

# Methodologies and technical approaches used in implementing the Electronic Invoice system in Sudan

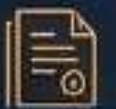
A working paper submitted to:  
Association of Tax Authorities of Islamic Countries (ATAIC)

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Khartoum, Sudan. June 2026.



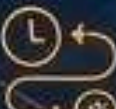
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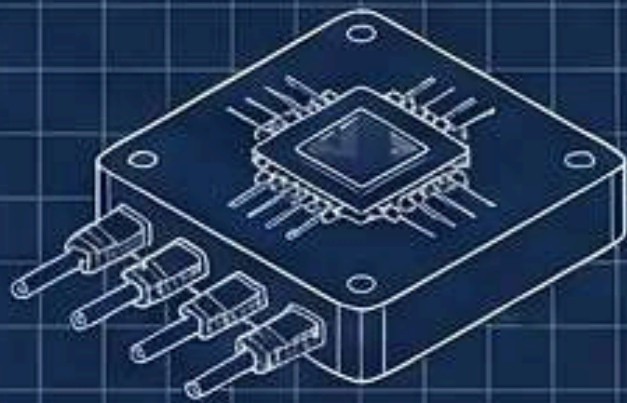


Technical mechanisms used to integrate the electronic invoicing system with other systems

# A brief history of the electronic invoicing system

## The Rebirth Timeline

Late 2016



**Launch** of Fiscal Processor system.

The Disruption

**Outbreak of War:** Complete cessation of the system due to the loss of the operating environment and taxpayer hardware.

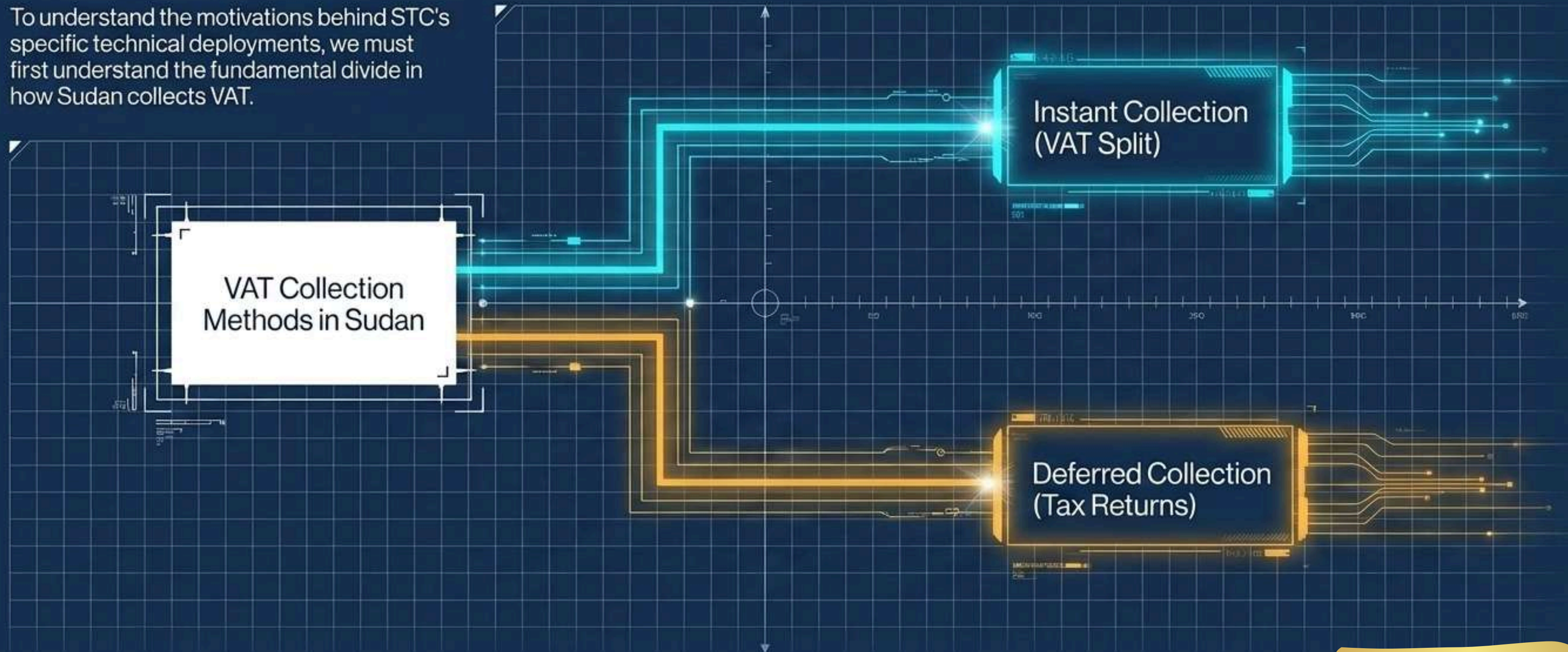
Current Year

**System Restoration:** Introduction of multi-layered software technologies and technical methods.



# Methods used for invoicing and collecting VAT.

To understand the motivations behind STC's specific technical deployments, we must first understand the fundamental divide in how Sudan collects VAT.

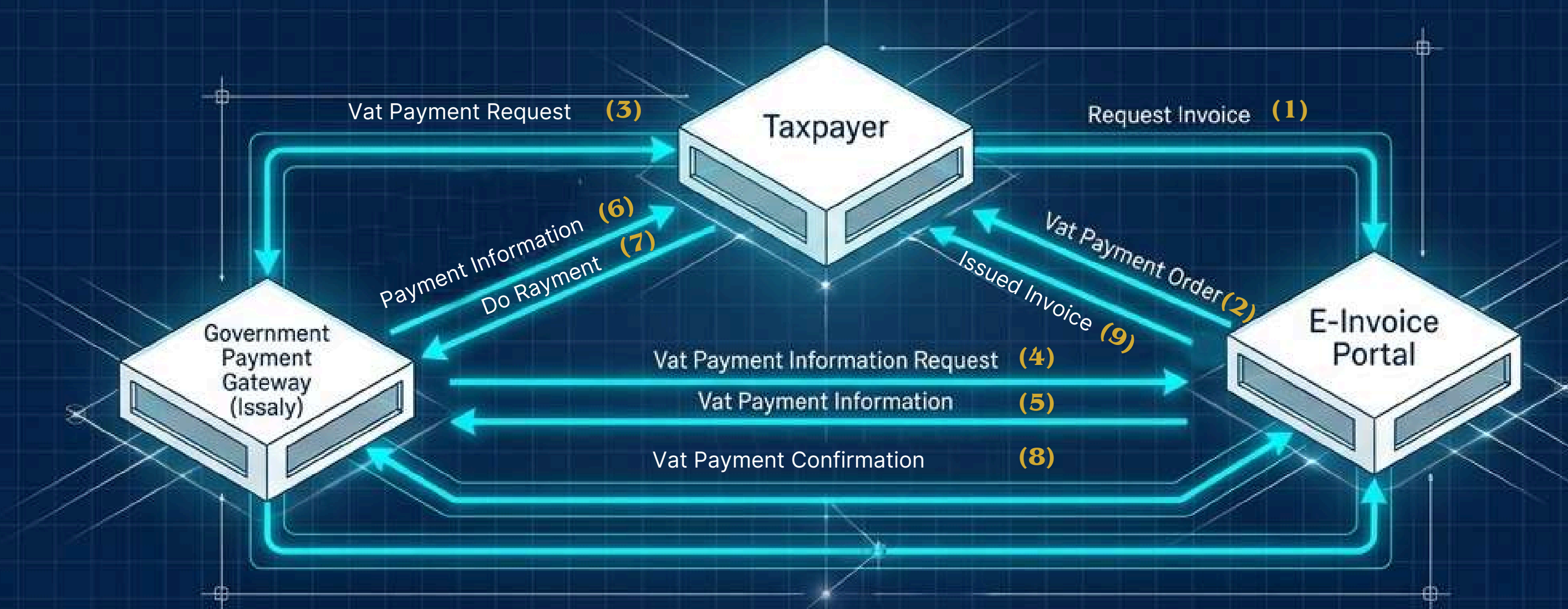


# Analyzing the systemic demands of VAT collection.

	<b>Instant Collection</b>	<b>Deferred Collection</b>
<b>Target Sectors</b>	High-volume specific (Telecommunications, Petroleum)	Most general business sectors
<b>Business Model</b>	B2B exclusively	B2B and B2C
<b>Trigger Event</b>	Simultaneous, real-time tax payment upon invoice generation	Periodic tax return filings
<b>Technical Requisite</b>	Highly integrated online API gateways	Diverse, multi-modal solutions covering varying tech capabilities



# The millisecond orchestration of the VAT Split



For B2B Instant Collection, APIs ensure that the issuance of a sales invoice and the payment of the exact VAT amount occur simultaneously.

# The architectural challenge of deferred collection.

## The Mandate

Deferred payment systems must capture revenue across the vast majority of Sudan's business sectors (both B2B and B2C).

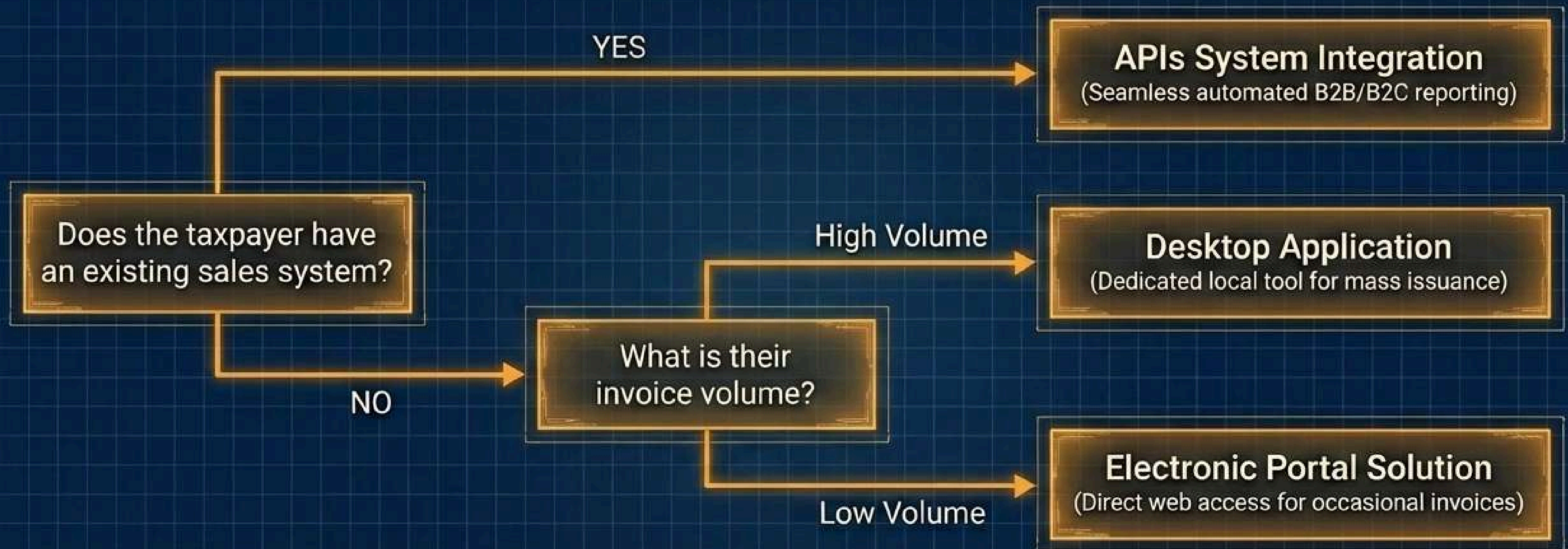


## The Challenge

Taxpayers possess radically different technical capabilities. A single software product cannot serve both an enterprise with existing sales systems and a small merchant without stable internet.



# Technical mechanisms used to integrate the electronic invoicing system with other systems



Key Insight: Technology adapts to the taxpayer's operational reality, not the other way around.

# Securing compliance in offline environments.



○ **Solution:**  
Fiscal Processor Devices.

○ **Application:**  
Deployed for both B2B and B2C  
invoice models operating offline.

○ **Strategic Value:**  
Ensures robust VAT data  
capture and invoice compliance  
continues uninterrupted,  
regardless of internet stability.



# Expanding the digital net: The deployment horizon

Deployment Horizon

Today

B2B Instant Collection (VAT Split)

B2B/B2C Deferred Online

B2B/B2C Deferred Offline

Next Phase Focus: B2C Receipt Models.

These solutions are actively in development to capture direct-to-consumer VAT at the point of sale.

Today



# Future State: Hardware-free B2C compliance.



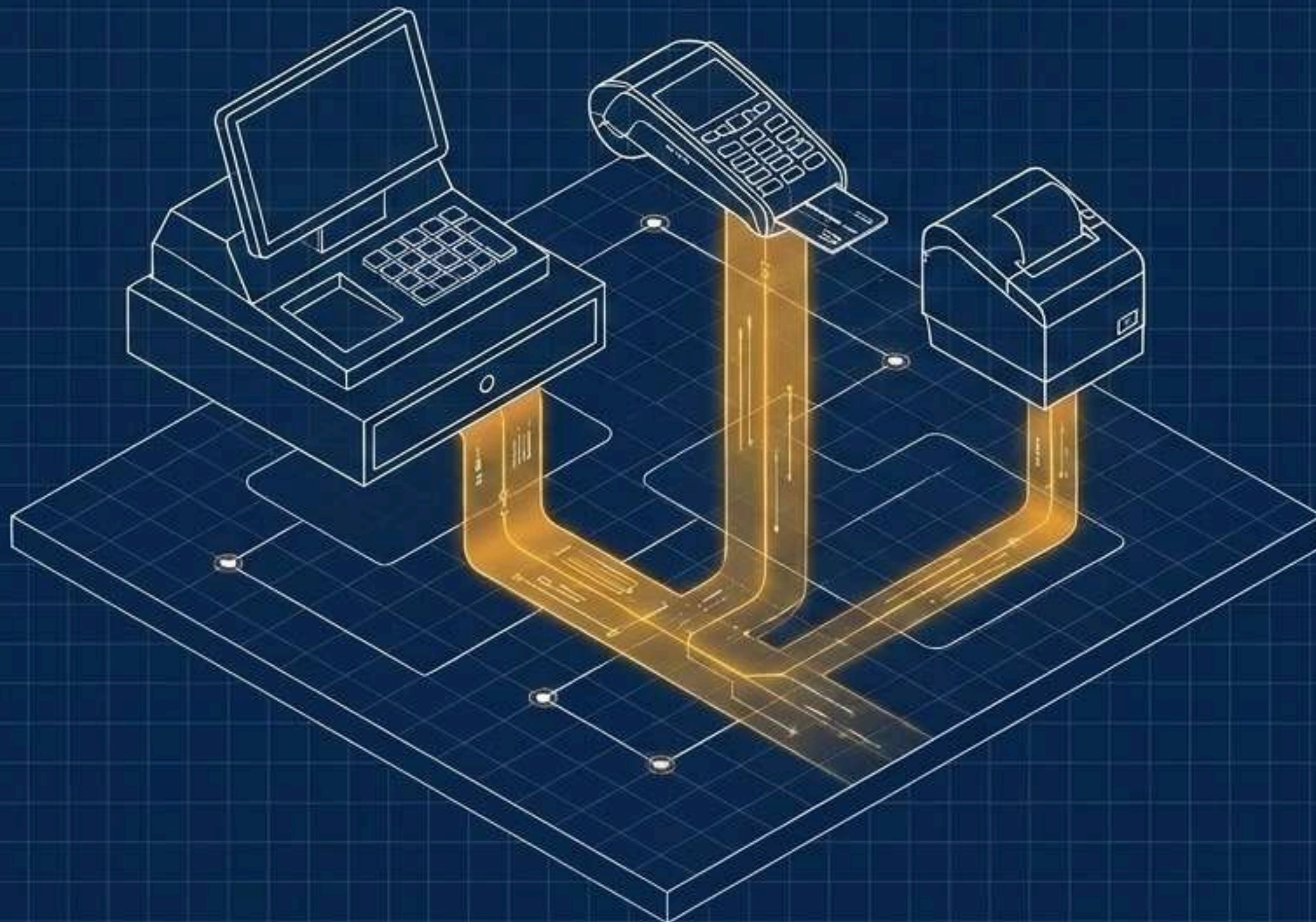
**Technology:**  
Virtual POS.

**Platform:**  
Mobile & Computer  
Applications.

**Strategic Goal:**  
Allowing rapid, agile rollout  
of B2C online receipt  
capabilities without the  
capital expense of physical  
hardware distribution.



# Future State: Integrating high-footfall physical retail.



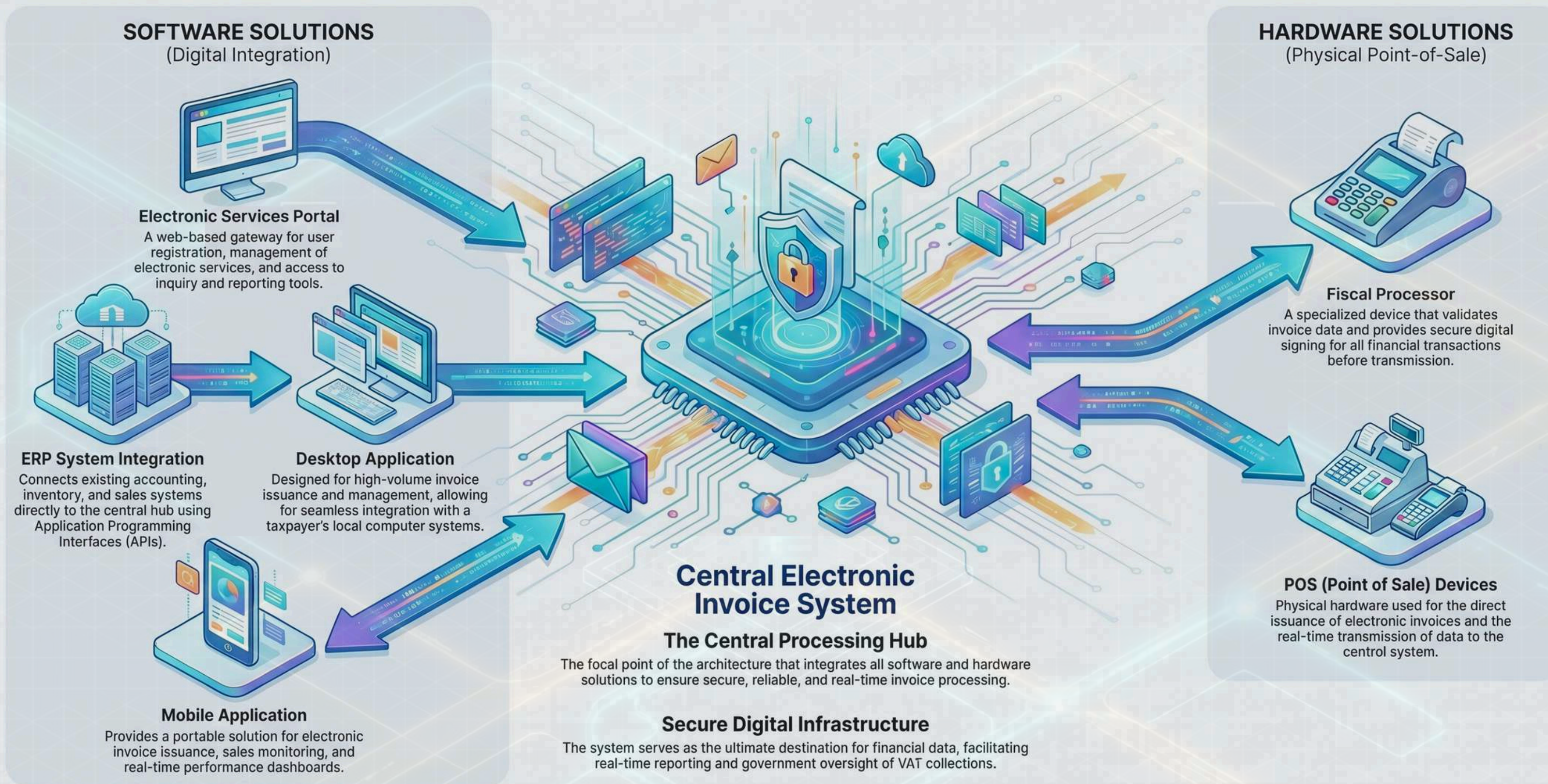
**Technology:**  
Hardware POS integrations.

**Platform:**  
Cashiers, Handhelds, and Fiscal Printers linked via Online Solutions.

**Strategic Goal:**  
Ensuring traditional consumer transactions are seamlessly recorded and transmitted to the STC.



# Architecture of the Electronic Invoice System



# Thank you for your kind attention

The Sudanese Taxation Chamber has transformed the disruption of legacy hardware into an opportunity—architecting an intelligent, multi-modal network that adapts to any business reality to secure national revenue.

