

Use case

Reducing manual invoice review effort by ~50% with AI-powered compliance automation

Overview

Environment Azure	Engagement type PoC funded assessment	Duration 2 Months
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Scope

Design and develop an AI-driven Invoice Validation solution to validate invoices against contract-defined rules

Sonata Software designed and developed an AI-powered invoice validation solution, deployed to a new dedicated Microsoft Azure environment. The solution validates vendor invoices against contract rules, detects billing anomalies, and automates compliance reporting, reducing manual review effort and financial leakage.

Customer snapshot

Industry Healthcare	Headquarters North Carolina
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The business challenge

- Manual or inconsistent validation of invoices against contract terms leading to potential billing discrepancies
- Difficulty in identifying pricing deviations, unauthorized fees, and duplicate invoices
- Lack of automated validation for compliance with contract rules such as billing frequency, account validity, and approved businesses
- Limited visibility into historical invoice comparisons for detecting anomalies
- Constraints around working within a defined contract scope and absence of integrations with external vendor systems

Impact of the problem

- Undetected unauthorized fees (Steri-Safe, SCRF, Fuel, Environmental) and price overruns created recurring financial leakage across high-volume invoices, typically translating to an estimated 3–5% of vendor spend in similar healthcare environments.
- Manual validation was time-intensive, creating backlogs and increasing SLA risk on invoice approvals
- High dependency on manual review increased operational costs in Accounts Payable (AP), with significant time spent on low-value verification tasks instead of strategic financial analysis

PoC objective

- Validate invoices against defined contract rules
- Automatically flag discrepancies such as pricing variance, unauthorized charges, and incorrect billing
- Enable auditability and traceability through historical data storage






The Sonata solution – what we did

The hybrid AI-powered invoice validation solution automates 10 critical billing validation rules derived from the vendor contract, stores rules in Microsoft Dataverse for easy governance, and integrates with SharePoint for secure document management. A web chatbot provides user-friendly access to validation results and exception handling. The solution establishes a foundation for continuous controls monitoring within accounts payable, enabling proactive detection of discrepancies rather than reactive audits.

Validation rules implemented

- Billing site validation: Flags mismatches between invoice billing site and contract.
- Unit price, quantity and service description validation: Flags invoices missing mandatory line-item details.
- Price manipulation detection: Flags price variances exceeding 4% annual escalation from 2021 base contract.
- Unauthorized fee detection: Flags fees not listed in contract (Steri-Safe, SCRF, fuel, environmental).
- Cancelled account detection: Flags invoices with invoice dates later than account cancellation date.
- Incorrect business billed: Flags invoices outside the approved business or approver list.
- Vendor account number validation: Flags missing, unrecognized, or expired account numbers.
- Billing frequency validation: Flags advance billing when contract requires post-service billing.
- Duplicate invoice detection: Flags duplicate invoices or repeated service claims using historical data.
- Emergency charge validation: Flags emergency charges that are not properly tagged.

Microsoft technologies used

 Microsoft Azure	 Microsoft Dataverse	 Microsoft Power Platform (Power Automate, Copilot Studio)
 Microsoft SharePoint	 Azure AI / Copilot	

Microsoft + Sonata credibility

30+ years of partnership	Microsoft AI Business Solutions Inner Circle member	Microsoft Frontier Firm Partner
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How we did it

A hybrid approach where the rules needed to address the identified use cases are stored in Dataverse, helping reduce the need for complex prompts.

- Step 1** | New dedicated Microsoft Azure is configured with resources, services, and access controls specifically provisioned to deploy Copilot solution. It ensures scalability, isolation, and governance aligned with development and compliance needs.
- Step 2** | Extract and formalize the rules implemented in the POC features, along with the additional features identified for the deployment phase.
- Step 3** | Export the solution from Sonata Power Platform and import it into New Azure Platform.
- Step 4** | Design the data model and implement the required Dataverse tables and relationships.
- Step 5** | Build the validation rules and logic. Refine and optimize AI models and flows to reduce complexity and improve maintainability.
- Step 6** | Implement document injection (invoices and contracts) capability, ensuring view-only access which are stored in SharePoint folder.
- Step 7** | Maintain historical invoices and store validation results to support reporting, auditability, and traceability.
- Step 8** | Establish contract-to-invoice mapping.
- Step 9** | Collect additional invoices from client to adequately cover the overall scenarios. Generate sample invoices if existing data is insufficient for full feature coverage and reject scenarios.
- Step 10** | Conduct System Testing (ST) to ensure adequate feature coverage and validation accuracy.
- Step 11** | Client to conduct UAT, address UAT observations, and obtain formal sign-off.
- Step 12** | Proceed with production deployment and provide support.

Deliverables

User stories	Architecture design	Development	Test case, test execution
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Results and benefits

Metric	Improvement
Invoice validation accuracy	Rule-based validation across 10 contract rules thus improving accuracy from ~70–75% (manual) to ~95–98% (rule-based automation)
Financial leakage prevention	Enhanced anomaly flagging like unauthorized fees and duplicate invoices there by preventing millions in leakage annually & leading to potential savings of 3–5% of vendor spends.
Manual review effort	Automated compliance checks lead to reduced manual effort by ~50%, freeing finance staff for higher-value analysis.
SLA compliance	Faster approvals, backlog reduction by ~30–40%.

Next steps for you

Contact Sonata

*Sonata Software is recognized as a Microsoft Frontier Partner, underscoring its leadership in AI transformation through an AI-first, human-led approach that drives innovation and scalable impact across cloud and AI platforms, AI business solutions, and security.

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