

Innovations in E-invoicing:

Understanding and Adapting to Emerging Trends



Executive Summary

The landscape of electronic invoicing (e-invoicing) is undergoing rapid evolution, driven by transformative trends that are reshaping financial processes for businesses worldwide. Governments' increasing mandates for electronic invoice exchange are propelling the e-invoicing market's growth, projected to achieve a remarkable Compound Annual Growth Rate (CAGR) of 21.43% between 2022 and 2027.

A prominent trend is the convergence of e-procurement and e-invoicing, as businesses recognize the value of integrating these processes to streamline their procurement and financial operations. This integration is a response to the fact that many invoices stem from ongoing contracts without set termination dates, necessitating a holistic approach that goes beyond mere transactional exchanges.

Artificial Intelligence (AI) and Machine Learning (ML) are central to the automation of Accounts Payable (AP) processes, significantly enhancing accuracy and fraud detection while saving costs. This presents a compelling opportunity for businesses to leverage technology for enhanced efficiency, particularly in identifying anomalies, ensuring tax compliance, and managing contract and policy adherence.

Mobile invoicing emerges as a game-changer, offering on-the-go efficiency that allows finance professionals to submit and approve invoices remotely, reducing bottlenecks and delays. Furthermore, security matters, with approximately 80% of businesses noting improved security measures when managing financial data through mobile invoicing solutions.

Interoperability remains a challenge, prompting businesses to explore cloud-based solutions and aggregation of services from various providers to address complex requirements efficiently. This evolution also sets the stage for the integration of emerging technologies like AI, ML, advanced analytics, IoT, and blockchain, highlighting the necessity of adaptable and open platforms.

As the e-invoicing landscape evolves towards 2025, a cohesive integration of diverse technologies and processes is anticipated. This journey towards holistic AP transformation will reshape financial management practices, resulting in more efficient, accurate, and compliant operations. Amidst the shifting economic landscape and the increasing emphasis on digitization, businesses that embrace these transformative trends are poised to achieve strategic advantages, improved decision-making, and enhanced operational excellence.

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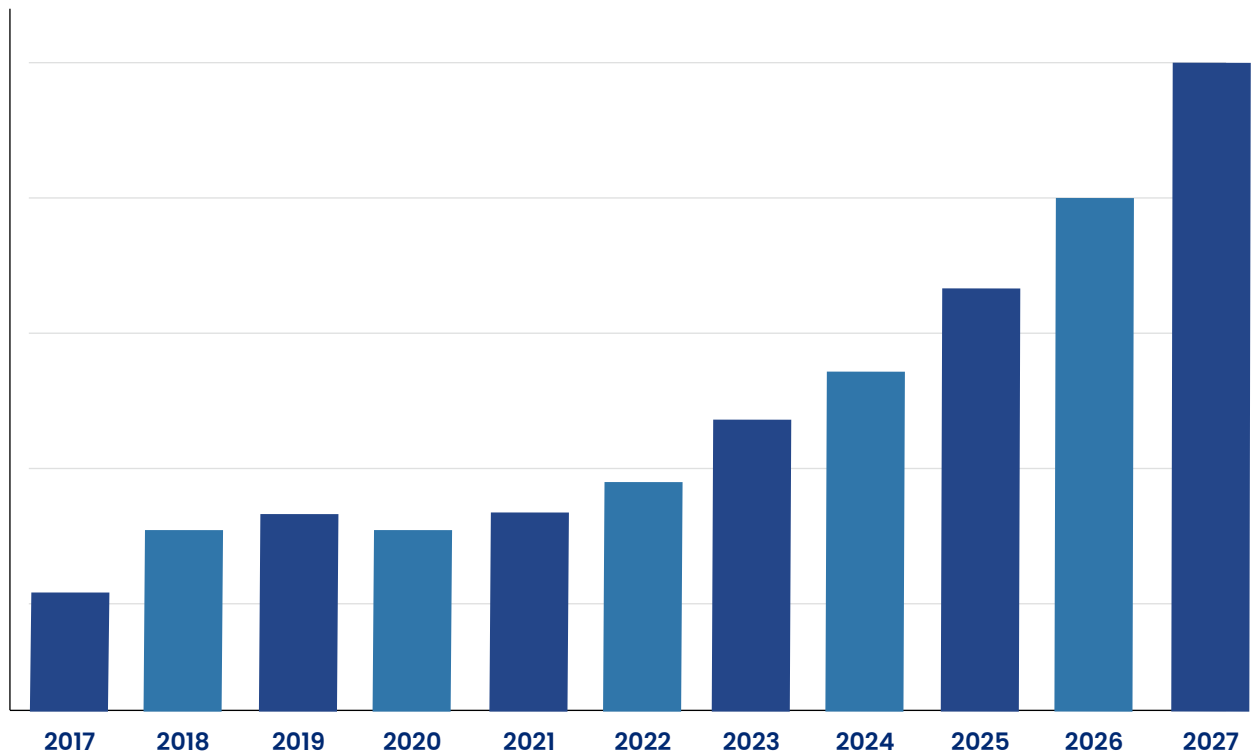
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About Zycus

Introduction

The **e-invoicing market** is estimated to grow at a **CAGR of 21.43%** between 2022 and 2027. The size of the market is forecast to increase by **USD 15,330.37 million by 2027**.

Market Size Outlook (USD Million)



2017 USD 5,602.70

19.08%

Year-over-Year
growth rate of 2023

21.43%

CAGR 2022-2027

ACCELERATING

Growth Momentum

USD 15330.37 Mn

Market size growth

Source: <https://www.researchandmarkets.com/>

The main driver that is pushing the e-invoicing market is the increasing number of governments mandate for exchanging invoices electronically. In this regard, Latin America is very advanced, followed by a number of countries in Europe and Asia.

The Emerging trends in E-Invoicing

1 Global E-invoicing Mandates

Judging by the global implementation rate and the mandates for electronic invoicing implemented by many countries, it seems that e-Invoicing is becoming a regular occurrence.

One of the assumptions is that all Latin American and most Asian countries will have established a clearance model by 2025 and that they will require market participants to exchange invoices only in electronic format. Another assumption is that a significant proportion of the previous anonymous payment receipts will be substituted by actual invoices. The estimates include solutions and services that are directly related to e-invoicing, including exchange networks, communication gateways, SaaS, PaaS, implementation costs and directly related value added services such as data validation, formatting and synchronisation. This estimate does not include workflow or archive solutions, or the processing of data related to invoices (purchase orders, catalogues, sourcing and payment).

Asia and Latin America are expected to achieve the highest annual grow rates (CAGR 56% and CAGR 30%, respectively). Europe has the highest market value today but may only achieve single-digit percentage annual growth rates by 2025 on average.

However, this is attributable to the fact that the initial situation is already advanced. Another important reason is that the unit prices may fall significantly faster than elsewhere. The average transmission cost per e-invoice is currently much higher than the average cost worldwide. This is due to the very fragmented market structure, the high number of small solution providers that operate mostly on the domestic market, as well as different languages, legislations and standards. In contrast, countries with clearance models and e-invoicing requirements feature a highly standardised approach, with electronic invoices accounting for a relatively high proportion of total invoices. Interconnections between different e-invoicing network operators are fairly easy and economically efficient to implement and operate. The average cost per e-invoice in countries with clearance models is therefore typically in the low single-digit range.

2 Automating entire procurement process

In many countries, e-invoicing is much more visible on a broad scale than e-procurement. One reason for this is that e-invoicing was pushed by governments and tax authorities around the world as a top priority and e-procurement was mainly an issue of the private industry. According to Eurostat, 17% of all businesses with ten or more employees in the EU received at least 1% of its orders electronically. Invoices are an important part of the entire procurement process. Many recurring invoices are the result of contracts without a termination date (e.g. leasing, phone, IT hosting, or maintenance). Several goods and services are ordered in a simplified form by phone, online, or by email. Formal and structured purchase orders (PO) in the proper sense are issued only in a small number of cases. Hence, we estimate that only 6-7% of all invoices are currently based on an existing PO. Optimization potential cannot therefore be fully exploited at present. Processing Non-PO invoices is still a main challenge. A pure focus on the early e-procurement processes or e-invoicing is no longer sufficient. On the one hand, previous users of e-invoicing are gradually evolving towards the automation of the entire purchase-to-pay supply chain. On the other hand, previous users of the early e-procurement processes are increasingly expanding into e-invoicing. The overlap of the two topics is increasing and may finally result in a holistic, more integrated solution. This transition phase could be very challenging for most businesses and solution providers. Procurement managers will increasingly be required to actively participate in e-invoicing projects, which lay the foundations for exploiting the full savings potential of AP automation.



Issue	Impact of procurement managers on e-invoice automation
Heterogeneous processes and systems for e-procurement and e-invoicing	Holistic digitalization and automation strategy
Supplier management and engagement	Reducing fraud and identifying factors • Considering only the master data of tax-registered partners and increasing tax compliance • Streamlining and automating supplier interaction from onboarding to the processing of invoices and updating of master data
Contract and catalogue management	Avoiding invoicing with incorrect amounts, ensuring accuracy of prices and compliance with synchronizations and data validations
Discount management	Applying discounting models that can be reflected in business process automation solutions
Fake invoices, no or incomplete supply behind an invoice	Establishing tax compliance processes, including evidence for supplies behind invoices
Purchase process	Increasing the proportion of electronic orders and invoices • Automating the matching process
Evidence for tax compliance	Storing the documents in a way they can be retrieved in the same index for the entire process cycle

By 2025, we expect a much stronger integration and automation of procurement and invoicing processes.

3 AI/ML in AP automation

Artificial Intelligence is poised to affect virtually every aspect of our personal and business lives. Current and expected economic circumstances — slowing growth, tight labor markets with rising pressure on wages — alongside the fact that many C-suites are razor focused on digitization and automation making it way for AI-led automation.

Practical AI for Accounts Payable automates the tedious, time-consuming, and labor-intensive tasks that require manual processing and frequent human intervention. It solves long-standing problems with systems integration and interoperability. And it offers the potential to bring so-called “Dark Data” — unstructured or semi-structured business data that is fragmented and trapped within countless docs and other

sources — into the light where you can start using it to drive business performance improvement and to inform competitive business decision making.

AI eclipses human capabilities for certain tasks, such as detecting subtle patterns in massive data sets (invoice fraud, for example), instantly and accurately adding missing information, correcting bad information, and making data more meaningful by connecting it consistently to other related bits of information. Having evolved far beyond its predecessors,

AI can save an organization as much as 50% of its current AP processing costs. Traditional approaches (manual processing and OCR) fail to scale with increased invoice volume and document layout variations, and total cost of ownership (TCO) increases rapidly.

AI-led AP automation will be able to accelerate and optimize their business processes in general, and invoice processing in particular. Machine learning may simplify user interactions with devices, reduce human intervention, support fraud detection, forecasting liquidity, dynamic pricing, customer complaint resolution, trading partner scoring, and spend management.

An analyst predicts that machine learning as a service market will grow from USD 0.9 Billion in 2016 to USD 16.4 Billion by the end of 2024, at a compound annual growth rate (CAGR) of 43.7% from 2016 to 2024.

4 Mobile In voicing

Efficient invoice processing stands to be a vital asset to any business operations. Extended gaps between purchase decisions and invoice handling, spanning weeks or even months, can obscure cash flow visibility and disrupt the accuracy of your bank account balances. Mobile invoice application yields substantial benefits—



On-the-Go Efficiency: Research shows that over 70% of finance professionals believe that mobile invoicing significantly improves productivity, as team members can submit and approve invoices remotely, reducing delays and bottlenecks.



Enhanced Accuracy: With the implementation of mobile invoicing solutions, the occurrence of errors and discrepancies in invoices can be reduced by approximately 40%, leading to more precise financial records and improved relationships with suppliers.



Security Matters: Around 80% of businesses using mobile invoicing solutions report enhanced security measures in managing financial data, ensuring sensitive information remains protected while being accessed from various devices and locations.

5 Interoperability

Even for larger businesses it is often too difficult to comply with the rapidly changing requirements using in-house solutions.

Future markets radar for service providers – future management



It's improbable that numerous solution providers will possess the capability to encompass such extensive functionality on a global scale within a reasonable timeframe. The architecture of future solutions might hinge significantly on adhering to existing and potential legal prerequisites, as well as facilitating real-time collaboration with tax authorities and trading partners. This evolution could represent a crucial foundation for the future solution landscape. Elements such as platform openness, interoperability, and support for emerging technologies like artificial

intelligence (AI), machine learning (ML), advanced analytics, the Internet of Things (IoT), and blockchain constitute vital components.

Standalone e-invoicing software is no longer sufficient to meet our complex needs. This underscores the necessity of integrating with a payment processor. Typically, this integration involves merging enterprise resource planning (ERP) systems with accounts payable (AP) technology.

The collaboration of these two systems furnishes comprehensive customer, order, and payment method data, culminating in the creation of accurate invoices. Because these systems undergo regular data updates, the margin for errors diminishes. In fact, numerous companies have reported enhancements in their order entry and invoice management processes after implementing these integrated solutions.

The automation and streamlining of billing management becomes considerably more achievable when your invoice system is seamlessly interconnected with both front-end and back-end systems, incorporating customer data.



6 Cognitive Analytics

Businesses are steadily required to be more customer-focused, to focus on key initiatives that lead to entering new markets, to create new business models, and to improve operational performance. Dashboards and reports are quite often the first steps towards more transparency; however, advanced analytics goes far beyond this. Gartner estimates that the business intelligence and analytics market is mature for a multiyear shift from an IT-led, system-of-record reporting to a business-led, self-service analytics. The reasons for this positive shift are multi-layered. End-users and business networks have learned to use big data in an intelligent manner. This is strongly supported by models, algorithms, and solutions that were not available in this form only five years ago. This is where cognitive analytics come into play. The list of applications on offer is rapidly increasing, and includes a broad range of features, from basic to very advanced.

- Invoice Anomalies – e.g. items higher than the normal price, or price differences between identical products
- Tax compliance
- Contract and policy compliance
- Real-time spend analysis –Intelligently classified with drill-down options
- Price fluctuations – Real-time and historical price variance analysis
- Benchmarking, comparison with the industry average
- Business trends and predictive analytics

Detecting and avoiding fraudulent invoices B2B networks for the financial supply chain operate using big amounts of data.

They are in an excellent position to help end-users to apply cognitive analytics in an efficient manner.

Forbes predicts that cloud based big data and analytics market will grow 4.5x faster than spending for On-Premises Solutions. The global advanced analytics market is expected to grow at a CAGR of approximately 15% during the forecast period 2017–2023. It is expected to reach approximately USD 22 billion in 2023.

Zycus AP Automation Solution

The **Zycus AP Automation Solution** targets holistic AP transformation and leverages the AI/machine learning capabilities of the **Zycus Merlin AI platform**. Key features and capabilities of the Zycus AI-led AP Automation Solution include:



Time and cost savings: A template-free approach that delivers improved rates of straight-through processing with high accuracy and relatively low total costs of ownership (TCO)



Better supplier communications: Automated email review and reply via AP Smart Desk that improves supplier satisfaction and strengthens buyer-supplier relationships with faster response times and no missed emails



Anomaly and fraud detection: Identification of potential fraud cases (duplicate invoice, phantom supplier, etc) plus safeguards against phishing and spoofing



Global compliance: Consistent and up-to-date support for compliance around invoice content, e-invoice, and tax regulations.

Zycus AP Smart Desk

The screenshot displays the Zycus AP Smart Desk interface. On the left is a sidebar with navigation options: Compose, My Email, Sent Items, Drafts, Folders, BOT Emails, All Emails, and Spams. The main area is titled 'AP smart desk' and shows a list of emails. The selected email is from 'Smith John (smith.john@acme.com)' with the subject 'Process this invoices'. The email content includes a greeting and a request to process attached invoices. The interface shows the email is 'UNABLE TO PROCESS'. Below the email list, there is a section titled 'Process this invoices' which shows the email's attachments and analysis. The analysis table lists two invoices: 'Invoice_1.xml' and 'Invoice_2.xml', both from 'Harrington' with invoice numbers 1000 and 2000 respectively. The status for both is 'Auto draft success'. The table also shows the file processing status and actions like 'Review Draft & Submit' and 'Download'.

File Name	Company Name	Invoice Number	Invoice Status	File Processing Status	Action
Invoice_1.xml	Harrington	1000	Auto draft success	Review	Review Draft & Submit
Invoice_2.xml	Harrington	2000	Auto draft success	Review	Review Draft & Submit

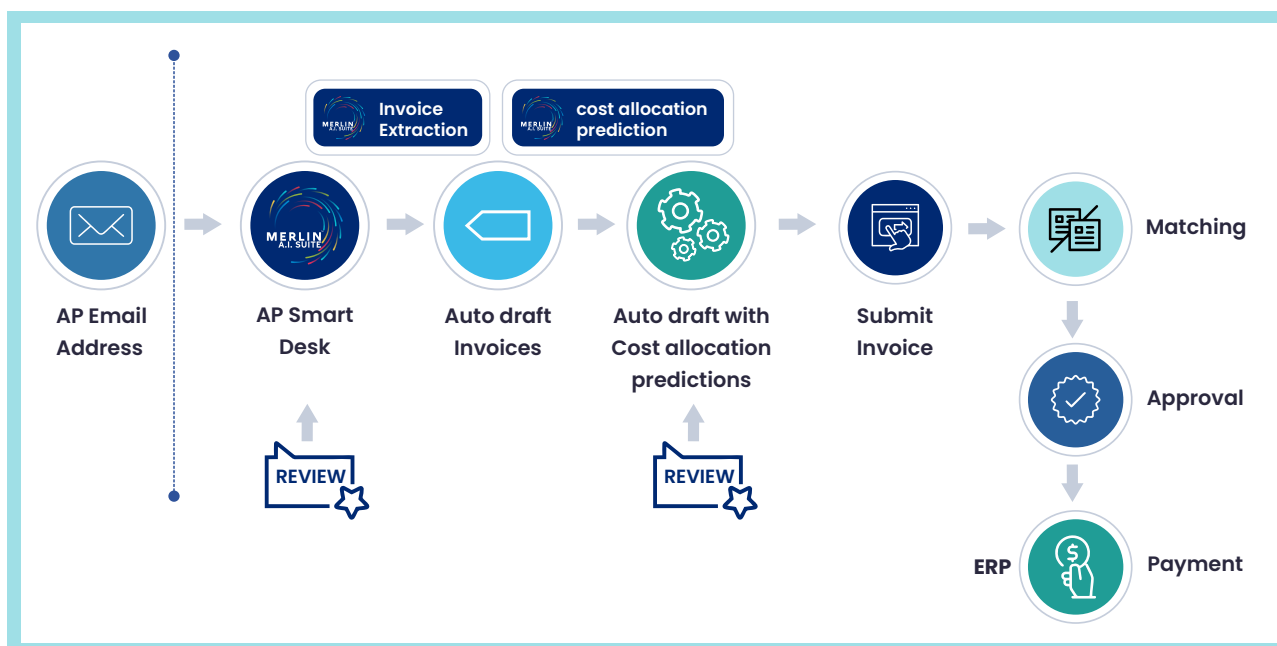
Source - Zycus

Zycus AP Smart Desk connects to and manages your AP email inbox, automatically checking, processing, and simplifying response processes.

The solution automatically suggests relevant replies to supplier query emails, making life easier for the AP team. For emails containing invoices, the system automatically extracts and sends invoice documents to the Zycus eInvoice module, where it matches (two- or three-way) with POs extracted from eProcurement. After matching, the module sends supplier invoices through relevant approval workflows for on-time payment.

Zycus AP Smart Desk reduces AP resource requirements for processing supplier emails and improves supplier satisfaction with faster replies. **With Zycus AP Smart Desk, enterprises can achieve savings of approximately \$2.70 per email.**

End-to-end AP Automation using the Zycus Merlin AI platform



Source – Zycus

Zycus Invoice Extraction uses Merlin AI to automatically extract and structure invoice data. It reduces costly manual effort, increases AP team productivity, and **accelerates average invoice processing speed by over 50%.**

In a manual or partially-automated invoice processing systems (using OCR tools), AP team members typically spend loads of time looking up and adding cost-booking information to individual PO/invoice line items, especially for non-PO invoices. **Zycus Cost Allocation Prediction** takes over this process, automatically predicting, with confidence scores, the correct cost-booking information at a line-item level. Auto training cuts time and effort needed for invoice coding, improves AP team efficiency, and accelerates invoice review and processing.

Cost booking prediction using Merlin AI

Merlin Cost Booking Prediction

Option 1 ✔ Likely Score 99.99

Option 2 Likely Score 89.99

Option 2 Likely Score 70.99

	Department	Purchase grp	Purchase Org	Cost Center	GL Account	Project
Recency	Dell Laptop	IT Hardware	USD 100.00	USD 5000.00	Dell Laptop	IT Hardware
Similarity	Dell Laptop	IT Hardware	USD 100.00	USD 5000.00	Dell Laptop	IT Hardware
Pricing	Dell Laptop	IT Hardware	USD 100.00	USD 5000.00	Dell Laptop	IT Hardware
Location	Dell Laptop	IT Hardware	USD 100.00	USD 5000.00	Dell Laptop	IT Hardware
Category	Dell Laptop	IT Hardware	USD 100.00	USD 5000.00	Dell Laptop	IT Hardware
Industry	Dell Laptop	IT Hardware	USD 100.00	USD 5000.00	Dell Laptop	IT Hardware

Apply to All lines

Source – Zycus

In terms of **anomaly and fraud detection**, the Zycus AP Automation Solution enables consistent identification of potential fraud cases (for example, duplicate invoices, phantom suppliers) and safeguards against phishing and spoofing.

Fraud detection using Merlin AI

Fraud Detective Scan List

Fraud Detective

89.99
No Risk! You Are Safe.

Fraud and Anomaly Checks

- Duplicate Invoice
- Email Spoofing

New Invoice

INVOICE

Supplier Name: Acme Scientific

Invoice Amount: USD 4520.00

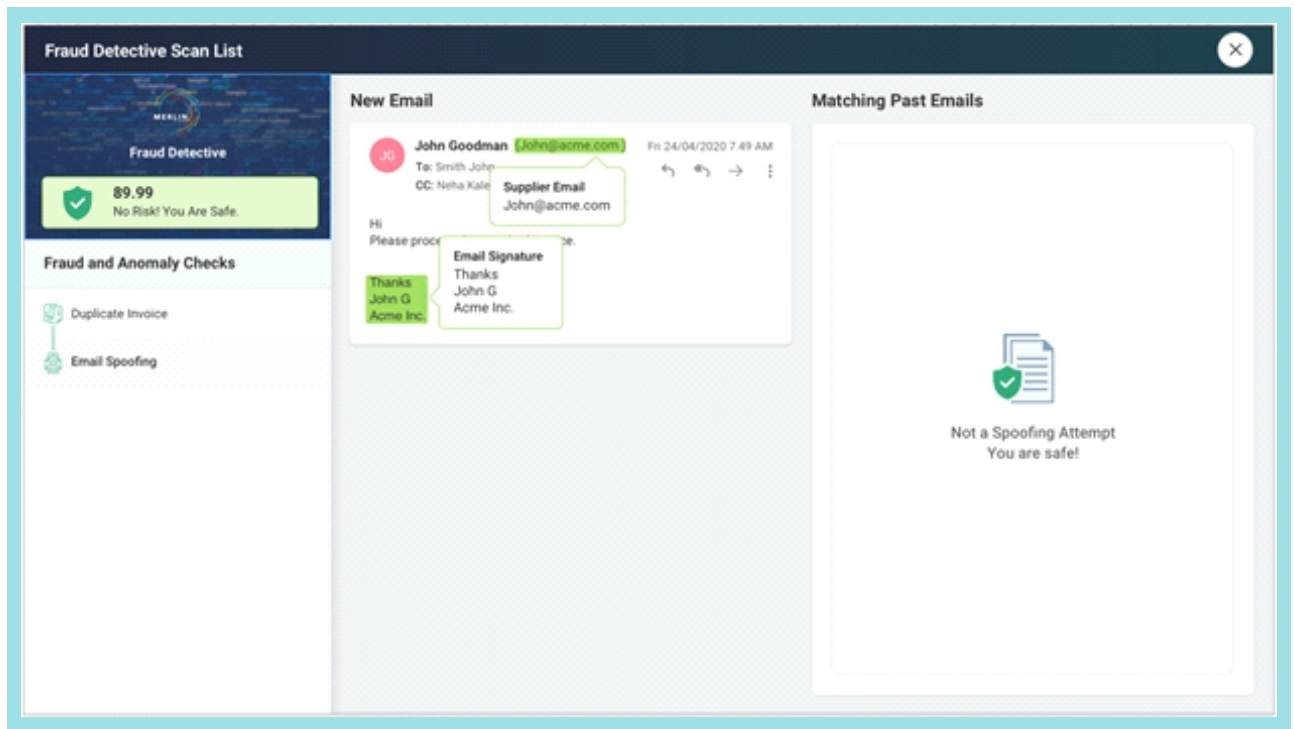
Items	Amount
N95 Mask	USD 230.00
Hand Sanitizer	USD 199.00
Face Shield	USD 1230.00
Nitrile Gloves	USD 570.00

Amount Due (USD): \$4520.00

Not Duplicate Invoice
You are safe!

Source – Zycus

Anomaly detection using Merlin AI



Source – Zycus

Traditional OCR solutions often return information that must be manually compared to original invoices and tweaked. The activity is time-consuming and may be even more laborious than 100% manual processing.

An advanced AI-led solution, Zycus **AP Smart Desk** handles both PO and non-PO invoices and, compared to non-AI solutions, offers greater accuracy in extracting both header and line-item invoice data. This leads to more straight-through processing (STP) and fewer manual interventions.

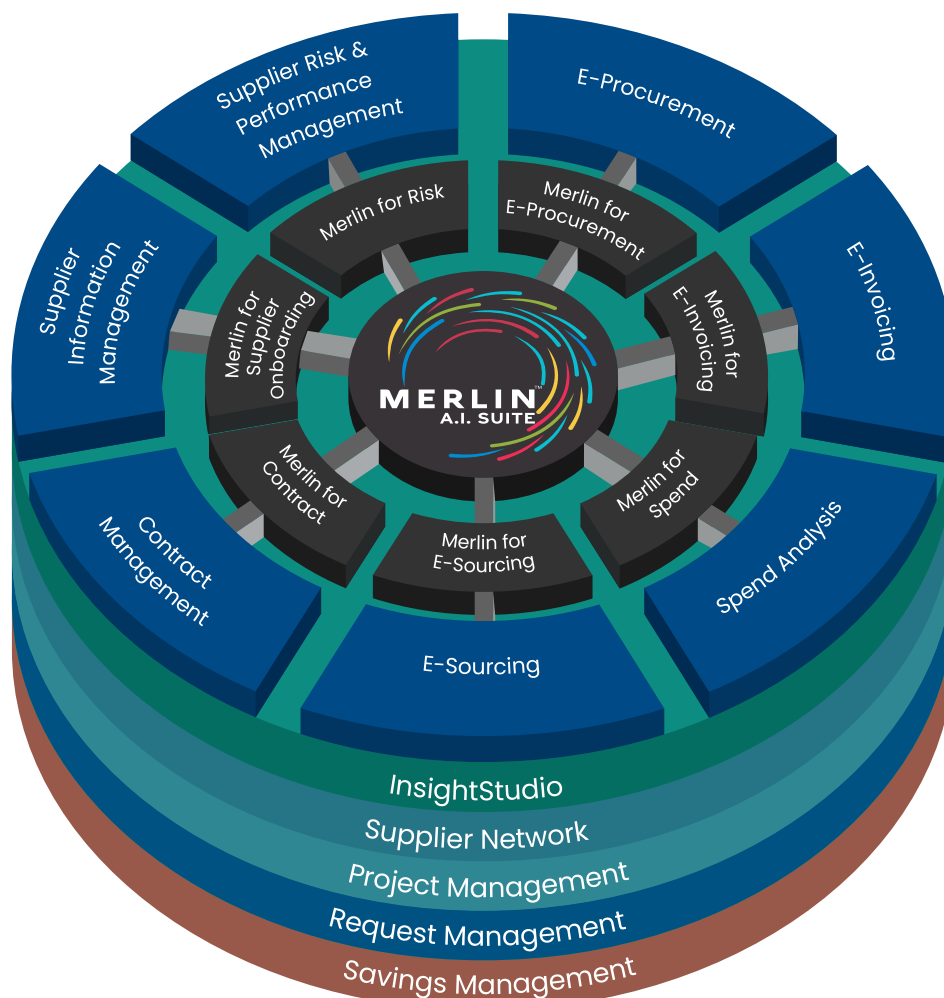
The global solution also offers dedicated features and capabilities to ensure local and regional compliance with relevant invoice content, e-invoice, and tax regulations.

The Zycus AP Automation Solution also provides support for **multiple languages** and delivers **significantly high field-level accuracy for headers and line items**, reducing the number of instances requiring human intervention.

Integrated P2P Suite

Zycus AP solution has seamless integration with Procure-to-Pay (P2P) suite developed organically on a single platform with a unified code base. This approach sets Zycus apart by ensuring a consistent and streamlined experience across all modules, starting from Source-to-Pay (S2P). The integrated P2P solution simplifies and automates the entire procurement lifecycle, from requisitioning to payment. This cohesiveness eliminates the need for disparate systems, reducing complexity and enhancing efficiency. Users can seamlessly navigate between different stages of the procurement process without the hassle of switching platforms, resulting in faster cycle times and reduced manual interventions.

Furthermore, the unified code base promotes data accuracy and integrity across modules. This not only reduces data duplication and errors but also provides a holistic view of procurement activities, enabling better decision-making.



Easy Integrations

Zycus offers AppXtend Platform-as-a-Service (PaaS) that empowers businesses to create customized applications catering to verticals, categories, geographies, and has seamless third-party integrations.



AppXtend PaaS also enables geographic customization, catering to varying regulations and

cultural factors across regions. Its strength lies in effortless third-party integration, seamlessly connecting custom apps with existing software, databases, and analytics platforms. This platform's scalability, flexibility, and rapid development tools further expedite the process, enabling businesses to swiftly respond to market demands.

Conclusion

The e-invoicing landscape is experiencing dynamic shifts with emerging trends poised to reshape the way businesses handle their financial processes. Governments' mandates for electronic invoice exchange are a primary driver, particularly evident in Latin America, Europe, and Asia. The integration of e-procurement and e-invoicing is becoming a norm, allowing for streamlined procurement processes and automation. Leveraging AI and ML in accounts payable automation is proving transformative, offering improved accuracy, fraud detection, and cost savings. The adoption of mobile invoicing contributes to on-the-go efficiency, enhanced accuracy, and strengthened security measures. Interoperability remains a challenge, prompting a move towards cloud-based solutions and service aggregation. Cognitive analytics enables businesses to gain insights from unstructured data, bolstering decision-making processes.

Zycus's AI-led AP Automation Solution illustrates the potential of advanced technology in transforming the accounts payable landscape, achieving increased efficiency, compliance, and fraud detection. As we approach 2025, the integration of various technologies is expected to bring about holistic AP transformation, driving better financial management and improved business performance.



Zycus is the pioneer in Cognitive Procurement software and has been a trusted partner of choice for large global enterprises for two decades. Zycus has been consistently recognized by Gartner, Forrester, and other analysts for its Source to Pay integrated suite.

Zycus powers its S2P software with the revolutionary Merlin AI Suite. Merlin AI takes over the tactical tasks and empowers procurement and AP officers to focus on strategic projects; offers data-driven actionable insights for quicker and smarter decisions, and its conversational AI offers a B2C type user-experience to the end-users.

Zycus helps enterprises drive real savings, reduce risks, and boost compliance, and its seamless, intuitive, and easy-to-use user interface ensures high adoption and value across the organization.

Start your #CognitiveProcurement journey with us, as you are #MeantforMore.

