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Agentic AI Use Cases and Agent Library

Discussion Document for Sandoz

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Use Cases

Agentic AI Interventions in Finance Function

While Agentic AI can be used in most of the finance processes, we expect better fitment in areas where the current ERP stack does not offer adequate capabilities

PTP	OTC	RTR	Insights	Treasury
Vendor Onboarding	Customer Onboarding	GL Scrutiny	Benchmarking Assistant	Cash Position Management
Procurement Assistant	Credit Limit and Order Management	Intercompany accounting and reconciliation	Finance Performance Management	Bank Reconciliation
Invoice Management and Processing	Billing Management	Sub GL- GL Reconciliation	Planning Variance Analysis Assistant	Import reconciliations
Payments Assistant	Collections and Overdue management	Accruals and Provisions	NBFC Recovery Management	Liquidity Forecasting
Vendor information and Communication Management	Receipt Application	Close Management		Bank Fee Analysis
Employee Claims Management	Customer Information and Dispute Management	Financial Schedules and Notes Preparation Assistant		Treasury compliances assistant
		Project Financial Monitoring Assistant		Hedge utilization tracking assistant
		Finance Ops Reconciliation		
		Financial Instruments (C&M), Impairment and Reporting		
		Implementation of IFRS 18 solution		

Suitability of Agentic AI Intervention

Low	Medium	High
• Low frequency activity	• Medium frequency activity	• High frequency activity
• Very effectively handled through existing solutions	• Partially handled through existing solutions	• Not handled through existing solutions
• Part of ERP capability of low cost solution available	• Peripheral solutions exist but cost is moderately high	• Be-spoke solutions or very high-cost alternatives exist

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Agent Library - PTP

Possible AI Agents across Procure to Pay Process (1/5)

List of AI Agents which can be deployed in the P2P process

Primary Agent	Sub-Agent	Objective & Key Functions	Role Definition	Goal Specification	Capabilities & Skills	Interactions with Agents/Environment	Task Execution Workflow	Communication Protocol	Performance Metrics
Supplier Management Agent	*Supplier Onboarding Specialist*	Objective:Collect, verify, and approve new supplier registrations. Key Functions:Manage new supplier applications, ensure compliance, and integrate into the system.	Manages new supplier applications, ensures compliance, and integrates them into the system.	Reduce onboarding time while ensuring compliance.	Vendor management, compliance checks, KYC expertise	Interacts with PO Generation Agent, Compliance Agent, Vendor Risk Assessor	1. Receive supplier application 2. Validate documents 3. Assess risk 4. Approve/reject 5. Store data in supplier database	Email; Supplier Portals; ERP Notifications	Supplier onboarding time; Approval rate; Compliance errors.
	Supplier Data Validator	Objective: Ensure supplier records meet compliance, data integrity, and completeness. Key Functions: Regularly review supplier information for accuracy and completeness.	Regularly reviews supplier information for accuracy and completeness.	Maintain high data accuracy and prevent duplication.	Attention to detail, data validation, ERP experience	Interacts with Supplier Onboarding, Compliance Agent, PO Generation	1. Extract supplier data 2. Cross-check with database 3. Flag inconsistencies 4. Update and validate	ERP system notifications; Supplier portal updates	Data accuracy %; Validation turnaround time.
	Vendor Risk Assessor	Objective: Evaluate supplier risk, financial stability, and compliance. Key Functions: Monitor financial health, regulatory compliance, and operational risks.	Monitors financial health, regulatory compliance, and operational risks of suppliers.	Minimize financial and operational risks.	Risk analysis, financial assessment, compliance expertise	Interacts with Finance Agent, Compliance Agent, PO Generation Agent	1. Collect financial & legal data 2. Perform risk assessment 3. Assign risk score 4. Recommend approval/rejection	Risk assessment reports; ERP alerts	% of high-risk vendors flagged; Risk assessment completion time.
Need Identification Agent	*Demand Forecasting Sub-Agent*	Objective: Predict inventory needs. Key Functions: Analyze historical data, seasonal trends, and demand patterns.	Uses predictive analytics to anticipate procurement needs.	Reduce stockouts and overstocking.	Predictive analytics (ML models), ERP integration, real-time inventory monitoring	Integrates with Inventory Management Systems and Vendor Sourcing Sub-Agent	1. Analyze data 2. Generate demand forecasts 3. Trigger requisitions	REST APIs for ERP data; Python for ML models	% reduction in stockouts; Forecast accuracy rate
	Vendor Sourcing Sub-Agent	Objective: Identify compliant suppliers. Key Functions: Match requirements to pre-approved vendors, validate certifications, and automate RFQs.	Recommends suppliers based on cost, quality, and compliance.	Accelerate supplier selection.	Supplier database querying, compliance checks (e.g., ISO), RFQ automation	Collaborates with Supplier Management Agent (vendor data) and Requisition Management Agent	1. Match specs to vendors 2. Validate compliance 3. Recommend suppliers	SQL queries for vendor DBs; SOAP APIs for certifications	Supplier onboarding time; % compliant vendor selections

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Possible AI Agents across Procure to Pay Process (2/5)

List of AI Agents which can be deployed in the P2P process

Primary Agent	Sub-Agent	Objective & Key Functions	Role Definition	Goal Specification	Capabilities & Skills	Interactions with Agents/Environment	Task Execution Workflow	Communication Protocol	Performance Metrics
Need Identification Agent	*Budget Validation Sub-Agent*	Objective: Prevent overspending. Key Functions: Validate requisitions against budgets, flag overages, track real-time spend, and alert for over-limit requests.	Ensures purchases align with approved budgets.	Enforce fiscal discipline.	Budget cross-referencing, real-time spend tracking, alert mechanisms	Integrates with ERP systems and Requisition Management Agent	1. Check requisition against budget 2. Flag violations 3. Suggest alternatives 4. Approve / reject	REST APIs for real-time budget checks	% reduction in overspending; Budget compliance rate
Requisition Management Agent	*Form Validation Sub-Agent*	Objective: Ensure requisition accuracy. Key Functions: Validate mandatory fields (e.g., budget codes, specs), auto-correct entries, and log audits.	Automates error-checking for requisition forms.	Minimize resubmissions and delays.	Rule-based validation, auto-correction suggestions, audit logging	Works with Need Identification Agent (budgets) and Approval Workflow Agent (routing)	1. Validate form fields 2. Flag errors 3. Return for correction	JSON schema validation; REST APIs for ERP integration	% reduction in form errors; Resubmission rate
	Document Attach Sub-Agent	Objective: Automate audit-ready documentation. Key Functions: Link supporting files (e.g., SOWs, quotes), auto-tag documents, and integrate with cloud storage.	Attaches relevant documents to requisitions for compliance.	Streamline audit trails.	OCR for document scanning, auto-tagging, cloud storage integration	Integrates with Document Management Systems and Compliance Agent	1. Scan/upload documents 2. Tag metadata 3. Link to requisition	OCR APIs (e.g., Google Vision); REST for cloud storage	% requisitions with complete docs; Document retrieval time
	Routing Sub-Agent	Objective: Direct requisitions to correct approvers. Key Functions: Route based on rules (department, spend thresholds), dynamic workflow configuration, priority tagging.	Ensures requisitions reach the right stakeholders.	Accelerate approval cycles.	Role-based routing logic, dynamic workflow configuration, priority tagging	Collaborates with Approval Workflow Agent (approvers) and Budget Validation Sub-Agent	1. Identify approvers 2. Route requisition 3. Track status	GraphQL for dynamic routing; REST APIs for role mapping	Cycle time reduction; % requisitions routed correctly
Approval Workflow Agent	*Escalation Sub-Agent*	Objective: Mitigate approval delays. Key Functions: Monitor SLAs, reroute requests, and notify stakeholders.	Reroutes stalled approval requests to backup approvers after predefined SLAs.	Ensure workflow continuity and SLA compliance.	Timeline monitoring, escalation triggers, audit trail updates	Collaborates with parent Approval Workflow Agent and Compliance Check Sub-Agent	1. Track approval status 2. Escalate after SLA breach 3. Notify stakeholders	REST APIs to ERP systems (e.g., SAP)	% reduction in approval delays; Escalation trigger rate

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Possible AI Agents across Procure to Pay Process (3/5)

List of AI Agents which can be deployed in the P2P process

Primary Agent	Sub-Agent	Objective & Key Functions	Role Definition	Goal Specification	Capabilities & Skills	Interactions with Agents/Environment	Task Execution Workflow	Communication Protocol	Performance Metrics
Approval Workflow Agent	*Compliance Check Sub-Agent*	Objective:Prevent non-compliant purchases. Key Functions:Validate approvals against policies, flag violations, and perform budget checks.	Validates approvals against procurement policies (e.g., spend thresholds).	Enforce governance and budget adherence.	Rule-based validation, budget checks, policy alerts	Integrates with Approval Workflow Agent and Budget Validation Sub-Agent	1. Validate request against policies 2. Flag violations 3. Notify stakeholders	JSON-based policy rules via REST APIs	% compliant approvals; Policy violations prevented
	Parallel Approval Sub-Agent	Objective:Expedite urgent purchases. Key Functions:Enable simultaneous approvals, prioritize requests, and coordinate multiple stakeholders concurrently.	Enables simultaneous reviews by multiple approvers for urgent requests.	Reduce cycle times for critical purchases.	Parallel routing logic, priority tagging, multi-stakeholder coordination	Links to Requisition Management Agent (priority tagging)	1. Identify urgent requests 2. Route to all approvers 3. Collect responses	Real-time APIs (e.g., WebSocket)	Cycle time reduction for urgent requests; Approval speed (hours per request)
PO Generation Agent	*Vendor Communication Sub-Agent*	Objective: Streamline PO dispatch. Key Functions: Send POs to suppliers, automate email notifications, and track acknowledgment status.	Automates PO dispatch to suppliers and tracks acknowledgments.	Ensure vendor confirmation and reduce manual follow-ups.	Supplier portal integration (e.g., SAP Ariba), email automation, confirmation tracking	Connects with Supplier Management Agent (vendor contacts)	1. Generate PO 2. Send to supplier via email/portal 3. Track acknowledgment 4. Track PO fulfilment	EDI/API for portals; SMTP for emails	Vendor response time; PO acknowledgment rate
	Contract Compliance Sub-Agent	Objective: Enforce contract terms. Key Functions: Validate PO terms against contracts, check pricing and dates, and flag discrepancies for resolution.	Ensures PO terms align with negotiated contracts (pricing, SLAs).	Avoid contractual breaches.	Contract repository access, term validation (price, dates), discrepancy alerts	Interfaces with Supplier Management Agent (contract DB)	1. Cross-reference PO with contract 2. Flag discrepancies 3. Route for resolution	SQL queries to contract DBs; SOAP APIs	% POs compliant with contracts; Discrepancies flagged per 100 POs
	Spot Buy Handler	Objective: Reduce maverick spending. Key Functions: Generate ad-hoc POs, detect maverick spend, and validate budgets for non-catalog purchases.	Manages ad-hoc, non-catalog purchases with one-off POs.	Control unplanned spending for low-value needs.	Ad-hoc PO templates, maverick spend detection, budget validation	Collaborates with Requisition Management Agent (requests), Budget validation sub-agent	1. Identify spot buy requests 2. Validate budget 3. Generate PO 4. Track fulfillment	REST APIs for budget checks; XML/JSON for PO templates	% reduction in maverick spending; Avg. cycle time for spot buys

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Possible AI Agents across Procure to Pay Process (4/5)

List of AI Agents which can be deployed in the P2P process

Primary Agent	Sub-Agent	Objective & Key Functions	Role Definition	Goal Specification	Capabilities & Skills	Interactions with Agents/Environment	Task Execution Workflow	Communication Protocol	Performance Metrics
Goods Receipt Agent	*IoT Sensor Sub-Agent*	Objective: Ensure on-time, quality deliveries. Key Functions: Track shipments via IoT, monitor quality parameters, and trigger alerts on deviations.	Tracks deliveries in real time using IoT devices (location, temperature).	Maintain delivery accuracy and quality standards.	IoT integration (RFID, GPS)	Integrates with Supplier Management Agent (SLAs)	1. Capture sensor data 2. Compare against SLAs 3. Trigger alerts and GRN	MQTT/CoAP for IoT data; REST APIs for ERP updates	On-time delivery rate; Quality deviation alerts triggered
Invoice Processing Agent	*Invoice Receipt Management Sub-Agent*	Objective: Monitor incoming invoices and ensure correct categorization Key Functions: Monitor all incoming channels (email, online portals, etc.), extract invoice details and organize as per categories	Tracks invoice receipt in real time using OCR and NLP	Maintain accuracy in invoice extraction and categorization.	OCR	Works with PO generation agent, 3-way match sub-agent, accounts payable specialist	1. Extract data from invoices 2. Validate invoice data 3. Flag discrepancies 4. Send for matching	Email notifications, ERP alerts	Invoice accuracy rate, percentage of electronic invoices, First-time match rate
	3-Way Match Sub-Agent	Objective:Validate invoice accuracy. Key Functions:Match POs, GRNs, and invoices; apply tolerance thresholds; and route exceptions for mismatches.	Validates invoices against POs and Goods Receipt Notes (GRNs).	Ensure payments align with ordered/delivered goods.	AI/ML-based matching (e.g., Nanonets), tolerance thresholds, exception routing	Works with Goods Receipt Agent (GRNs), Accounts Payable, PO Generation Agent, Compliance Agent	1. Receive Invoice 2. Match PO-GRN-invoice 3. Flag mismatches 4. Route exceptions 5. Approve for payment	ERP alerts; Email notifications; JSON/XML data exchange; RPA bots for exceptions	% invoices auto-matched; Mismatch resolution time
	Accounts Payable Specialist	Objective: Process supplier payments and manage payables aging. Key Functions: Manage timely and accurate supplier payments.	Manages timely and accurate supplier payments.	Ensure timely payments; optimize cash flow.	Payment processing, reconciliation, ERP usage	Interacts with Cash Flow Manager, Tax & Compliance Officer, PO Generation Agent	1. Schedule payments 2. Process and record in ERP 3. Update payment ledger	Bank integrations; ERP payments; Email confirmations	On-time payment rate; Discount utilization.
Payment Execution Agent	*Dynamic Discounting Sub-Agent*	Objective:Capture early payment discounts. Key Functions:Analyze discount terms, forecast cash flow benefits, and track supplier negotiation outcomes.	Identifies early payment discounts offered by suppliers.	Optimize cash flow and supplier relationships.	Discount term analysis, cash flow forecasting, supplier negotiation tracking	Interfaces with Supplier Management Agent (discounts)	1. Analyze discount terms 2. Calculate savings 3. Trigger early payment	SOAP APIs for payment systems; SQL for discount DBs	% discounts captured; Annual savings from early payments

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Possible AI Agents across Procure to Pay Process (5/5)

List of AI Agents which can be deployed in the P2P process

Primary Agent	Sub-Agent	Objective & Key Functions	Role Definition	Goal Specification	Capabilities & Skills	Interactions with Agents/Environment	Task Execution Workflow	Communication Protocol	Performance Metrics
Payment Execution Agent	*Fraud Detection Sub-Agent*	Objective: Prevent payment fraud. Key Functions: Scan payments for duplicates and anomalies, perform duplicate invoice checks, and alert on suspicious patterns.	Scans payments for duplicates, irregularities, or suspicious patterns.	Mitigate financial fraud and ensure transaction integrity.	Pattern recognition (AI/ML)	Collaborates with Invoice Matching Agent (invoices)	1. Analyze payment history 2. Flag anomalies 3. Alert stakeholders	GraphQL for data queries; Python ML models	Fraud attempts detected; % reduction in fraudulent payments
Compliance & Reporting Agent	*Regulatory Audit Specialist*	Objective: Ensure procurement and payment processes adhere to regulations. Key Functions: Conduct periodic audits and compliance reviews.	Conducts periodic audits and compliance reviews.	Reduce compliance violations.	Internal auditing, regulatory knowledge, risk management	Interacts with Finance Agent, Supplier Management Agent, Accounts Payable	1. Gather transaction data 2. Perform audits 3. Report findings 4. Implement corrective actions	Compliance reports; Audit notifications	Audit compliance score; Issue resolution rate.
	Audit Trail Sub-Agent	Objective: Simplify audit readiness. Key Functions: Log transactions, timestamp events, enforce role-based access, and generate audit reports.	Maintains immutable records of approvals, receipts, and payments.	Enable regulatory compliance and transparency.	Transactions logging	Integrates with all workflow agents (transaction logs)	1. Capture transaction data 2. Encrypt/store logs 3. Generate audit reports	HTTPS for secure logging; SQL for querying audit trails	Audit preparation time; % audit findings resolved.

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Possible AI Agents across Order to Cash Process (1/5)

List of AI Agents which can be deployed in the O2C process

Primary Agent	Sub-Agent	Objective	Key Function	Capabilities & Skills	Tasks Performed	Communication Protocol
Customer Management Agent	Customer Onboarding Specialist	Collect, verify, and approve new customer registrations	Manage initial customer application intake and initiate setup process	CRM handling, workflow initiation, customer service	▪ Receive application ▪ Validate completeness and initiate workflow	CRM portal, Email notifications, Word forms
	Customer Data Validator	Validate customer master data accuracy and format	Ensure customer information adheres to internal master data standards Validate mandatory fields (e.g., tax information, etc.), auto-correct entries, and log audits	Data governance, data validation tools, attention to detail	▪ Check naming conventions, tax IDs, contact details, ERP compliance	ERP interface, SQL validation scripts, Email
Credit Management Agent	Credit Assessment Agent	Evaluate credit worthiness and determine credit limits	Assign and review credit limits, suggest revisions	Credit analysis, financial modeling, ERP setup	▪ Fetch credit reports, review history and assess financial health ▪ Suggest risk ratings and limits	Credit scoring tools, API interface, Email, ERP form
	Credit Risk Monitor	Monitor credit utilization and exposure	Track limit breaches and trigger alerts. Connect with external credit agencies and analyse credit history to suggest revisions	Exposure tracking, predictive alerts, dashboard logic	▪ Fetch credit reports, review history and assess financial health ▪ Suggest revisions in risk ratings and limits ▪ Compare open balances to limits and escalate issues	API interface, ERP alerts, Dashboards

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Possible AI Agents across Order to Cash Process (2/5)

List of AI Agents which can be deployed in the O2C process

Primary Agent	Sub-Agent	Objective	Key Function	Capabilities & Skills	Tasks Performed	Communication Protocol
Order Management Agent	Sales Order Entry Agent	Receive and log customer orders	Ensure order completeness and correct entry	ERP order creation, master data validation	▪ Enter order in ERP and validate fields	Email orders, CRM, ERP order screen
	Order Validation Agent	Ensure orders meet business and pricing rules	Perform validations before order moves to billing	Business rule logic, exception handling	▪ Check sales order entry against credit, product master data	ERP validation engine
	Pricing Agent	Ensure accurate and contract-based pricing	Validate against price lists and customer contracts	Price engine, discount logic	▪ Fetch pricing terms from contracts ▪ Apply price logic and flag mismatches	ERP pricing module, Contract DB
	Order Tracking Agent	Monitor order shipment and delivery status	Provide real-time visibility on fulfillment and suggest actions to avoid delays. Notify stakeholders for delays	Tracking API, ERP updates, ETA logic	▪ Fetch logistics updates ▪ Notify customer for any delays	Logistics API, Customer portal

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Possible AI Agents across Order to Cash Process (3/5)

List of AI Agents which can be deployed in the O2C process

Primary Agent	Sub-Agent	Objective	Key Function	Capabilities & Skills	Tasks Performed	Communication Protocol
Billing Agent	Invoice Generation Agent	Generate accurate and timely invoices	Create invoices based on completed deliveries or fulfilled orders	ERP billing logic, data validation, template management	▪ Retrieve order/delivery data ▪ Validate completeness ▪ Generate invoice in ERP	ERP billing module, Workflow engine
	Tax Compliance Agent	Apply correct tax codes and ensure compliance with tax laws	Validate jurisdictional tax rates and exemptions on invoices	Tax rule engines, indirect tax knowledge, ERP tax configuration	▪ Cross-check product/service tax mapping, determine GST/VAT, ensure cross-border rules are applied	ERP tax engine, Government e-invoicing portal
	Invoice Sharing Agent	Distribute invoices to customers through the appropriate channels	Ensure secure, timely, and traceable invoice delivery	Document formatting, email automation, e-invoicing platforms	▪ Fetch finalized invoice, format appropriately (PDF/XML) ▪ Dispatch via correct channel	Email, Customer portal, EDI system, e-Invoice network
Collections Agent	Collection strategies agent	Analyses open AR items and suggest collection strategies and actions based on credit history	Recommend tailored collection approach based on account history and behavior	Risk-based segmentation, dunning strategies, ML for behavior modeling, omnichannel integration	▪ Segment accounts by risk and aging ▪ Apply strategy from the following: – Standard Follow-up (reminders) – Intensive Collection (daily touchpoints) – Legal Action Warning (final notice) – Payment Plan (split pay) – Settlement Offer (discounted closure) ▪ Track response rates and adjust touch cadence ▪ Integrate voice, email, SMS, and chatbots	Email reminders, SMS, predictive dialers, chatbots, CRM notes
	Collection Tracker Agent	Track PTP (Promise to Pay) and collections	Track actions, Follow-up workflows, escalation logic	PTP tracking, commitment logging, workflow triggers, escalation handling	▪ Update status and escalate delays	CRM updates, Collection dashboards, ERP notifications

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Possible AI Agents across Order to Cash Process (4/5)

List of AI Agents which can be deployed in the O2C process

Primary Agent	Sub-Agent	Objective	Key Function	Capabilities & Skills	Tasks Performed	Communication Protocol
Collections Agent	Dunning Agent	Automate reminders for overdue customers	Send notices and manage responses	Dunning templates, timeline logic	▪ Generate reminders and share with customers on mail ▪ Escalate unresolved cases	ERP dunning, Email templates
	Dispute Management Agent	Handle invoice-related disputes	Categorize, resolve, and close disputes	Issue resolution, workflow handling	▪ Capture ticket as per dispute received ▪ Classify and categorise issues ▪ Investigate issue and respond ▪ Escalate unresolved cases	Case mgmt. tool, Email
Cash Application Agent	Remittance Extractor	Extract data from remittance documents	Structure incoming payment data	OCR, data parsing, remittance recognition	▪ Use OCR to extract requisite details (i.e. invoice number, customer, amount)	Email remittance, OCR engine
	Suggestive Matcher Agent	Suggest matches when remittance is incomplete	Use pattern/AI logic to match payment to invoice. Exact & fuzzy matching (amount, invoice no., remittance text). AI-confidence scoring for matches	Heuristic logic, AI matching, reconciliation	▪ Exact/ Fuzzy match using amount, customer ID, past history ▪ Suggest predictive matching	ERP matching engine, AI module
	Payment Application Agent	Apply payments to open invoices	Clear accounts and handle exceptions	ERP clearing, exception management	▪ Clear receipt against balances ▪ Report mismatches	ERP clearing screen, Bank API

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Possible AI Agents across Order to Cash Process (5/5)

List of AI Agents which can be deployed in the O2C process

Primary Agent	Sub-Agent	Objective	Key Function	Capabilities & Skills	Tasks Performed	Communication Protocol
AR Close	Customer Balance Confirmation Agent	Confirm customer balances to maintain real-time visibility of customer account balances	Consolidate all open receivables and credits for each customer and confirm with customers and identify mismatches	Account reconciliation, ERP reporting, data aggregation, real-time dashboarding	▪ Retrieve open invoices, credit memos, unapplied payments and compute net exposure ▪ Share with customer on mail ▪ Identify mismatch basis clarifications received	ERP dashboards, SQL queries, scheduled reports
	AR Monitoring Agent	Track overdue balances and aging trends across customers	Provide visibility into receivables aging and performance KPIs	Aging logic, predictive alerts, KPI visualization, BI tool usage	▪ Update aging buckets and flag overdue cases ▪ Generate AR dashboards and reports	ERP alerts, BI dashboards, email digests
Overall	Routing agent	Ensure exceptions (unmatched payments, disputes) reach correct resolution teams or systems	Route exceptions to appropriate team based on business rules and category	Exception identification, rule-based workflows, cross-process mapping, JIRA/ServiceNow integration	▪ Analyses exception across O2C cycle - unapplied payments, variance in balance confirmations, customer disputes, etc. ▪ Apply routing rules (unit, geography, complexity) ▪ Create tickets in ServiceNow/JIRA or trigger specialist agents	ERP alerts, ServiceNow/JIRA tickets, Email triggers
	Supervisor agent	Provide end-to-end visibility, monitor SLAs, surface bottlenecks, trigger escalations or re-runs	Oversee process performance and trigger actions for deviation or delay	SLA tracking, dashboarding, escalation logic, data aggregation, KPI analytics	▪ Aggregate metrics (processing times, match rates, DSO) ▪ Real-time dashboards & alerts ▪ Generate daily/weekly performance reports	BI dashboards, Email alerts, Slack/Microsoft Teams notifications
	Data Extraction & Cleansing	Ingest remittance advices, lock-box files, ERP AR data; normalize diverse formats into a unified schema	Clean and transform incoming financial data for downstream processing	OCR tools, file parsing, ETL pipelines, anomaly detection, audit logging	▪ Connect to banks/APIs/ERPs (SFTP, CAMT.053, BAI2) ▪ Parse/standardize dates, currencies, invoice IDs ▪ Deduplicate & correct anomalies ▪ Audit-trail all transformations	SFTP ingestion, API interface, ERP import utilities, Audit dashboards

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Possible AI Agents across Record to Report Process (1/5)

List of AI Agents which can be deployed in the RTR process

Primary Agent	Sub-Agent	Objective	Key Function	Capabilities & Skills	Tasks Performed	Communication Protocol
GL Scrutiny Orchestrator	Anomaly Detection Agent	Identify unusual, risky, or non-standard entries	Outlier detection, rules-based and ML models, threshold monitoring	Statistical modeling, ML anomaly detection, trend learning	1. Scan journal entries 2. Compare against historical data 3. Flag and rank anomalies 4. Route to reviewers	REST API, ML model inference pipeline, Message Queue
	Policy Compliance Agent	Validate entries against internal controls and accounting policies	Segregation of duties (SoD), posting rules, approval compliance	Rules engine, SoD matrix, audit logging	1. Check user roles and posting history 2. Compare entries with policy 3. Flag violations 4. Recommend remediation steps	SAP Business Rules Framework, Fiori workflow integration, Audit Log APIs
	Data Quality Assessment Agent	Manage entire JE non-financial metadata quality process	Identify missing fields, validation rule enforcement, natural language consistency checks	Rule enforcement, SAP field mapping, document parsing, NLP, pattern learning, GL-code-to-description logic	1. Trigger quality check 2. Analyze JE and corresponding narratives 3. Identify & analyze required fields 4. Report inconsistencies	Event bus, REST API, NLP pipeline, SAP Notes Parser, ML integration
	Account Correlation Agent	Coordinate two-way analysis and validates account pair against expected business outcomes	Account-pair frequency matching, Anomaly routing, Pattern aggregation	Pattern comparison, threshold setting, orchestration	1. Trigger correlation check 2. Extract account pairs 3. Flag logically inconsistent pairs	Event bus, Message Queue, REST API
	Post Close Change Agent	Coordinate aging analysis across all post-close changes	Schedule analysis, detect and catalog entries made post close, calculate ageing, check if changes were approved	Time-stamping, posting validation, closure-period match, reason code validation, NLP memo scan	1. Detect period closure 2. Check JE post date vs period close date 3. Compute aging (days since closure) 4. Match against valid codes 5. Match approvers against SoD matrix 6. Flag inconsistencies/ deviations	SAP Event Triggers, Fiori Notifications, Alerting API, SoD API
	Explanation Generator Agent	Provide human-readable explanations for flagged entries	Contextual insights, policy references, prior period comparison	NLP, accounting rules knowledge, semantic comparison	1. Receive flagged entry 2. Analyze context (date, user, type) 3. Generate root-cause explanation and highlight supporting docs	REST API, Text Generation Pipeline, Collaboration Tools (e.g., Teams, Email)
	Audit Management Agent	Quantify the financial risk of flagged entries	Risk modeling, materiality scoring, confidence levels	Predictive analytics, confidence scoring, risk modeling	1. Review anomalies and non-compliant entries 2. Calculate risk scores 3. Present ranked list to reviewers	REST API, SAP Business Objects, Alert Service
	Insights Agent	Surface trends, exceptions, and monthly variances in GL accounts	Horizontal analysis, variance tracking, visual summaries	BI integration, time series analysis, drill-down dashboards	1. Compare current vs. prior periods 2. Highlight material changes 3. Surface top changes with context	OData APIs, Embedded Analytics Engine (SAP CDS views), BI Dashboards (SAC)

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Possible AI Agents across Record to Report Process (2/5)

List of AI Agents which can be deployed in the RTR process

Primary Agent	Sub-Agent	Objective	Key Function	Capabilities & Skills	Tasks Performed	Communication Protocol
Accrual & Deferral Orchestrator	Accrual Detection Agent	Identify transactions needing accruals based on usage/services	Invoice gap detection, service delivery analysis, unbilled liability recognition	AP scanning, usage pattern mining, invoice-matching logic	1. Analyze prior period activity 2. Identify expected costs 3. Estimate amount 4. Flag for accrual posting	SAP AP Data Query, Vendor Portal Integration
	Deferral Detection Agent	Identify prepaid items or revenues for deferral	Unearned revenue flagging, advance payment tagging, prepayment logic	Revenue contract analysis, document tagging, schedule detection	1. Identify advance receipts/postings 2. Map to revenue/service schedule 3. Flag for deferral posting	SAP SD/AR API, Contract Module Interface
	Amount Calculation Agent	Calculate accrual/deferral values	Proration, time-period allocation, volume-based estimation	Calendar logic, allocation functions, historical trend analysis	1. Fetch cost/revenue details and user inputs from e-mails 2. Apply proration logic 3. Calculate & validate amount	Internal Calculation Engine, SAP FI Integration
	Approval & Posting Agent	Route entries for approval and perform posting	Approval routing, JE creation, GL mapping	Workflow routing, GL interface, journal automation	1. Generate JE template 2. Route to approver 3. Post upon approval 4. Store audit trail	SAP Workflow, JE API, Fiori Inbox
	Reversal Scheduler Agent	Reverse accruals/deferrals at the right period	Scheduled reversals, period tracking, date logic	Calendar triggers, auto-reverse logic, period-matching	1. Schedule reversal at JE creation 2. Auto-reverse on the specified day of the next period	SAP Calendar Engine, JE Reversal Module
	Audit Management Agent	Create detailed logs for each accrual/deferral	Justification memos, calculation audit trails, approver records	Audit log formatting, change history, documentation injection	1. Store reason codes and memos 2. Archive JE changes 3. Generate monthly audit trail report	PDF Log Export, SAP Compliance Cockpit Integration
	Insights Agent	Generate insights to optimize, forecast, and explain accrual/deferral behaviors	Trend analysis, root cause analysis, anomaly detection, what-if simulation	Data mining, forecasting, ML pattern recognition, what-if scenario generation	1. Aggregate accruals/deferrals data over multiple periods 2. Segment by cost center, vendor, GL, etc. 3. Detect anomalies 4. Generate dashboards/recommendations	SAP Analytics Cloud, Excel exports, Power BI connector

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Possible AI Agents across Record to Report Process (3/5)

List of AI Agents which can be deployed in the RTR process

Primary Agent	Sub-Agent	Objective	Key Function	Capabilities & Skills	Tasks Performed	Communication Protocol
Reconciliation Orchestrator	GL/Sub-GL Extractor Agent	Pull balances and transactions from AR/AP/Asset sub-ledgers and GL balances & postings	Period-specific data pull, entity-wise segregation	SAP GL & data extract, sub-ledger tagging, filter configuration, posting date alignment, account mapping	1. Query GL and sub-ledger balances 2. Apply reconciliation date 3. Segment by cost center/entity 4. Store snapshot	SAP API, SLT Replication, CDS View Access, SAP FI Line Item Query, Balance APIs
	Matching & Variance Agent	Compare GL vs sub-GL and flag mismatches	Matching logic, tolerances, pattern analysis, duplicate detection	Tolerance checks, duplicate match, fuzzy logic	1. Match sub-ledger to GL by account/entity/date 2. Flag deltas 3. Categorize mismatch types	SAP Matching Engine, Internal Logic Module
	Explanation Generator Agent	Provide human-readable explanations for mismatches	Transaction trace, timing lag detection, document lineage analysis	Document flow tracing, date lag logic, inter-module analysis	1. Pull document reference chain 2. Analyze delay/posting errors 3. Suggest likely cause	SAP Document Flow API, NLP Commentary Generator
	Approval & Posting Agent	Propose and/or auto-post adjusting entries	Create JE suggestions, route for approval, post corrections	GL journal creation, workflow routing, exception tagging	1. Propose correcting entries 2. Route to approvers 3. Post & document change	SAP JE API, Fiori Workflow, Email Routing
	Insights Agent	Generate dashboards, trends, and compliance views	Highlight recurring issues, modules/entities with frequent variances	Trend analysis, variance heatmaps, aging of mismatches	1. Aggregate monthly data 2. Analyze recurrences 3. Output visual and narrative summaries	SAP Analytics Cloud, PDF Export, BI Connector

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Possible AI Agents across Record to Report Process (4/5)

List of AI Agents which can be deployed in the RTR process

Primary Agent	Sub-Agent	Objective	Key Function	Capabilities & Skills	Tasks Performed	Communication Protocol
Intercompany Orchestrator	Intercompany Booking Agent	Post intercompany entries based on transaction agreements	JE generation, GL account mapping, tax logic	GL mapping, JE automation, inter-entity communication	1. Receive invoices/ booking triggers 2. Post entries in the books of both the entities 3. Cross-reference IC document numbers	SAP FI Posting API, Intercompany Bridge
	Reconciliation Agent	Match buy/sell or service receivables and payables	Compare AR/AP, analyze timing mismatches, highlight variances, support resolution	Entity-level variance detection, timing lag logic, drill-downs	1. Extract intercompany AR/AP balances 2. Align periods/entities 3. Match balances 4. Highlight variances 5. Route for resolution	SAP Intercompany Reconciliation Tool, APIs, Internal Workflow Hub
	Dispute Management Agent	Manage mismatches and disputes between intercompany counterparts	Exception routing, resolution workflow, communication coordination	Issue tracking, escalation logic, message routing	1. Flag dispute 2. Notify counterparty 3. Track resolution steps 4. Close once agreed	Email, Workflow Inbox, SAP Collaboration Hub
	Approval & Posting Agent	Automate and govern approval and booking of intercompany corrections	Prepare JEs, route for approval, auto-post or queue for manual review	JE creation, rule-based approvals, FI posting	1. Receive proposed adjustments from Reconciliation/Dispute Management Agent 2. Validate against policy 3. Route for approval 4. Post upon approval	SAP Fiori Workflows, SAP GRC, Email, FI Posting APIs
	Insights Agent	Analyze trends and report on intercompany activity and anomalies	Volume trend, unmatched items, timing lags, currency conversion inconsistencies	KPI dashboards, threshold monitoring, anomaly detection	1. Analyze IC volume & trends 2. Track exception patterns 3. Suggest process/policy changes	SAP Analytics Cloud, Email Digest, BI Dashboards
	Audit Management Agent	Maintain audit trail of all intercompany activities	Document flow storage, timestamping, approver capture, change logs	Log generation, version control, memo tagging	1. Log each posting and match 2. Store approvals 3. Compile period-end audit bundle	PDF Archive, DMS API, GRC Integration

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Possible AI Agents across Record to Report Process (5/5)

List of AI Agents which can be deployed in the RTR process

Primary Agent	Sub-Agent	Objective	Key Function	Capabilities & Skills	Tasks Performed	Communication Protocol
Close Orchestrator	Calendar & Task Manager	Manage end-to-end close calendar	Task scheduling, dependency mapping, milestone tracking	Calendar management, escalation triggers, task reassignment logic	1. Load entity calendar 2. Allocate tasks 3. Monitor status 4. Resolve delays 5. Finalize close status report	SAP Fiori UI, Email, Teams Integration
	Execution Agent	Run pre-configured close processes	SAP jobs, RPA scripts, batch jobs, interface calls	SAP job control, fallback logic, RPA integration	1. Receive schedule trigger 2. Run job 3. Log output 4. Retry or escalate if failed	SAP Job Scheduler, RPA APIs, RFC
	Monitoring Agent	Real-time tracking of close task progress	Delay detection, dependency impact alerts, KPI monitoring	Predictive anomaly detection, root cause tracing	1. Monitor live feed 2. Identify anomalies 3. Send reminders and/or escalations 4. Propose resolution steps	Dashboards, Email Alerts, Power BI
	Dependency Agent	Manage interdependent tasks across teams	Predecessor-successor logic, sequencing validation	Critical path prediction, auto-simulation, impact tracing	1. Map dependencies 2. Simulate conflicts 3. Auto-sequence tasks to specify and continuously evolve the critical path 4. Flag issues	Internal agent comms, close cockpit APIs
	Policy Compliance Agent	Enforce controls, approvals & audit traceability	Digital approvals, checklist enforcement, compliance routing	Audit log capture, approval matrix, threshold-based routing	1. Validate checklist 2. Route approvals 3. Confirm sign-off 4. Lock completion	SAP GRC, Email Workflow, Document System APIs
	Checklist Agent	Validate task completeness before final close	Checklist review, exception logging, user prompts	Smart checklist population, policy validation	1. Retrieve entity-specific checklist 2. Flag missing items 3. Block progression if required	Embedded in close UI, Email
	Insights Agent	Analyze performance and generate insights post-close	Trend analysis, bottleneck discovery, process mining	KPI generation, historical data modeling, predictive insights	1. Gather metrics 2. Analyze trends 3. Highlight recurring issues 4. Recommend changes	SAP Analytics Cloud, Excel Digest
	Audit Management Agent	Create immutable evidence for all close actions	Log preservation, action traceability, digital timestamping	Tamper-proof log, snapshot capture, audit report generator	1. Capture action logs 2. Store immutable record 3. Generate audit trail	GRC logs, Secure Archive API

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General Agentic Solution Architecture

P2P | AWS Architecture

Business Systems & Data Sources

Email

ERP DATA

AWS API GATEWAY

Interaction Layer

Consumption Layer

Tech Stack:
Frontend (HTML, JS, Jquery, Bootstrap, CSS)
Backend: Flask, Python

Deployment Layer

Services:
Cloud: (AWS)
Services: (EC2, CodeCommit)

AWS EC2

CodeCommit

Model Garden

Claude 3.7 Sonnet

AWS Nova

Prompt Registry

AWS s3 Bucket

Agent Core**

Sequential Agents

Langchain

Supervisor Agent	**Invoice Management Agent**	**Data Extraction Agent**
GRN / SRN Agent	**3 Way Matching Agent**	**Exception Management Agent**

Memory Layer

Long Term Memory

AWS s3 Bucket

AWS RDS

Short Term Memory

E.g Agents States

*Cloud Hyper-scalers aws

**Agent libraries with generic agent customized to specific tasks. Example of generic agents represented in the Agent Core section

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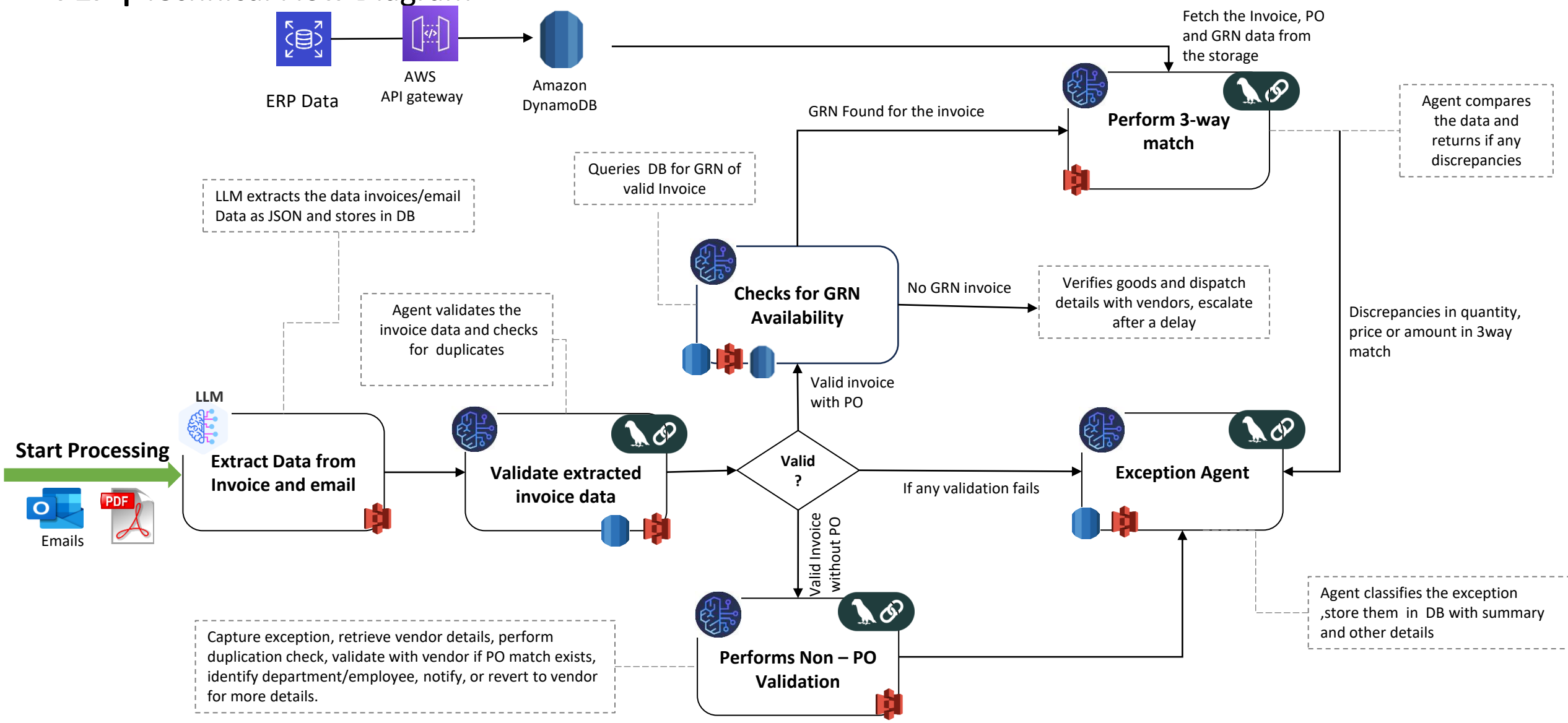
P2P | Technical Flow Diagram



**Backup to be triggered every month from S3 to AWS Backup*

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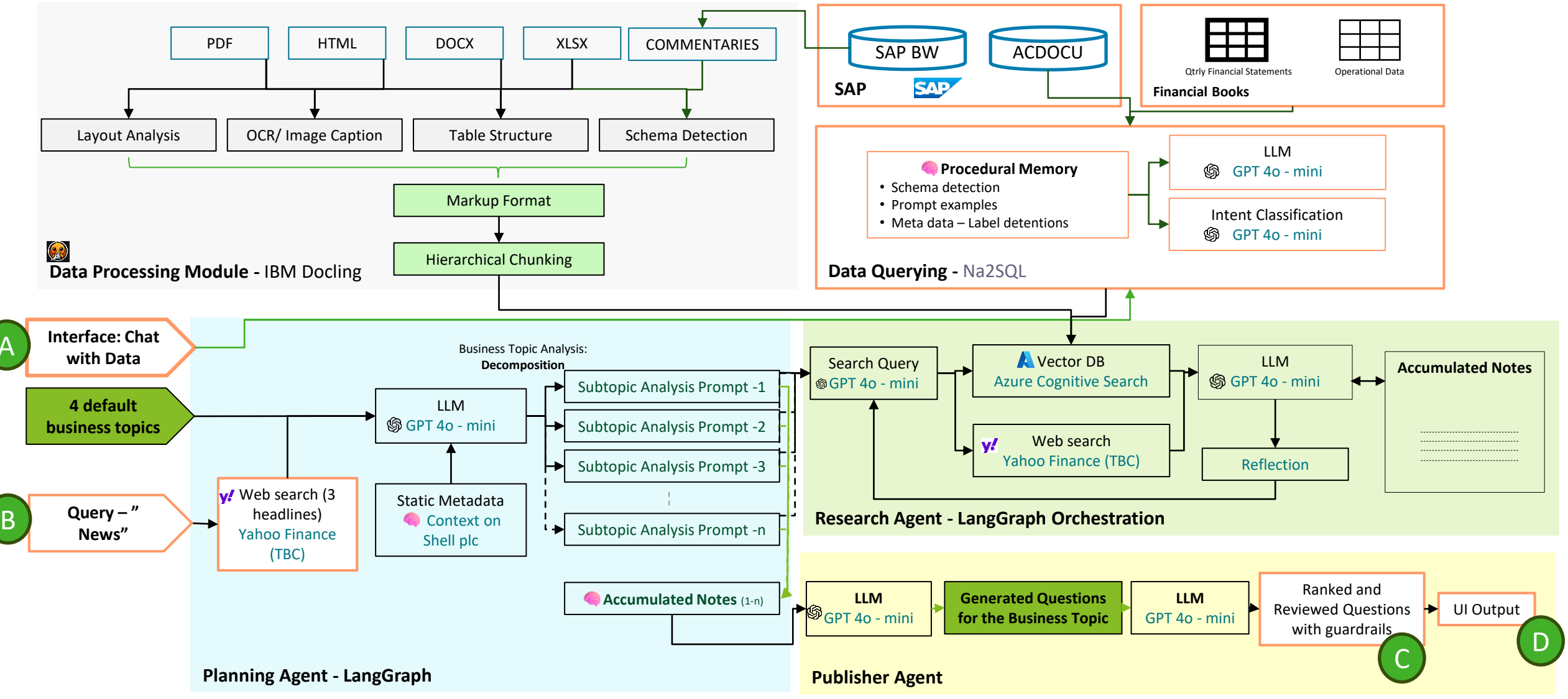
Lanchain/Langgrpah | AWS Bedrock *Claude 3.7 sonnet | App Logs AWS S3 | AWS API gateway | AWS EC2 Deployment

Investor reporting Architecture



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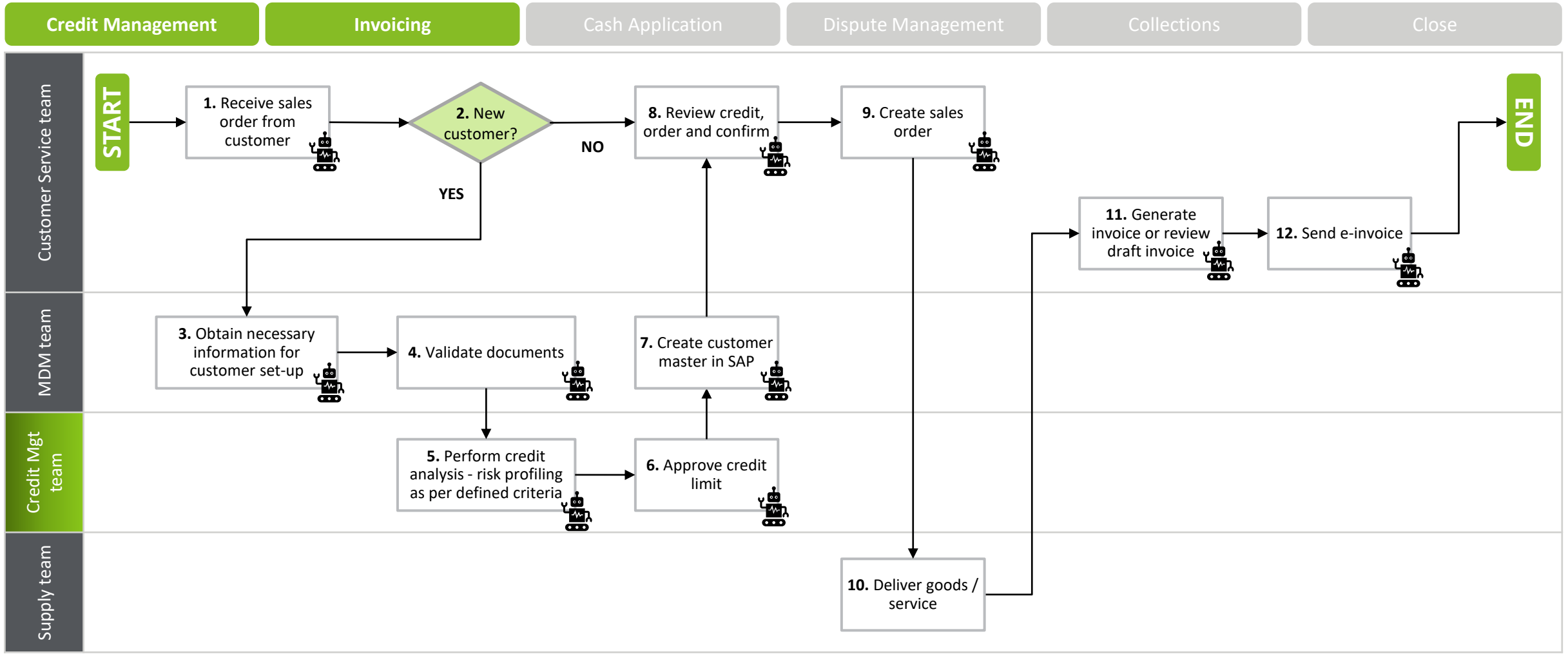
Process Maps with Agentic AI Intervention - OTC

Agentic AI interventions in Credit Management, Invoicing



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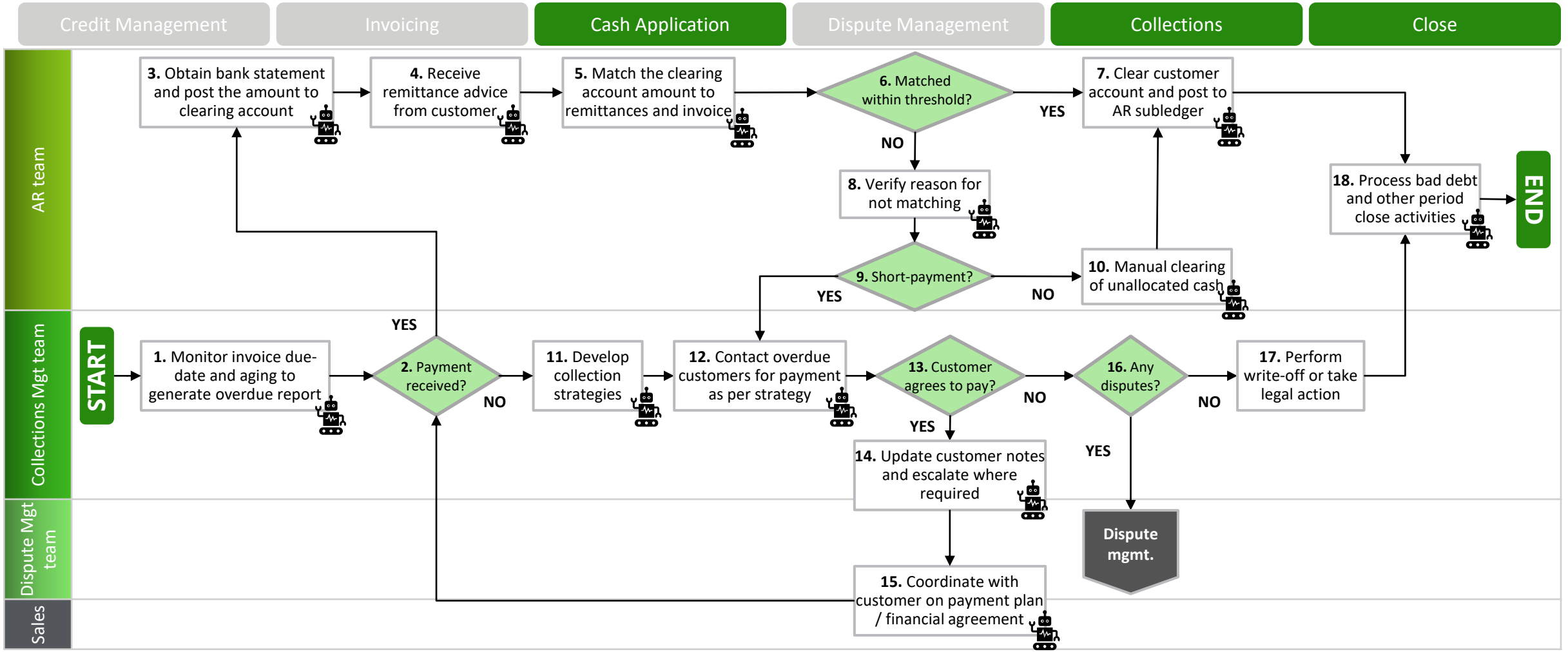
Agentic AI interventions in Cash Application, Collections Management, Close



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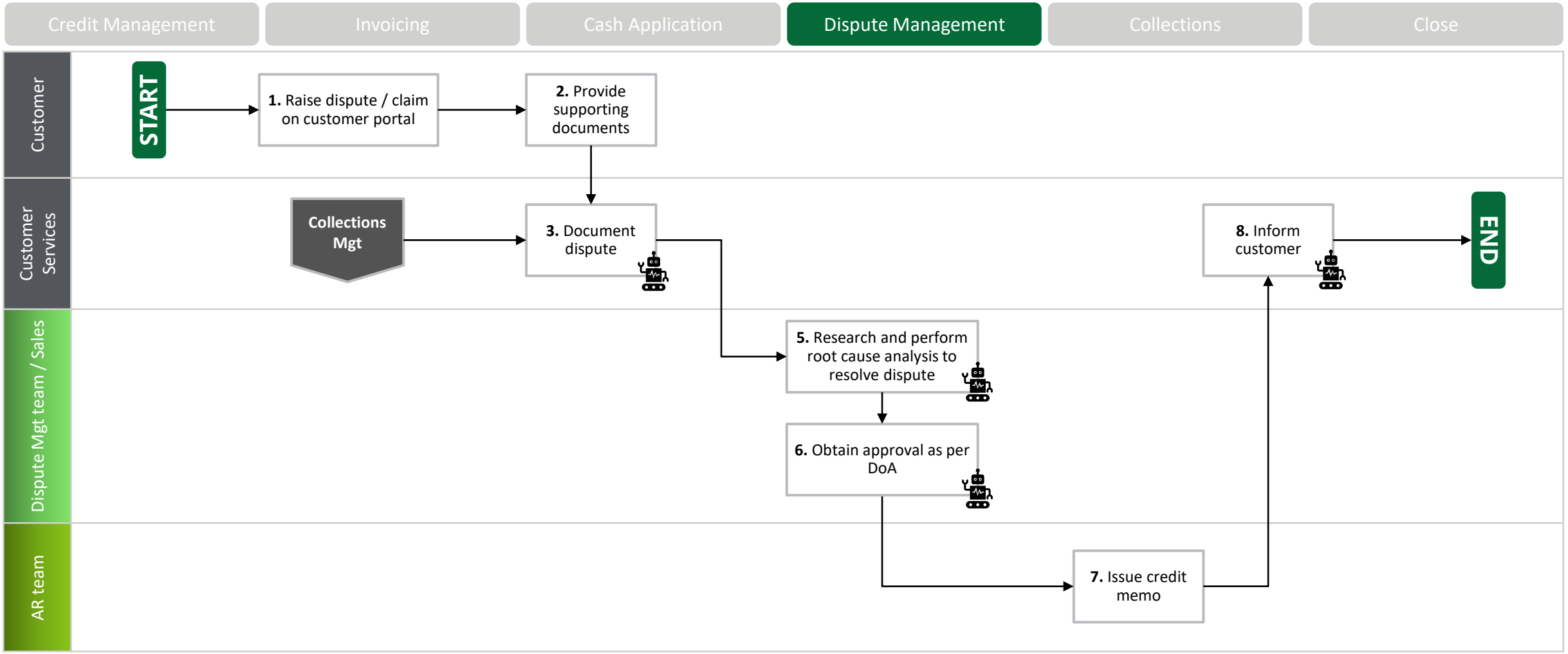
Agentic AI intervention

Agentic AI interventions in Dispute Management



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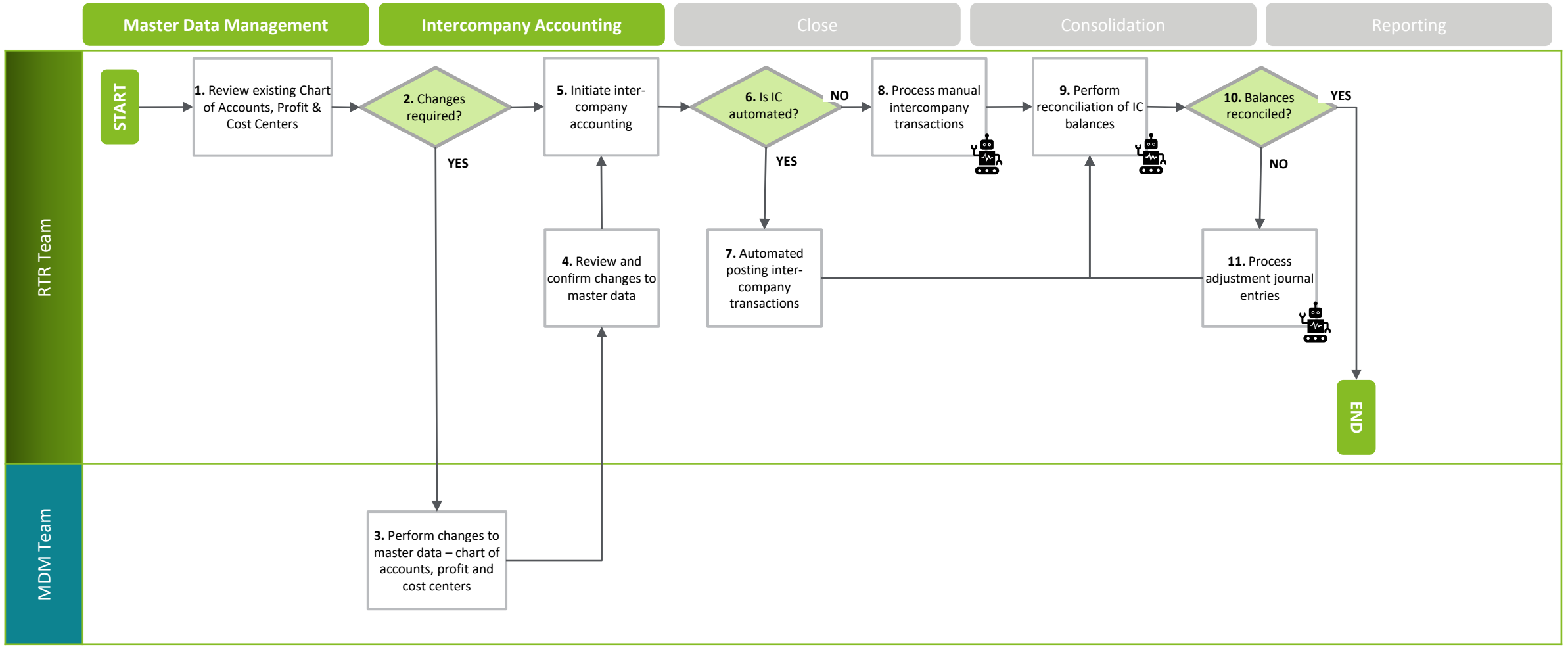
Agentic AI intervention

Process Maps with Agentic AI Intervention - RTR

Agentic AI interventions in Master Data and Intercompany



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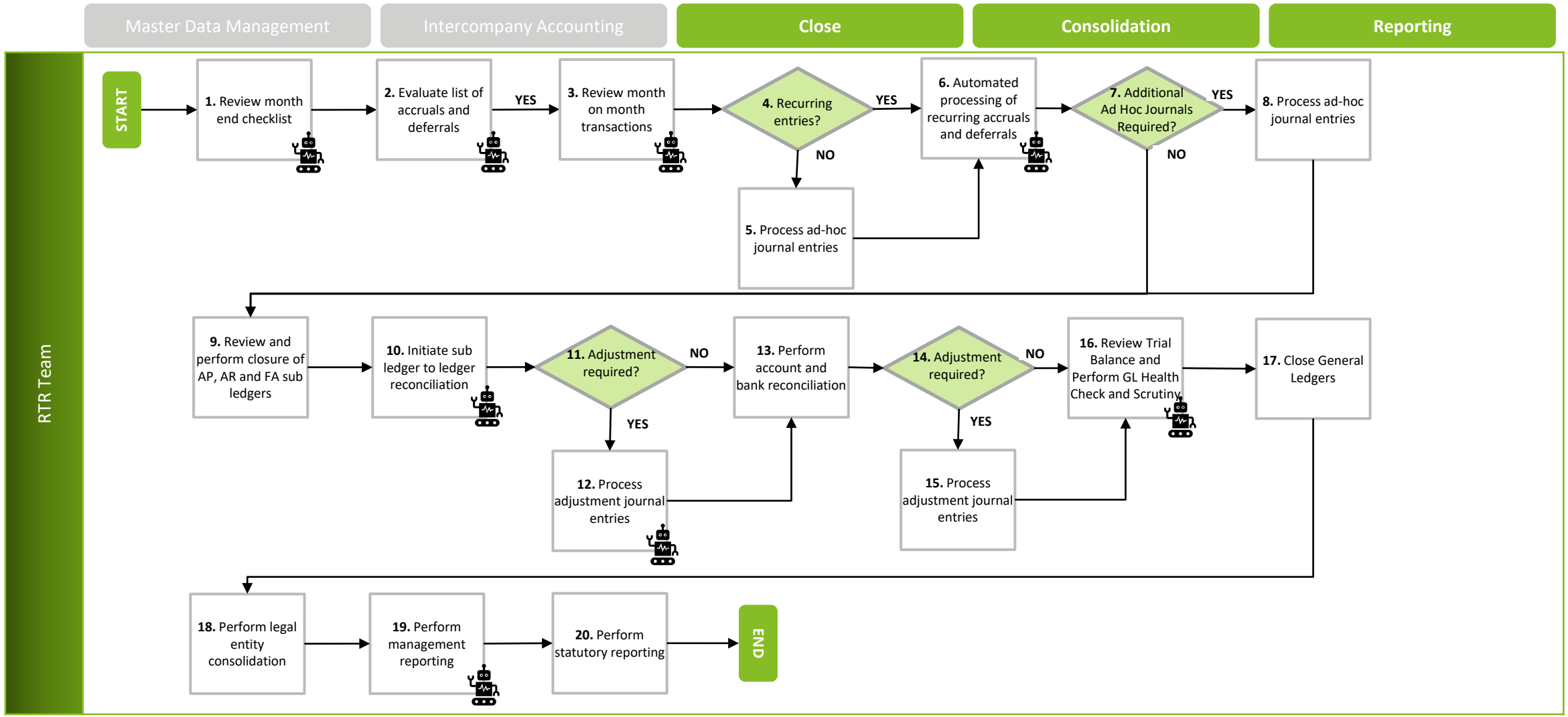
Agentic AI intervention

Agentic AI interventions in Close, Consolidation and Reporting



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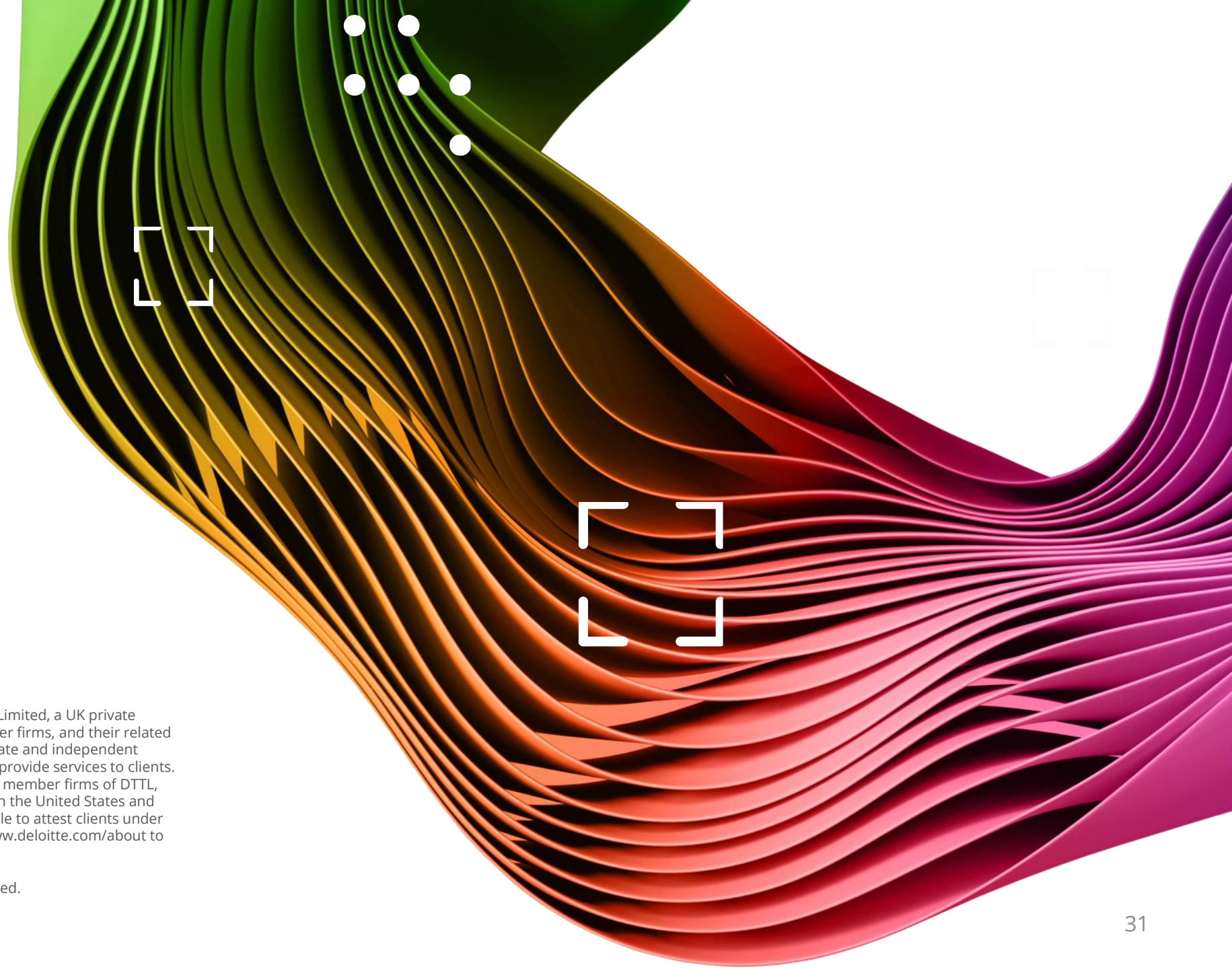
Agentic AI intervention



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