed, by category
- Exceptions correctly routed
- No significant incident within the tested scope
- Current tolerances, each with an owner

Office supplies could move to stage 2 while professional services stay in stage 1.

THE GOAL, AND HOW TO MEASURE IT

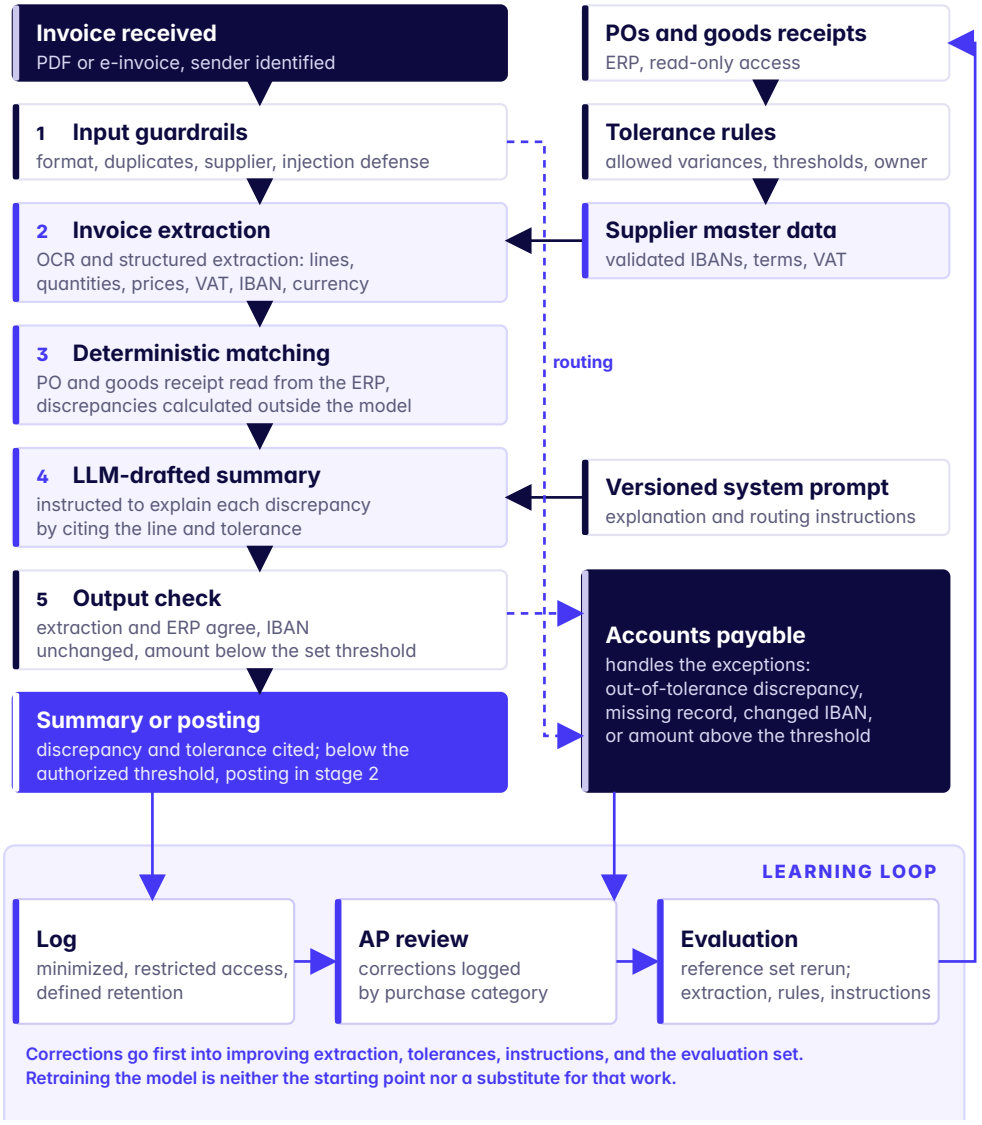
Not to take control away from accounting, but to cut processing time for clean-match invoices, stop redoing comparisons by hand, and free up time for discrepancies that call for judgment.

Time to post a clean-match invoice

≈ 9 days → **≈ 2 days**

today (illustrative) → illustrative stage 2 target · also tracked: the share of invoices posted without manual intervention, 50–60% (illustrative target)

Reference architecture: how the system stays under control



CONTROLS AND SECURITY

Evaluation

A reference set of, for example, 300 past invoices, minimized as needed, each with the expected match. Metrics: extraction accuracy, discrepancy accuracy, correct tolerance cited, and the rate at which exceptions are detected and correctly routed (routing recall). Rerun whenever the model, a rule, or the instructions change.

Observability

Every invoice is logged: extracted fields, calculated discrepancies, summary or posting, routing. Supplier and bank data: log minimized, access restricted to authorized roles, retention defined by purpose and applicable obligations.

Identity and access

SSO (SAML or OIDC). Segregation of duties: whoever places an order cannot approve the invoice; tolerances and supplier records are managed by separate roles. ERP read access; write access limited to authorized postings below the threshold.

Data

Hosting and data transfers verified for the chosen solution; contractual terms barring use of the data for model training; encryption; record retention in line with accounting law; documented Swiss FADP assessment.

Application security

Measures against prompt injection, including in invoice text. Scope limited to three outcomes: propose a match summary, post within the authorized scope, or route to AP. Only treasury releases payments.

Three ways to build it

Three options: the matching module in your existing ERP, a managed document-extraction platform, or a custom build (extraction, rules engine, model API). The choice comes after the data audit.