

1 Purpose of the e-invoicing program

The Saudi government is earnestly driving an ambitious transformational program to digitalize its economic ecosystem, aiming to rank the Kingdom of Saudi Arabia (KSA) among the world's top countries in digital services. In this context, the Saudi government has adopted a digital transformation strategy in alignment with the Saudi Vision 2030 and the UN Sustainable Development Goals (SDGs). The strategy sets resourceful goals to efficiently provide world-class government services that meet the needs and aspirations of Saudi citizens by 2030. The Saudi Zakat, Tax, and Customs Authority (ZATCA), in line with the Saudi Vision 2030, aims to enhance the efficiency and competitiveness of local businesses and the national industry, increasing productivity, and promoting data availability, transparency, and trade effectiveness.

This case study has been prepared by the Saudi Zakat, Tax, and Customs Authority (ZATCA)

2 Design and phases of the e-invoicing program

Driven by its mission to strengthen the tax system in the Kingdom, ZATCA introduced the National E-invoicing Program (“FATOORA Program”) across two phases (*Refer to Figure 1 for an overview*). ZATCA adopted a unique and innovative e-invoicing solution that uses cutting-edge technology and developed a comprehensive system that covers all aspects of the e-invoicing process, from invoice generation to transmission to storage.

Figure 1. Overview of Phase 1 and Phase 2

	Phase 1: Generation phase 4 December 2021	Phase 2: Integration phase From 1 January 2023 onwards in waves
Description	Known as the Generation phase will require VAT Taxable Persons to generate and store compliant tax invoices and notes through electronic solutions	Known as the Integration phase , will involve the introduction of enhanced technical features for electronic invoices and electronic solutions, and the integration of these electronic solutions with ZATCA's systems
Timelines	Enforceable as of December 4th 2021 , for all taxpayers (excluding non-resident taxpayers)	Enforceable starting from January 1st, 2023 , and implemented in waves by targeted taxpayer group (excluding non-resident taxpayers)
Key requirements	<ul style="list-style-type: none"> Generation of e-invoices (in an electronic format) Storage of e-invoices (in an electronic format) E-invoice contains additional fields, such as a QR code for simplified e-invoices (B2C) 	<ul style="list-style-type: none"> Generation of e-invoices in XML or PDF/A-3 (with embedded XML) Storage of e-invoices in XML or PDF/A-3 (with embedded XML) E-invoice contains additional fields, such as the cryptographic stamp Integration of e-invoicing solutions with ZATCA's system for clearance (B2B) or reporting (B2C)

Phase 1 (Generation Phase), which launched on December 4, 2021, required all taxpayers subject to the value-added tax (VAT) and E-Invoicing regulations to completely cease the use of handwritten invoices or computer-generated invoices using text editing or spreadsheet software. Taxpayers were obligated to generate e-invoices using an e-invoicing-compliant solution that met the requirements of ZATCA. Additionally, it was necessary to ensure the digital issuance and archiving of electronic invoices with all necessary elements, including the Quick Response (QR) Code and other requirements. This allowed the issuance, exchange, and storage of invoices in an organized electronic format between sellers and buyers. The Kingdom was lauded for being one of the world's fastest countries in implementing Phase 1 of e-invoicing for all taxpayers subject to VAT.

After successful completion of Phase 1, Phase 2 (Integration Phase) was launched on January 1, 2023, in which taxpayers' e-invoicing solutions must be integrated with ZATCA's “FATOORA” portal and have the ability to connect to the internet. The second phase is currently being implemented in waves based on the criteria set by ZATCA. As part of Phase 2, all e-invoices must be generated and stored following the specified format (XML or PDF/A-3 with embedded XML), and additional data fields must be populated on

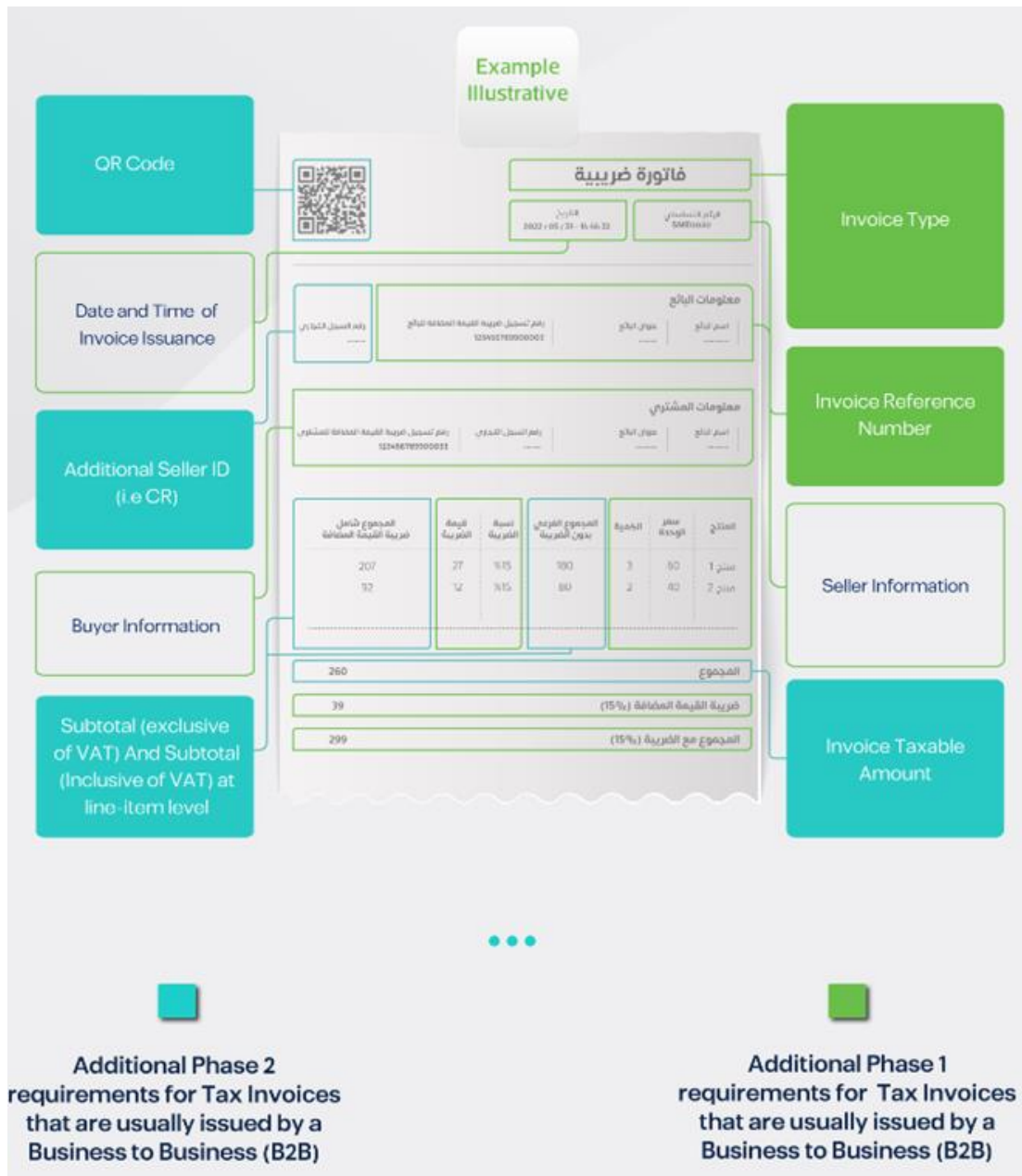
the e-invoices. Notifications to the target groups are being initiated at least six months in advance to allow time for preparation and integration of their e-invoicing systems with FATOORA. Detailed general and technical guidelines have been drafted and published to ensure smooth implementation and compliance for taxpayers.

Implementation is applicable both to Business-to-Business (B2B) and Business-to-Consumer (B2C) transactions across the two distinct phases. Tax invoices (refer to Figure 2) are invoices usually issued by a Business to another Business (B2B) whereas simplified tax invoices (refer to Figure 3) are invoices usually issued by a Business to Consumer (B2C). E-invoices, irrespective of type, must include all mandatory fields as specified in the illustrations below.

Figure 2. Simplified Tax Invoice Example (B2B)



Figure 3. Tax Invoice Example (B2C)



All tax invoices (usually issued by a B2B) generated electronically follow the Clearance model i.e., they must be cleared by ZATCA for them to be considered legal and valid and are a prerequisite for sharing them with the buyers (refer to figure 4).

On the other hand, all simplified tax invoices (usually issued by a B2C) follow the Reporting model i.e., a near-real time transaction model where invoices must be submitted and reported to ZATCA via the FATOORA portal within 24 hours from issuance (refer to figure 5).

Figure 4. Invoicing model for Tax Invoices (usually issued by a B2B)

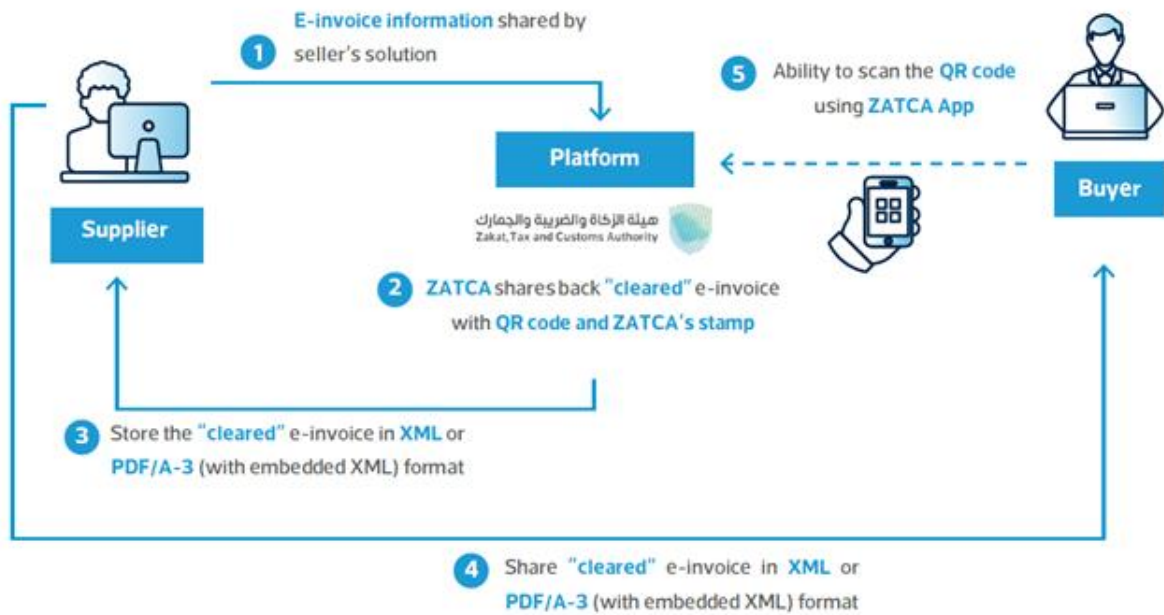
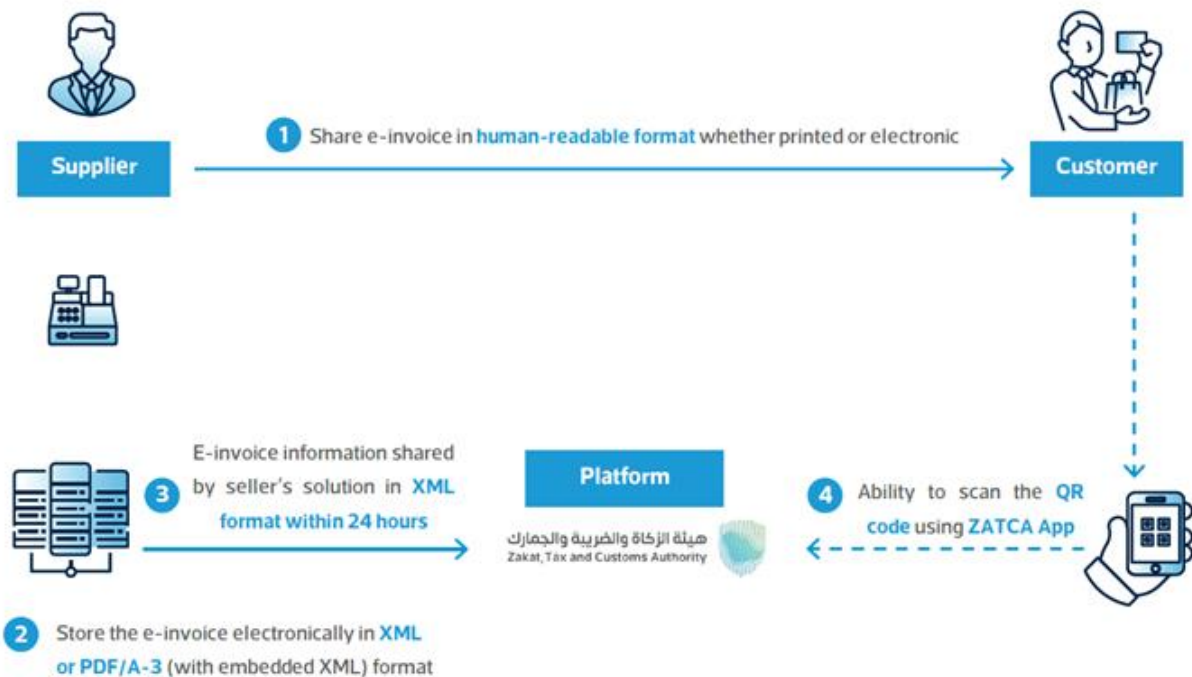


Figure 5. Invoicing model for Simplified Tax Invoices (usually issued by a B2C)



3 Collaboration with stakeholders

ZATCA established key strategic partnerships for the FATOORA program to align with its overall objectives and ensure effective collaboration, engagement, and alignment across the board.

- Public sector entities within KSA: E-invoicing implementation has required the involvement and support of several entities within the KSA public sector ecosystem, such as Monsha'at, Ministry of Finance, and Saudi Payments. Moreover, joint campaigns are planned in the future with other government entities to encourage voluntary integration and highlight its benefits.
- Solution Providers (SPs): Solution providers are key for the effective roll-out of e-invoicing in KSA, as they provide the tools for taxpayers to issue e-invoices and enable the multiplier effect. Multiple SPs were involved in the pilot program to ensure market feedback is incorporated during the solution design phase. The program is also looking to strengthen its current and future partnership with SPs to increase program integration and maintain positive feedback from SPs (refer to figure 6)

Figure 6. Market feedback on FATOORA program

“ ZATCA has been a driving force in this digitisation journey by introducing forward-looking mandates, such as the second phase of e-invoicing, which will contribute to a vibrant business ecosystem. As one of the world's fastest-growing B2B SaaS companies, we are bringing innovative cloud-based solutions that will benefit Saudi businesses as well as enterprises across the GCC

Archit Gupta,
Founder & CEO of ClearTax

We have watched carefully the new digital transformation regulations, in Egypt and KSA, which embrace the values of transparency, accountability and oversight of all activities through the interaction and involvement of all the society's components, among which are the private sector, public sector and the government. We moved quickly to tackle that challenge by developing our services and systems to be compatible with those regulations.

Mohamed Farouk,
CTO of Orchida Soft ”

- Collaboration with foreign countries: ZATCA is participating in multiple forums and conferences across the world to showcase its successful implementation of e-invoicing, aiming to develop long term partnerships and cooperation with other countries worldwide. Bilateral meetings and forums have been held with Singapore (refer to Figure 7), Finland, United Kingdom, Norway and Estonia, among others.

Figure 7. ZATCA's participation in the Tax Administration Forum in Singapore



- Taxpayers: ZATCA frequently publishes, in collaboration with large and medium taxpayers, e-invoicing success stories, in order to promote e-invoicing awareness and successful implementation within KSA.

4 Change management process

ZATCA and FATOORA are led by a team of experienced professionals with a proven track record of success in public and private sectors; committed to fostering a supportive culture by:

- Encouraging open communication
- Setting clear goals/ expectations
- Providing regular feedback/ recognition
- Empowering team members

FATOORA program is fully in line with ZATCA's mission and is communicated to all teams through a variety of channels such as townhalls, board meetings, and program-level Steering Committee meetings.

Moreover, e-invoicing initiatives are developed using ZATCA's strategic objectives and enablers and is validated throughout the organization with the designated leadership team. Integration & cooperation with partners, people development, operational excellence & spending efficiency, and data & analytics are the strategic enablers most relevant to FATOORA.

In the endeavour to integrate e-invoicing, a series of initiatives have been strategically devised and executed. These measures have not only facilitated the introduction of e-invoicing but have also demonstrated remarkable success. Some examples of these initiatives include:

- Operations: Data quality check process established to continuously enhance the program and ensure the most accurate data is available. In addition, all external queries are tracked on a CRM system (with a target resolution time of 3 days).
- Data & Analytics: Insights are extracted based on seasonality, time distribution, product analysis, etc. Adoption of cloud-based algorithms (e.g., in-house large language model) and in-house algorithms are being explored (e.g., to automatically classify products and services based on item description field specified in taxpayers' invoices)
- Risk: Investigation of use cases is performed and tracked to help identify patterns/anomalies in data and potential cases of fraudulent/suspicious transactions.

5 IT platform and infrastructure considerations

Technology is at the heart of FATOORA, as the program leverages a variety of cutting-edge technologies to provide a seamless and user-friendly experience for businesses and consumers alike. In short, all invoices issued by taxpayers in KSA will be shared electronically with ZATCA once the FATOORA program has been implemented. This technology allows businesses to generate, transmit, and store invoices electronically, streamlining the invoicing process and reducing costs.

Moreover, FATOORA is a fully automated solution that does not require any human intervention for its day-to-day operations: the full end-to-end cycle can be fully automated. This automation provides unparalleled results: for example, on average, FATOORA provides clearance on invoices in <0.1 second.

Some of the key innovations achieved by the FATOORA program are described below:

- Comprehensive approach: It is the first comprehensive e-invoicing program in Saudi Arabia. It covers all aspects of the invoicing process, from generation to transmission to storage. This makes it a one-stop solution for businesses of all sizes.
- User-friendly design: It is designed to be easy to use for both businesses (of all sizes) and consumers. It offers a variety of features and tools to help businesses comply with the program's requirements and to make it easy for consumers to verify the authenticity of invoices.
- Data-driven insights: It uses data analytics technology to collect and analyze e-invoice data. This data is used to identify trends, patterns, and anomalies, which can help the government to improve tax compliance and detect fraud.
- Use of emerging technologies: It leverages emerging technologies, such as artificial intelligence (AI) and blockchain, to improve its functionality and efficiency. For example, the program uses AI to automate tasks such as invoice validation and fraud detection.
- Innovative technical support tools: It reduces taxpayer reliance on ZATCA for technical support by introducing a Developer Forum, which serves as a platform where developers can gather, share knowledge, exchange ideas, and seek guidance on implementing e-invoicing.
- Automated monitoring: Automated performance monitoring dashboards and platform capacity reviews are tracked, including average API call response time and average system error rate.

Some specific examples of cutting-edge technology used in the FATOORA program are the following:

- Artificial Intelligence: E-invoicing leverages AI-driven natural language processing tools to enhance the precision of product and service classification, ensuring more accurate understanding of the data received.
- Big Data: E-invoicing promotes the use of big data analytical techniques when collecting and analysing large volumes of e-invoice data to identify patterns and generate insights to enhance compliance monitoring efforts and recommend policy changes.

- Generative AI models: E-invoicing leverages in-house Generative AI models to identify non-compliance and improve the policy decision making.
- Others: The program is also exploring the use of other emerging technologies, such as large language supervised and unsupervised models, to further improve its functionality and efficiency.

In addition to these general features, FATOORA also includes several innovative features that make it unique in its approach to addressing the problem of paper-based invoicing:

- QR codes: Uses QR codes to make it easy for businesses and consumers to scan and verify e-invoices. This helps to ensure the authenticity of invoices and reduce fraud.
- Mobile app: ZATCA mobile app allows businesses and consumers to scan and verify e-invoices on the go. This makes it easy for businesses to comply with the program's requirements and for consumers to verify the authenticity of invoices.

6 Security and privacy considerations

ZATCA recognizes the importance of maintaining the integrity of the technical environment and is dedicated to upholding the highest standards of governance and protection throughout the implementation and post-implementation of the FATOORA program. The primary interest lies in ensuring the stability, security, and reliability of the system. ZATCA has established a comprehensive governance framework that encompasses clear roles, responsibilities, and decision-making processes to effectively manage the technical infrastructure. Moreover, ZATCA follows the highest level of security when it comes to data protection, performs frequent security tests, and ensures protection against the latest and most advanced cyber threats.

Additionally, ZATCA's FATOORA APIs follow the highest level of security and are graded "A" [by SSL Labs Security Overview](#). ZATCA has implemented a range of measures for the e-invoicing program to ensure information security, risk management, and business continuity. Some of these measures include:

- Establishing stringent data access policies and procedures to safeguard sensitive information and prevent unauthorized access.
- Conducting frequent system capacity stress testing to identify any potential performance issues and making necessary adjustments to ensure optimal system performance during peak periods.
- Implementing round-the-clock monitoring of the e-invoicing system's operation processes. This continuous monitoring allows us to promptly detect and respond to any anomalies or system disruptions, ensuring uninterrupted service availability.

These efforts demonstrate our commitment to maintaining a secure, reliable, and high-performing e-invoicing system, providing taxpayers with confidence in the project's integrity and uninterrupted service.

ZATCA has adopted internationally recognized standards to ensure effective governance and robust protection of the technical environment over the course of the program lifecycle.

7 Achievements and learnings

Key success factors and lessons learned during the implementation of the program are being consolidated on an ongoing basis for future improvements and enhancements. Below are a few examples:

- Establish clear governance and a project team structure with cross-functional coordination, and that is supported by the close involvement of the most senior members of the organization.
- Co-create and collaborate on the requirements with the final users (taxpayers and solution providers) and continue the discussions through focus groups, pilot, pulse checks, feedback forms, and other active communication channels to improve the solutions and requirements to minimize the burden. The involvement and support of other governmental entities within the KSA public sector ecosystem are also critical for the success of the program.
- Engage closely with solution providers and support them throughout the planning and implementation of the program, by offering dedicated testing tools and technical support, to increase the market understanding of the requirements, ensure smoother adoption among their clients and enable the multiplier effect.
- Cater to the different types of taxpayers based on their unique characteristics (size, industry, corporate structure, business model) by tailoring educational materials and solutions to each group of taxpayers and providing extensive and simplified communication and awareness campaigns.
- Provide sufficient timelines for the adoption of new requirements and design e-invoicing implementation in a phased manner for the market to gradually adjust and taxpayers to comply.
- Conduct extensive technical readiness monitoring and performance testing to ensure full system availability without compromising user experience and offer simple testing tools internally simulating real-world scenarios.

E-invoicing has had a large range of positive impacts in KSA and is achieving the following benefits:

- Reducing administrative burden and cost on businesses.
- Promoting transparency and helping businesses keep track of their transactions.
- Supporting businesses in simplifying and automating their regulatory compliance.
- Reducing the risk of fraud and increasing business compliance with KSA law and regulations.
- Supporting policy decision making through real-time data-based analysis.
- Increasing commitment to environmental goals through the total elimination of manually generated paper-based invoices.
- Being highly secure and user-friendly, incorporating artificial intelligence (AI) and big data technologies to enhance its capabilities.

The implementation of E-invoicing has played a crucial role in the government's digital transformation efforts outlined in the Kingdom's Vision 2030 plan. This initiative underscores ZATCA's dedication to adopting digital technologies, fostering a digital economy, and serving as a pivotal facilitator in realizing ZATCA's aspiration to become a 'World Class' digital revenue administration.