ACCOUNTS PAYABLE DEPARTMENT
DIGITAL TRANSFORMATION

From manual invoices to automated Purchase-to-Pay

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BACKGROUND

Why Accounts Payable is changing

Where we are

Invoices arrive by post and email, are printed and logged, typed into the finance system, matched to purchase orders by hand and chased for approval.

Why it matters

Manual handling causes delay, re-keying errors, duplicate-payment risk and little visibility, while government bodies are expected to pay suppliers promptly.

Where we are going

Invoices arrive as email attachments, are read by OCR, matched to purchase orders automatically and approved by workflow according to invoice value.

Known constraint

The finance system supplier’s export routine does not run manual interface extracts on the server side, so the route for PO data is still to be agreed.

NEW: Government Prompt Payment Policy

Pay 90% of undisputed and valid invoices from small and medium-sized enterprises (SMEs) within 5 days. Additionally, 100% of all undisputed and valid invoices should be paid within 30 days.

APPROACH

Following the TOGAF ADM

ADM phase	Question it answers for Accounts Payable
Preliminary	Which principles and governance will guide the work?
A · Architecture Vision	Why change, for whom, and what does success look like?
B · Business Architecture	How do invoices flow today and in the target process?
C · Information Systems	Which data and applications support the target process?
D · Technology Architecture	What platforms, integration and security do we need?
E · Opportunities and Solutions	What are the gaps, and which work packages close them?
F · Migration Planning	In what order do we deliver, and at what risk?
G · Implementation Governance	How do we keep delivery in line with the architecture?
H · Architecture Change Management	How do we manage change once the process is live?

Requirements Management runs through every phase and ties the architecture to what the business needs.

PRELIMINARY · PRINCIPLES AND GOVERNANCE

Principles that guide the design

Digital by default

Invoices are received, processed and stored electronically.

Capture once

Data is read once at source and reused, never re-keyed.

Controls by design

Matching, approval and audit rules are built into the workflow.

Manage by exception

Staff time goes to the invoices that need judgement.

Governance: Architecture Board · Sponsor: Head of Finance · Scope: AP invoice-to-pay

PHASE A · ARCHITECTURE VISION

We want invoices captured, matched and routed for approval automatically, so people spend their time on exceptions.

Capture

Invoices arrive by email and are read by OCR, with no re-keying.

Match

Each invoice is checked against its purchase order and goods receipt.

Approve

Workflow routes each invoice to the right approver based on its value.

PHASE A · ARCHITECTURE VISION

Stakeholders and their concerns

Stakeholder	Main concern
Director of Finance	Control, value for money and prompt payment
Budget holders	Fast, simple approvals and visibility of spend
AP team	Less re-keying and a clear exception queue
Procurement	PO compliance and supplier relationships
Suppliers	Easy submission and predictable payment
Internal audit	Audit trail and separation of duties
IT and information governance	Security, data protection and supportability

PHASE B · BASELINE BUSINESS ARCHITECTURE

Today: a manual, multi-handoff process

01

Invoice arrives

By post, or by email to many shared and personal inboxes.

02

Printed and logged

Emails are printed or forwarded, then logged in a spreadsheet.

03

Keyed in

Supplier, amounts and PO number are typed into the finance system.

04

PO matched by hand

Staff look up the PO and goods receipt in separate places.

05

Approval chased

Paper or email approvals, followed up by phone and reminders.

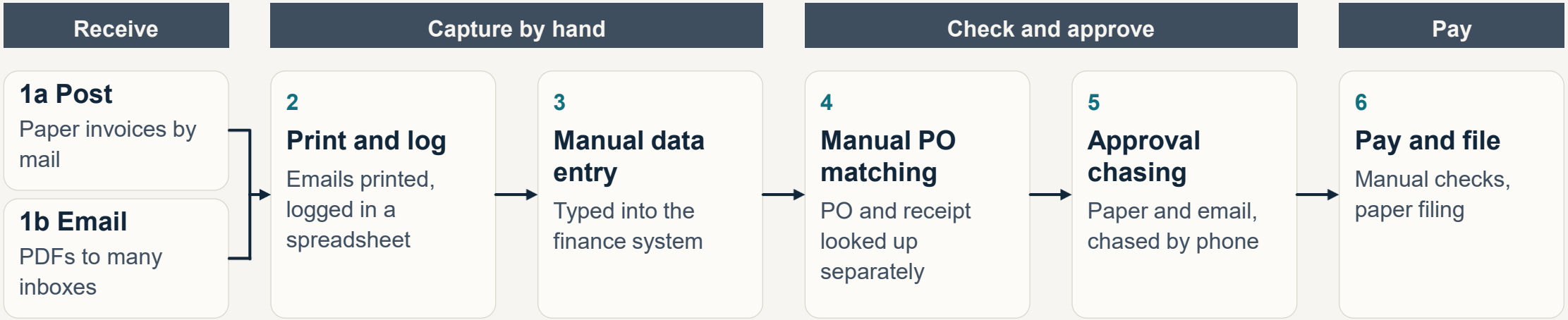
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Paid and filed

Payment follows manual checks; records sit on paper or shared drives.

PHASE B · BASELINE PROCESS DIAGRAM

Current state: manual invoice handling



WHERE IT HURTS

- **Invoices arrive in many places**
- **Duplicates go unnoticed**
- **Re-keying errors**
- **Slow lookups across systems**
- **Delays, no visibility**
- **Weak audit trail**

Every step is done by a person, and data is re-entered or looked up by hand.

PHASE B · BASELINE PAIN POINTS

What the manual process costs us

Pain point	Effect
Re-keying errors	Typing mistakes in amounts and supplier details cause rework.
Slow approvals	Invoices wait in inboxes or on desks while approvers are chased.
Late payment risk	Delays put prompt payment targets and supplier relationships at risk.
Duplicate or wrong payments	The same invoice can arrive by post and by email and go unnoticed.
Limited visibility	No single view of invoices received, in approval or overdue.
Weak audit trail	Approvals sit in emails and on paper, which makes audit harder.

Baseline to confirm: 100,000 Invoices P/M· 65 days to payment on average

PHASE B · TARGET BUSINESS ARCHITECTURE

Target: automated invoice-to-pay

1
Email inbox
Suppliers send invoices to one AP mailbox.

2
OCR capture
Invoice data is read and extracted automatically.

3
Validate
Supplier, VAT and duplicates are checked.

4
PO match
Invoice is matched to its PO and goods receipt.

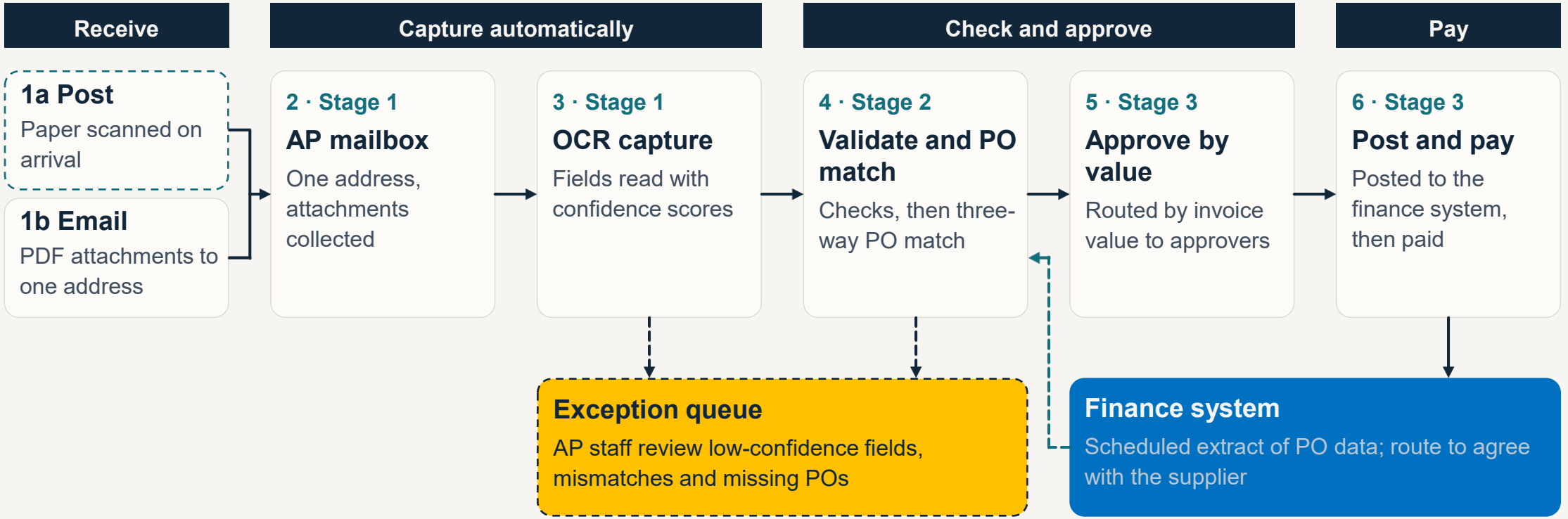
5
Approval
Workflow routes by invoice value.

6
Post and pay
Approved invoices post and join the payment run.

Matched invoices within tolerance flow through untouched. **Exceptions go to a queue for AP staff to resolve.**

PHASE B · TARGET PROCESS DIAGRAM

Future state: automated invoice-to-pay



Stages follow the Phase F roadmap. Dashed items are transitional, exceptions or still to be agreed.

PHASE B · TARGET PROCESS · STEP 1 CAPTURE

Invoices read from email by OCR

One AP mailbox

Suppliers send to a dedicated address and attachments are collected automatically.

Read by OCR

PDFs and scanned images become data fields, each with a confidence score.

Low confidence goes to review

Fields below the confidence threshold are shown to AP staff to confirm, not guessed.

Fields extracted from each invoice
Supplier name and ID
Invoice number and date
Purchase order number
Line items and quantities
Net, VAT and gross amounts
Bank details, for checking against supplier records

Original invoice captured and stored with associated metadata.

PHASE B · TARGET PROCESS · STEP 2 MATCH

Each invoice matched to its purchase order

Purchase order
What we ordered

Goods receipt
What we received

Invoice
What the supplier billed

Compared on: Supplier · Item and Quantity · Unit price · Total Value

Full match
Goes straight to approval with no manual touch.

Within tolerance
Small differences pass automatically under policy.

Exception
Sent to an AP queue with the mismatch highlighted.

PHASE B · TARGET PROCESS · STEP 3 APPROVE

Approval workflow set by invoice value

Invoice value	Condition	Approver
Up to £1,000	Matched to PO	Automatic, with sample checks
£1,001 to £100,000	Matched to PO	Budget holder
£100,001 to £250,000	Matched to PO	Head of service and finance manager
Above £250,000	Any	Director of finance
Any value	No PO or mismatch	AP review first, then by value and by formal approval

Reminders go out after 1 day and escalate to a delegate after 2 days. Thresholds follow the scheme of delegation.

PHASE C · APPLICATION AND DATA ARCHITECTURE

Applications and data behind the process

Application	Role
AP mailbox	Receives invoices
OCR capture	Extracts invoice data
Workflow engine	Routes approvals by value
Finance system	POs, receipts, ledger and payments
Document store	Invoice images and audit trail

Data entity	Held in
Supplier	Finance system
Purchase order	Finance system
Goods receipt	Finance system
Invoice data	OCR capture
Approval record	Workflow engine
Invoice image	Document store

Component names are generic

PHASE D · TECHNOLOGY ARCHITECTURE

Technology needed to run it

Hosting

Cloud or on-premises, to match our hosting policy.

Email connection

Secure link to the AP mailbox with attachment capture.

Integration

Interfaces to the finance system for POs, receipts, account codes, suppliers

Identity and access

Single sign-on and role-based access for AP staff and approvers.

Security

Encryption, data protection and records retention.

Resilience

Backup, availability and supplier service levels.

Archive

Archive of data based on retention policies

Client

Supported Web Browser

Audit Log

Support Periodic audit activities

PHASE D · TECHNOLOGY CHALLENGES

Finance system integration challenge

The challenge

- The supplier’s export routine cannot run manual interface extracts server-side if exceptions occur for automated exports.
- PO, receipt and supplier data cannot be refreshed automatically.
- Matching would depend on someone running extracts by hand.
- Data could be out of date at match time.

Options to assess

- Ask the supplier to enable a scheduled server-side extract.
- Check for an API or reporting interface that avoids the manual extract.
- Use an integration layer between the finance system and the workflow.
- Interim fallback: a controlled, scheduled manual extract.

Decision: Agree the integration route with the supplier before Stage 2 (Matching).

PHASE E · OPPORTUNITIES AND SOLUTIONS

Gap between baseline and target

Area	Today (manual)	Target (automated)
Receipt	Post and many inboxes	One AP mailbox
Data entry	Typed by hand	Read by OCR, checked by exception
PO matching	Looked up manually	Automatic three-way match
Approval	Paper and email chasing	Workflow routed by value
Visibility	Ask around, check spreadsheets	Live status of every invoice
Audit trail	Spread across email and paper	Logged in one system

PHASE F · MIGRATION PLANNING

Four transition architectures

Stage 1 · 16 weeks

Foundation

One AP mailbox and OCR capture, piloted with a group of suppliers.

Stage 2 · 6 weeks

Matching

Automatic PO matching with an exception queue for AP staff.

Stage 3 · 12 weeks

Approval

Value-based approval workflow with reminders and delegation.

Stage 4 · ongoing

Optimise

All suppliers on board; tune tolerances and cut exceptions.

Each stage delivers working value and is reviewed by the architecture board before the next begins.

PHASE F · MIGRATION RISKS

Risks and how we manage them

Risk	Mitigation
Low OCR accuracy	Pilot first; staff confirm low-confidence fields.
Suppliers keep sending paper	Supplier briefing and a clear AP email address.
Many invoices without a PO	Policy on no-PO spend and a defined review route.
Approvers slow to respond	Reminders, delegation and escalation rules.
Resistance to change	Early involvement, training and a named champion.
Data and security concerns	Check hosting capabilities, access controls, cyber response, resilience and records retention.
Finance system extracts are manual	Agree a server-side or scheduled extract with the supplier with full integration.

PHASE F · BUSINESS VALUE

What we will measure

Measure	Today	Target
Days from receipt to payment	65	5
Cost to process one invoice	£200	£30
Invoices paid on time	45%	90%
Invoices handled with no manual touch	60%	6%
Invoices sent to the exception queue	30%	10%
Duplicate or incorrect payments	12%	2%

Baselines come from a sample of recent invoices taken before go-live.

PHASE G · IMPLEMENTATION GOVERNANCE

Control and audit built into the process

Duplicate checks

The same invoice is flagged whether it arrives by email or post.

Supplier checks

Bank detail changes are verified against the supplier record.

Separation of duties

Whoever raises the PO cannot also approve the payment.

Full audit trail

Every action is time-stamped and linked to the invoice image.

Delegation

Approvals pass to a named delegate when someone is away.

Records and access

Role-based access and retention that follows department policies.

PHASE H · ARCHITECTURE CHANGE MANAGEMENT

Managing change after go-live

After go-live

- Review results against the benefits each quarter.
- Log change requests and assess their impact.
- Retune OCR, tolerances and approval thresholds as policy changes.
- Decide when a change needs a new ADM cycle.

Requirements management

- Keep one register of requirements.
- Trace each requirement to a design element and a test.
- Review changes with the architecture board.

QUESTIONS?

THANK YOU