

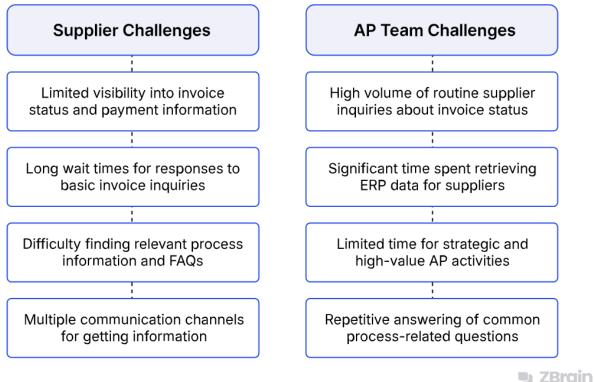
AP Insights AI Agent Solution Document



Problem Statement

Enterprise Accounts Payable departments and their suppliers face significant communication challenges and operational inefficiencies in managing invoice-related queries and process updates. The manual handling of supplier inquiries about payment status, invoice processing, and account modifications leads to delayed responses, increased operational costs, and reduced supplier satisfaction. AP teams spend excessive time responding to routine queries instead of focusing on strategic tasks, while suppliers struggle with limited visibility into their invoice status and payment information. This creates a need for an Al-powered solution that can provide real-time, accurate responses to supplier queries, streamline communication, and automate routine AP processes.

Key Challenges in AP-Supplier Communication





| Solution Statement

The AP Insights AI Agent is an intelligent, automated solution designed to optimize supplier interactions by providing instant, accurate, and comprehensive accounts payable information. This AI-powered virtual assistant efficiently and professionally handles diverse supplier queries.

Key Solution Features:

Instant Invoice Status Retrieval

- Real-time access to payment information
- Direct integration with ERP systems

Comprehensive FAQ Resolution

- Instant responses to common supplier queries
- Standardized process information
- Clear guidance on AP procedures

Intelligent Query Classification

- Automated query categorization
- Smart routing of complex inquiries

Seamless System Integration

- Direct connection to existing AP systems
- Real-time data synchronization
- Secure information access



Agent Setup

The AP Insights AI Agent is equipped with several components designed to optimize supplier invoice information retrieval and communication:



Gmail-based Agent Activation with Access Control

- -- Detects and processes supplier emails
- Auto-activates on invoicerelated queries
- - Verifies sender authenticity
- -- Enforces access control for data protection



ERP System Integration

- Real-time invoice data access
- - Dynamic data retrieval
- Instant invoice & payment status checks



Knowledge Base Management

- Maintains FAQ on invoice processes
- -- Answers common invoice queries



Large Language Model(LLM)

- Crafts professional, context -aware replies
- Maintains consistent tone
- Delivers accurate, databacked information



Contextual Conversation Tracking

- Maintains multi-turn conversation flow
- Handles follow-ups seamlessly
- Delivers personalized, relevant responses



Fallback & Escalation Mechanism

- Offers clear guidance for unresolved queries or similar
- Provides alternate contact options
- Ensures structured escalation for resolution



Continuous Learning & Improvement

- -- - Learns from user feedback
- Analyzes feedback & performance
- Continuously refines responses for accuracy

🖳 ZBrain

1. Gmail-based Agent Activation with Access Control

The agent integrates with Gmail to automate supplier communication by:

- Automatically detecting and processing incoming supplier emails
- Triggering agent activation upon receipt of invoice-related messages
- Verifying sender authenticity to ensure only authorized suppliers are processed
- Enforcing access control to protect sensitive invoice data from unauthorized access

This integration enables proactive, secure, and streamlined invoice management directly from the email source.



Agent Setup

2. ERP System Integration

The agent connects seamlessly with any ERP system, providing:

- Real-time access to invoice information
- Dynamic data retrieval capabilities
- Secure and authenticated data access

This integration enables comprehensive and instant invoice status checks and payment information retrieval.

3. Knowledge Base Management

The agent is supported by a comprehensive knowledge base to:

- Provide answers to general queries
- Maintain Frequently Asked Questions (FAQs) about invoice processes

4. Large Language Model (LLM)

Leveraging an LLM, the agent:

- · Crafts professional and contextually appropriate responses
- Ensures consistent communication tone
- Provides detailed and accurate information based on retrieved data.

5. Contextual Conversation Tracking

The agent maintains conversation context across multiple interactions, enabling:

- Follow-up question handling
- Continuity in supplier communication
- Personalized and relevant responses

This feature ensures a more natural and helpful interaction experience

6. Fallback and Escalation Mechanism

When unable to resolve a query completely, the agent:

- Provides clear, professional guidance
- Offers alternative contact methods
- Suggests next steps for resolution

A structured escalation pathway ensures no query goes unaddressed



| Agent Setup

7. Continuous Learning and Improvement

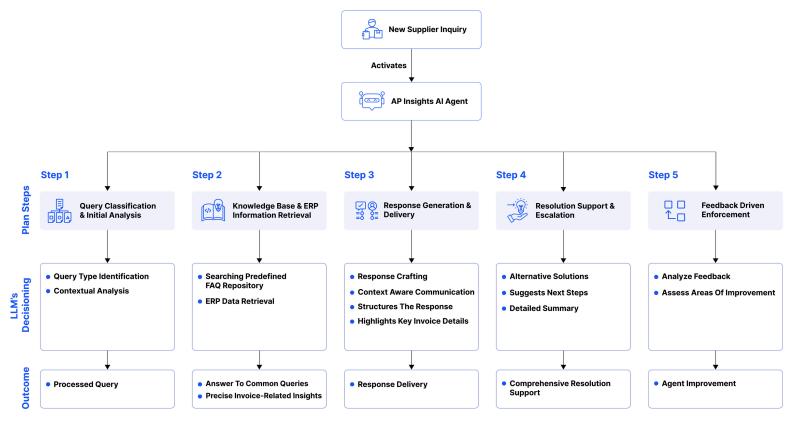
Implements a human feedback loop where:

- User interactions are logged and analyzed
- Performance metrics are continuously monitored
- The system learns and refines its response capabilities

This ensures ongoing enhancement of the agent's effectiveness and accuracy



The AP Insights AI Agent is designed to revolutionize supplier invoice information retrieval and communication, ensuring efficiency, accuracy, and comprehensive support. Leveraging advanced Large Language Model (LLM) capabilities, the agent conducts intelligent processing at each stage, transforming how organizations manage supplier interactions and invoice-related inquiries.



🖳 ZBrain



Step 1: Email Query Detection and Access Control

An initial Gmail trigger is set up to detect incoming supplier emails, ensuring that only legitimate and relevant queries are processed. This adds a security layer by verifying sender authenticity, allowing only authorized suppliers to access sensitive invoice information.

Key Tasks:

- Email Trigger Activation: Detect incoming supplier emails related to invoices.
- Sender Identification: Extract the sender email ID from the 'From' field.
- Invoice Cross-Referencing: Check the invoice database for any details matching the supplier's query.
- Access Control Verification: Ensure the sender has the appropriate permissions to access invoice data, confirming their identity and authorization.

Outcome:

- If the email address matches an existing supplier record with invoice details, the agent proceeds with query processing.
- If no matching invoice details are found for the email ID, the agent sends a response notifying the supplier that no invoice details are available under that ID.

Step 2: Query Classification and Initial Processing

The agent begins by performing an analysis of incoming queries, employing ZBrain's LLM Capabilities to understand the precise nature of the supplier's request.

Key Tasks:

- Query Type Identification: Utilizing LLM capabilities to classify queries into:
 - Conversational interactions
 - Follow-up questions
 - New invoice-specific inquiries
 - o General information requests
- Contextual Analysis:
 - Examining previous conversation history
 - Maintaining conversation continuity

Outcome:

- Precise query routing
- Intelligent processing pathway selection
- Contextually aware response preparation



Step 3: Knowledge Base and ERP Information Retrieval

Upon classifying the query, the agent seamlessly integrates information from its knowledge base and the ERP system to gather comprehensive invoice-related details.

Key Tasks:

- Knowledge Base Consultation:
 - Searching predefined FAQ repository
 - Identifying standard response patterns
 - Handling general inquiries efficiently
- ERP System Integration:
 - Real-time invoice data retrieval
 - Secure authentication and data access
 - o Comprehensive invoice information extraction

Outcome:

- Comprehensive information gathering
- Rapid data retrieval
- Accurate invoice-specific insights

Step 4: Continuous Improvement through Human Feedback

Using advanced LLM capabilities, the agent crafts professional, contextually appropriate, and detailed responses tailored to the specific query.

Key Tasks:

- Response Crafting:
 - o Generating human-like, professional language
 - Ensuring consistent communication tone
 - Providing detailed and accurate information
- Context-Aware Communication:
 - Maintaining conversation flow
 - Addressing specific supplier concerns
 - Adapting response complexity to query type
- Information Presentation:
 - Structuring response for clarity
 - Highlighting key invoice details
 - Ensuring readability and comprehension



Outcome:

- Precise and helpful responses
- Delivered instantly
- Tailored to user needs
- Maintaining professional standards

Step 5: Fallback and Escalation Mechanism

When unable to fully resolve a query, the agent implements a structured approach to ensure comprehensive support.

Key Tasks:

- Professional Guidance:
 - Providing clear alternative paths
 - Suggesting contact methods
 - Offering next resolution steps
- Escalation Pathway:
 - Routing to appropriate support channels
 - Generating detailed query summary
 - Ensuring no inquiry goes unaddressed

Outcome:

- Reliable support mechanism
- Clear communication of limitations
- Pathway to resolution

Step 6: Continuous Learning and Improvement

The agent incorporates a sophisticated feedback loop to enhance its capabilities continuously.

Key Tasks:

- Performance Monitoring:
 - Logging user interactions
 - Analyzing response effectiveness
- Adaptive Learning:
 - Updating knowledge base

Outcome:

- Continuously evolving agent
- Enhanced user experience



Key Benefits



Enhanced Operational Efficiency

Completely automates and streamlines invoice query handling processes through intelligent Al-driven automation.



Improved Accuracy and Consistency

Guarantees precision in invoice information processing by eliminating human error and maintaining standardized communication protocols.



Cost Reduction

Dramatically minimizes administrative expenses by automating repetitive invoice management tasks and optimizing resource allocation.



Advanced Technological Integration

Delivers seamless ERP system connectivity with real-time, intelligent data processing and adaptive AI response mechanisms.



Superior Supplier Experience

Provides instant, professional, and transparent invoice information access, transforming supplier communication dynamics.



Continuous Improvement

Implements advanced machine learning capabilities to continuously enhance performance and adapt to evolving business needs.



| Conclusion

The AP Insights AI Agent represents a transformative solution in accounts payable communication, bridging the gap between traditional manual processes and cutting-edge artificial intelligence. By leveraging advanced technologies, the agent fundamentally reimagines how organizations manage supplier interactions, invoice inquiries, and financial communication. It stands as a testament to the power of intelligent automation in streamlining complex business processes, delivering unprecedented efficiency, accuracy, and customer satisfaction.