

TRENDS E-INVOICING COMPLIANCE





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Dear Reader

This 2018 edition of the Sovos TrustWeaver white paper on global e-invoicing is a treasure-trove of analysis and facts about the digital tax tsunami that few experts would disagree is now a solid global trend.

Taking the upper hand by mandating always-on business connectivity with tax administration platforms is the only rational thing to do.

Foreword

In previous years, the Sovos TrustWeaver team, we at Billentis and others who have invested over the past decade-and-a-half to provide thought leadership in this space have been surprised and – to be honest – alarmed at the lack of attention that international businesses were paying to the major paradigm shift in transaction tax enforcement. In the past twelve months, many corporations have however heard the wake-up call and are starting to look for effective measures to stop tax regulation from undermining their digital transformation agendas.

But as we – thankfully – transition from a business world asking itself what's happening – "is this a trend or a passing fad in a handful in emerging economies?" – to a collective exploration of the 'how' to respond to a global phenomenon, practitioners too often ignore the 'why' of it all. Finance Ministers know that 'clearance' of business transactions is open heart surgery into the local fabric of SMEs and the multinational supply chains that drive their and the world's economy that they depend on to collect public revenue; tax administrations engage in this economic balancing act willingly and knowingly because they have no other choice. Audits for indirect tax compliance were never easy, nor very effective, but in a digital world economy the stakes are very high. Sluggishness can sink your economy. Taking the upper hand by mandating

always-on business connectivity with tax administration platforms is the only rational thing to do. And if you think you've understood where this is all heading, think again: new ground breaking technologies such as AI and blockchain will make the first wave of continuous VAT controls look like baby steps in comparison.

If you read carefully, you'll see that this white paper provides a high-level toolkit for companies to design strategies that anticipate developments in digital tax and weave them into their plans so that they support rather than contradict digital transformation strategies. This starts with understanding the historical backdrop and is then followed by a unique summary of legislation in 80+ countries. As in previous years, I'm convinced that this white paper, in conjunction with the next Billentis market report that will be published in the second quarter of 2019, will put you in a position to welcome rather than suffer the next country's e-invoicing or digital tax mandate.



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Contents

Foreword	3
Introduction	7
VAT and its challenges	9
A brief history of VAT controls on electronic invoices	11
A primer on post audit systems	19
A primer on continuous VAT control systems	32
Granular analysis	45
Country profiles	50
▶ Electronic invoicing in the European Union	50
▶ Electronic invoicing in other European countries	70
▶ Electronic invoicing in North America	76
▶ Electronic invoicing in Latin America	79
▶ Electronic invoicing in Africa	87
▶ Electronic invoicing in Asia Pacific	90
Contributors to this edition	100



THE PROMISE OF GLOBALIZATION



Introduction

The promise of globalization

Globalization has spurred tremendous opportunities and challenges. It is no surprise Steve Jobs chose Tim Cook to succeed him in leading Apple. Tim Cook built Apple's supply chain into what became one of the company's greatest strategic advantages.

Most multi-national corporations strive to consolidate processes and supporting IT systems. Paper-based systems and processes are always a red flag. Automated invoicing initiatives, for example, can generate processing cost reductions of up to 90%. Many corporations increasingly seek to dematerialize their diverse invoice flows by taking advantage of modern cloud-based business networks for procure-to-pay and order-to-cash solutions. Electronic invoicing is often a key enabler for unlocking the larger benefits of such end-to-end business process automation.

However, such automation must consider the trend among tax administrations to regulate – and increasingly continuously monitor – business transactions for VAT enforcement using electronic methods. This white paper explains why and how governments are taking such steps towards increased control over invoicing processes and provides a framework for business strategies towards ensuring that such government controls do not clash with digital transformation objectives that are critical for every company's future competitiveness.

Electronic invoicing

Definition

Electronic invoicing is the sending, receipt and storage of invoices in electronic format without the use of paper invoices for tax compliance or evidence purposes. Scanning incoming paper invoices, or exchanging electronic invoice messages in parallel to paper-based originals is not electronic invoicing from a legal perspective.

An aerial photograph of York, England, featuring the prominent York Minster in the center. The cathedral's intricate Gothic architecture, including its spires and stained glass windows, is clearly visible. Surrounding the cathedral are various urban buildings, some with modern glass facades and others with traditional brickwork. Lush green trees are scattered throughout the scene, particularly in the foreground and around the base of the cathedral. The overall image has a slightly desaturated, blue-toned aesthetic.

VAT AND ITS CHALLENGES

VAT and its challenges

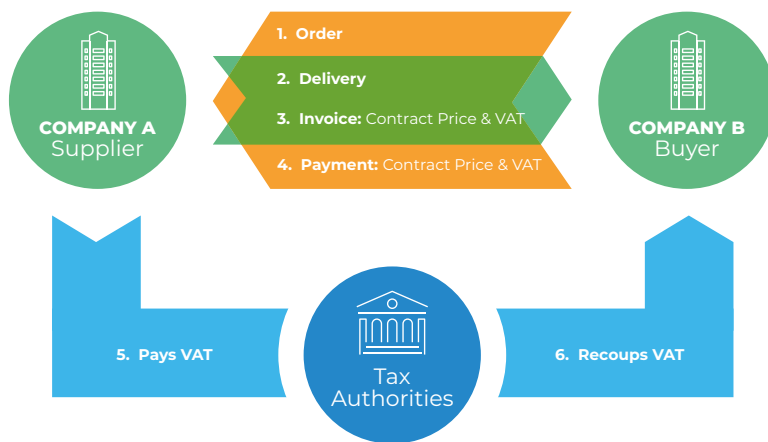
What is value-added tax?

The basic principle of VAT is that the government gets a percentage of the value added at each step of an economic chain, which ends with the consumption of the goods or services by an individual.

While VAT is paid by all parties in the chain including the end customer, only businesses can deduct their input tax. Therefore, VAT requirements concerning invoices ordinarily only apply between businesses. Many governments utilize invoices as primary evidence in determining “indirect” taxes owed to them by corporations. VAT is by far the most significant indirect tax for nearly all of the world’s trading nations. Roughly speaking, VAT contributes more than 30% of all public revenue. VAT as a tax method essentially turns private companies into tax collectors. The role of the taxpayer in assessing the tax is critical, which is why these taxes are sometimes referred to as “self-assessment taxes”.

FIGURE 1:

A schematic overview of how VAT works



VAT basics

The form, content and/or method of creating or exchanging invoices are often regulated because invoices are the prime source of audit for VAT purposes. VAT was first introduced in the 1950s and quickly spread throughout Europe and other countries.

Despite the OECD’s attempts to create high-level standards for streamlined taxation of cross-border trade, there are no global rules for VAT. The EU VAT system is the closest any region has come to a harmonized VAT system, but even in the EU rules are notoriously complex and diverse.

Measuring the gap

In Europe, the VAT gap amounts to approximately 150–250 billion EUR every year. Globally, we estimate VAT due but not collected by governments because of errors and fraud could be as high as half a trillion EUR. This is similar to the GDP of countries like Norway, Austria or Nigeria. The VAT gap represents some 20–30% of VAT that should be collected worldwide.



A BRIEF HISTORY OF VAT CONTROLS ON ELECTRONIC INVOICES

A brief history of VAT controls on electronic invoices

Developments in VAT enforcement

VAT requirements historically follow three broad categories, each of which corresponds to a certain periodicity from the perspective of a company that must meet them:



- ▶ **Invoicing and storage requirements** – on a high level, these requirements that apply during the processing of business transactions break down into tax determination and record-keeping requirements. In other words, for every invoice a business issues or receives, it should ensure that the correct VAT (and/or other indirect tax) rates are applied for each supply, and when the invoice has been issued or received in compliance with legal requirements, it should be archived by each trading partner as evidence of the underlying supply.
- ▶ **Periodic reporting requirements** – for business transaction data in summary or aggregate form or full data from individual invoices. Historically such reporting requirements have often been monthly, with certain less common reports being quarterly or yearly.
- ▶ **Audit requirements** – where during the mandatory retention period of invoices and other records and books – typically 7 to 10 years – a tax administration may request access to such records and books to assess their correspondence to reports.

These requirement types and their relatively importance for tax law enforcement have changed significantly in the past years.

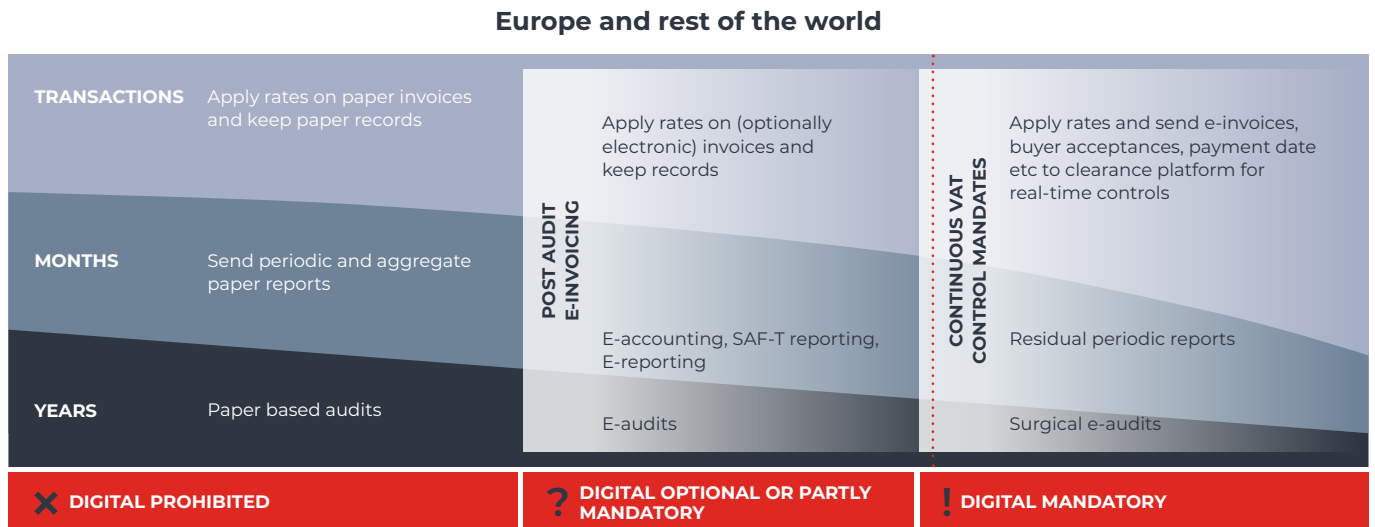
Countries in Latin America have played an important role in the transformation of VAT enforcement by introducing various types of continuous electronic controls of business transactions using modern information and communication technologies.

In European and many other industrialized nations, such continuous electronic controls on business transactions have only recently started to be introduced after a period of some fifteen years under 'post audit' e-invoicing rules which allows but does not mandate companies to use electronic invoices for VAT purposes as long as these meet roughly equivalent conditions to those that apply to paper invoices.

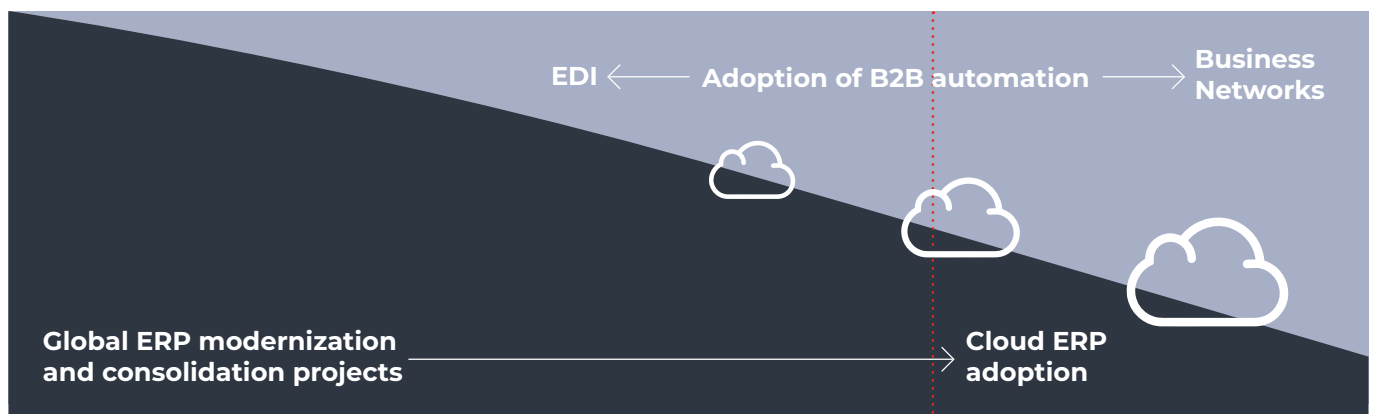
A brief history of VAT controls on electronic invoices

FIGURE 2:

A 'histomap' of technology-facilitated VAT controls on business transactions, mapped against the evolution of enterprise software during the same period



Developments in enterprise software and cloud adoption



Developments in enterprise software

- ▶ **Phase 1:** During the period between the year 2000 and 2010-2015, many companies in parallel have been engaged in large-scale Enterprise Resource Planning (ERP) modernization and consolidation projects starting in the 1980s where such systems were originally introduced on a global scale. As a first step towards streamlining accounts payable processes, many larger companies during this phase also introduced Accounts Payable (AP) workflow software to scan, interpret, approve and then electronically store paper-based supplier invoices. Legacy Electronic Data Interchange (EDI) systems that were used to automate individual relationships with mission-critical suppliers and customers since the 1980s were kept in place unchanged during this phase.
- ▶ **Phase 2:** Around the year 2010, when many companies concluded the bulk of such ERP upgrade projects, they started focusing on maximizing the return on investment for these expensive enterprise systems by rationalizing and automating the way they sourced, sold and distributed their goods and services. In this next phase, many companies have started rolling out programs to connect suppliers and buyers via internet-based AP and Accounts Receivable (AR) automation systems. In some cases, these systems replaced legacy EDI whereas in others the EDI systems themselves were modernized to take advantage of more flexible yet robust internet-based communications replacing the historical Value-Added Networks running over leased lines.
- ▶ **Phase 3:** This phase, which is starting now, sees the transformation of standalone AP and AR systems towards full-fledged business networks which are many-to-many multi tenant cloud platforms hosting complex business processes. At the same time, ERP vendors are launching ambitious projects to migrate their customer bases to cloud-based or cloud-enabled versions of their software.



A brief history of VAT controls on electronic invoices

The evolution of market behaviour

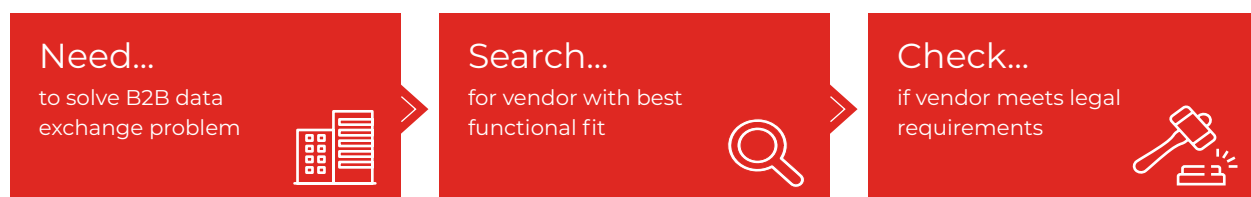
The early introduction of continuous VAT control systems by tax administrations in Latin America took place when many companies and their local subsidiaries in the region were still in phase 1. Because e-invoicing mandates required them to quickly adopt transaction automation capabilities, companies in Latin America were generally rushed into Phase 2. This led most businesses in Latin America (but also e.g. Turkey) to purchase on-premise or hybrid-cloud solutions that focused on ensuring compliance with continuous compliance requirements and that added a minimum of business-to-business transaction functionality – typically based on the exchange of tax-approved, structured invoice data via email. By contrast, the current wave of continuous VAT controls in Europe and many other countries worldwide intervenes at a time when many companies are coming towards the end of Phase 2 and entering Phase 3 – and have in many cases already been exchanging invoices electronically with their trading partners for a good number of years. This creates different market dynamics from what happened in Latin America in the past 5-10 years: the

current wave of country-specific continuous VAT control mandates often drive a need for major adjustment at short notice of existing procure-to-pay, order-to-cash and other B2B transaction automation schemes while they are morphing into business networks.

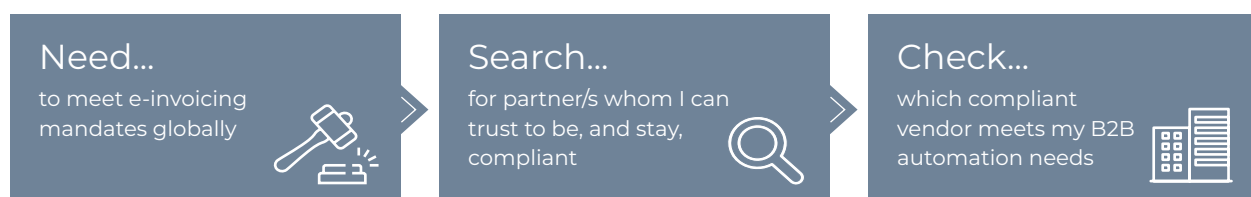
Many companies that are faced with compulsory integration to continuous VAT control platforms, whether domestically or for their transactions abroad, have started taking measures to be better prepared to deal with this global trend. Consequently, market behaviour regarding the adoption or further rollout of B2B transaction automation systems is changing. Whereas legal compliance in the past was often an afterthought, now the ability of business networks and similar vendors to ensure compliance with current and future continuous VAT control mandates is an upfront selection criterion. As companies worldwide seek to protect themselves against the challenges of continuous VAT control mandates, they look for partners that have a proven track record in combining robust ongoing compliance assurances with B2B transaction automation benefits.

FIGURE 3: How enterprise software purchasing attitudes are changing with the introduction of digital tax mandates

1990-2015: opportunistic B2B adoption with compliance as an afterthought



NOW: Compliance is a minimum condition to compete in B2B automation

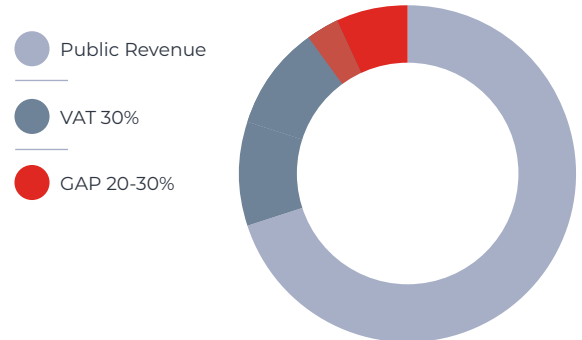


The VAT gap

VAT depends on companies meeting public law obligations as an integral part of their sales, purchasing and general business operations. The dependency on companies to process and report VAT makes it necessary for tax administrations to audit or otherwise control business transactions — but despite such audits, fraud and malpractice often cause governments to collect significantly less VAT than they should. The difference is often referred to as the VAP gap.

FIGURE 4:

High-level overview of the contribution of VAT to government revenue globally and the VAT gap as a portion of that contribution



The consequences of VAT non-compliance

The consequences of non-compliance with VAT requirements can be significant. As a result, most companies want to be as certain as possible that they can quickly and easily prove VAT compliance to avoid risks including:

- ▶ **Administrative fines.** If a company cannot prove the veracity of invoices, it may be fined. Trading partners who have been drawn into an audit that leads to this conclusion may also be penalized.
- ▶ **Sanctions under criminal law.** In some countries, non-compliance with invoicing requirements can be equated with tax evasion, which is typically liable to sanctions (e.g. fines, imprisonment) under criminal law.
- ▶ **Protracted audits.** Audits should generally take only a few days but many companies are audited for weeks or even months. This eats up precious expert resources and creates risks of more processes and documents being scrutinized and, potentially, found flawed or lacking.
- ▶ **Spillover effects into other areas of taxation or accounting.** Once a tax administration has established that a sales transaction cannot be evidenced, a company may also face sanctions in other areas of taxation. For example, non-recognition of an invoice for tax purposes may undermine the credibility of a company's annual accounts or deductible expenses under corporate income tax.
- ▶ **Trading partner audits.** The tax administration may have no choice but to verify the records and original documents of the audited company's trading partners. This can negatively affect a company's relationship with business partners.
- ▶ **Mutual assistance procedures.** Auditors may need to call on their counterparts from other countries to obtain evidence about certain aspects of the company's operations. Such procedures tend to be long and can tie up expensive expert resources within a company for months or even years.
- ▶ **Loss of right to deduct VAT.** A company that does not have sufficient evidence of purchases — that cannot prove it was in control of its processes at the time of the transactions — may need to pay back input VAT it reclaimed on such purchases. With an average VAT rate of 20%, this means a high risk of that company retroactively losing more than its profit margin.
- ▶ **Obligation to pay VAT over fraudulent invoices.** If a fraudster can easily forge invoices that are not reasonably distinguishable from a supplier's normal invoices, a tax administration that has no credible evidence to the contrary may in extreme cases consider such invoices to have been issued by that supplier and claim output VAT payment if the buyer reclaimed the corresponding VAT.

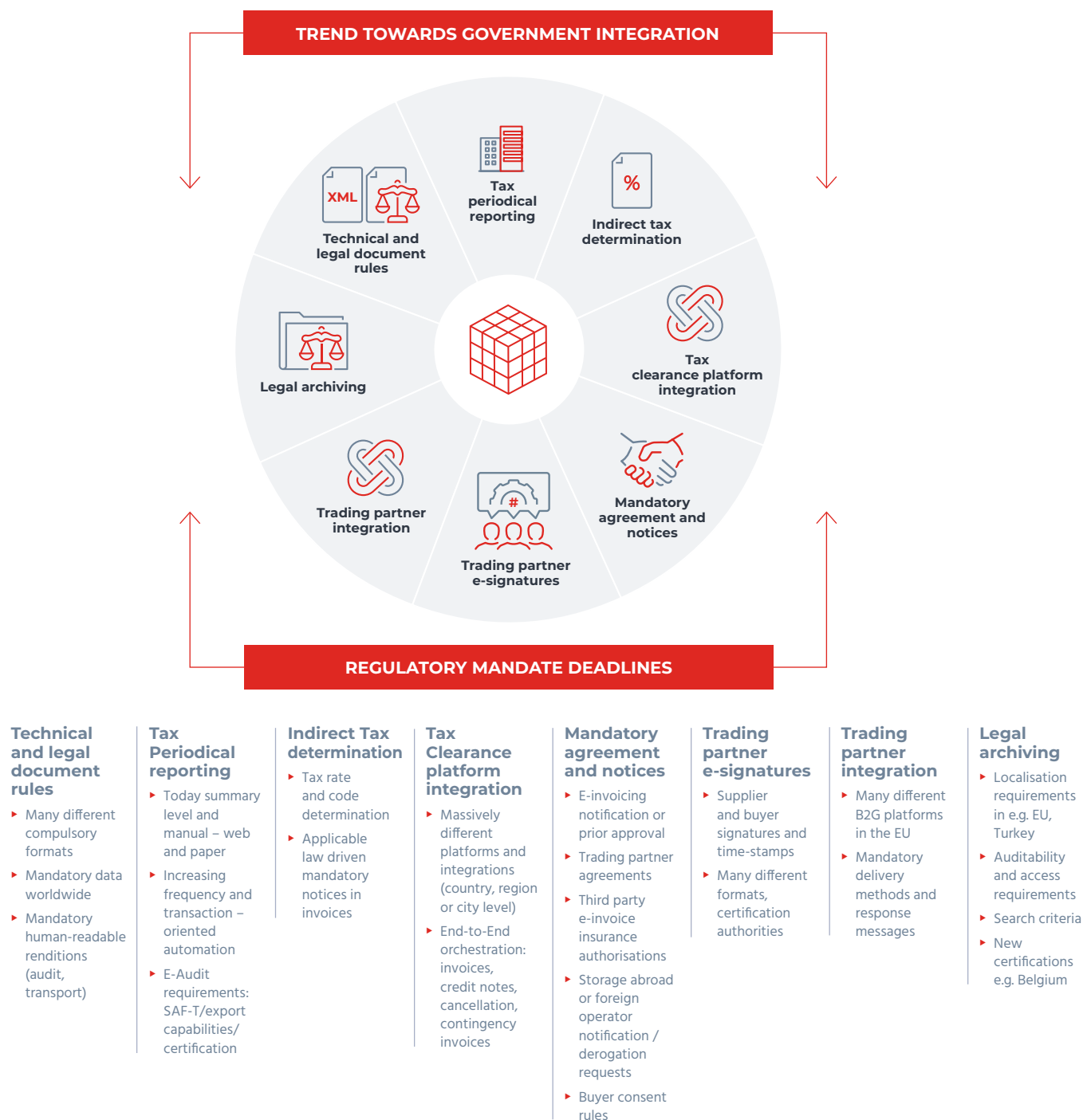
As part of this changing market behaviour, we have seen many companies start broad reviews of their e-invoicing strategy. The following section attempts to provide a basic framework for such strategy discussions.

A brief history of VAT controls on electronic invoices

A framework for a company wide e-invoicing strategy review

Business considerations toward creating or maintaining internationally-compliant e-invoicing should consider the following:

FIGURE 5: Principal requirement categories to be taken into account for compliant e-invoicing across countries



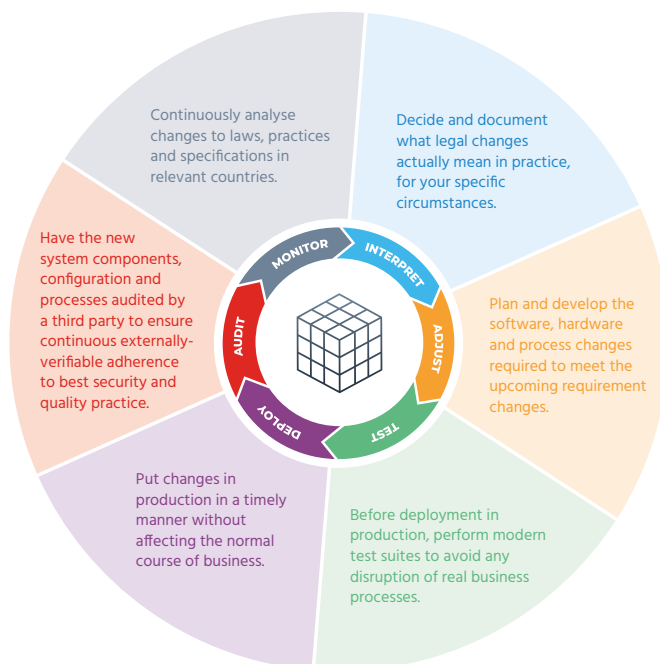
The requirement matrix is also anything but static: laws and associated technical specifications inevitably change over time. Therefore, an electronic invoicing strategy must consider the need for compliance change management. Figure 6 describes the principal components of a typical compliance change management process.

Compliant archiving:

A solid anchor for your global e-invoicing strategy

With tax administrations spending billions on next-generation online invoice control systems, companies trading internationally come under pressure to implement global e-invoicing in a consistent, scalable and cost-effective manner. The quality of your compliance strategy will consequently become a competitive differentiator. To design a winning approach, our advice is to start thinking about the big picture with a solid archiving blueprint at the centre.

FIGURE 6: **Fragmented legal requirements require strict compliance change management**



Here are four reasons why:

1. Archiving is a base requirement nearly everywhere

Archiving is a common denominator. E-invoicing rules vary from country to country, but the near-majority of countries require the “original” of an invoice to be archived. Contrary to transaction compliance where compliance-specific processes can vary wildly, archiving can be done in a compliant manner by using a “superset” approach to country rules, which requires relatively little country-specific logic as part of your archiving solution.

2. An archiving strategy is half of the work towards global compliance

The legal archive is where your ultimate evidence is. For tax administrations worldwide, this makes archiving a key consideration in assessing your compliance. Yes, there are many requirements that relate to the transaction part of the e-invoice life cycle, but getting archiving right means you’ve done pretty much half the work towards a full e-invoicing strategy already.

3. Having an archiving strategy helps you stay in control of your own destiny

If you are a multinational company, you will be less vulnerable to pressure from subsidiaries or departments that seek a quick implementation of e-business solutions that include e-invoicing and e-archiving through local solution vendors. If you have no archiving strategy, you’ll invariably end up with a fragmented archiving landscape and vendor lock-in. Extracting yourself from such relationships can be close to impossible.

4. Archiving is a common anchor for all transactions in your global architecture

If you know in which archive you are going to store your original e-invoices, it becomes easier to trace a “compliant path” back from that ultimate resting place to the different applications, service providers, trading partners, processes, product lines, and countries where e-invoices originate.

A PRIMER ON POST AUDIT SYSTEMS

A primer on post audit systems

An auditor wishing to ascertain VAT compliance of a taxable person over a past period must always make a judgment as to the reliability of a company's accounts, which form the basis for a company's VAT declarations.

Historical information is trustworthy when it can be established that its origin is real (authenticity) and that it has not been modified (integrity).

The objective of an audit is to establish that a company's accounts accurately reflect all the actual sales/purchase transactions based on which VAT, if applicable, is calculated and reported. Such evidence is based on historical information that, within the limits of applicable law and practical parameters, can be obtained from the taxable person being audited.

Key role of the invoice

The shorthand "VAT compliance" is often heard to describe various types of obligations – on a high level these can be broken down as follows:

- ▶ A tax administration must be able to verify that invoices they audit are real and unchanged; therefore, the integrity and authenticity of invoices must be guaranteed. These qualities must be verifiable from the moment of issue of an invoice until the end of the mandatory archiving period.
- ▶ A tax administration must be able to interpret invoices they audit: the legibility of invoices must be guaranteed.
- ▶ To confirm that VAT has been correctly administered, reported and paid, a tax administration must be able to verify the nature of the supply, the consideration (fee) and relevant business terms of the transaction; therefore, the content of an invoice must meet certain minimum criteria.

- ▶ Ultimately, tax administrations want to be able to verify the veracity of business transactions (often referred to as "supplies") within the scope of VAT law.

One common objective of tax audits in post audit countries is to verify that transactions recorded in a company's books are actually real. The extent to which the invoice is viewed as the sole or primary information platform in this context varies from country to country, but it is generally true that a well-managed invoicing process and archive, including credible evidence of integrity and authenticity of invoices during the storage period, can be a determining factor in a strategy to keep audit time and compliance risks to a minimum. Enabling tax authorities to easily ascertain the trustworthiness of stored invoices can therefore be a key strategy for rolling out low-risk e-invoicing across an extended enterprise or service environment. Historical information is trustworthy when it can be established that its origin is real (authenticity) and that it has not been modified (integrity). These trust attributes are interdependent: if the integrity of records cannot be established, they are logically not authentic, and if the authenticity of the data cannot be established their integrity is of no interest.

A primer on post audit systems

Information systems are subject to perpetual change with tactical software updates, hardware and operational adjustment.

It is not particularly challenging for most companies to prove the veracity of an invoice from days, weeks or even months ago: the overall administrative control environment and many elements of the sales or purchase process (for example physical elements, warehouse data, trade documents) will still be demonstrably in place. However, such circumstantial evidence often erodes with time; what is “obvious” trading context one day is quickly forgotten in today’s fast paced business environment. Change is systemic in most modern enterprises:

- ▶ Legal structures vary due to for example, M&A activity and reorganizations.
- ▶ As trading partners, production methods and other aspects of a business evolve.
- ▶ Legal requirements (tax, commercial law, corporate governance, privacy etc.) are continuously modified in increasingly complex and interdependent national and international policy processes.
- ▶ Information systems are subject to perpetual change with tactical software updates, hardware and operational adjustment. Large-scale strategic overhauls are also becoming increasingly frequent in response to very rapid advances in information and communication technologies.



Source data and records

To prove the reliability of its accounts, a company must in most countries retain its source documents. This typically leads to distinct administrative subsystems with different functions:

- ▶ **Accounting records** — the thing to prove: In most cases (where a company does not use cash basis accounting), a company's accounts must accurately and completely record invoices when issued or received. These bookings are not invoices themselves, even if accounting staff may sometimes call them that. In modern times, these records are retained in a company's accounting system — either a software package or online service or a more complete ERP system for larger companies.
- ▶ **The invoice** — primary source of evidence: In case of doubt concerning the veracity of a company's accounts or correctness of the VAT treatment of supplies, an auditor will typically turn to the invoice source document and ask himself the question: are these the invoices exactly as exchanged at the time of the supply or have they been erroneously or fraudulently created, or modified? If the invoice is deemed reliable and there are no other reasons to suspect fraud or misconduct, the auditor can ordinarily conclude that the accounts and VAT administration are reliable. In other cases, an auditor may review complementary sources of evidence.
- ▶ **Complementary sources of evidence** — in most countries, tax law also requires companies to maintain an orderly and auditable administration, which in practice often means that companies must meet general requirements under applicable accounting law. These requirements, in turn, may include a general obligation to retain all records that may be required to substantiate a company's accounts. Trading partners are not explicitly obligated to exchange formalized trade data (key pre-contractual, contractual and transaction data e.g. purchase orders) other than the invoice, which is compulsory, but if they do they should generally store these as well.



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A primer on post audit systems



Why would a tax administration trust your accounts?

One can distinguish among the following high-level categories of evidence.

- **A: Intrinsic (portable) evidence** — In some cases, the integrity and authenticity of the data object (paper or electronic document, or structured data) can be demonstrated without reference to other business data or processes.

This type of trustworthiness is based on intrinsic or logically associated features of the “object” constituting or carrying the business document in question; therefore, it is always portable. The storage or carrier medium (examples: sealed envelope; tamper-proof paper; encrypted communications channel) can ensure the integrity and authenticity of data between two communication or processing points, or at a specific point in time. When evidence is logically associated with the data (example: an advanced electronic signature), integrity and authenticity can be verifiable regardless of the storage or carrier medium and, in certain cases, for a very long period of time. (Note that just trustworthiness of the storage system and processes, or the adding of technical verifiability to an invoice at the moment of storage, is almost never by itself sufficient to ascertain integrity and authenticity because the invoice lifecycle does not begin with storage). Theoretically, where electronic signature techniques are used that benefit from a high degree of general security and legal recognition, integrity and authenticity evidence is conclusive. If this type of trustworthiness is available for the invoice, a presumption of the taxable person’s accounts being based on reliable source data generally becomes justifiable. When other business data (e.g. purchase orders, bank statements) can be verified this way, they can increase the total transaction evidence to the extent inherent in their scope.

When the business document itself does not convey conclusive evidence about its integrity and authenticity, such evidence can arise from other sources in a post audit system. Each of these types of trustworthiness rarely suffices by itself — therefore a combination is often required for conclusive evidence.

- **B: Historical context data (audit trail)** — When the auditor has access to adequate information about the historical invoice process or associated business processes, he or she may be able to logically reconstitute the chain of controls guaranteeing trustworthiness. This notion, however, presupposes that the historical context data (e.g. information system logs, archived transaction documents) are trustworthy themselves. Such trustworthiness must arise from one of the other trustworthiness types in this list. When the historical context data are conclusive evidence of an invoice, the taxable person therewith strengthens its evidence that the relevant supply was actually performed and paid. Alternatively, when the historical context data are conclusive evidence of a sale or purchase transaction and all mandatory details of the invoice, such evidence logically obviates the need to prove validity of the invoice as a standalone object. Integrity and authenticity of the invoice are encapsulated in a broader set of evidence on the material veracity of the full invoice.

- **C: Internal coherence of complex data** — Generally speaking, the likelihood of a large amount of complex yet semantically coherent data having been modified or falsified is low. What constitutes a sufficient large amount is directly dependent on the technical capabilities which allow a potential wrongdoer to generate such data within a reasonable time-frame: in a traditional paper-based environment an auditor may more easily rely on a binder containing various types of trading documents with coherent information pointing to the occurrence of a supply at some point in history. In a computerized environment, increasing amounts of complex data may be needed to prove the same thing because with today's computing power, it is not hard to output significant amounts of complex yet internally coherent data in a short time.
- **D: Third party historical audit** — Business records can be trustworthy because an independent third party has vouched or vouches for the correctness of the historical process for which a taxable person is responsible. A reliable historical audit report can guarantee that the invoicing and/or associated business processes were sufficiently controlled. Naturally, the audit report or certificate must itself be trustworthy—hence, other evidence types from this list may be required to conclude trustworthiness.



The business economics of retrospective tax auditability

The enforcement of tax law is in nearly all countries a matter of national law without much influence from supranational bodies. In particular the actual performance of a tax audit and the criteria applied to judge whether a company complies or not are often regulated exclusively on the national level. National tax law often provides the general framework and base rules for such activities, but in a real-life audit situation an auditor must very frequently interpret applicable legal requirements in the context of an almost infinite number of business practice possibilities. Technology and process expectations on which such practical audit decisions are based can be influenced by the often unique local fabric of public and private law, law enforcement processes and business practice that has evolved over many centuries and which are much harder to change than primary law. Naturally, negative decisions made in an audit process can be appealed in nearly all countries, but few administrative courts are sufficiently responsive for formal legal recourse to be a meaningful parameter from a business economics perspective: the time to a final decision is often measured in years. Businesses therefore generally tend to avoid taking interpretation risks in relation to tax law.

Where a taxable person has an explicit obligation to demonstrate the integrity and authenticity of an invoice, the burden of proof for such invoice validity during the legal storage period is logically placed upon the taxable person. As we have seen above, if an invoice is complete and its integrity and authenticity can be ascertained, such proof will in many countries routinely be viewed as adequate and invoices are presumed to reflect actual supplies. However, the integrity, authenticity, legibility and completeness of an invoice do not by themselves conclusively prove a supply. Therefore, despite the correct appearance of an invoice, a tax administration may in certain circumstances decide to subject a company to more pervasive audits.

If, on the other hand, an auditor does not judge the invoice as such reliable, the tax administration will nearly always pursue a more intrusive audit of other books and records so as to compensate for this evidence deficit.

A primer on post audit systems

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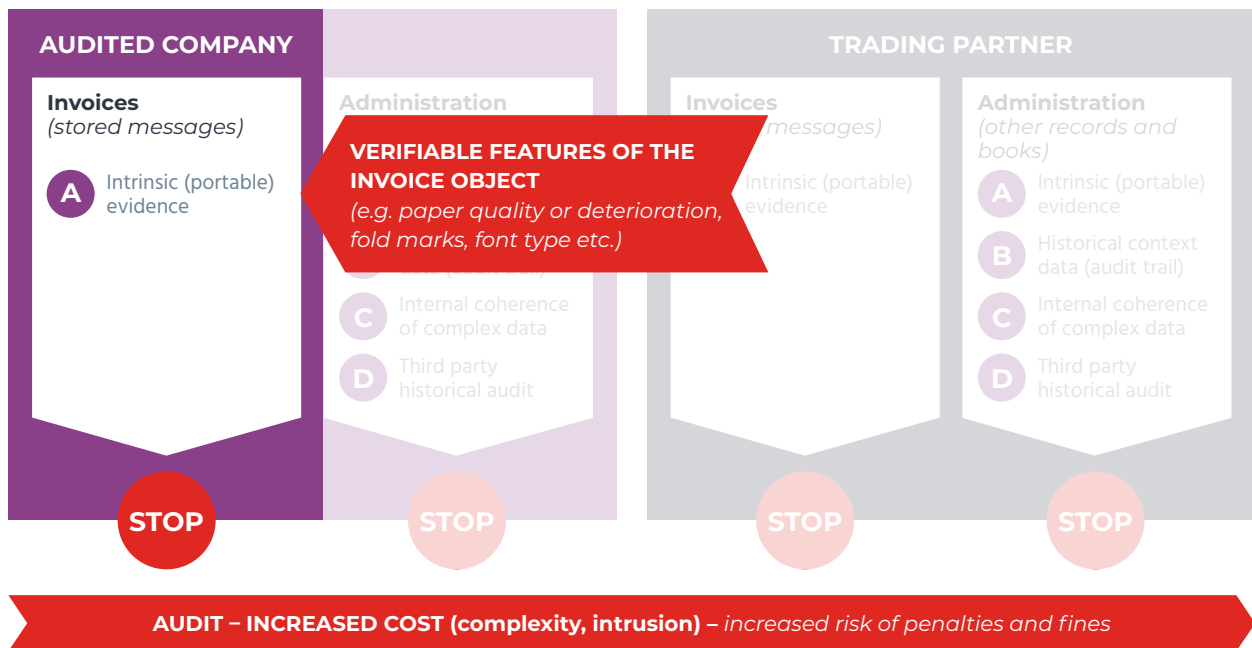
In many countries, the tax administration can also audit a taxable person's local trading partner(s) if the evidence available for the taxable person being audited proves inconclusive. In cross-border situations, if justified due to questions about potential loss of revenue where tax liabilities could have arisen in a country but were not reported there, similar trading partner audits may be organized under mutual tax assistance treaties. In addition to a financial risk created by the duration and intrusion level of an audit, administrative fines and/or loss of the buyer's right to deduct input VAT, companies may face a reputational risk if they do not ensure a sufficient level of auditability for VAT purposes.

VAT auditability options in a post audit environment



A short history of ex-post auditability options

Before the information age — the classic evidence scenario



In the traditional paper-based world, before the advent of information systems, an invoice would be issued on a piece of paper that became the buyer's "original" invoice. A second, identical piece of paper was stored by the supplier as proof that an invoice was indeed correctly issued. The buyer received the invoice and, upon manual verification of its content against the status of the corresponding supply, manually entered the transaction information in his accounts.

In this situation, which is still prevalent in many countries with a low penetration of information technologies, a tax auditor who wants to verify that a company's accounts are based on real invoices will consult the box or binder where the original tax invoice is stored. The intrinsic evidence value of the stored traditional invoice is considerable due to the fact that typewriter fonts, invoice formatting, letterheads and other distinctive features are created in an artisanal manner; further, the weight, colour and quality of the paper can be recognizable as coming from a certain supplier. Upon verification after several years, the paper might have been perforated for storage in a binder and its distinctive acid level may have yellowed it since. The envelope in which invoices were invariably transported in many cases left the paper with distinctive fold marks. The default transportation system is a state postal monopoly or at least a regulated business.

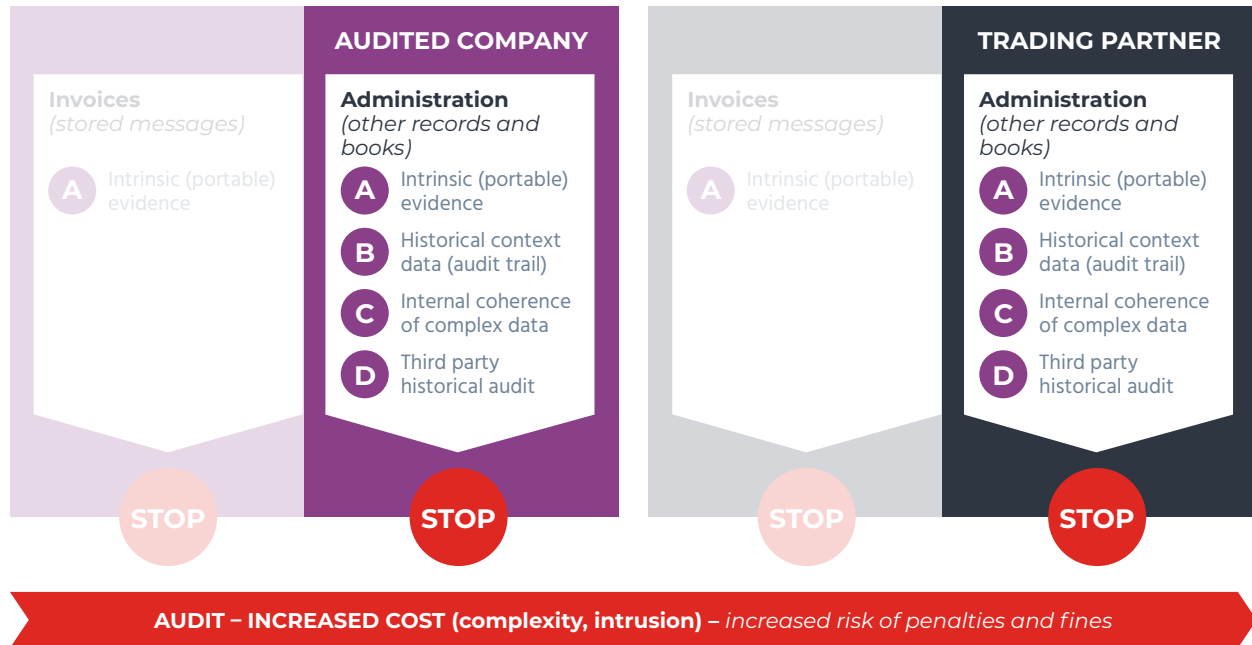
Any fraudulent modification of letters after posting – which in itself would have been a tall order due to the other features of the invoice – is highly unlikely. Since invoices are often mixed in the paper postal system rather than managed in a dedicated channel, the "attack surface" is extremely thin.

The book-keeping of most companies in this age of traditional paper invoices was often limited to a simple separate entry into a general ledger of sales and purchase invoices in chronological order. Where present, non-invoice trade documentation (including copies of paper cheques where payment was not made in cash) would be kept as separate administrative records, separately from the company's accounts, in the same relatively reliable paper form. To the extent that an invoice would not be considered sufficiently reliable, such separate records and books could be consulted; but this would not happen routinely due to the relatively high trust level of the paper invoice system.

With these inherent levels of invoice auditability, tax administrations have long been able to strike a balance between their legitimate interest in audit and businesses' need for minimum impact of VAT law enforcement.

A primer on post audit systems

The modern paper-based world — challenges for all stakeholders



With the advent of information technologies in the 1980s, businesses' administrative practices were radically transformed. Typewriters were replaced by personal computers and printers. The invoice creation process used more standardized techniques; first using word-processing software, followed later by desktop spreadsheet software which would facilitate invoice calculations. Just like the printer paper itself, the format, fonts and layout of invoices were increasingly uniform. Anyone with simple drawing software could fake or create colourful logos and produce professional-looking invoices. Invoice models would be stored on relatively unprotected PCs and could easily be reprinted and sent with for example, different bank account information. Similarly, new photocopiers could render near-identical copies of any document, including invoices. Physical invoice delivery could be industrialized through professional agreements which would increasingly involve private operators outside the public law or regulated sphere distributing a company's invoices in a more dedicated process resulting in a somewhat greater attack surface.

A tax auditor who wants to verify that a company's accounts are based on real invoices will still be pointed to the binder or box where the original tax invoice is stored. The invoice is still on paper, which may have physical qualities that can be of help in an audit process, however the intrinsic evidence value of the stored traditional invoice had been reduced from the old manual days.

Companies' accounting systems had also evolved and, especially for larger companies, quickly became subsumed into Enterprise Resource Planning (ERP) systems which would tie several core business processes into a single system that re-used data based on defined roles and controls. This development could make more information about the commercial process available to a tax auditor in a more convenient manner. While in many countries faxes may have been accepted as "original invoices" and, somewhat later, it would be allowed to scan paper documents, this world of paper "originals" and separate accounting systems still maintained a sharp legal distinction between the books and the evidence of the books.

This era and its invoice methods create various challenges for tax administrations. Neither the stored invoice message nor the accounting system by themselves provides a sufficiently reliable single point of evidence. While payment often occurs by bank transfer, this process rarely leaves reliable traces that tax auditors can easily access over longer periods of time.

This situation effectively aligns the interests of tax administrations with those businesses that wanted to eliminate the “switch to paper” between a supplier’s and a buyer’s accounting system by transmitting and storing “original invoices” electronically. The capabilities of modern information technologies to facilitate such fully fledged electronic invoices have also introduced a split in businesses’ administrative practices:

- 1. For some — very stable, high value or high volume – business relationships**, large companies took advantage of emerging computer and network technologies to rapidly introduce significant levels of automation. Already in the 1980s, some companies were performing automated B2B processes based on agreed data format definitions. For legal reasons (in some countries: prohibition of electronic invoicing, but in some cases also the requirement for human-readability), many such transactions nevertheless did not produce electronic tax invoices; rather, these exchanges were treated as for business convenience only and a paper tax invoice was exchanged and stored for tax purposes. With the emphasis on structured data, these systems have gradually been integrated with ERP systems and other automated or computer-facilitated business processes.
- 2. Many other business relationships** moved much more slowly and continued to rely on human-readable documents rather than structured data. Since these images (e.g. PDF files) were created in electronic format they could easily be exchanged electronically (e.g. via email), but such images merely served as “copy” information while the paper continued to be the formal tax invoice.

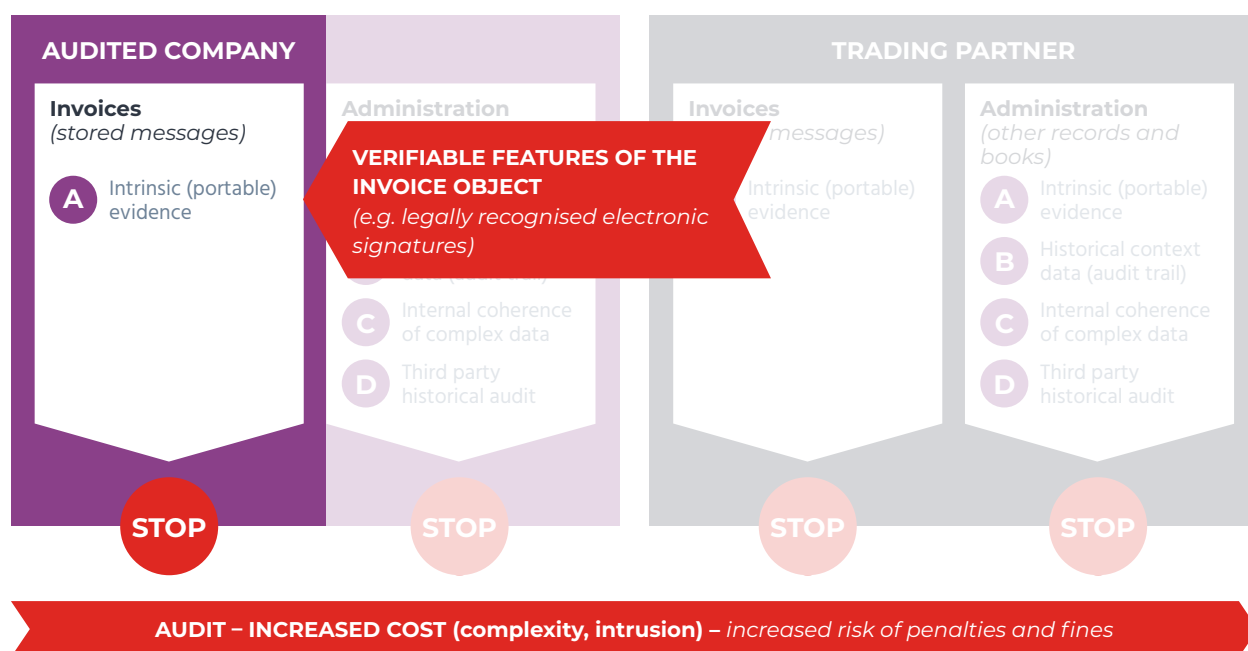
This era and its invoice methods create various challenges for tax administrations.



A primer on post audit systems

Paperless invoicing

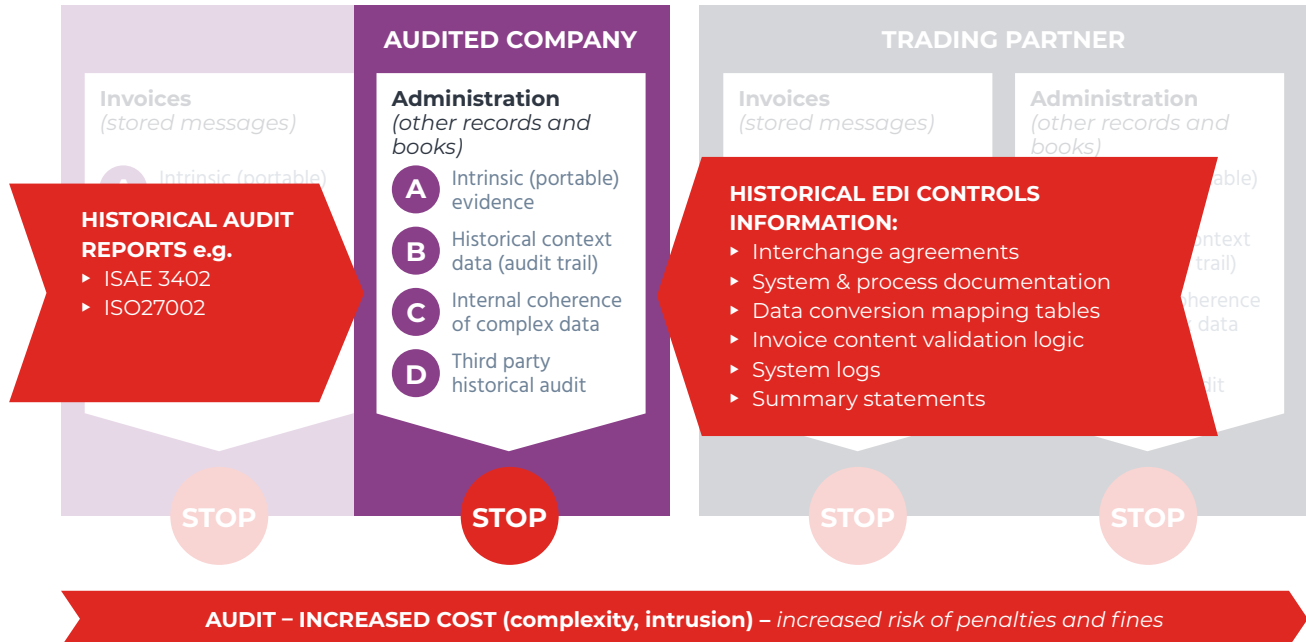
PKI-based electronic signature — dematerializing the classic evidence scenario



This method is in a sense an electronic version of the classic paper-based scenario: it focuses on the auditability of the invoice as a discrete logical object. However, the use of data-level security technologies such as PKI allow for much higher levels of verifiability and, therefore, legal certainty. By building on a legal framework for the legal recognition of electronic signatures, in certain cases the burden of proof regarding the integrity and authenticity of the invoice can be reversed. The attack surface during the invoice process is negligible because any change to the invoice can be immediately detected at any moment from formal issuance until the end of the storage period.

Since many companies whose evidence strategies are in this category will also have basic or even sophisticated ERP systems as well as other (though often not highly integrated) business process automation systems (e.g. order systems, inventory management or customer relationship management systems), tax auditability is further enhanced for cases where an auditor wants to investigate additional evidence that a supply actually took place — but this would not happen routinely due to the high trust level of the invoice system.

EDI — deriving evidence from the exchange process



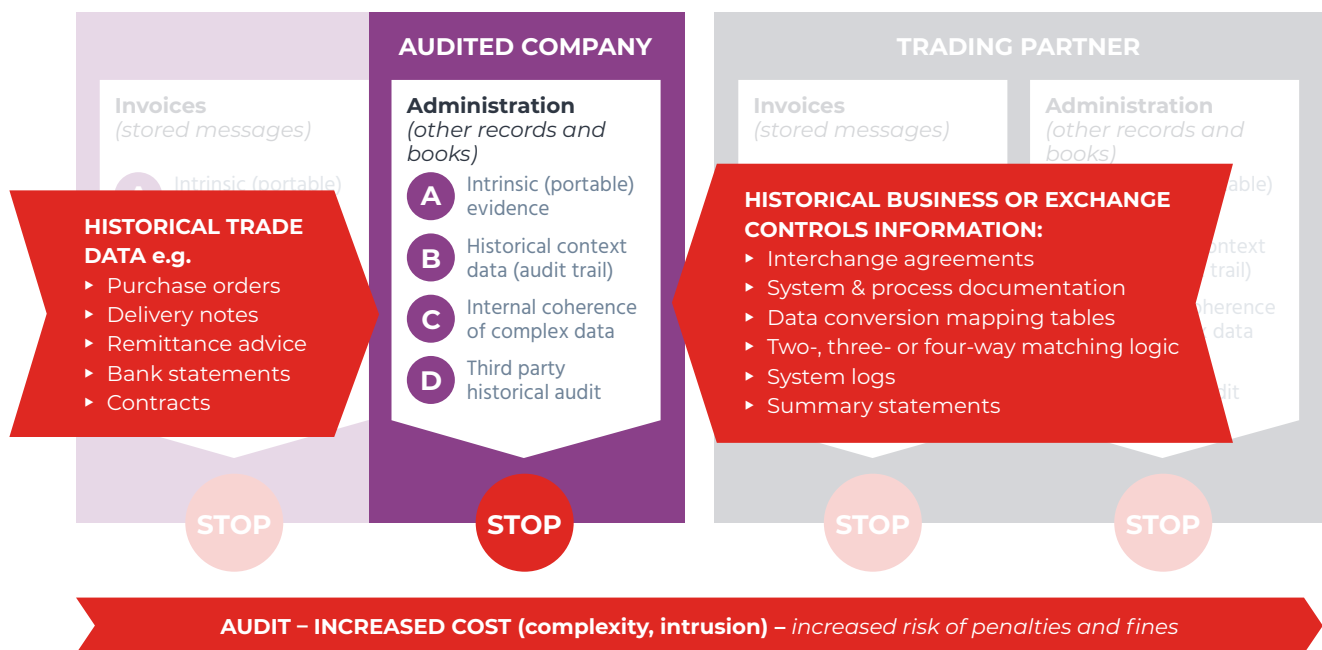
Many medium-sized and larger companies have implemented a form of integrated electronic data exchange for a portion of their transactions. In these cases, the structured message rather than the paper becomes the “original invoice”. The invoice message must still be stored as received or (in many countries) sent, however the evidence of the invoice’s integrity and authenticity does not lie in the invoice as an object but rather in security processes that the parties have agreed to in the underlying interchange agreement. Often, this includes strict rules concerning the technical format and content of the invoice, as well as robust transport-level security in the channel over which the invoice is carried. When modern transport security standards are used, the data may, in addition to being sent over an encrypted channel, also be temporarily signed during the transmission. Since in all cases invoices are again technically unprotected when they leave such a point-to-point connection, parties must generally ensure that no uncontrolled steps occur in the end-to-end invoicing process whereby data could be exposed to change. Laws permitting this “EDI” method sometimes require the archiving system to be directly populated from the EDI system to avoid such gaps and keep the attack surface to a minimum. Parties availing themselves of this option must naturally still ensure that the stored invoices can be presented in a human-readable format.

Due to the fact that the invoice object carries no distinctive features permitting its integrity and authenticity to be independently verified, this method logically also requires parties to ensure that the interchange agreement be stored. Information that is required to prove that the interchange agreement rules were followed (e.g. sent/received logs; mapping tables where invoices are converted; third party system audit reports and data validation rules) must also remain auditable during the storage period.

A primer on post audit systems

Since many companies whose processes are in this category will also have basic or even sophisticated ERP systems as well as other (often not highly integrated) business process automation systems (e.g. order systems, inventory management or customer relationship management systems), tax auditability is further enhanced for cases where an auditor wants to investigate additional evidence. Such verifications may take place relatively frequently where the evidence of a fully controlled end-to-end exchange process is not very robust.

Audit trail – the business process is the evidence

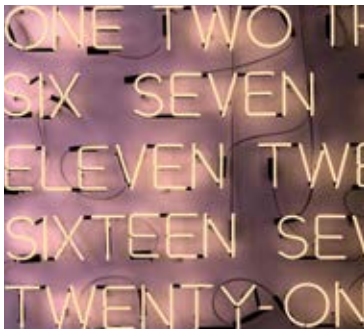


This method of paperless invoicing does not put the emphasis of the evidence in the invoice as a separate object, but rather in the integrated or transparent nature of the business processes used by the supplier and the buyer. In a sense, in this method the invoice is not just dematerialized but effectively immaterial: the invoice represents merely one step in a process whereby controls performed on the semantic level form an inextricable whole proving more than just the specific part that is the invoice. Prime examples of such processes are those where the recipient performs three- or four-way matching with purchase orders, delivery confirmations and, in extreme cases, contracts. Reliable documentation of the rules applied in this chain, together with logs of these control processes as effected, possibly supplemented with the trade data in its various iterations when going through the end-to-end process, form a strong audit trail that proves that a supply took place and was correctly accounted for. Third party audit reports can corroborate the process-based evidence. Importantly, all mandatory elements of an invoice should be sufficiently evidenced by the audit trail evidence stored for purposes of proving the integrity and authenticity of the invoice.

A PRIMER ON CONTINUOUS VAT CONTROL SYSTEMS FOCUS ON 'CLEARANCE'

A primer on continuous VAT control systems focus on 'clearance'

Continuous electronic government controls on business transactions for VAT purposes can at present be subdivided into the high-level categories of reporting and/or clearance. This section focuses on clearance, which most experts believe is what tax administrations worldwide are working towards as the dominant 'pillar' of their continuous VAT control systems.



The tax administration or state agent (e.g. an accredited or licensed operator) will typically verify the signed supplier invoice and clear it by registering it under a unique identification number in their internal platform.

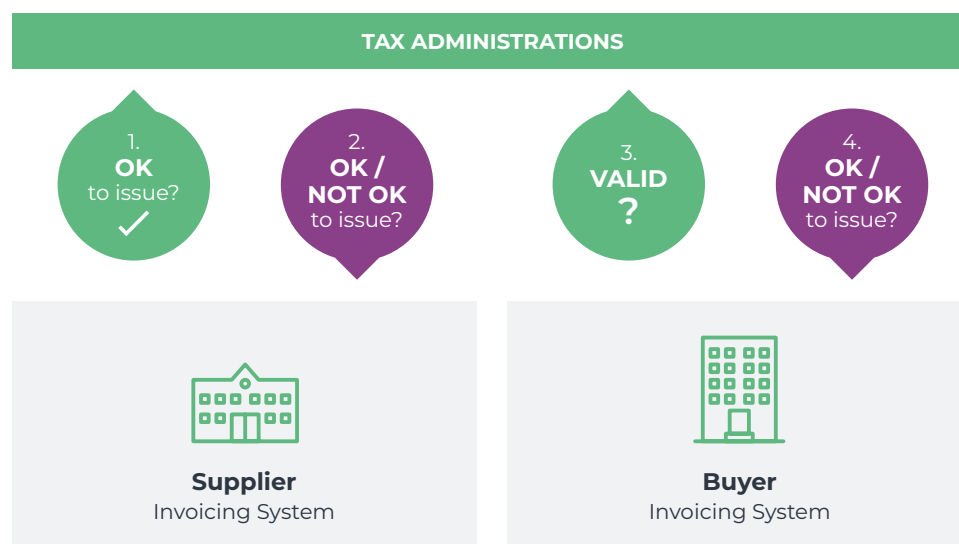
Common clearance system features

Figure 7 shows several high-level features and processes that many clearance systems have in common. It should however be noted that many variations exist on this reference model in practice; many countries with a clearance system have implemented extensions on these "standard" processes (see deep dive below):

- 1. OK TO ISSUE:** Typically the process starts with the supplier sending the invoice in a specified format to the tax administration or a state agent licensed to act on its behalf. This invoice is ordinarily signed with a secret private key corresponding to a public certificate issued to the supplier.
- 2. OK/NOT OK:** The tax administration or state agent (e.g. an accredited or licensed operator) will typically verify the signed supplier invoice and clear it by registering it under a unique identification number in their internal platform. In some countries, a proof of clearance is returned, which can be as simple as a unique transaction ID possibly with a time-stamp and in some cases, it is digitally signed by the tax administration/state agent. The proof of clearance may be detached from the invoice or added to it.
- 3. VALID:** Upon receipt of the invoice, the buyer is often obligated or encouraged to check with the tax administration or its agent that the invoice received was issued in compliance with applicable requirements. In general, the buyer usually handles integrity and authenticity control using crypto-tools, which can also be used to verify a signed proof of clearance. In other cases, the clearance check is done online at the tax administration or agent.
- 4. OK/NOT OK:** If the buyer has used an online system to perform the validation described in the previous step, the tax administration or state agent will return an OK/not OK response to the buyer.

FIGURE 7:

The basic clearance model, which was first implemented in certain Latin American countries



The first “clearance” implementations in countries like Chile, Mexico and Brazil between 2000 and 2010 were inspired by this high-level process template. Countries that have subsequently introduced similar systems, in Latin America and worldwide, have taken greater liberties with this basic process model. In this primer, we will look at the key areas of divergence among real-time and time-constrained tax control systems in existence today.

Defining a clearance “regime”

First, a detailed analysis requires us to introduce the concept of a clearance ‘regime’, in addition to clearance rules for e-invoicing at country-level.

The reason is that different electronic invoicing systems increasingly coexist within countries. The most prominent example is Brazil where goods (*NF-e*), transport (*CT-e*) and service (*NFS-e*) electronic invoicing fall under different regulations and use different technologies; in our terminology these are each a separate regime. Further, each Brazilian municipality has the freedom to define its own electronic invoicing rules for supplies of services; these are referred to as sub-regimes. Towards the end of 2013, Turkey introduced a new regime called e-Arşiv, in addition to the B2B e-Fatura regime. Interestingly, while e-Fatura is clearance- based B2B for large enterprise buyers, e-Arşiv used the post-audit method for invoices sent to smaller and medium-sized businesses and consumer buyers.

A primer on continuous VAT control systems

Differences in process and document scope

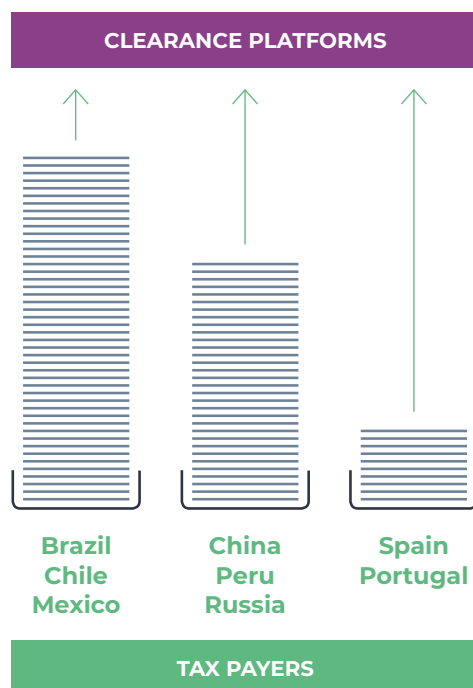
One area in which different real-time and time-constrained tax control systems vary significantly is the scope and complexity of mandatory processes and type of documents to be exchanged with the clearance platform at the tax administration or agent. While many countries still use the term “electronic invoicing”, the actual scope goes beyond just invoicing and may today cover other documents related to transactions such as credit/debit notes, delivery notes, waybills, ledgers, and accounting documents. Some countries no longer use the term “e-invoice”. In Russia, the framework is called electronic document exchange. In Chile the term Electronic Fiscal Document is used.

We notice a general trend in clearance countries that tax administrations, in their efforts to gain more control over VAT revenue sources and prevent tax evasion, are extending their mandates to cover more fiscal documents. These documents are required to include detailed business transaction data and must be issued following workflows that don’t necessarily match the corresponding business document contents and associated workflows for B2B purposes, resulting in two different parallel processes that are forced to co-exist. This situation is exacerbated by another trend whereby some tax administrations are demanding accreditation and the local presence of service providers who want to offer outsourced clearance services. This can be challenging for international B2B operators without a local presence in each country for which they support invoicing processes.

Another aspect of clearance regimes is the availability of reverse operations or corrective processes. Explicit regulated invoice cancellation allows the buyer or supplier to reverse the clearance, resulting in a no-VAT operation on the condition that VAT has not yet been paid to the tax administration. Other clearance regimes have regulated debit/credit notes as part of the electronic invoicing framework.

FIGURE 8:

Countries have introduced requirements for clearance-related processes and specific business documents to varying degrees





Clearance and broader continuous VAT control methods

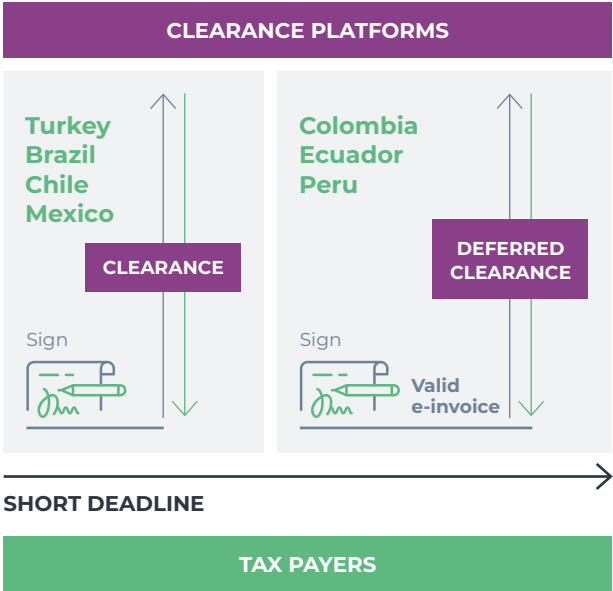
The first clearance implementations were focused on real-time controls, whereby the supplier had the obligation to both sign the invoice and get clearance in order to consider the e-invoice as a legally valid document that could be issued to the buyer. The deadline time period between signing by the supplier and getting clearance has become shorter over the past years, from days to hours; in practice today these events occur simultaneously, in real-time, for most e-invoice volumes.

Figure 9 shows examples from current implementations in relation to the moment when an e-invoice can be considered legally valid.

New clearance countries have however started diverging on precisely when invoices and/or other transaction data must be sent to the clearance point, allowing taxpayers to sign e-invoices and deliver them to the buyers without any clearance, but giving a grace period: a longer deadline to get clearance. Thus, clearance legislation developed the concept that a signed e-invoice was conditionally valid for the amount of time permitted to submit the e-invoice for clearance. Such a more relaxed clearance approach allows the supplier to deliver the e-invoice to the buyer even though clearance may not have been obtained. This approach is “time-constrained clearance”.



FIGURE 9: Overview of real-time and deferred clearance, as well as invoice transaction reporting, in relation to the moment that an invoice can be issued to the buyer



A primer on continuous VAT control systems



Clearance or Reporting:

More than only terminology

These variations concerning the point in time when business data must be sent to the clearance point are at the basis of a debate on appropriate terminology: is a system really based on “clearance” or is it a natural evolution of pre-existing “reporting” requirements? This question is about more than terminology: the difference between a pure clearance approach and online reporting can have significant consequences for the ease with which businesses can comply with tax requirements. Our definition of each of these concepts follows.

- ▶ **Reporting:** the periodic, near-real time or real-time electronic submission of business data to tax administration platforms without dependency on the tax administration’s approval for those data and their continued business processing to be valid from a tax perspective.
- ▶ **Clearance:** real-time or near-real-time controls of business transaction data submitted electronically to tax administration platforms whose approval is required for those data and their continued business processing to be valid from a tax perspective.

By way of background, there are essentially two ways in which tax administrations can approach controls in the information economy: (1) tell them to keep track of key aspects of their transactions and ask them to disclose recorded data upon request (pull, i.e. audit) and/or through periodic reporting (push, i.e. tax declarations); or (2) obtain data from transactions “on the fly” by chronologically recording and potentially “clearing” specific subsequent steps towards completion of the transaction. Both methods allow tax administrations to leverage the Internet and associated modern technologies to obtain data much more quickly than before. And since the costs of exchange data over the Internet have decreased so much, both methods nowadays often require taxable persons to send the tax administration one set of invoice data at a time. It’s understandable, therefore, that the non-initiated observer views these methods as all more or less the same. One essential difference between the two however becomes evident when looking at the data that is transferred from the taxable person to the tax administration:

I. The invoice + additional audit data from the taxpayer’s system in one file:

In the case of online audit or reporting (method 1), which is an up-and-coming method in Europe, different file formats can be required. While some countries (e.g. Spain, Hungary) define their own xml standard for these purposes, others (e.g. Portugal, Poland) are fully or partially based on the SAF-T specification issued by the OECD. A SAF-T file contains invoice data as well as various other data about the underlying supply from the ERP system and/or other systems used by the reporting taxable person.

II. Just the invoice (or other discrete trading document):

In the case of “clearance” (method 2), the taxable persons are required to send only the invoice and/or other business data that relates to the transaction step which the tax administration wishes to receive, record and approve. An example from the standards world (although not broadly adopted yet), that has been designed to support this process for invoices is the ISO20022 Invoice Tax Report message.

The confusion between these two control measures increasingly has significant real-life consequences. Why?

- A.** While invoices are readily available as part of any B2B (and B2G) transaction process, businesses need to delve a lot deeper into their internal IT systems to be able to gather the data that is needed to create a full SAF-T report. Many businesses struggle with this task; sometimes because it's problematic to rearrange IT systems and processes because companies increasingly face severe restrictions in available IT resources in this era of cloud and outsourcing; but more often, especially for smaller companies, because such data is simply not available.
- B.** Under method (1), a tax administration needs to trust the trading partners to keep a transaction data ledger in a reliable manner. Under method (2), the tax administration is in a position to gradually build up such a transaction ledger itself from authenticated supplier and buyer connection points. It would therefore seem that method (2) reduces tax administrations' dependency on the honesty of taxpayers.
- C.** Most importantly, an argument that requires some understanding of current dynamics in the "enterprise software" market: the supply side of this market has over the past decade or two evolved towards distinct vendor categories for business-internal processes, such as ERP systems, and transaction management processes, such as procure-to-pay or order-to-cash systems. Since these are at present separate vendor categories, it makes a big difference if tax requirements for online communication of invoice and other tax-relevant transaction data use method 1 or 2. Invoice data permanently travels back and forth across these different systems within and between companies, from source data for example in sales and logistics systems to records in the ERP and discrete trading documents/ data in transaction management systems.

Therefore, when the law requires invoices to be communicated to the tax administration in real-time or near-time through an online method, companies may be unsure if such requirement should be met while invoice data is being prepared or recorded in the ERP or upstream internal systems, or during the business-to-business data exchange process. It's quite natural that companies are unsure about this because tax administrations often do not produce clear guidance on this matter and laws use generic terminology, for instance referring to "the invoice" without specifying whether that means "invoice data" in the ERP or "original invoice" in the exchange system. So, what happens is that companies put pressure on vendors across these different functional categories, which can lead to both dangerous compliance process duplication and non-compliance because the vendor in question simply isn't in the right position in the end-to-end data processing chain to get to the right data or perform the required interaction with the tax administration. This may sound academic, but in real life we're seeing transaction management service providers withdraw support from some countries because they cannot be certain if they have to meet SAF-T-based reporting requirements; which among other things means that suppliers in such countries may no longer be able to invoice their customers abroad.



A primer on continuous VAT control systems



Variation concerning the “clearance point”

Countries have also come up with many ways of dealing with the operational responsibility for the regulated “clearance” process.

The end-to-end clearance process can be summarized into 4 main steps: (1) signing the e-invoice; (2) transmission to the tax administration; (3) tax administration clearance; and (4) complementary fiscal operations. Below we provide more detail on how regimes allow delegation of these steps to third parties.

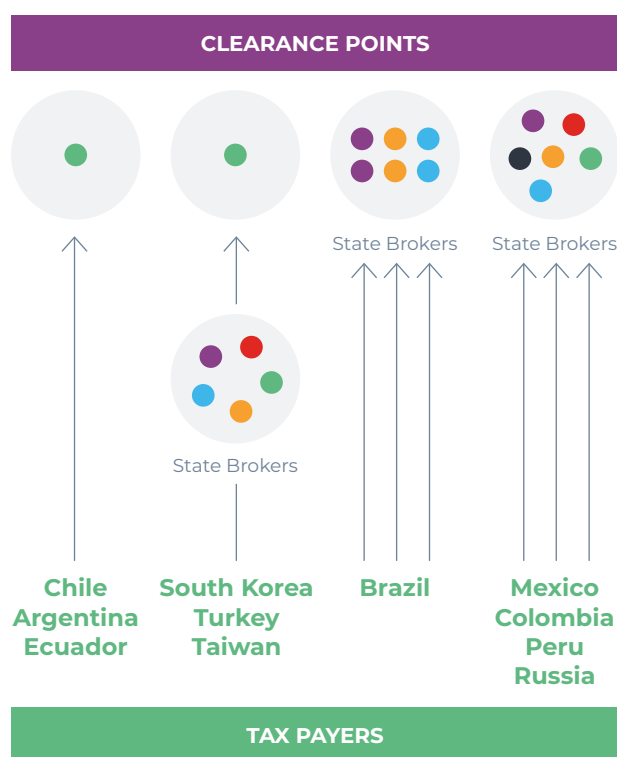
Chile and Turkey allow delegation of signing to any taxpayer registered in the country, who can sign with its own certificate. Peru, Colombia and Turkey explicitly allow and promote delegation of signing and clearance transmission to accredited service providers. Most Brazilian regimes and Chile allow any country legal entity holding a certificate to handle the transmission to the tax administration. Peru, Colombia, Turkey, South Korea and Taiwan have regulated the delegation of transmission of the invoice to the tax administration to accredited service providers (state agents). As for tax administration authorization of invoices, in most clearance regimes the tax administration is directly responsible for central clearance. Exceptions are Russia, Mexico and recently Peru and Colombia, where the tax administrations have delegated the clearance to service providers that have to pass strict governmental accreditation before becoming an authorized clearance state agent. Finally, once an invoice has been cleared, there could be additional operations like correction or cancellation. In Mexico, while the clearance process is delegated, cancellation is centralized at the tax administration. Common to all delegated models is that the state agents can (and often do) also act as Value Added Service providers offering complementary services outside the regulated functions, e.g. archiving.

An additional dimension regarding technology is transmission homogeneity, i.e. whether the same technology can be used to transmit e-invoice to clearance points. We focus only on transmission, as the formats are standardized in all regimes, whereas transmission is not. Brazil is homogeneous on the state-level, i.e. the same technology is used by all states for a given regime, reducing development/integration costs for companies operating in different states. However, at the municipality level, in general, it is heterogeneous as there is no single standard. Some Brazilian cities are adopting the so-called ABRASF model in the pursuit of homogeneity. Mexico, Russia, Turkey, Taiwan and South Korea are heterogeneous – a company that has selected an accredited service provider can’t necessarily re-use the same technology to connect to another one. Peru forces state-agents to offer one transmission standard and also allows proprietary ones, so that taxpayers are free to select. Due to the lack of homogeneity among Russian state agents, interoperability has not been possible. Therefore, the Russian tax administration regulated a centralized state-agent to which all other state-agents would be connected in order to ensure e-invoice exchange between suppliers and buyers, but the success has been limited due to interconnection fees.

A more technical aspect is the proof of clearance returned by the tax administration. This could be a convenient artefact that simplifies the process of validating the e-invoice. A good practice is shown by Mexico and Russia, where a returned proof of clearance is cryptographically protected with authenticity and integrity that can be verified without contacting the tax administration – a process that can be easily automated. In other regimes, no proof of clearance is returned, or the returned proof is not protected; in these regimes the tax administration must be contacted to validate the e-invoice.

After or in conjunction with clearance, the invoice must be delivered to the buyer. In some regimes, such responsibility falls under the TA or state agent, like in Brazil NFS-e, Russia and Turkey. Other regimes put that responsibility on the supplier – this is the case in e.g. Brazil NF-e/CT-e, Chile, Ecuador, Mexico, Peru, Colombia, South Korea and Taiwan. Interestingly, most regimes use email for delivery to an address that has been provided by the company during the registration process. Even though email systems have evolved to become highly reliable, such e-invoices can get lost.

FIGURE 10: Different legal and operational implementation models for clearance processes



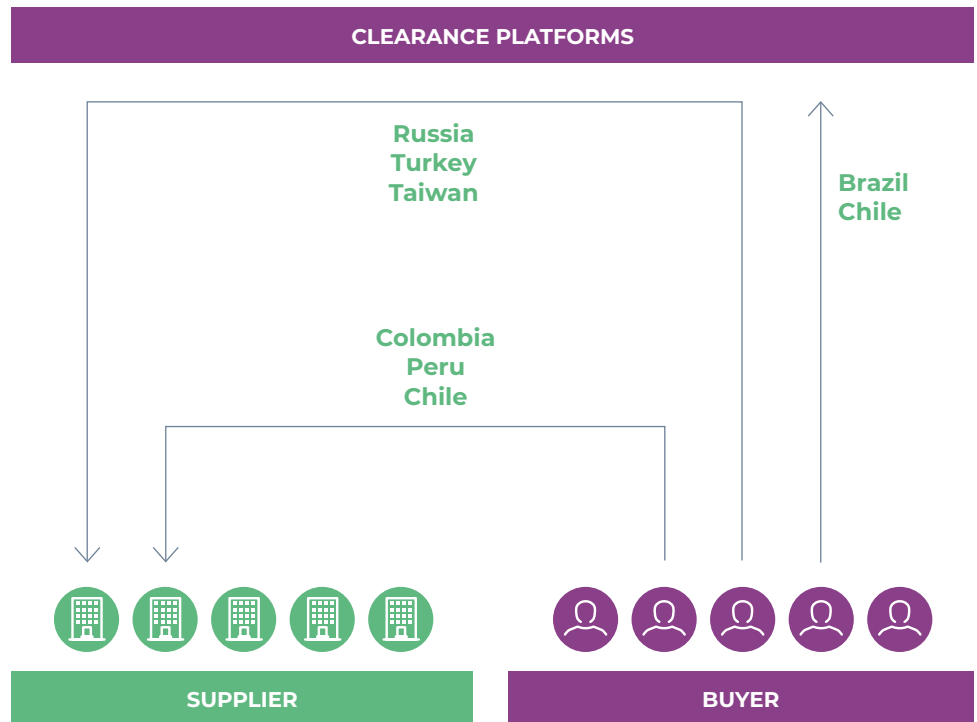
Diverse “buyer responses”

While in many cases the buyer has the possibility or obligation to verify that an invoice has been cleared, most clearance regimes don’t include any invoice status data originating from the buyer in the actual clearance process. Russia, Chile and Taiwan are examples of the few regimes that leverage technology to require such involvement from the buyer. Some countries offer both options depending on the type of e-invoice. In Turkey, basic e-invoices are supplier-side only whereas commercial invoices allow a buyer to accept or reject the invoice during a limited period of time on receipt. In Brazil, goods invoices in the oil industry have buyer involvement beyond clearance validation; this approach now appears to be spreading to other new clearance countries. In Peru, the buyer must reject cleared invoices in certain situations. Colombia forces buyers to explicitly accept or reject an e-invoice. Mexico is about to introduce a mechanism that requires buyer permission before the supplier can cancel an e-invoice.

A primer on continuous VAT control systems

FIGURE 11:

Different types of compulsory 'buyer responses': from buyer to supplier direct (lower right-to-left arrow); from buyer to supplier through the clearance point (higher right-to-left arrow); to the clearance point only.



Many B2B transactions will over time have the government clearance platform as a “third trading partner” and the exchanges with the clearance platform will be based on law, not standards.

Compliance challenges for business: clearance theory and practice

The variations on the principal “clearance” theme that are outlined above are a driver of major cost and complexity. Sovos TrustWeaver’s experts believe that the trend towards diversity isn’t about to be reversed in favour of a standards-based approach among tax administrations, or even slow down, any time soon. We anticipate that new variations of approaches to transaction-oriented tax controls on invoices and other documents will continue to emerge over the next 5–10 years. It is inevitable that the platforms governments adopt to receive and process electronic invoices from suppliers in public procurement transactions will be adapted for specific types of real-time control. In Italy, for example, the existing B2G platform was repurposed to become the foundation for the general e-invoicing clearance mandate.

Convergence of clearance and B2B exchange standards

Many B2B transactions will over time have the government clearance platform as a “third trading partner” and the exchanges with the clearance platform will be based on law, not standards. This will modify how we develop B2B data and process standards because the cost of maintaining two sets of completely different normalized exchange methods with trading partners in the same transaction will be prohibitive.

B2B process replication will drive convergence based on legal concepts

Governments show a tendency of mandating clearance platform processes and document types that are close-but-not-identical-to “the real thing” in B2B integration as we know it. For example, the law may require a goods receipt note with a specific content and in a specific format to be exchanged with the clearance platform at a specific point in the transaction. The content, form, timing and general purpose of that document may be very different from what parties exchange as a goods received note (GRN) in their existing B2B process. This duplication means that classic B2B process cycles will need to be re-engineered to meet the tax-driven demands of multiple clearance platforms depending on which law applies.

Content and form compliance will also converge, driving changes in the compliance automation market

Clearance platform processes and the massive computing power that governments can afford will lead to unprecedented levels of business transaction transparency. Among other things, this will erase previous distinctions between “form” and “content” compliance: if the government has access to every line item of every invoice (and in the future, likely: order, transport document, salary statement) there’s no hiding of the very widespread “smallish” VAT or other indirect tax errors or shortcuts in individual transactions. Businesses will need to ensure much more granular tax determination decision-making earlier in both their and their trading partners’ processes, and this will result in “tax engine” functionality being applied at the same time as automated decisions concerning compliance with transaction-level form requirements (integrity and authenticity, file format, clearance platform exchange orchestration, clearance platform authentication).

Other document and transaction types will quickly be included

There are many examples of other documents and transaction types that will also be subject to real-time control requirements – just a few examples:

- ▶ In Mexico, salary statements must be cleared just like invoices.
- ▶ In a number of Latin American countries, certain information about the financing of an invoice (e.g. through factoring) must be registered in the clearance platform.
- ▶ Secure cash registers for point-of-sale consumer transactions are already used in many countries worldwide. Increasingly, these machines will be designed to automatically send individual transaction information to the Tax Administration. For example, in Russia, medium and large retailers must use state-certified IoT-based cash desks that automatically report online to the Federal Tax Administration all transactions, approximately 70 million per day.

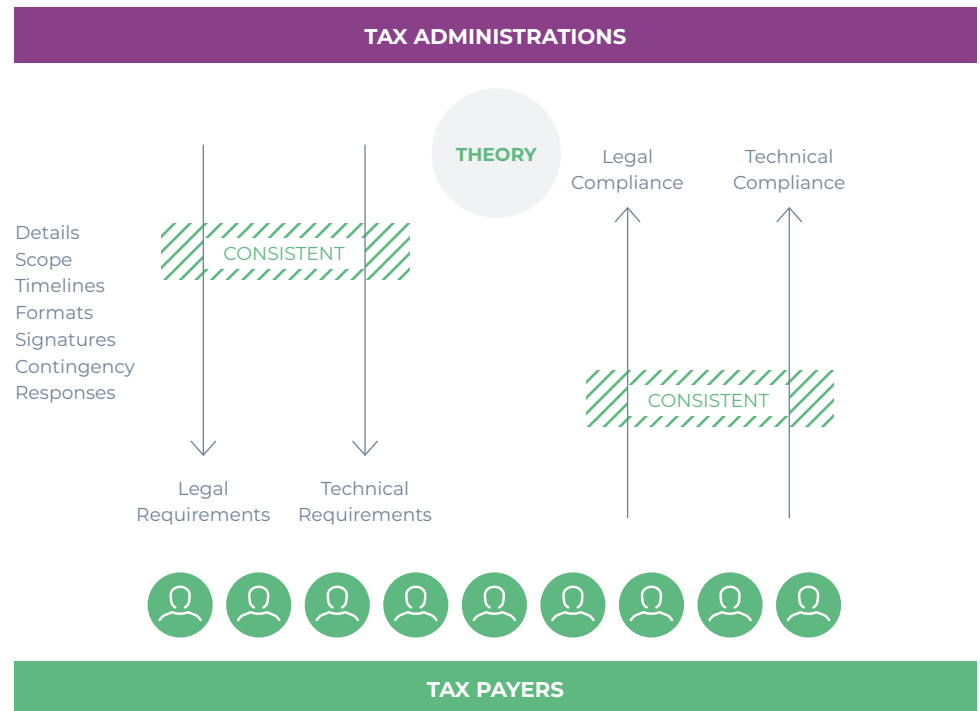
Diversity among clearance requirements is a challenge for companies but it is not the biggest challenge in this context. Much more difficult to handle are the way-too-common small and large disconnects between theory and practice. As shown in Figure 12 below, clearance requirements are typically set out on a high functional level in tax law. The technical requirements and associated implementation specifications are normally provided in secondary legislation or tax guidance documents. Theoretically, the latter should be fully consistent with and build on the former, creating a general-to-specific normative and implementation framework that companies can use to ensure compliance. When any changes are made, this consistency should naturally be maintained.

Diversity among clearance requirements is a challenge for companies but it is not the biggest challenge in this context.

A primer on continuous VAT control systems

FIGURE 12:

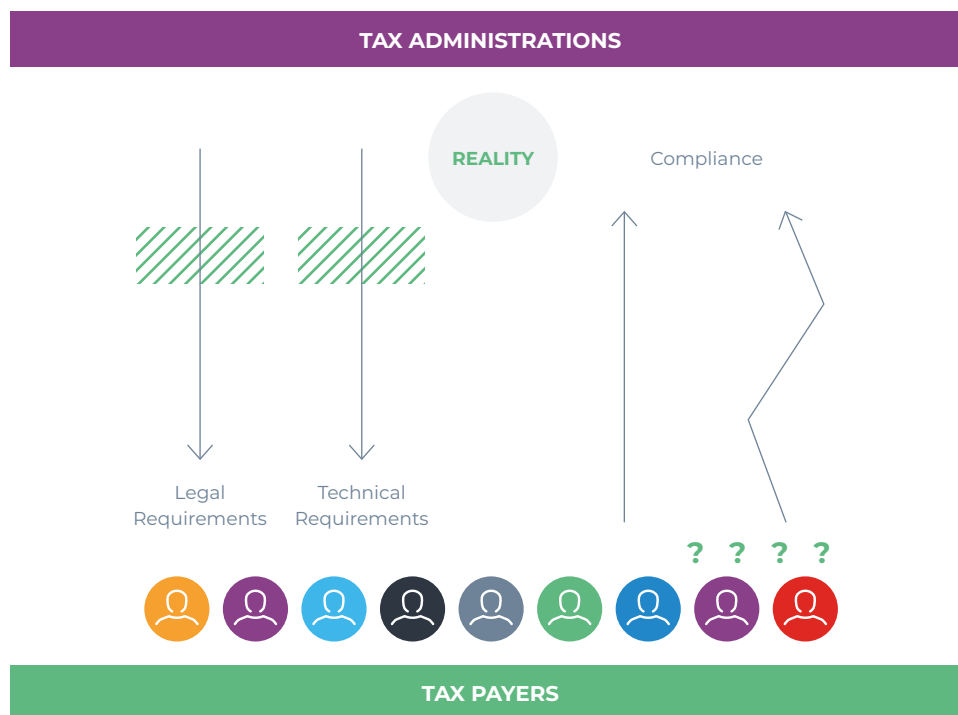
Theoretically, legal and technical requirements would be 100% consistent between them so that taxable persons can easily ensure compliance in their business processes.



The reality of implementing support for clearance requirements is unfortunately often quite different. In many countries, weaknesses occur in the link between legal and technical requirements set out in formal documentation. This is often due to immature organizational and change management controls between technical and legal teams within tax administrations that are tasked with different facets of the end-to-end requirement package. To add insult to injury, these flaws in the consistency between technical and legal requirements are sometimes exacerbated due to inconsistent implementation of these requirements in the technical interfaces exposed by the clearance point. As mentioned, these discrepancies most frequently occur when changes are made to clearance requirements after their initial introduction.

FIGURE 13:

In practice, legal and technical requirements from tax administrations often differ, which leads to implementation challenges for businesses and service providers

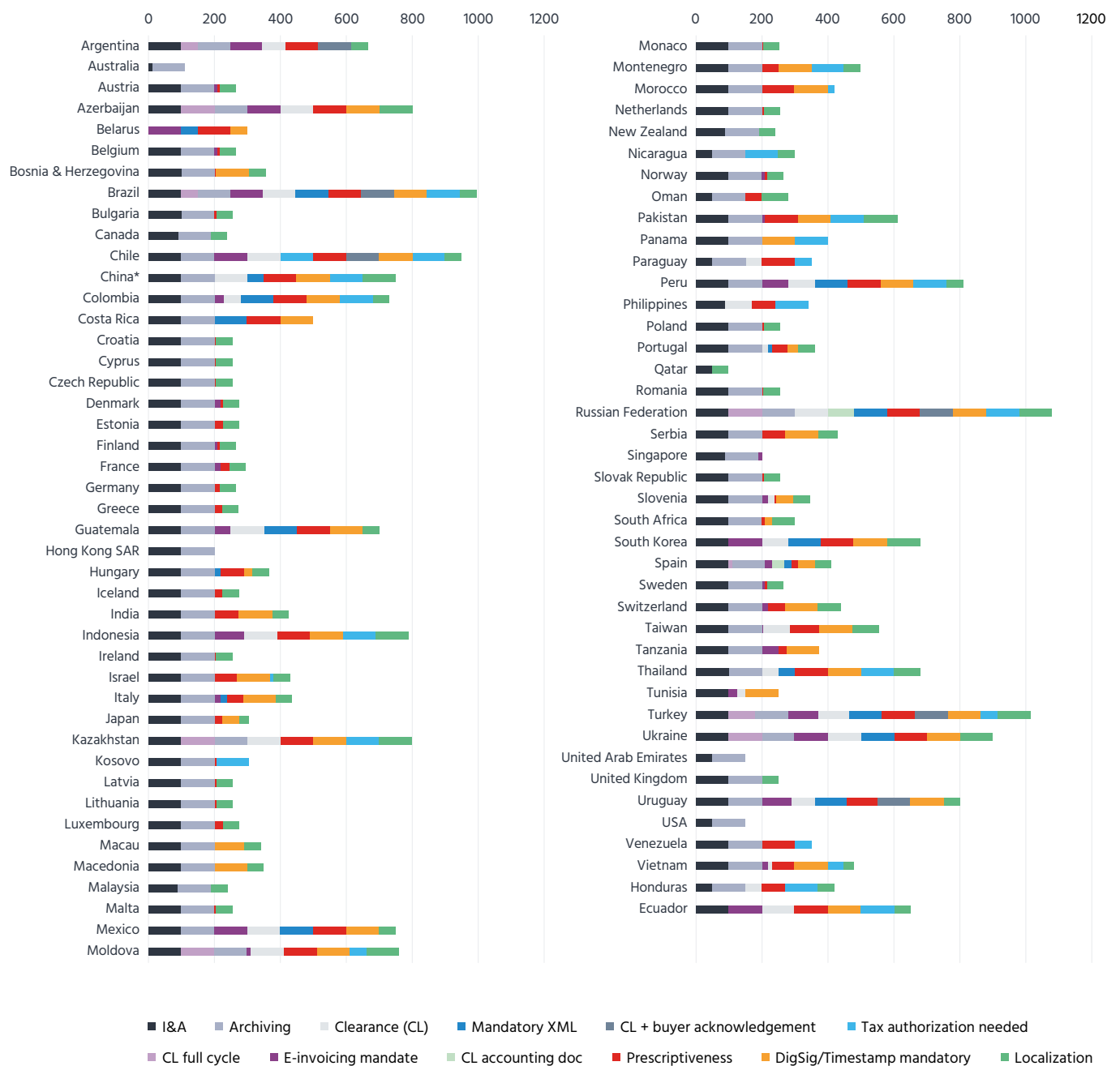


GRAND NURT AND ANALYSIS

Granular analysis

This section describes a number of features based on which e-invoicing regulatory regimes can be compared with one another. The below graphs provide a schematic overview of the principal legal requirement categories and features for many of the countries profiled in this white paper.

Following we provide a brief description of the analysis methodology used for rating in each of the categories.



Granular analysis



I&A (Integrity and Authenticity required)

A value of 100 is allocated where a country requires businesses to ensure and be able to demonstrate (a) the integrity of all mandatory fields of an invoice and (b) the authenticity of its origin (the identity of the supplier or, where allowed, the third party acting on its behalf) during the legal lifetime of an invoice. A value between 0 and 100 is allocated where such requirements are generally assumed but not explicit in the law, or if there is a formal policy within the tax administration not to seek such evidence.

Clearance

A value of 100 is allocated if an electronic invoice must be sent to the tax administration or its licensed/accredited agent for authorization prior to issuance as an original tax invoice. A value between 0 and 100 is allocated if clearance is required within a relatively short time before instead of after the transaction, or in cases of less intrusive clearance processes e.g. requirements for a code to be fetched from an online tax administration service and integrated into a tax invoice instead of the whole invoice being sent to the clearance service.

Clearance + buyer acknowledgement

A value of 100 is allocated if the clearance process is legally only considered complete if the buyer has sent the tax administration or its licensed/accredited agent a confirmation that it has received and validated the invoice.

Full cycle clearance

A value of 100 is allocated in case the tax administration or its licensed/accredited agent not only clears the invoice but also serves as a transport mechanism or access point for the buyer to obtain the cleared invoice.

Accounting document compliance

A value of 100 is allocated in case the clearance process for invoices also applies to certain other formalized B2B/accounting documents if sent electronically.

Archiving

A value of 100 is allocated in case there is a requirement for an electronic invoice to be archived for subsequent tax administration auditing purposes. A value between 0 and 100 is allocated where archiving requirements exist but the period is very short (less than a year), or if such archiving is viewed as more of a formality which the tax administration does not typically pay attention to.

Mandatory xml

A value of 100 is allocated when a country specifies an xml-based invoice schema as the exclusive format for an original electronic B2B invoice.

Tax authorization needed

A value of 100 is allocated where a country requires that the tax administration, Finance Ministry or other part of the public administration (including law enforcement) explicitly authorizes a business before it starts sending and/or receiving invoices electronically. A value between 0 and 100 is given if such authorization requirement is conditional, implicit, recommended or customary.

E-invoicing mandate

A value of 100 is allocated in cases where all businesses must by law use invoices in electronic format. A value between 0 and 100 is given if such a mandate does not address all businesses or if the mandate is not all-encompassing in terms of for example, types of invoices or business processes.

Prescriptiveness

A value of 100 is allocated where a country leaves no choice to businesses as to how to achieve e-invoicing compliance. A value of 0 means complete freedom of choice as to the method used by businesses to comply. A value between 0 and 100 is given if the applicable legal regime falls in between these two extremes.

Digital signature/ timestamp mandatory

A value of 100 is allocated when a country has a hard requirement for an electronic invoice to be digitally signed and/or time-stamped using a Public Key Infrastructure based time-stamp at some point during its legal life time. A value between 0 and 100 is allocated where such signature or time-stamp requirements are not absolute and can under certain conditions be replaced with technologies and/or processes that provide an equivalent result.

Localization

A value of 100 is allocated when a country's requirements for electronic invoicing are exclusively or to a large extent intertwined with requirements for processes, service provider relationships, hardware and/or archiving to remain within its national boundaries. A value between 0 and 100 is allocated where such localization requirements exist but are conditional or narrower.









ELECTRONIC INVOICING IN THE EUROPEAN UNION





Electronic invoicing in the European Union

Directive 2010/45: the regime in effect since 2013

Electronic invoicing for VAT purposes was introduced in European Union (EU) legislation as early as 2001. In 2010 the EU adopted a Directive 2010/45 which modified the then current VAT Directive 2006/112 in relation to invoicing [REF 1]. The Directive 2010/45 has been in force since 2013 but is currently under review, and among other things aimed to create “equal treatment” between paper and electronic invoices. The base requirement (unchanged from the previous Directive) of ensuring integrity and authenticity now explicitly applies to invoices in any form, instead of only to electronic invoices as was the case under the 2001 Directive.

There is no such thing as meaningful business compliance with an EU Directive since a Directive must be transposed into national legislation in order to have full legal effect. For electronic invoicing, what matters are the local requirements applied by local tax authorities to meet the objectives set by a Directive. These requirements in local VAT laws are influenced by adjacent legal areas, jurisprudence, law enforcement practices, and industry self-regulation.

Legal definitions and requirements, for example the concepts “reliable audit trail between an invoice and a supply” and “EDI” (see descriptions below), may differ among EU Member States. More importantly, the legal and business definitions of these concepts are often not identical.

Scope of application: all invoices?

In principle, the invoicing provisions of the VAT Directive apply to all business-to-business invoices issued in the EU, including VAT-exempted transactions. Within the EU there are two types of VAT exemptions: ¹ zero-rated transactions, formally called transactions exempt with the right to deduct input VAT; and ² fully-exempted transactions applicable to certain charities, as well as postal and other services. In both cases, an invoice must, in principle, be issued, usually with a reference to the legal basis for the exemption applied. However, Member States have a right to release taxable persons from the obligation of issuing an invoice, in which case there are no invoice-specific requirements¹.

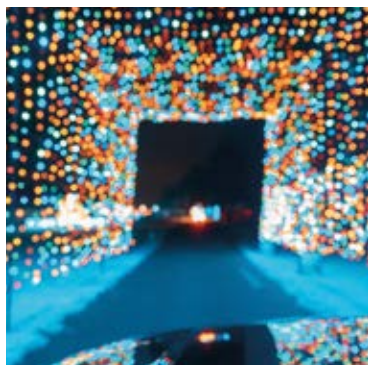
VAT-exempted transactions for which parties are released from the obligation of issuing an invoice are very rare in mainstream business, as are other exemptions for Value Added Taxable invoices. Since issuing an invoice is not prohibited in either case, most companies would rather not create a system exception for these cases. Only organizations that fall under such releases for a large portion of their invoices might consider taking a system exception into account to avoid creating an invoice altogether.

Even if an invoice is issued in relation to VAT-exempted transactions, the Directive’s requirements formally apply in full². The reason for this broad scope of application is that most tax authorities will generally want to be able to assess whether the exemption is justifiably applied and references the correct legal provision.

¹ Member states also have the right to impose the obligation to issue invoices for transactions not covered by the scope of application of the VAT Directive (e.g. transactions with consumers). In that case, however, the VAT Directive also gives them the right not to impose its security requirements.

² Some tax authorities have informally stated that they do not consider the requirements for domestic invoices to apply to zero-rated cross-border invoices. Such statements are not enforceable unless they are explicitly stated in a formal tax authority communication.

Electronic invoicing in the European Union



I&A Freedom of evidence — the principal rule

Directive 2010/45 states that each trading partner (not: the trading partners together) determines how to meet the requirement of invoice integrity and authenticity. This language clearly departs from previous formulations which created interdependency between a supplier and a buyer. This *de jure* separation however does not mean that there is no *de facto* interdependency: in many cases parties need to cooperate and align their compliance methods to ensure a consistent process. Not all Member States have unequivocally transposed this freedom of evidence rule.

I&A Business controls-based reliable audit trail (BCAT)

The principle of “equal treatment” that has been a major impetus to Directive 2010/45 is often associated with a newly introduced method for ensuring authenticity and integrity: “business controls establishing a reliable audit trail between an invoice and a supply” (BCAT). The policy argument behind this language was that this type of integrity and authenticity evidence was already permitted for paper invoices... so why would it not also be available for electronic invoices?

The 2010 Directive in its recitals talks about proving that a supply actually took place; some commentators have claimed that proving an actual supply relieves a company from having to prove integrity and authenticity of an invoice. This is a misunderstanding. The recitals merely explain why invoice integrity and authenticity are important requirements: without these features, a tax administration cannot reasonably ascertain that an actual supply took place.

Few Member States have gone beyond high-level descriptions of what they will consider as sufficient BCAT evidence. This is logical, because the intent of this new option is that it encompasses many different types of business processes. Section 3.4 of the CEN “E-invoicing Compliance Guidelines” [REF 2] provides at present the most authoritative descriptions of different types of BCAT evidence that can be used in different sales and purchase scenarios. To summarize, enterprises relying on BCAT evidence for demonstrating integrity and authenticity of invoices will generally archive the following components:

1. Internal business records generated during the invoicing processes, i.e. contracts, sales/purchase order, goods receipt/dispatch notes;
2. External documents received during the invoicing processes, i.e. purchase orders, goods receipt notes, dispatch notes, bank statements;
3. Historic master data;
4. Evidence of controls to ensure data quality.

Whatever evidence that needs to be stored must be available during the full storage period, in some cases in electronic form if the invoice is electronic.

I&A Qualified electronic signature/seal option

As one example of a method to ensure integrity and authenticity of electronic (not paper) invoices, Directive 2010/45 mentions Qualified Electronic Signatures (EU defined standard-based PKI-signatures). Previous versions of the Directive also referenced Advanced Electronic Signatures (which are less strictly defined PKI-signatures). From 1 July 2016, when the EU Electronic Signature Directive 1999/93 was repealed and replaced by the EU Regulation 910/2014 (the so-called eIDAS Regulation) [REF 3], the reference to Qualified Electronic Signatures in Article 233 of the VAT Directive should be read differently.

Since the eIDAS Regulation became fully applicable, all legislation that refers to or requires electronic signatures should be re-interpreted to either continue to read “signatures” where such legislation obviously intended to point to the electronic equivalent of a handwritten signature or read “seals” where the objective was rather to ensure integrity and authenticity only. Hence, the option to use a Qualified Electronic Signature in the VAT Directive should from 1 July 2016 be read as at least to include a “Qualified Electronic Seal”.

Validation is an important aspect of electronic signatures/seals. Recipients of signed/sealed electronic invoices are sometimes explicitly required by law to validate the signature/seal; however, in most cases such validation requirements are implicit since both parties have to guarantee integrity and authenticity. Verification of the certificate corresponding to the private key is an indispensable step in signature validation. From 1 July 2016, businesses and citizens may use a Qualified Signature/Seal Validation Service to reliably verify qualified signatures and seals and receive documentary evidence of such verification in a fully automated manner.

eIDAS regulation article 35(2):

“A qualified electronic seal shall enjoy the presumption of integrity of the data and of correctness of the origin of that data to which the qualified electronic seal is linked.”

eIDAS aims to ensure a more harmonized regulatory framework on electronic identification schemes and trust services in the EU. Different from a Directive, a Regulation applies directly and does not have to be transposed into national law. Among other things, the eIDAS Regulation introduces the concept of electronic “seals” which are specifically created for the purpose of processes like electronic invoicing, where digital signature technology is used to ensure integrity and authenticity of data without the aim to achieve equivalence with handwritten signatures. A seal certificate can be issued only to legal entities, whereas a signature certificate will be used for physical persons. The concept of Trust Service Provider in the eIDAS Regulation extends beyond issuers of certificates and time-stamping authorities: commercial providers of signing and sealing services (whether creation or validation), as well as providers of electronic registered delivery and signature/seal/certificate preservation services are also subject to stringent requirements.

The “qualified” version of such services, which enjoys full cross-border recognition within the EU Member States, requires vendors to undergo an ex ante assessment and accreditation process, which concludes with the vendor being included on a Trusted List managed by a Supervisory Body.



Electronic invoicing in the European Union

Whichever definition of EDI is used, the concept of EDI is never defined as a security technology.

I&A Secure EDI option

As another example of a method to ensure integrity and authenticity for electronic (not paper) invoices, Directive 2010/45 refers to electronic data interchange (EDI) as defined in Article 2 of Annex 1 to Commission Recommendation 1994/820/EC of 19 October 1994 relating to the legal aspects of electronic data interchange. This Commission Recommendation defines EDI as follows: "The electronic transfer, from computer to computer, of commercial and administrative data using an agreed standard to structure an EDI message." What trading partners consider as EDI will not necessarily be viewed as EDI by tax authorities: the obvious intent of the European Commission Recommendation is to describe what may be more plainly called business-to-business (B2B) automation. While the dividing line may be somewhat artificial, it is clear that systems which are not highly automated, including invoices that are not machine-readable, will generally not be viewed as EDI. Based on the first criterion, technologies such as Web EDI (where one transacting partner manually keys in, supplements and/or approves invoice data) and manual procedures used in self-billing setups will not be eligible for the EDI compliance option in many countries, even if the trading partners involved consider the transactions in question to be part of their EDI system.

Whichever definition of EDI is used, the concept of EDI is never defined as a security technology. In modern industry definitions, security is not a necessary component of EDI at all: trading partners may very well have discontinued the Value Added Network (VAN) they originally used for their EDI system and instead, run the same transactions over the unprotected internet while continuing to refer to the system as EDI.

Importantly, the fact that a system can legally qualify as EDI (which is a definitional matter) says nothing about the guarantee it provides for electronic invoice integrity and authenticity (which is a compliance matter). For the purposes of ensuring integrity and authenticity of electronic invoices, a compliant EDI process must be based on an inter-change agreement (also called trading

partner agreement or EDI agreement) providing "for the use of procedures guaranteeing the authenticity of the origin and integrity of the data." What these procedures should be is not well defined in most Member States.

However, tax authorities in a number of countries have expressed their intention to use the EU-defined model EDI agreement (EU Recommendation 1994/820/EC) as the basis for their assessment. Significantly, article 6 of this model EDI agreement states:

6.1 The parties undertake to implement and maintain security procedures and measures in order to ensure the protection of EDI messages against the risks of unauthorized access, alteration, delay, destruction or loss.

6.2. Security procedures and measures include the verification of origin, the verification of integrity, the non-repudiation of origin and receipt, and the confidentiality of EDI messages.

Security procedures and measures for the verification of origin and the verification of integrity, in order to identify the sender of any EDI message and to ascertain that any EDI message received is complete and has not been corrupted, are mandatory for any EDI message.

Traditional EDI systems based on an end-to-end VAN may, depending on circumstances, be considered to meet these requirements. However, systems using the internet need to replicate such extensive security features. If the system owners do not want to use electronic signatures, (which would make the system eligible under the VAT Directive's e-signature compliance option) such security will ordinarily be ensured through point-to-point security mechanisms.

Due to inherent limitations of point-to-point security (the most notable being that it does not offer durable auditability), systems under the EDI compliance option will generally need to include additional security procedures such as frequent logs and audits in order to guarantee integrity and authenticity. In addition, in the absence of verifiable security on the data level, the archive and processing system will often need to include additional integrity-enhancing features.

Some EU Member States impose additional requirements in relation to the EDI method.



Choosing a cost-effective compliance method for EU invoicing

In summary, there are now four ways to meet the requirement for integrity and authenticity evidence:

A&I

INVOICE TYPE	Any evidence (i.e. the principal 'freedom of evidence' rule of Directive 2010/45)	Business controls establishing a reliable audit trail between an invoice and a supply 'BCAT')*	Qualified electronic signatures / seals*	EDI based on an agreement consistent with EC Recommendation 94/820*
Electronic invoices	Yes	Yes (some Member States have issued guidance but always leave the ultimate assessment of adequacy to the taxable person)	Yes (reversal of evidence burden i.e. the tax auditor has to prove that the integrity and authenticity of the invoice are unreliable)	Yes
Paper invoices	Yes (major example: archiving the paper invoice)		No	No

* Since freedom of evidence is the principal rule of Directive 2010/45, these three methods are non-exhaustive examples of ways to ensure integrity and authenticity.

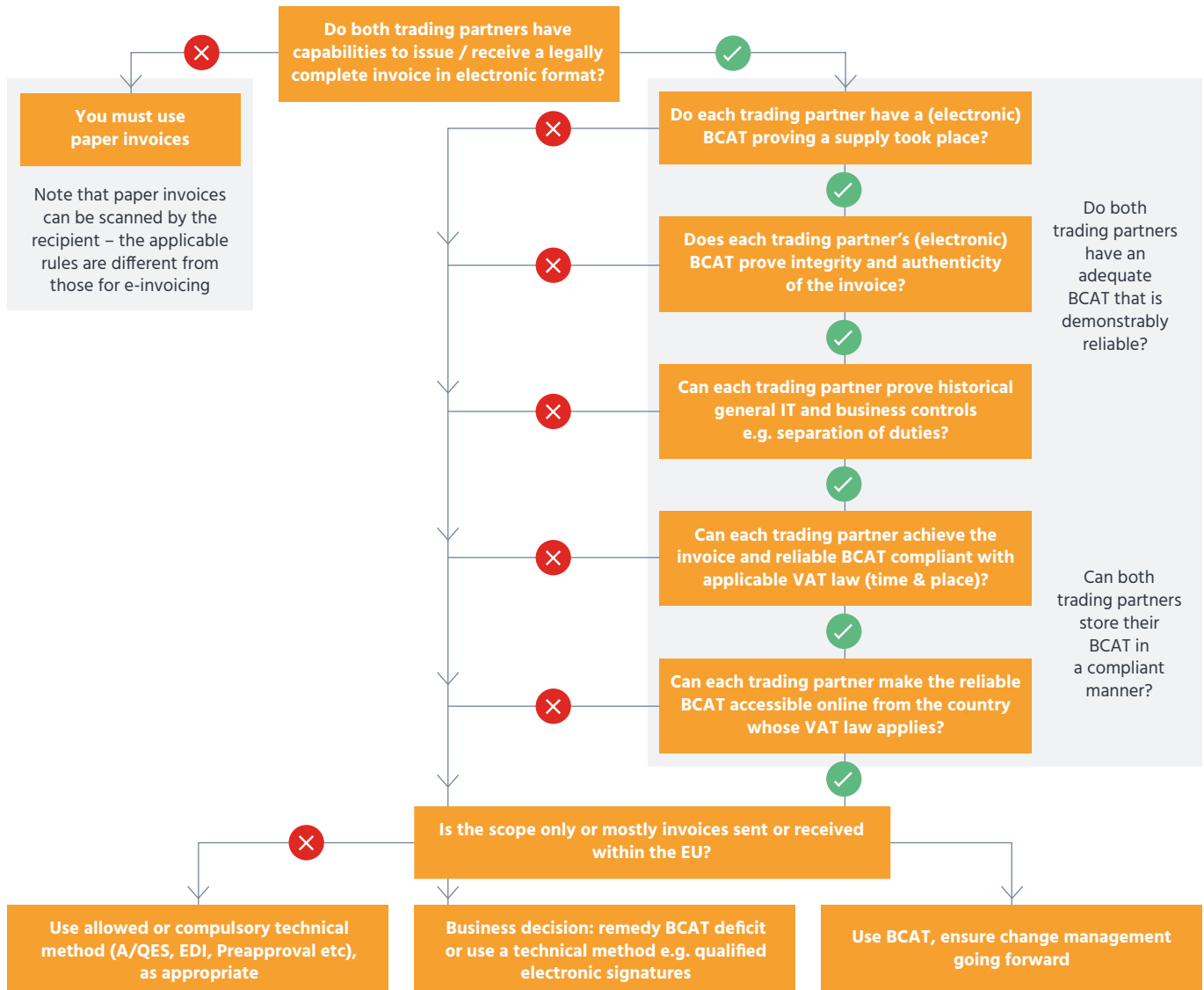
To assess their compliance with EU VAT requirements, businesses should ask themselves two simple questions for any invoice:

1. Can I prove integrity and authenticity without any additional controls or evidence?
2. If not, what is my "evidence deficit" and how can I cost-effectively remedy it?

What is cost-effective varies greatly depending on circumstances. Every company and trading relationship is different. Figure 15 opposite presents a diagram that can help with these choices.

Electronic invoicing in the European Union

FIGURE 14: Compliance choice diagram for companies with major trading relationships in the EU (BCAT = business controls-based audit trail)



Notes:

1. "Proving a supply took place" is not enough for compliance, but, logically, a requirement for businesses that want to avail themselves of the option to use "business controls establishing a reliable audit trail between an invoice and a supply" for proving invoice integrity and authenticity. This evidence must in many EU Member States be in electronic form.
2. In addition to proving a supply, the BCAT must actually prove integrity and authenticity of the invoice. In other words, a BCAT can prove a supply but not contain sufficient evidence of integrity and authenticity of all tax-relevant data of an invoice. The BCAT must therefore, in addition to proving a supply and being in electronic form, contain sufficient information to corroborate the integrity and authenticity of all tax-relevant data.

3. The word "reliable" in the definition "business controls establishing a reliable audit trail between an invoice and a supply" means that the BCAT must, in addition to being complete, also consist of trustworthy components. Data cannot be used as evidence of the reliability of an invoice if it is not demonstrably reliable itself. For most self-generated BCAT evidence, this means that internal control measures at the time of the supply must be proven. For externally generated BCAT evidence, access to that third party's portal could be sufficient. Such evidence may also be reliably electronically signed, or be presented together with historical transport and archive security data.
4. EU Member States are free to have their own technical, security and other archiving requirements, and different mandatory archiving periods apply throughout the EU.

Invoices sent or received under the VAT law of an EU Member State must also in most cases be physically stored in either the country whose law applies or another Member State, optionally subject to prior notification to the territorially competent tax administration.

5. The electronic invoice must be accessible online from the country whose VAT law applies to that invoice; this is a legal rule in case of archiving abroad, and a practical consequence of the applicable rules in all other cases (it is hard to imagine how a tax auditor can audit an electronic invoice that is not accessible through an electronic interface). Due to the fact that the majority of EU Member States have opted to require the evidence guaranteeing integrity and authenticity in electronic form when the invoice is electronic, the above equally applies to the relevant BCAT.

Transposition of VAT directive 2010/45

The table below shows how the Member States have implemented, and sometimes gone beyond, the EU VAT Directive in national legislation.

✓ ✗	Austria	Belgium	Bulgaria	Croatia	Cyprus	Czech Republic	Denmark	Estonia	Finland	France	Germany	Greece	Hungary	Ireland	Italy	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden	United Kingdom
I&A freedom of evidence transposed																												
BCAT mentioned																												
EDI mentioned																												
QES mentioned																												
If e-invoice, I&A must be electronic																			Upon request									
Other options/ additional requirements	1					2				3		4	5	6	7		8		9			10	11			12	13	

Notes:

- Certain Advanced Electronic Signatures and invoices delivered through a "Business Service Portal" and PEPPOL are also mentioned as methods for ensuring the integrity and authenticity (I&A). Evidence of ensuring I&A has to be stored in electronic form in case of EDI and e-signatures but not in case of the BCAT.
- One of the examples for ensuring I&A is an electronic "mark", based on a qualified system certificate issued by an accredited provider of electronic services (e-marks can be issued to legal persons).
- Summary statement in EDI required, other detailed EDI requirements exist. France also permits a specific French electronic signature, the so-called *Référentiel général de sécurité* (RGS).
- Advanced Electronic Signatures and marking by the use of special safe appliances are also examples of means ensuring I&A.
- Invoicing software used for the creation of invoices must be notified to the tax authority and it must perform certain functions, including real time reporting of invoice data for domestic transactions. Exemplary methods for meeting the archiving requirements are listed in the legislation.
- The text of the law implies that the BCAT option is obligatory and only the guidance note explains that the methods which were used under the previous regime are also accepted.
- A digital signature based on a qualified certificate and a cryptographic keys system (using the locally approved hardware) is also mentioned as a method for ensuring the I&A of e-invoices. Italy has obtained a derogation to relevant provisions in the VAT Directive in order to implement a mandatory Clearance e-invoicing regime. The e-invoicing orchestration runs through a state- operated platform, *Sistema di Interscambio* (SDI); any domestic invoices that are sent or received outside of this platform are not considered as fiscally valid.
- Advanced Electronic Signatures is also an example of means ensuring the I&A of e-invoices.
- The Tax Commissioner may require that the data guaranteeing the I&A of invoices shall also be stored by electronic means.
- Advanced Electronic Signatures is also an example of means ensuring the I&A of e-invoices. Software producing e-invoice data must be certified by the tax authorities (with some exceptions). Taxable persons established in Portugal have to communicate certain invoice data to the tax authority.
- Local service providers of e-archive services to Romanian customers have to obtain an authorization for an e-archive administrator and for data base from the Ministry of Information Society.
- A "recognized signature" (an Advanced Electronic Signature based on a qualified certificate without hardware implemented SSCD) is also mentioned as a method for ensuring the I&A of e-invoices. Prior consultation with the Spanish tax authority is required in case of using other methods than those explicitly mentioned in the legislation. Taxpayers must report invoice data to the tax authority in near real time through a platform known as *Suministro Inmediato de Información* (SII). Additionally, it is mandatory for subcontractors of the public administration to use a specific invoicing platform, known as *FACeB2B*, to issue invoices to the main contractor for the supplies of goods and services rendered within the context of a public procurement contract.
- No examples for ensuring the I&A are given in the VAT law but are communicated in a Public Notice.

Electronic invoicing in the European Union



Trend towards mandatory B2G e-invoicing

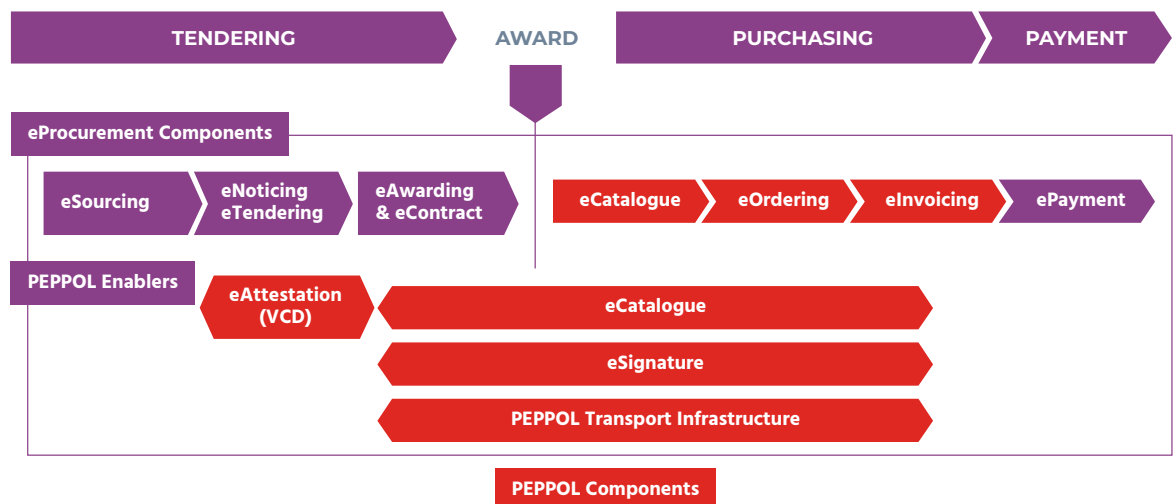
The EU has in recent years focused a lot of its attention in relation to e-invoicing on invoices for public procurement transactions – both in pursuit of process optimization in the government sector but also to provide a boost to the adoption of electronic invoicing between businesses. A comprehensive package of policy and more practical measures is being introduced by the EU Commission, whereby all EU Member States' public administrations will need to be able to receive e-invoices at least for public procurement transactions by November 2018 or by April 2019 at the latest; with the possibility to extend one extra year for sub-central authorities (through Directive 2014/55/EU on electronic invoicing in public procurement). At the same time several EU Member States are also pushing ahead with mandatory e-invoicing for B2G. Examples of countries that have for some years required suppliers to invoice electronically to the public sector are Spain, Italy and Slovenia, which have created technical platforms and associated specifications which simply mandate Qualified Electronic Signatures and specific transmission methods for suppliers that invoice the public sector. Several countries take the opportunity to mandate B2G electronic invoicing when implementing the Directive 2014/55/EU; examples are Belgium, Sweden and Portugal with mandates being introduced during 2019.

Directive 2014/55/EU furthermore lays a foundation for technical standardization of the content of B2G e-invoices – both semantically and in terms of specific supporting syntaxes. The public administration and certain other public bodies in EU Member States will have – by April 2019 the former and by April 2020 the latter – to accept electronic invoices that conform to the new standard (European standard on electronic invoicing) created by the European Committee for Standardization (CEN).

The evolution towards interoperable EU-wide electronic public procurement is also expected to be aided by the increasing uptake of PEPPOL in Member States. The PEPPOL project was initiated in 2008 and focused on a way for diverse national e-procurement systems in the EU Member States to interconnect, thereby supporting the notion that the public sector should be able to select and easily conduct business with vendors from any Member State. PEPPOL is essentially a stack of specifications that ensure this interoperable exchange of electronic procurement documents through, among other things, the concept of service providers acting as "access points". Since 2012, PEPPOL is run by the non-profit association OpenPEPPOL.

FIGURE 15:

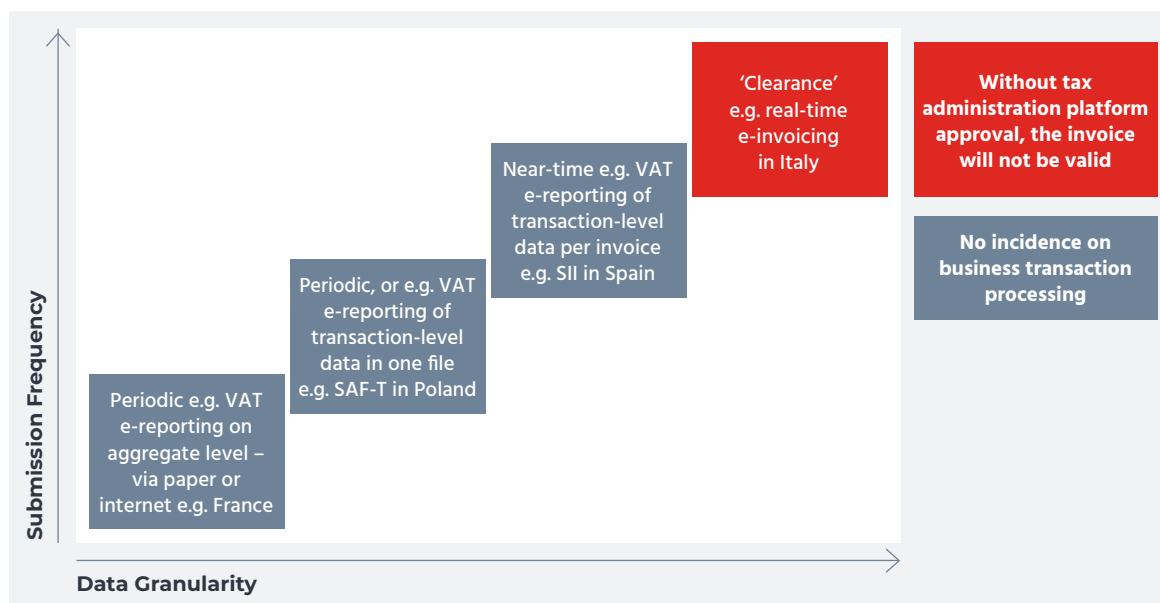
A schematic overview of a typical e-procurement process, with the core PEPPOL elements marked in red (source: openPEPPOL website)



Europe's (r)evolution towards real-time and near-real-time VAT controls

FIGURE 16:

Levels of transactional VAT controls



Countries in the EU have in the past few years increasingly turned towards the real-time and near-real-time controls that have already helped many countries in Latin America narrow their VAT gaps. EU countries with significant VAT gaps – such as Portugal, Spain, Italy, and Hungary – have implemented their own variations of such controls. However, while many European countries can be expected to start working towards regimes with various types of continuous electronic VAT controls of business transactions, their individual journeys to this goal are likely to be quite different. Italy, for example, is migrating rapidly to a fully real-time 'clearance' of e-invoices by repurposing its online service for the management of public procurement messages. In parallel, Hungary is extending the concept of electronic VAT returns but has for the moment chosen a regime based on near-real-time electronic reporting based on individual invoices.

As the results of these first countries implementing continuous VAT controls become known – and if they are as encouraging as those published in Latin American countries – it is realistic to expect that more countries in Europe will follow their example. Such broader adoption of continuous VAT controls is also likely to impact other countries outside of Europe that have historically been inspired by European legislation e.g. Australia, South Africa, the 'Maghreb' countries in North Africa and Israel etc.

Electronic invoicing in the European Union

Also in Europe, different forms of continuous VAT controls will often coexist (at least for the foreseeable future) to form an end-to-end audit package allowing the tax administration to match data about transactions from different real-time and near-real-time sources.

FIGURE 17: How different forms of reporting are associated with categories of supplies and invoices in Italy

	Invoice Origin Country	eInvoicing Method	Transactional VAT Reports	Aggregate VAT Returns	Invoice Destination Country	
SUPPLIER SUPPLIER	Domestic	Via SDI Clearance	Spesometro Report Sunsets	► Simplified A&Q VAT Returns		BUYER BUYER
	Intra-Community Outbound	Via SDI Clearance or Qualified Signature	Estermometro	► M&Q Intrastat Reports ► Simplified A&Q VAT Returns		
	Intra-Community Inbound	Options of the VAT Directive apply w/ Adjusted Buyer Invoice	Estermometro	► M&Q Intrastat Reports ► Simplified A&Q VAT Returns		
	Export Invoice	Options of the VAT Directive apply	Estermometro	► Simplified A&Q VAT Returns		
	Import Invoice	Via Validated Supplier Signature where present		► Simplified A&Q VAT Returns		

Penalty for non-compliance with invoicing and accounting obligations in EU countries

EU Member States may freely decide what penalties to impose for non-compliance with VAT or accounting law requirements, since the VAT Directive does not regulate this area. Non-compliance with invoicing requirements may lead to severe consequences in some EU Member States. Consequences for non-compliance with invoicing rules, including invoice content, I&A and storage rules, range from penalties per incorrect invoice, penalties in bulk, penalties depending on the VAT amount or total amount of the invoice, through individual responsibility of the company's personnel (e.g. members of the board or financial officers), to criminal law implications. A couple of EU Member States lack precise regulation on this matter and instead the consequences for non-compliance are imposed by the tax authority or administrative courts after their assessment of the case at hand. To give a couple of examples: Cyprus imposes a fee of 85 EUR per each incorrectly issued invoice; in Spain incorrect invoices are subject to a penalty of 1% of the total amount of all invoices wrongly issued; in Poland issuing an invoice not in accordance with all legal requirements may amount to a bulk penalty of 219,000 EUR at most; in Slovenia a penalty ranging between 2,000 EUR and 125,000 EUR may be imposed in case a legal person fails to issue an invoice or fails to provide the authenticity of origin, integrity of content or legibility of an invoice during the prescribed storage period.

Austria (post audit)

Any means for ensuring integrity and authenticity of electronic invoices are accepted in Austria.

- ▶ Such examples include eIDAS conformant Qualified Electronic Signatures, Seals or “certain Advanced Electronic Signatures” when based on a certificate verifiable via the Signaturprüfdienst (signature audit/ verification service) of the RTR or comparable foreign body. “Proper EDI” with an interchange agreement based on the European Commission 1994 Recommendation and business controls-based audit trail linking an invoice and a supply are also among the alternatives listed in the legislation. Invoices delivered via the Federal Service Portal (*Unternehmensserviceportal – USP*) and PEPPOL are also mentioned as methods for ensuring integrity and authenticity.
- ▶ Evidence of ensuring integrity and authenticity has to be stored in electronic form when relying on EDI and electronic signatures for compliance purposes, but not when relying on the business control option.
- ▶ Electronic invoices may generally be stored abroad without notification, provided that the tax authority is given online access.
- ▶ For B2G invoices all Austrian suppliers (and foreign suppliers that have technical means) are obliged to send electronic invoices. The latest amendment of the act on public procurement, currently in preparation, will transpose the Directive 2014/55/EU into national legislation.

Belgium (post audit)

- ▶ Any means for ensuring integrity and authenticity of electronic invoices are accepted in Belgium. Integrity and authenticity can be demonstrated for example by means of a business controls-based audit trail linking an invoice and a supply, by Advanced Electronic Signatures or by “proper EDI” with an interchange agreement based on the European Commission 1994 Recommendation.
- ▶ Electronic invoices may be stored abroad without notification, provided that the tax authority is given online access.
- ▶ Belgium is in the process of transposing the Directive 2014/55/EU into national legislation.

Bulgaria (post audit)

- ▶ Any means for ensuring integrity and authenticity of electronic invoices are accepted in Bulgaria. Qualified Electronic Signature, “proper EDI” with an interchange agreement based on the European Commission 1994 Recommendation and business controls ensuring an audit trail linking an invoice and a supply are listed as examples.
- ▶ When using a service provider, an agreement for the outsourcing of issuance of electronic invoices is required whereby certain content is recommended for this agreement (e.g. describing the process for issuance of electronic invoices).
- ▶ It is explicitly required to store all tax documents issued or received by a taxable person in their original form.
- ▶ Electronic invoices may be stored abroad without notification, provided that the tax authority is given online access.
- ▶ There is no bill transposing Directive 2014/55/EU available to this date in Bulgaria. There is no common platform available for B2G electronic invoicing.

Croatia (post audit)

- ▶ Any means for ensuring integrity and authenticity of electronic invoices are accepted in Croatia. Qualified Electronic Signature, “proper EDI” with an interchange agreement based on the European Commission 1994 Recommendation and business controls ensuring a reliable audit trail linking an invoice and a supply are examples of accepted means for ensuring authenticity and integrity of the invoice.
- ▶ Electronic invoices may be stored abroad, provided that the tax authority is notified and given online access.
- ▶ B2G electronic invoicing is expected to be mandatory for suppliers to the public authorities as of January 2019. The preparation of the national regulation transposing the Directive 2014/55/EU is underway.

Cyprus (post audit)

- ▶ Any means for ensuring integrity and authenticity of electronic invoices are accepted in Cyprus. Qualified Electronic Signature, “proper EDI” with an interchange agreement based on the European Commission 1994 Recommendation and business controls ensuring a reliable audit trail linking an invoice and a supply are examples of means ensuring authenticity and integrity of the invoice.
- ▶ It is explicitly stated in the legislation that if an invoice is in electronic form, data ensuring the authenticity and integrity of the invoice must be stored by electronic means.
- ▶ Storage abroad is allowed only in the EU and in countries with which Cyprus has a relevant tax assistance treaty, subject to prior notification and online access.
- ▶ A B2G e-invoicing mandate that will cover both public authorities and their suppliers is expected. Directive 2014/55/EU will be transposed in the Cyprus VAT legislation via a bill that has been prepared and pending approval from the House of Representatives. A full implementation of the new framework is expected in April 2019. A centralized e-invoicing platform is currently being developed.



Electronic invoicing in the European Union

Czech republic (post audit)

- ▶ The Czech Republic accepts business controls ensuring a reliable audit trail linking an invoice and a supply, Qualified Electronic Signature (certificates issued to a natural person), and Qualified Electronic Mark/Seal (certificate issued to a legal person). "Proper EDI" with an interchange agreement based on the European Commission 1994 Recommendation is also allowed.
- ▶ When using a service provider, it is required to explicitly authorize the outsourcing of invoice issuance. If the authorization is in electronic form it must be signed with a Qualified Electronic Signature.
- ▶ Time-stamping is not legally required but widely adopted.
- ▶ Evidence of ensuring authenticity and integrity of electronic invoices has to be stored in electronic form.
- ▶ Electronic invoices may be stored abroad, provided that the tax authority is notified and given online access.
- ▶ Directive 2014/55/EU has been transposed in the Czech Republic since October 2016, through the Public Procurement law. A nationwide platform, *Národní elektronický nástroj* (NEN), covering the entire e-procurement lifecycle, at all levels of public administration, is in place.

Denmark (post audit)

- ▶ Any means for ensuring integrity and authenticity of electronic invoices are accepted in Denmark. The integrity and authenticity of electronic invoices may be achieved, for example, by means of a business controls-based audit trail linking an invoice and a supply.
- ▶ A description of the electronic invoicing and electronic storage system has to be stored either electronically or in hard copy.
- ▶ Electronic invoices may be stored abroad in any of the Nordic countries (as there is an instrument of mutual tax assistance with these countries) or in any EU Member State provided that the invoice can be printed without adjustment from the ERP system in Denmark, and subject to prior notification.
- ▶ B2G electronic invoicing is mandatory.

Estonia (post audit)

- ▶ Any means for ensuring integrity and authenticity of electronic invoices are accepted in Estonia.
- ▶ A major reform to the Accounting Act came into force on 1 January, 2017, aimed at boosting electronic invoicing adoption in the country. The amendment included a requirement to use machine-processable formats in all B2B electronic invoicing, provided the costs to implement such feature are not commercially disproportionate for the taxpayer. The Act incorporates the concept of "handler of machine-processable source documents" (i.e. e-invoices), which includes service providers offering certain electronic invoicing functionalities (e.g. conversion of invoice data into a machine processable e-invoice).
- ▶ Electronic invoices may be stored abroad provided they can be submitted at the request of the tax authority within a reasonable period of time.
- ▶ Electronic invoicing is mandatory for the public sector, but for the time being remains optional for private taxpayers; paper invoicing in B2G transactions is therefore still possible. The relevant authorities are however looking into ways to make e-invoicing mandatory also for suppliers to the government sector.



Finland (post audit)

- Integrity and authenticity of the invoice needs to be ensured, with business controls-based audit trail linking an invoice and a supply being mentioned as an example of how to meet this requirement. In practice, any electronic invoicing process that meets reasonable business requirements is accepted due to the Finnish tax authority's ability to use means extraneous to the processes of taxable persons to monitor transaction flows.
- Requirements for storage exist, and the use of WORM devices has often been recommended to ensure robustness.
- Electronic invoices may be stored abroad in other EU countries, provided that the tax authority is given online access. Storage outside the EU is possible upon meeting additional conditions.
- B2G electronic invoicing is mandatory in the limited scope of invoices issued to certain Finnish government agencies and institutions.

France (post audit)

- To ensure electronic invoice integrity and authenticity, France accepts Qualified Electronic Signature, "Référentiel Général de Sécurité" (RGS, a specific French electronic signature which is not qualified), "proper EDI" with an interchange agreement based on the European Commission 1994 Recommendation subject to summary statements and "partner file" requirements, as well as business controls-based audit trail linking an invoice and a supply.
- France has not explicitly transposed the "any other means" option of Directive 2010/45, but rather expects methods that are not Qualified Electronic Signature or EDI to be classifiable as business controls-based audit trails linking an invoice and a supply.

- The French and German e-invoicing for a (FR: FNFE-MPE; DE: FeRD) have jointly developed a standard invoice format called Factur-X (previously referred to as ZugFERD 2.0). Factur-X is a hybrid invoice structure which allows for both xml and pdf and is based on the standard EN16931.
- French law assumes symmetric use of compliance methods, i.e. that both trading parties use the same method.
- When using a service provider, it is required to authorize the outsourcing of invoice issuance. Such an outsourcing mandate/authorization can be either explicit or tacit, however an explicit authorization remains recommended. If the mandate is tacit an outsourcing statement ("issued by... on behalf of...") should be included in the content of each invoice. The service provider can be established abroad, however, stricter rules apply to the outsourcing mandate/authorization when the service provider is established in a country that does not have a mutual tax assistance treaty with France.
- Electronic invoices may be stored abroad in other EU Member States, provided that the tax authority is notified and given online access.
- B2G electronic invoicing is gradually becoming mandatory. The entry into force of this requirement is taking place in stages, having started on 1 January, 2017 with large companies invoicing the public sector and ending with micro companies by 1 January, 2020. The government has made available a free portal to this end, *Chorus Portail Pro*.

Germany (post audit)

- Any means for ensuring integrity and authenticity of electronic invoices are accepted in Germany, which include the business controls-based audit trails linking an invoice and a supply as well as Qualified Electronic Signature and "proper EDI" with an interchange agreement based on the European Commission 1994 Recommendation.
- Specific archiving requirements apply; regulated in the GoBD guidelines.
- Electronic invoices may be stored abroad in other EU Member States, provided that the tax authority is notified and given online access. Storage outside the EU may also be allowed but subject to prior approval.
- B2G e-invoicing will be mandatory as of November 2018, for public authorities at the federal administration level; as of November 2019, for public authorities at a federal state level; and as of November 2020, for suppliers. A shared portal (*E-Rechnungs-Portal*) will be created by November 2018 on the federal level. Some federal states will use this shared portal while others will build their own and some won't yet have a portal or have reached a decision.



Electronic invoicing in the European Union

Greece (post audit)

- ▶ Any means for ensuring integrity and authenticity of electronic invoices are accepted in Greece. Integrity and authenticity can be demonstrated for example by Advanced Electronic Signatures, "proper EDI" with an interchange agreement based on the European Commission 1994 Recommendation, business controls ensuring an audit trail linking an invoice and a supply, as well as the use of special local electronic tax equipment, and settlement of transactions through a payment service provider operating under the supervision of the Bank of Greece.
- ▶ When using a service provider, it is required to put in place a prior agreement on the outsourcing of invoice issuance. Such an agreement can be evidenced by any method.
- ▶ It is explicitly stated in the legislation that evidence of ensuring integrity and authenticity has to be stored in electronic form.
- ▶ Electronic invoices may be stored abroad without notification, provided that the tax authority is given online access.

- ▶ Announcements by the competent public bodies (e.g Ministry of Finance and the Independent Public Revenue Authority, "ΑΑΔΕ") as well as industry discussions indicate that Greece will be following in Italy's footsteps and introduce a clearance e-invoicing system. The first stage is the transposition of the Directive 2014/55/EU in November 2018. The second step will be the implementation of a mandatory framework with respect to B2B and B2C e-invoicing; as in the case of Italy such a mandate would require EU approval as it deviates from the EU rule that a transacting party needs to consent to e-invoicing. This measure is said to apply as of January 2019 to large companies and as of 2020 across the country but since no draft rules/guidance have been published yet, the above deadline as well as the details about an e-invoicing infrastructure are still uncertain.
- ▶ In addition to mandatory e-invoicing, the country intends to roll out mandatory real-time reporting and electronic bookkeeping. The full process, its technical specifications, the secure data exchange and the responsibilities of the service providers have not yet been defined.

Hungary (post audit)

- ▶ Qualified Electronic Signatures, business controls ensuring a reliable audit trail linking an invoice and a supply and "proper EDI" with an interchange agreement based on the European Commission 1994 Recommendation may be used for ensuring the authenticity and integrity of invoices.
- ▶ When using a service provider, an agreement for issuance of invoices has to be executed in advance and in writing. If the authorization is made electronically, it must be signed with a Qualified Electronic Signature. Certain content of the outsourced issuance agreement is prescribed.
- ▶ The invoicing system shall ensure sequential and continuous invoice numbering and invoice data export functionality (making certain invoice data available to the tax authority in a prescribed Hungarian xml format). As of 1 July 2018, taxpayers must also report invoice data in real-time to the tax authority for domestic transactions with minimum VAT amount of 100,000 HUF (approx. 320 EUR). The latter is a functionality that the invoicing system must enable, but it can be an add-on component. A taxpayer can choose to perform real-time reporting of all its invoices, regardless of invoice amount, in which case it no longer needs to enable data export.
- ▶ A taxable person must inform the authorities about the invoicing systems used using a specific form provided by the authorities. To this end, it is mandatory for service providers of invoicing systems to make certain information available to the taxable person, i.e. name, ID and usage guidelines of the invoicing system.
- ▶ Electronic archiving can be performed by one of four exemplary methods listed in the legislation or by any other method meeting the objectives of the law, among others by storing together with an invoice the results of real-time reporting (invoice hash value and tax authority confirmation).
- ▶ Electronic invoices may be stored abroad, however, due to audit practice preferably in other EU Member States, subject to prior notification and online access.
- ▶ Electronic invoices must be capable of being presented during an audit in a prescribed Hungarian xml or in pdf format, however, presentment in pdf is not possible for invoices issued in xml format.
- ▶ There is no bill transposing Directive 2014/55/EU available to this date in Hungary. There is no common platform available for B2G e-invoicing.



Ireland (post audit)

- ▶ Any means for ensuring integrity and authenticity of electronic invoices are accepted in Ireland. The integrity and authenticity of electronic invoices may be achieved for example by means of a business controls-based audit trail linking an invoice and a supply. The tax authority's guidance note clarifies that methods compliant with the previous rules, that is Advanced Electronic Signatures and "proper EDI" with an interchange agreement based on the European Commission 1994 Recommendation, remain accepted methods for electronic invoices.
- ▶ When using a service provider, it is required to put in place a written agreement for the outsourcing of issuance of electronic invoices. Such an agreement can be either in paper or in electronic form, no content is prescribed.
- ▶ Electronic invoices may be stored abroad without notification, provided that the tax authority is given online access.
- ▶ There is no legislation in place that mandates the provision or use of electronic invoicing in the public sector. Electronic invoices in B2G public procurement are supported and provided for on a voluntary basis by each contracting authority or sector. However, the transposition of the Directive 2014/55/EU into Irish law is in progress and expected to be introduced in the first quarter of 2019. The first step towards transposition is the adoption of PEPPOL framework after the country officially has obtained the status of PEPPOL Authority member in early 2018.
- ▶ Italy is the first EU country that has sought and obtained an exception from the EU Council to make e-invoicing fully mandatory for all types of VAT transactions: B2B, B2G and B2C. The e-invoicing mandate is set to enter into force for all domestic invoices as of 1 January 2019 but entered into force as early as 1 July 2018 for certain types of transactions. B2G e-invoicing has already been mandatory for all supplies to the public sector since 2015.
- ▶ The step to mandatory e-invoicing was combined with a transition from a Post Audit to a Clearance e-invoicing system, whereby the issuance of an invoice is contingent upon the invoice being created in structured format (currently in the Italian xml format called FatturaPA) and transmitted through a state-controlled platform called *Sistema di Interscambio* (SDI), commonly referred to as the Exchange System. Invoices that do not comply with these requirements are not considered as fiscally valid invoices and cannot be used as proof of a VAT supply.
- ▶ Any means for ensuring integrity and authenticity of electronic invoices are accepted in Italy, although there is a strong market preference for Qualified Electronic Signatures.
- ▶ If invoice issuance is outsourced to a service provider, the invoice itself must clearly state (currently as a content requirement or as mandatory field in the FatturaPA xml) that it is issued by the service provider on behalf of the supplier. An explicit outsourcing agreement is required and the content requirements for this agreement are listed in guidelines issued by the tax authority.
- ▶ There are a number of specific requirements for the archiving of electronic invoices, notably search criteria, a documented description of the archive and the archiving process (*Manuale di Conservazione*), as well as a clear delegation plan setting up the responsibility of the archiving process (*Responsabile della Conservazione*). The SDI platform provides a way to meet these archiving obligations, however taxpayers who wish to maintain or put in place e-invoice archives that are independent from the state-controlled platform are free to do so.
- ▶ Fiscally relevant documents, including invoices, must undergo a preservation process in order to maintain their legal validity during the statutory storage period. All invoices that are stored electronically need to be preserved, which entails hashing and grouping the invoices together in so-called archiving packages that follow a pre-defined standard. Each archiving package must be signed with a Qualified Electronic Signature and timestamped using a third-party time reference. Using a service provider not established in the EU is prohibited for suppliers that have not had a clean VAT record for at least five years.
- ▶ Electronic invoices may be stored abroad in other EU Member States as well as in any country with which Italy has signed a mutual tax assistance treaty, subject to prior notification and online access.



Electronic invoicing in the European Union

Latvia (post audit)

- ▶ Any means for ensuring integrity and authenticity of electronic invoices are accepted in Latvia. Explicitly mentioned examples are: Qualified Electronic Signatures, business controls ensuring an audit trail linking an invoice and a supply and “proper EDI” with an interchange agreement based on the European Commission 1994 Recommendation.
- ▶ Electronic invoices may be stored abroad without notification, provided that the tax authority is given online access.
- ▶ B2G electronic invoicing is currently voluntary in Latvia. So far, no steps have been taken towards the transposition of the Directive 2014/55/EU. There is however a central eGovernment platform available through which electronic invoices can be submitted to central authorities or municipalities.

Lithuania (post audit)

- ▶ Any means for ensuring integrity and authenticity of electronic invoices are accepted in Lithuania. Explicitly mentioned examples are: Advanced Electronic Signatures, business controls ensuring an audit trail linking an invoice and a supply and “proper EDI” with an interchange agreement based on the European Commission 1994 Recommendation.
- ▶ Regarding outsourcing of electronic invoice issuance, service providers to Lithuanian taxable persons not established in an EU Member State must comply with certain additional requirements.
- ▶ It is explicitly stated in the legislation that if an invoice is in electronic form, data ensuring the authenticity and integrity of the invoice must be stored by electronic means.

- ▶ Electronic invoices may be stored abroad in other EU states as well as in any country with which Lithuania has signed a mutual tax assistance treaty, subject to prior notification and access upon reasonable notice.
- ▶ B2G electronic invoicing has been mandatory in Lithuania since July 2017 for both public authorities and suppliers and takes place through a centralised government portal. The country is also in the process of transposing the Directive 2014/55/EU into national law, and will at the same time upgrade its central portal to comply with the European standard on electronic invoicing.

Luxembourg (post audit)

- ▶ Any means for ensuring integrity and authenticity of electronic invoices are accepted in Luxembourg. In line with the official notes to the VAT Law, Luxembourg accepts Advanced Electronic Signatures, “proper EDI” with an interchange agreement based on the European Commission 1994 Recommendation as well as any other means.
- ▶ When using a service provider, it is required to put in place a prior outsourcing authorization for the issuance of electronic invoices, written form is recommended.
- ▶ It is explicitly stated in the legislation that for invoices stored in electronic form the evidence of authenticity and integrity must also be stored in electronic form.
- ▶ Electronic invoices may be stored abroad in other EU Member States as well as in any country with which Luxembourg has signed a mutual tax assistance treaty, subject to prior notification and online access.
- ▶ B2G electronic invoicing is used on a voluntary basis in Luxembourg, but the country plans to transpose the Directive 2014/55/EU into national law before the deadline.

Malta (post audit)

- ▶ Any means for ensuring integrity and authenticity of electronic invoices are accepted in Malta. Means listed in the legislation as examples are Qualified Electronic Signatures, “proper EDI” with an interchange agreement based on the European Commission 1994 Recommendation and business controls ensuring a reliable audit trail linking an invoice and a supply.
- ▶ In the case of invoices stored by electronic means, the Tax Commissioner may require that the data guaranteeing the authenticity and the integrity of electronic invoices shall also be stored by electronic means.
- ▶ Electronic invoices may be stored in other EU Member States provided that the tax authority is given online access.
- ▶ The country is in the process of transposing the Directive 2014/55/EU into national law and developing a platform for receiving and processing electronic invoices.

Netherlands (post audit)

- ▶ Any means for ensuring integrity and authenticity of electronic invoices are accepted in the Netherlands. Explicitly mentioned examples are business controls-based reliable audit trail linking an invoice and a supply, Qualified Electronic Signatures and “proper EDI” with an interchange agreement based on the European Commission 1994 Recommendation.
- ▶ Electronic invoices may be stored abroad in other EU Member States as well as in any country with which the Netherlands has signed a mutual tax assistance treaty, subject to online access.
- ▶ B2G electronic invoicing (sending, receiving and processing) has been mandatory since January 2017 for central government agencies and as of 18 April 2019 for local government and all other contracting authorities.

Poland (post audit)

- ▶ Any means for ensuring integrity and authenticity of electronic invoices are accepted in Poland. Qualified Electronic Signatures, “proper EDI” with an interchange agreement based on the European Commission 1994 Recommendation and business controls ensuring a reliable audit trail linking an invoice and a supply are examples of accepted means to ensure the integrity and authenticity of electronic invoices.
- ▶ Electronic invoices may be stored abroad, provided that the tax authority is given online access. The tax authority must at all times be informed about the place of storage of invoices through a specific form, no matter if the archive is located in Poland or abroad.
- ▶ Since July 2018, it is mandatory for all taxpayers to submit SAF-T reports with fiscally relevant data to the tax authority. There are seven regulated SAF-T structures in Poland, one of which specifically targets invoice data and needs to be submitted to the tax authority upon request. The delivery methods for the invoice SAF-T file (JPK-VAT) is also regulated; taxpayers can either deliver it on a CD/DVD or through a software connected to the Ministry of Finance, in the latter case the report needs to be signed with a Qualified Electronic Signature.
- ▶ A bill on invoicing in public procurement transposing Directive 2015/44/EU is available. A central platform, *Platforma Fakturowania Elektronicznego* (PEF), is available.

Portugal (post audit)

- ▶ To meet integrity and authenticity requirements, Portugal accepts Advanced Electronic Signatures, “proper EDI” with an interchange agreement based on the European Commission 1994 Recommendation and any business controls ensuring a reliable audit trail linking an invoice and a supply.
- ▶ A certification requirement exists for e-billing software that produces the invoice data.
- ▶ Taxable persons (established/domiciled in Portugal and who perform operations subject to VAT in Portugal) shall in real time or on a monthly basis communicate certain elements of the invoices to the local tax authorities. Real time communication must be done through webservice integration while monthly communication is done by means of uploading the SAF-T (PT) file.
- ▶ Prior to the dispatch of goods, certain data within the transport document must be communicated to the tax authority.
- ▶ Electronic invoices must be capable of being presented in the Portuguese SAF-T format.
- ▶ Electronic invoices may be stored abroad in other EU Member States, provided that the tax authority is given online access. Storage outside the EU is possible if prior approval from the tax authority is obtained.
- ▶ A process is ongoing in Portugal to align and consolidate the currently fragmented legislation of electronic invoicing, reporting and archiving.
- ▶ E-invoicing will become mandatory for all B2G transactions as of 1 January 2019.

Romania (post audit)

- ▶ Any means for ensuring integrity and authenticity of electronic invoices are accepted in Romania. Qualified Electronic Signatures, “proper EDI” with an interchange agreement based on the European Commission 1994 Recommendation and business controls ensuring a reliable audit trail linking an invoice and a supply are examples of accepted means to ensure the integrity and authenticity of electronic invoices.
- ▶ It is only permitted to outsource the issuance of electronic invoices to service providers established in a country with which Romania has a mutual tax assistance treaty (in place for all EU Member States).
- ▶ The tax authority must be notified via registered mail one calendar month prior to outsourcing of electronic invoice issuance.
- ▶ Electronic invoices may be stored abroad in other EU Member States as well as in any country with which Romania has a mutual tax assistance treaty, subject to notification and online access.

Slovakia (post audit)

- ▶ Any means for ensuring integrity and authenticity of electronic invoices are accepted in Slovakia, such as Qualified Electronic Signatures, “proper EDI” with an interchange agreement based on the European Commission 1994 Recommendation and business controls ensuring a reliable audit trail linking an invoice and a supply.
- ▶ Electronic invoices may be stored abroad without notification, provided that the invoice is made available in Slovakia upon request by the tax authority.
- ▶ Slovakia is preparing to transpose the Directive 2014/55/EU. No central platform is available.



Electronic invoicing in the European Union

Slovenia (post audit)

- ▶ Any means for ensuring integrity and authenticity of electronic invoices are accepted in Slovenia. Means listed in the legislation as examples are Qualified Electronic Signatures, "proper EDI" with an interchange agreement based on the European Commission 1994 Recommendation and business controls ensuring a reliable audit trail linking an invoice and a supply.
- ▶ When using a service provider, it is required to put in place a written agreement for the outsourced issuance of electronic invoices, be it in paper or electronic form (no content is prescribed).
- ▶ It is explicitly stated in the legislation that the evidence of ensuring integrity and authenticity has to be stored in electronic form.
- ▶ Electronic invoices may be stored abroad, provided that the tax authority is notified and given online access.
- ▶ B2G electronic invoicing is mandatory for all suppliers, and a central platform *UJP eRačun* must be used.

Spain (post audit)

- ▶ Any means for ensuring integrity and authenticity of electronic invoices are accepted in Spain. Means listed in the legislation as examples are business controls establishing reliable audit trail linking an invoice and supply, "proper EDI" with an interchange agreement based on the European Commission 1994 Recommendation, as well as Qualified Electronic Signatures and "recognized signatures" (an Advanced Electronic Signature based on a qualified certificate without hardware implemented SSCD).
- ▶ Any taxable person may submit other technological proposals for ensuring the integrity and authenticity to the tax authority.
- ▶ Electronic invoices may be stored abroad, provided that the tax authority is notified and given online access.
- ▶ B2G electronic invoicing is mandatory for the majority of taxpayers. Public bodies may allow paper invoicing for transactions not exceeding 5,000 EUR. A unified entry portal (FACe) handles delivery of the electronic invoice to the applicable public body. Invoices must be submitted to the portal in the mandatory format *Facturae*.
- ▶ As of 1 July 2018, subcontractors to suppliers to the public administration must submit invoices in electronic form through the FACeB2B framework when the amount of such invoices exceeds EUR 5,000. The FACeB2B framework is also available for B2B transacting parties on a voluntary basis. Invoices must be submitted in *Facturae* format with the addition of the FACeB2B extension of the file.
- ▶ Taxpayers must report invoice data to the tax authority through a platform known as *Suministro Inmediato de Información* (SII) within four to eight business days following the date of issuance.

Sweden (post audit)

- ▶ Any means for ensuring integrity and authenticity of electronic invoices are accepted in Sweden. The trading partners are free to decide how to meet the requirements.
- ▶ Electronic invoices may be stored abroad in other EU Member States and countries with which Sweden has a mutual tax assistance treaty (e.g. Norway), provided that the tax authority is given online access and is notified. The invoices must be printable in Sweden.
- ▶ It has been mandatory for public government administrations to send and receive electronic invoices for several years, however a recently adopted law is set to make B2G e-invoicing mandatory also for suppliers to the public administration from 1 April 2019. The law covers all supplies made to the public sector but applies only to new procurement contracts (signed after the date of the law's entry into force).

United Kingdom (post audit)

- ▶ Any means for ensuring integrity and authenticity of electronic invoices are accepted in the United Kingdom. Examples of methods for ensuring authenticity and integrity are listed in the UK tax authority's HMRC (Her Majesty's Revenue and Customs) Public Notice on Electronic Invoicing and include: Advanced Electronic Signatures, Qualified Electronic Signatures, "proper EDI" with an interchange agreement based on the European Commission 1994 Recommendation and business controls which create a reliable audit trail between an invoice and a supply of goods or services.
- ▶ HMRC is also prepared to accept other methods as long as the taxable person imposes a satisfactory level of control over the authenticity and integrity of the invoice data. Transport and access security or equivalent process controls are mentioned in relation to this.
- ▶ Electronic invoices may be stored abroad in other EU states and in third countries which respect the European Data Protection principles regarding the storage of personal data. Online access recommended; access within reasonable time at a place mutually agreed with the auditor is required.
- ▶ Parallel electronic and paper flows are only allowed for a defined testing period and with prior approval from the HMRC.
- ▶ There is no specific B2G legislation in place, but the country promotes the use of electronic invoicing by public contracting authorities (central government, devolved governments, local authorities and arms-length agencies) – and many have done so, including the National Health Service (NHS) – as well as by suppliers to submit electronic invoices to public authorities.
- ▶ Making Tax Digital (MTD): From April 2019 businesses above the VAT threshold (all UK VAT registered businesses above the £85,000 sales threshold) will be mandated to keep their records digitally and provide quarterly updates to HMRC for their VAT using MTD compatible software; the software will connect to HMRC's system via its API link. Businesses with a taxable turnover below the VAT threshold will not have to operate MTD but can still choose to do so voluntarily. The government has committed that it will not widen the scope of Making Tax Digital for Business beyond VAT before the system has been shown to work well, and not before April 2020 at the earliest.



ELECTRONIC INVOICING IN OTHER EUROPEAN COUNTRIES



Electronic invoicing in other European countries

Andorra (post audit)

- ▶ In Andorra, the Indirect General Tax which corresponds to VAT, was introduced in 2012. Electronic invoicing is regulated and allowed from that time.
- ▶ The law requires authenticity and integrity of the invoice to be guaranteed; there are no technical specifications in the law as to how to meet these requirements.
- ▶ Electronic invoices may be stored abroad without notification, provided that the tax authority is given access without undue delay upon request.

Belarus (clearance)

- ▶ Recent changes to the Tax Code in Belarus introduced a concept of electronic VAT invoices, whereas in the past supporting documents (such as delivery notes of goods and acceptance notes of services) were the basis for VAT deduction.
- ▶ Electronic VAT invoices have been mandatory for the majority of transactions since 1 July 2016.
- ▶ Electronic VAT invoices may be created either through the use of a portal of the Ministry of Taxes and Duties or uploaded there through web applications. In the case of uploading invoices, they must be in xml format and signed with a digital signature.

Bosnia and Herzegovina (post audit)

- ▶ Integrity and authenticity of invoices can be ensured by any means at the choice of the taxable person. Electronic signatures are listed as an example.
- ▶ Electronic invoice software has been specifically regulated since 2013.
- ▶ Electronic invoices may be stored abroad, subject to online access and prior authorization from the tax authority.
- ▶ There is no legislation mandating B2G electronic invoicing, but some public authorities only accept the use of electronic invoices which de facto makes it mandatory. No single nationwide platform exists, but a number of commercial e-invoicing platforms are available on the Icelandic market.

Kosovo (post audit)

- ▶ The VAT Law allows taxpayers to issue and store invoices in electronic form, subject to prior approval by the tax authority.
- ▶ Integrity and authenticity of electronic invoices can be ensured by means of an Advanced Electronic Signatures or Qualified Electronic Signatures, EDI with proper controls in place, or other electronic means adopted by the government or accepted by the buyer.
- ▶ Outsourcing of e-invoice issuance and storage to a service provider is allowed.
- ▶ Certificates issued by a foreign certification authority are considered equal to local certificates, provided that the foreign certification authority is accredited in an EU Member State, or if the foreign certificates are guaranteed by an EU certification authority.

- ▶ Kosovo's government has published a draft law containing amendments that would further align the country's VAT legislation with the EU VAT directive, in light of Kosovo's efforts to become a member of the EU. The draft law is subject to a public consultation and if enacted by Kosovo's parliament, it would apply from 1 January 2019.

Liechtenstein (post audit)

- ▶ Electronic invoicing in Liechtenstein is subject to buyer's consent and any means of ensuring authenticity and integrity. As eIDAS Regulation is applicable in Liechtenstein an electronic signature can be used; the electronic signature may be based on a certificate issued by a certification authority established in an EU country, but in certain cases, local practices and other considerations may recommend the use of a locally accredited certification authority.
- ▶ Outsourcing of invoice issuance is possible. An explicit outsourcing agreement is recommended based on common practise, although it is not a requirement by law.
- ▶ Electronic invoices may be stored abroad without notification, provided that the invoice remains readable, that the tax authority is given online access and that tax evaluation remains possible.
- ▶ In general, the VAT law of Liechtenstein is based on and almost equal to the Swiss law, however the country has an autonomous enactment of the Swiss law. In many areas Liechtenstein has not taken over all detailed provisions of Swiss law but the Liechtenstein Administration bases its practice on the detailed provision of Swiss law.

Electronic invoicing in other European countries

Macedonia (post audit)

- ▶ Electronic invoicing is permitted subject to the buyer's explicit consent and the authenticity and integrity of the e-invoice being ensured by means of a Qualified Electronic Signature – a signature based on a certificate issued by a locally accredited certification authority or by a certification authority established in an EU country.
- ▶ Electronic invoices, together with data proving their authenticity and integrity, must be stored locally. Electronic invoices must be stored in their original form in which they have been issued or received.
- ▶ Whereas delegation for secondary legislation is included in the law on VAT, further rules on electronic invoicing are currently being developed by the Ministry of Finance of Macedonia.

Moldova (clearance)

- ▶ Electronic invoicing is run through the state-owned electronic invoicing system e-Factura, which requires registration. When only the supplier is registered, or when a registered buyer has not consented to electronic invoicing, the supplier may still use the e-Factura system for filling in, digitally signing, registering, and printing the invoice.
- ▶ Electronic invoices must be signed with electronic signatures; the underlying certificates are managed and issued by the state-owned Certification Centre and the Special Telecommunications Centre. Presently, the Certification Centre is the main entity issuing all types of digital certificates.
- ▶ The issued e-invoices are stored in the e-Factura system.

Monaco (post audit)

- ▶ Any means for ensuring integrity and authenticity of electronic invoices are accepted in Monaco.
- ▶ When using a service provider, an explicit written authorization ("mandate") for outsourced issuance of invoices is required, with specific content requirements.
- ▶ Electronic invoices may be stored abroad in EU Member States as well as in any country with which Monaco has a mutual tax assistance treaty, provided that the tax authority is given online access and is notified. There are content requirements for such notification and each time the place of storage is changed the tax authority must be notified one month in advance.

Montenegro (post audit)

- ▶ The VAT law allows taxpayers to send and receive invoices in "non-material" form, subject to prior approval by the tax authority.
- ▶ The integrity, authenticity, availability and readability of the electronic invoice is required throughout its whole lifespan. This can be achieved by means of Qualified Electronic Signatures. No specific system/portal/software is prescribed by the law.
- ▶ Outsourcing of e-invoice issuance and storage to a service provider is allowed.
- ▶ Qualified certificates issued by a certification authority established in an EU Member State have the same legal effect as local qualified certificates.

Norway (post audit)

- ▶ Authenticity and integrity of invoices may be ensured by any means at the choice of the taxable person; no examples are mentioned in the legislation.
- ▶ Accounting documentation, including invoices, should be kept in a way that ensures protection against unlawful change or loss. It is further required that the documentation can be presented to a state authority during the full storage period in a form that allows for subsequent control, as well as being printable.
- ▶ Electronic invoices may be stored abroad in any Nordic country provided that the tax authority has been notified and the invoice is accessible from Norway. Storage in other EEA countries is possible in certain cases if prior authorization has been obtained from the tax authorities.
- ▶ B2G electronic invoicing is in practice mandatory.



Russia (clearance)

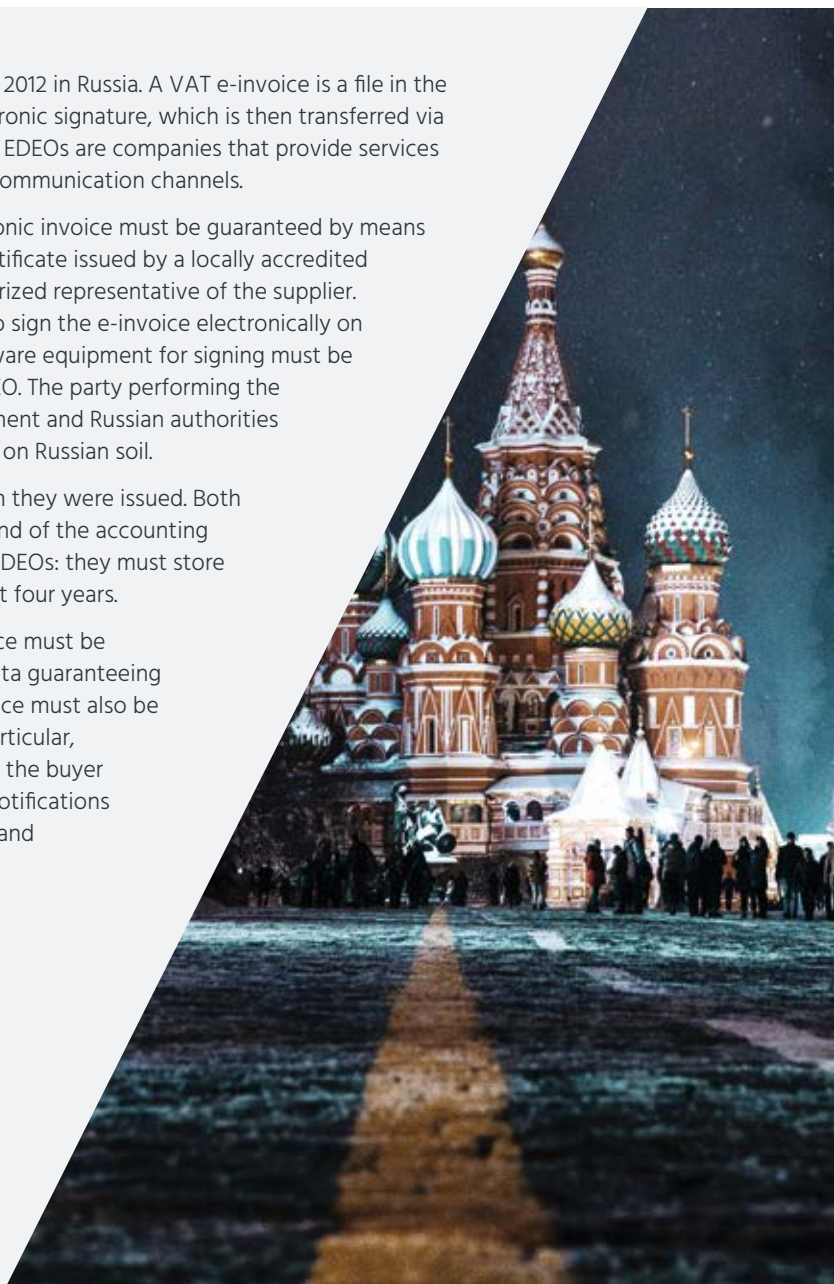
- ▶ Electronic invoices must be issued in a regulated xml schema/format called Universal Transfer Document (UTD) and be digitally signed; the signing operation must be performed in Russia.
- ▶ Electronic signatures should be based on a qualified certificate that is provided by an authorized Russian certification authority and a necessary crypto-software provided by an authorized software provider.
- ▶ Electronic invoices and confirmations of receipt must be issued and exchanged between the issuer and the recipient via one of the accredited Electronic Document Exchange Operators (EDEO). Electronic Primary Accounting Documents (PAD) TORG-12 for goods and Act of Acceptance for services are no longer allowed after 1 July, 2017. They have been replaced by an enhanced Electronic Consignment Document (ECD) for goods and services that must be issued in the UTD format and must be presented in case of an audit. Such documents may be processed through EDEO or directly exchanged between the parties.
- ▶ Interoperability between EDEOs is regulated, but it is currently not available among all EDEOs. The four major EDEOs have signed interoperability agreements. A centralized EDEO has been introduced to which all EDEOs must be connected in order to ensure full interoperability.
- ▶ A new regulation entered into force 1 July, 2017. It mandates medium and large sized retailers to use Certified Cash Desks (CCDs) that report in real-time each B2C transaction to the tax authority via the Federal Data Operator.

Electronic invoicing for VAT purposes has been permitted since 2012 in Russia. A VAT e-invoice is a file in the established universal xml schema/format coupled with an electronic signature, which is then transferred via an accredited electronic document exchange operator ('EDEO'). EDEOs are companies that provide services for the exchange of open and confidential information via telecommunication channels.

The authenticity of origin and integrity of content of the electronic invoice must be guaranteed by means of an electronic signature that must be based on a qualified certificate issued by a locally accredited certification authority. The signature should be that of an authorized representative of the supplier. Technically, the supplier may however delegate the authority to sign the e-invoice electronically on the basis of a power of attorney. The necessary software/hardware equipment for signing must be located in Russia, either at the supplier's premises or at the EDEO. The party performing the signing operation must have a license to operate crypto equipment and Russian authorities must have a possibility to conduct physical audits and controls, on Russian soil.

E-invoices must be stored in the same form and format in which they were issued. Both trading partners must store e-invoices for four years from the end of the accounting period. The law imposes an additional storage requirement on EDEOs: they must store 'the information and data' on the e-invoice exchange for at least four years.

The authenticity of origin and integrity of content of an e-invoice must be guaranteed throughout the storage period. Furthermore, the data guaranteeing the authenticity of origin and integrity of content of the e-invoice must also be stored. In addition to the e-invoice it is necessary to store, in particular, technical messages generated by the EDEO(s), the supplier, and the buyer within the e-invoice exchange process, e.g. confirmations and notifications of sending or receipt, correction notes, the qualified certificate and the verification key.



Electronic invoicing in other European countries

Serbia (post audit)

- ▶ Serbia has no explicit regulatory framework allowing electronic invoicing for VAT purposes, but the law on accounting and audit in conjunction with the law on electronic documents and law on trade makes it possible to issue valid electronic invoices. An opinion issued by the Ministry of Finance has confirmed that electronic invoicing is permitted.
- ▶ The integrity and authenticity of invoices shall be ensured and electronic signatures may be used for this purpose (an Advanced Electronic Signature is sufficient).
- ▶ Use of service providers is not regulated but occurs in practice.

Switzerland (post audit)

- ▶ Switzerland has regulated the concept of an Advanced Electronic Signature/Seal – i.e. not a Qualified Electronic Signature/Seal – which nevertheless requires a hardware signature creation device, usually a smart card, to ensure the integrity and authenticity of the invoice. Certificates may only be issued by approved certification authorities.
- ▶ Third party electronic invoice issuers must be registered in the Swiss company registry.
- ▶ When using a service provider, both for the outsourcing of invoice issuance and for certain receipt functions (in particular signature validation), it is required to put in place an explicit outsourcing agreement. Sector-specific content requirements may apply to such an outsourcing agreement.

- ▶ Systematic validation of the signature is only required in cases where the processing of invoices at the receiving side is done automatically. In other cases, random tests may be sufficient. The process/approach of the validation and the results have to be documented.
- ▶ Electronic invoices may be stored abroad without notification, provided that the invoice remains readable, that the tax authority is given online access and that tax evaluation remains possible.
- ▶ B2G electronic invoicing is mandatory for all transactions where the buyer is a Swiss federal administration body and where the transaction originates from a contract where the value meets or exceeds 5,000 CHF.

Turkey (clearance)

- ▶ Electronic invoicing is mandatory in Turkey for certain sectors and under certain conditions and the Revenue Administration of the Ministry of Finance (TRA) is constantly expanding the scope of mandatory e-invoicing.
- ▶ In Turkey there are two types of electronic invoices, e-Fatura and e-Arşiv. It is mandatory to issue e-Fatura invoices when both trading parties are registered with the Electronic Invoicing Application of the TRA. E-Arşiv invoices should be issued to recipients who are not registered as above. The invoice can subsequently be distributed in electronic form provided that the buyer has consented to electronic invoicing. Use of the e-Arşiv application is mandatory for taxpayers conducting sales over the internet and over a certain minimum gross sales revenue. A recently published draft law indicates that as of January 2019, e-Arşiv invoicing will be mandatory for more types of taxpayers, notably for those in e-commerce marketplace.

- ▶ Electronic invoices issued by companies must be signed with an “e-seal”, which is a digital certificate issued by a state-approved certification authority. Electronic invoices issued by private individuals must be signed with a Qualified Electronic Signature. Invoices must be submitted in the mandatory UBL-TR format.
- ▶ There are three methods that may be used for issuing and storing electronic invoices under the Electronic Invoicing application: 1) by using the official portal of the Directorate of Revenue Administration of the Ministry of Finance (only available for e-Fatura), 2) by establishing a qualified and compatible software system on the company's own servers which is integrated with the Directorate of Revenue Administration of the Ministry of Finance's clearance system, or 3) by using an accredited service provider that is integrated with such system.
- ▶ Service providers must be registered as taxable persons in Turkey and obtain special integration permissions from the TRA to exchange or archive electronic invoices on behalf of other taxpayers.

Ukraine (clearance)

- ▶ Electronic invoicing is mandatory in Ukraine.
- ▶ An invoice must be signed with an electronic signature of the supplier's authorized representative, and, where available, with an electronic seal of the supplier. These are based on advanced certificates issued by accredited certification authorities.
- ▶ The required electronic invoice format is xml.
- ▶ An electronic invoice must be registered in the Unified Register of Tax Invoices (URTI) that is maintained by the tax authority, and that provides the basis for recognition of input VAT.
- ▶ In order to be able to register the invoice in URTI, the supplier needs to sign up for electronic document exchange with the tax authority and use special software for submitting the electronic invoice to the tax authority for verification and registration in URTI and for subsequently sending the electronic invoice to the buyer.
- ▶ Outsourcing of signing of the electronic invoice is allowed to a person authorized by the supplier by virtue of a notarized power of attorney.





ELECTRONIC INVOICING IN NORTH AMERICA

Electronic invoicing in North America

In the past, Canada and the United States have, together with other common law countries, stood out in international comparisons by providing little regulation in the field of electronic invoicing and by typically placing – in the rules and frameworks that do exist – the emphasis on solid record retention practices instead of on the invoice creation process as such.

However, as the trend globally has gone in the diametrically opposite direction, with legislators and local tax authorities rethinking the invoice creation process completely, North America is following suit – or at least tagging along. The clearest such example is how the collaboration between tax authorities in the Americas is increasing, notably as regards the sharing of financial and fiscal data. In order to combat tax evasion and tax fraud, the Mexican tax authority (SAT) has implemented an extension to the standardized Mexican electronic invoice format to be used in export transactions from Mexico to the US and Canada. By adding an attachment to the cleared Mexican invoice, the so-called “export complemento”, the SAT will know who the US or Canadian buyer is, and the US or Canadian tax authority will know with 100 percent certainty who the Mexican supplier is, simply because the export complement has been cleared by the SAT.



Canada (post audit)

- ▶ The Canada Revenue Agency (CRA) has issued a series of circulars on electronic transactions and records for income tax purposes. These rules also apply to electronic invoices.
- ▶ The relevant processes prior to storage must ensure adequate controls to safeguard the accuracy, security and integrity of the data processed and kept in the system.
- ▶ Documentation describing the relevant operating and business systems, including how transactions are processed and records kept and managed, must be available.
- ▶ Audit trails must be available during the storage period, including electronic signatures and results from other security measures for the end-to-end process.
- ▶ Records should be kept in a manner that ensures accessibility, security, accuracy, integrity, authenticity and reliability. Records should be based on non-proprietary, commonly used data interchange standards and readable with CRA audit software.
- ▶ Back-up records are to be maintained at all times. It is considered good practice to keep back-ups at a location other than the business location for security and precautionary purposes. Storage abroad is permitted only after derogation from the CRA.

United States of America (post audit)

- ▶ The sales tax levied in the US operates differently from VAT in that invoices between businesses are not taxed. Instead, the end of the production chain – the final transaction with the consumer – is subject to a tax rate that is often composed of percentages imposed by state, city, county and other administrative bodies. Enforcement of this tax does not revolve around B2B invoices, which explains why the level of requirements for electronic invoicing between companies in the US is lower than that in countries with VAT.
- ▶ The US approach to tax recognition of electronic business documents places less emphasis on the transaction and more on record retention. The Internal Revenue Service (IRS) has published explicit federal requirements for taxpayers that only keep records in electronic format. In addition to requirements for companies to define an inspection and quality assurance program evidenced by regular evaluations, specific requirements apply for the archive.
- ▶ Another area of US regulation that affects electronic invoicing is the Sarbanes-Oxley Act (SOX), which, in general, requires companies to ensure high levels of control. The security of important business information is a key enabler of such controls, and electronic signatures are among the techniques that can be used to facilitate SOX audits.
- ▶ The basic electronic commerce and electronic signature rules in the US to a large extent follow from the E-Signature Act (Electronic Signatures in Global and National Commerce Act, 2000) and UETA (the Uniform Electronic Transactions Act, 1999). Neither of these instruments are technology-specific.
- ▶ The Office of Management and Budget (OMB) has directed federal agencies to adopt electronic invoicing for B2G procurement by the end of the fiscal year 2018. Federal agencies can either migrate to a designated Federal Shared Service Provider (FSSP) or use an electronic invoicing solution that is approved by the OMB.



A close-up photograph of two women wearing elaborate traditional Latin American costumes. The costumes feature intricate gold embroidery, colorful fabrics in shades of purple, pink, and yellow, and large, ornate headpieces. The woman on the left is looking down, while the woman on the right is looking towards the camera. The background is a soft, out-of-focus mix of the same colors.

ELECTRONIC INVOICING IN LATIN AMERICA

Electronic invoicing in Latin America (Mexico, Central America and South America)

The governments of Latin American countries have been among the first to adopt ambitious programs towards maximizing all the benefits of electronic invoicing.

In Latin America, the consequences of issuing or receiving non-compliant invoices are in many cases much more direct and tougher than in other regions.

Unlike the EU and other regions where the emphasis so far has been on transposing time-honoured paper-based process and compliance concepts to the electronic environment, Latin America has not hesitated to leapfrog such methods and put in place entirely new control infrastructures made mandatory by regulations:

- ▶ The *control infrastructures* that were put in place generally revolve around the concept of clearance of invoices with the tax administration or agents accredited by the tax administration.
- ▶ *Regulation* has made or is making the use of electronic invoicing mandatory in many countries in the region.

Throughout the last ten years, the countries that pioneered electronic invoicing systems in the region have been able to bring into their controlled tax enforcement networks the majority of taxpayers and are now focusing on enhancing the management and technical reliability of their systems. Among the common elements of the wave of tax reforms that are sweeping well-established clearance models (e.g. Peru and Colombia), one can see the increased involvement of state accredited third party service providers in the performance of e-invoice clearance operations, to the detriment of systems where the tax authority infrastructure operates as a technical cluster of the e-invoice issuance cycle. A number of initiatives are also aiming at simplifying tax fragmentation. The Brazilian parliament is devoting considerable efforts to agree on the establishment of two new taxes (a unique VAT being one of them) that will replace the current myriad of nine different federal, regional and municipal taxes that currently levy goods and services transactions.

Non-compliance is not an option

In countries where tax audits often take place many years after the occurrence of a transaction, companies may sometimes get away with lack of formal invoice compliance if, for example, the audit focuses on other aspects of their financial administration. This is different in Latin America, where electronic invoicing compliance consists of following unambiguous technical specifications and adoption deadlines. In such circumstances, compliance becomes a rather binary proposition: an invoice is either issued or received in conformity with the rules or it is not. The consequences of issuing or receiving non-compliant invoices are therefore also in many cases much more direct and tougher than in other regions, for example:

- ▶ Administrative penalties for non-compliance can in certain cases exceed the transaction value. In Brazil, for example, non-compliance with certain rules can be penalized up to 150% of the value of the supply.
- ▶ Non-compliance is relatively quickly equated with tax evasion, which means that executives of repeat offenders may be imprisoned and their companies may be temporarily or permanently closed down.

Argentina (clearance)

- ▶ The tax authority (AFIP) has promoted electronic invoicing for a decade already, gradually making it mandatory to issue electronic invoices since 2015, with the scope of the requirement now covering most taxpayers. During 2018 the tax authority reorganized the legislation to clarify and unify the mandate into one single instrument.
- ▶ The system is clearance based, whereby an authorization code (CAE) must be obtained from the tax authority before the invoice can be delivered to the buyer.
- ▶ Taxable persons must use a digital certificate for authentication towards AFIP's web service to request the issuance authorization code, which must be delivered with the electronic invoice to the buyer.

- ▶ The transmission of the invoice for requesting the CAE to the AFIP should always be made in xml format"
- ▶ An invoice will be delivered to the client in any format provided that it complies with the legal content requirements, contains the CAE and is sequentially numbered.
- ▶ Validation of the electronic invoices by recipients is mandatory and can be done through AFIP's website or by web service integration.
- ▶ Any transport or transfer of goods must be supported by corresponding documentation; either the invoice or alternatively a paper document called "Remito" must accompany the goods.

Barbados (post audit)

- ▶ Electronic invoicing is permitted but not explicitly regulated in the VAT law.
- ▶ Under the Electronic Transaction Act it is implicitly required to ensure the integrity and authenticity of an electronic document, such as an invoice. This can be achieved by means of an electronic signature.
- ▶ VAT records must be stored locally in Barbados.



Electronic invoicing in Latin America

Brazil (clearance)

- ▶ Electronic invoicing is mandatory (although exceptions exist).
- ▶ Discussions to simplify the complexity of the current tax system are being held within a working group in the Parliament.
- ▶ There are different invoice types and rules for state (NF-e and NFC-e for sale of goods, and CT-e for transport) and municipality (NFS-e sale of services) tax invoices.
- ▶ NF-e, NFC-e and CT-e must be electronically signed; the certificates used for signing must be obtained by a government-accredited certification authority.
- ▶ The signed invoice is sent to the geographically competent tax office interface, which performs validation and returns a usage authorization, upon which the invoice can be sent to the recipient.
- ▶ In addition to the goods invoice, a DANFE document (a simplified graphical representation of an NF-e) is needed for tracking goods in transit.
- ▶ NFS-e (service) invoices must be electronically signed and are issued by each municipal system. Taxpayers using web service integration must use electronically issued provisional receipts of service (RPS) that will be converted into NFS-e once sent to the municipal system.
- ▶ No specific regulation covers outsourcing, but it is generally allowed to use a service provider.

In the last few years, Brazil has been making it mandatory to substitute different types of paper invoices called Fiscal Notes with Electronic Fiscal Notes (pt.: Nota Fiscal Electronica). Which type of electronic fiscal note should be issued depends on the type of tax that must be documented since states and municipalities have their own different requirements. For this reason, as well as from a document perspective, Brazil's system can be divided into three main frameworks:

1. Nota Fiscal Electronica (NF-e) and Nota Fiscal Electronica Consumidor (NFC-e) for documenting transactions related to circulation (sale) of goods taxed with ICMS at a State level.
2. Conhecimento de Transporte Electronico (CT-e). For documenting the provision of interstate and inter-municipal transport services (also taxed at a State level).
3. Nota Fiscal de Servicos Electronica (NFS-e) for documenting transactions related to ISSQN at a municipal level. The responsibility of collecting the tax for NFS-e falls under the scope of each municipality within the country. Therefore, each municipality has its own legislation and system requirements to issue NFS-e.

NF-e/NFC-e and CT-e basic requirements

At a high level, these three types of invoices follow similar issuance requirements. To issue electronic invoices taxpayers must get prior authorization (pt.: credenciamento) from the tax authority.

It is mandatory to use a regulated xml format. Furthermore, the invoice must be signed using a digital certificate issued to the supplier by a certified local certification authority. The invoice must be sent to the tax authority who will clear it by issuing an authorization code. An auxiliary document must be issued to accompany the goods in transit. In the case of goods, this document is named DANFE. For invoices issued by transport companies, the auxiliary document is known as DACTE. Finally, suppliers must communicate the invoice to the buyer after the invoice has been authorized by the tax authority. Taxpayers must archive invoices for five years.

Upon receipt of the invoice, the buyer must validate it before using it to support the tax declaration. In addition to validation, it is mandatory for buyers of certain industry sectors to issue a message known as *Manifestação do Destinatário* (en.: Recipient's Manifestation), which documents the buyer's reaction to the operation described by the invoice. It generates a proof only for the tax authority and not between the parties. Such messages can be the following:

1. Confirmation of the operation;
2. Transaction not performed (e.g. returned goods),
3. Denial of the transaction (e.g. transaction never existed). Each manifestation has a specific legal time frame to be issued counted from the moment of acknowledgment of the existence of the transaction.



Finally, taxpayers issuing NF-e and CT-e may also be under the obligation to issue another document called Fiscal Documents Manifest or MDF-e (pt.: Manifesto Eletrônico de Documentos Fiscais). Its purpose is to trace fiscal documents during transport and it is issued by one of the parties to the transaction or by the transport company and is communicated only to the tax authority, but does not constitute an invoice. It must be digitally signed by the issuer (supplier, buyer or the carrier) and authorized by the tax authority where the issuer is registered as a taxpayer. The law establishes an auxiliary document named DAMDFE to accompany the transport as a printed graphical representation of the MDF-e.

Nota Fiscal de Servicios (NFS-e)

The NFS-e framework is heavily fragmented since each municipality has its own requirements. There is an attempt to harmonize all frameworks conducted by the Brazilian State Capital Municipalities Association (pt.: Associação Brasileira das Secretarias de Finanças das Capitais - Abrasf). Nevertheless, since municipalities may adopt Abrasf's standards voluntarily and partially, fragmentation still remains. All matters related to the issuance of NFS-e, are processed within the municipalities' service environments.

As a general rule, NFS-e issuance is mandatory for most taxpayers (with some exceptions such as autonomous professionals, e.g. in Rio de Janeiro). In order to issue electronic invoices taxpayers must get prior authorization from the municipal tax authority.

The NFS-e is issued via and stored by the municipal system. Taxpayers must input data either manually through the use of the municipal portal or by means of web service integration.

When using web service integration, taxpayers must issue batches of provisional invoices called Provisional Receipt of Service or RPS (pt.: Recibo Provisório de Serviço). The use of electronic signatures to sign the RPS is mandatory in some municipalities (e.g. Sao Paulo). In other municipal systems, digital certificates are instead needed for web service authentication (e.g. Rio de Janeiro) or accessing the municipal portal. Once issued, the RPS must be converted into an NFS-e within a certain period of time established by local legislation. Such legal timeframe varies in each municipal framework. The lack of conversion of the RPS into an NFS-e equals lack of issuance of an invoice and is sanctioned with penalties that usually take the form of fines. xml format is mandatory.

Taxpayers must deliver a printed version of the NFS-e to the buyer unless e-mail delivery is requested.

Taxpayers are obliged to maintain records of both e-invoices and RPS' (cancelled as well as not converted RPS) for a period of five years. While electronic invoices can be accessed through the municipal system portals, it is advisable to maintain an archive to ensure compliance with local requirements.



Electronic invoicing in Latin America

Chile (clearance)

- ▶ Chile has a clearance system with a gradual introduction of mandatory electronic invoicing. For large companies, electronic invoicing has been mandatory since October 2014. Mid-sized and small businesses are gradually incorporated into the mandatory regime by 2018.
- ▶ Electronic invoices must be issued in xml format and digitally signed prior to clearance by the tax authority (SII).
- ▶ Electronic signatures must be based on certificates issued by locally accredited certification authorities.
- ▶ Taxpayers must report the acceptance or rejection of the invoice or the goods to the tax authority within eight days, starting from the moment of reception of the invoice for clearance by the tax authority.
- ▶ Taxpayers issuing electronic invoices must also keep records in electronic form and monthly report invoice data to the SII.

Colombia (clearance)

- ▶ Electronic invoicing will be mandatory for all taxpayers by January 2019. Already during 2017 and 2018, the tax authority (DIAN) may notify taxpayers of their obligation to engage in electronic invoicing.
- ▶ Taxpayers that have not been notified may issue electronic invoices on a voluntary basis.
- ▶ The new framework is a soft clearance system in which the supplier does not need to wait for DIAN's clearance of the invoice to communicate it to the buyer.
- ▶ Under the new framework, electronic invoices must be issued in xml format and be digitally signed.
- ▶ Each invoice must also include the Technical Control key (es.: *Clave Técnica de Control*). Its function is to aid in the generation of the Unique Electronic Invoice Code – CUFE that must also be included in the invoice.
- ▶ Suppliers must communicate the invoice to the DIAN within 48 hours from the moment of signing.
- ▶ Upon receipt, buyers must issue an acknowledgment. In addition, a rejection message must be issued when applicable.
- ▶ The law establishes processes for different contingency scenarios.

Costa Rica (clearance)

- ▶ Electronic invoicing is mandatory in Costa Rica.
- ▶ The new framework (2016) is a system in which suppliers must submit the invoice to the tax authority (Economy and Finance Ministry) but do not need to wait for the tax authority's authorization to communicate the invoice to the buyer.
- ▶ The law mandates the use of xml format and includes an explicit obligation to guarantee the integrity and authenticity of the invoice. The law is technology neutral as to the method used to guarantee integrity and authenticity.
- ▶ The supplier must communicate the xml file to the tax authority immediately after its generation. The tax authority has a timeframe of up to three hours to return an acceptance or rejection message. Such message provides tax validity to the document.
- ▶ Upon receipt, a message accepting or rejecting the electronic invoice should be issued by the buyer. These messages must be in xml format and digitally signed in compliance with the established technical requirements. Buyer responses must also be cleared by the tax authority.



Guatemala (clearance)

- ▶ Electronic invoicing is mandatory for certain taxpayers and based on a clearance model.
- ▶ Taxpayers for whom electronic invoicing is not mandatory must request prior authorization and fulfil certain legal requirements in order to be allowed to issue electronic invoices.
- ▶ Taxpayers must use the services of a “Generador de Facturas Electrónicas” (GFACE), which is a company authorized by the tax administration to act as an intermediary in the electronic invoicing process.
- ▶ The taxpayer sends invoice data to GFACE who includes a security code (CAE) and the issued invoice back to the supplier, who can then communicate it to the buyer.
- ▶ Guatemala has approved a modification of the e-invoicing framework phasing out the current framework to replace it with a new model known as FEL in which taxpayers use the services of third party “Certifiers” who validate each invoice and relay them to the tax administrations who makes them available for consultation. Transition to the new framework is done gradually by segment of taxpayers and communicated by notification from the tax authority.

Honduras (clearance)

- ▶ Electronic invoicing is based on a clearance model but is completely voluntary.
- ▶ Taxpayers that choose to issue invoices electronically must request an authorization from the tax authority (SAR) for each invoice, which is given by granting an “Electronic Issuance Authorization Code” (CAEE).
- ▶ In case of contingency of any of the systems, taxpayers are obliged to use pre-printed invoices acquired from an authorized printing company.
- ▶ Validation of the fiscal documents to support the tax claim is mandatory for all taxpayers

Ecuador (clearance)

- ▶ Ecuador has a clearance system where the mandatory use of electronic invoices for both private and public organizations has been gradually introduced over the last couple of years.
- ▶ To issue electronic invoices taxpayers need to register and get authorization from the tax authority (SRI).
- ▶ An electronic invoice must be digitally signed and issued in xml format.
- ▶ SRI authorizes the issuance of each invoice in real time and archives a copy of the invoice.

Mexico (clearance)

- ▶ Electronic invoicing in Mexico is based on a clearance model and is mandatory for all taxpayers.
- ▶ Electronic signatures are required for issuing invoices and related documents (Digital Fiscal Documents through Internet, CFDIs); the certificates used for signing must be obtained from the tax administration’s (SAT) own certification authority.
- ▶ An Authorized Certification Provider must be used for a clearance process during which an electronic stamp (“timbrado”) is applied to the CFDI.
- ▶ A “complemento” for international trade (es: “Complemento de Comercio Exterior”) is mandatory for export invoices.

- ▶ A new process for cancellation of CFDIs is being rolled out by the tax authority from 2018, whereby the supplier must request and get prior authorisation from the buyer in order to cancel a CFDI. Buyers must accept or reject the cancellation request within 72 hours. Silence equals acceptance.

Nicaragua (post audit)

- ▶ Electronic invoicing is possible, subject to prior authorization from the tax authority for the use of a computerized invoicing system.
- ▶ There is no real-time invoice clearance performed by the tax authority.

Panama (post audit)

- ▶ During 2018, the tax authority in Panama implemented a pilot program to introduce an e-invoicing mandate based on a clearance model. At the moment of publication of this white paper 43 companies have been authorized to implement e-invoicing as part of the program.
- ▶ In the pilot framework, the legal invoice exists only in digital form and must be issued in xml format. The invoice must be digitally signed with taxpayer’s signature based on a digital certificate.
- ▶ Invoices must receive the tax authority’s authorization to be considered as legally valid. For B2C transactions and in contingency scenarios, the authorization by the tax authority may happen after the delivery of the invoice to the buyer since a printed copy of the invoice is delivered. For B2B transactions, the authorization must be ensured before the invoice is delivered to the buyer.
- ▶ When applicable, suppliers must deliver the invoice to the buyer with the tax authority’s authorization of the invoice.
- ▶ Buyers are responsible for validating that the invoice has indeed been authorized by the tax authority.



Electronic invoicing in Latin America

Paraguay (clearance)

- ▶ Electronic invoicing is permitted in Paraguay with an authorization from the tax authority (SET). There is no requirement for the invoice to be signed or to be in a specific format.
- ▶ The tax authority aims to start the implementation of electronic invoicing through a real time clearance system sometime in the near future.
- ▶ During 2018, the tax authority is conducting a pilot program to implement a new e-invoicing framework known as “*Sistema Integrado de Facturación Electronica Nacional – SIFEN*” (en.: National Electronic Invoicing Integrated System). Voluntary adoption of the framework is scheduled for 2019.
- ▶ Invoices are legally valid only after being communicated and accepted by the tax authority.
- ▶ SIFEN requires e-invoices to be sequentially numbered, issued in xml format and be digitally signed.
- ▶ Buyers must validate inbound invoices and express their acceptance or rejection of the document.

Peru (clearance)

- ▶ The tax authority (SUNAT) has permitted electronic invoicing since 2008. Peruvian legislation does not declare electronic invoicing to be mandatory as a general rule, but SUNAT can make it mandatory for certain taxpayers, individually or in group, through a designation process. After the latest (July 2018) expansion of electronic invoicing in Peru, pretty much all economically relevant taxpayers are now required to issue electronic invoices.
- ▶ To be able to use its own system for electronic invoicing the taxpayer must receive an authorization from SUNAT.
- ▶ The electronic invoice must be issued in xml format and be digitally signed for authenticity, integrity and non-repudiation purposes.
- ▶ Each electronic invoice must be sent to SUNAT within 72 hours from it being issued by the supplier. SUNAT validates the invoice by issuing a so-called “proof of receipt”. The supplier can subsequently communicate the invoice to the buyer.
- ▶ A new framework under which taxpayers must integrate with local operators (known as OSE) instead of SUNAT in order to obtain the “proof of receipt” of the invoice is currently under implementation. The model will become mandatory as soon as three OSE operators have become active.

Trinidad and Tobago

- ▶ Electronic invoicing is not explicitly permitted, nor commonly used as the original invoice form. In practice, electronic copies of paper invoices are used, but the original paper invoices are still maintained for record keeping purposes.

Uruguay (clearance)

- ▶ Electronic invoicing has been allowed since 2011 under a clearance system and is currently mandatory for certain taxpayers.
- ▶ The tax authority (DGI) has introduced a schedule for the gradual introduction of mandatory electronic invoicing, with the aim of completing the entry into force by 2019.
- ▶ The invoice must be issued in a prescribed xml format, digitally signed and cleared by the tax authority, which subsequently makes it available for online validation.
- ▶ Outsourcing of the issuance, communication and storage of invoices is explicitly allowed in the legislation; use of locally accredited service providers affords the benefit of a “fast track” registration with the tax authority.

Venezuela (post audit)

- ▶ Electronic invoicing is permitted only for taxpayers operating in certain industry sectors and upon meeting specific requirements.
- ▶ Availability, authenticity and integrity of electronic invoices through the entire storage period must be guaranteed, although the fiscal legislation does not impose the use of any specific technology for meeting these requirements and there is no clearance function.
- ▶ Outsourcing of the issuance of electronic invoices is explicitly allowed.



ELECTRONIC INVOICING IN AFRICA



Electronic invoicing in Africa

Despite considerable progress in the general e-commerce domain, paper invoicing remains dominant in Africa and electronic invoicing is not specifically regulated nor a common practice in most African countries. Some African states however, e.g. the larger oil producing countries, are trying to implement or enlarge the scope and the rate of VAT which in turn puts focus on invoicing.

Angola (post audit)

- ▶ The possibility of issuing and storing invoices solely in electronic form is not explicit in Angolan law but can be deduced from the decree on invoices.
- ▶ Taxpayers must use “informatic means” that guarantee a sequential and chronological numeration of the invoices.
- ▶ All invoices must contain the statement “computer processed”.
- ▶ Invoices must be stored locally.

Ghana (post audit)

- ▶ Ghana has passed a bill regulating the use of Fiscal Electronic Devices (FED), effective from May 2018 and providing for the mandatory use of FED by taxpayers under the VAT Act. It is expected that every taxpayer registered for VAT will be required to have the FED integrated within two years.

Malawi

- ▶ A mandatory electronic invoicing regime will be implemented in phases starting with all B2C transactions using Electronic Fiscal Devices (EFD) in all points of sales, followed by all B2B transactions in the next step.

Mauritius (post audit)

- ▶ Electronic invoicing is not explicitly regulated in the law. However, the VAT Act allows taxpayers to maintain electronic copies of VAT invoices to fulfil applicable storage requirements.

Morocco (post audit)

- ▶ Electronic invoicing was not regulated in the Moroccan tax law and not widely used in practice. In 2018, the concept of electronic invoicing system (in French ‘un système informatique de facturation’) was stipulated in the Moroccan General Tax Code, however, further guidance is not yet publicly available.
- ▶ Taxpayers subject to VAT in Morocco will be obliged to issue and archive electronic invoices using an electronic invoicing system that meets certain technical requirements. The technical details for electronic invoicing systems are not published.



Nigeria (post audit)

- ▶ Electronic invoicing is not explicitly regulated. However, an electronic invoice can be considered to be an “electronic record or document” which is governed by the Electronic Commerce and Transactions law. Currently, electronic invoicing requires the engagement of a local service provider licensed by the Central Bank of Nigeria.
- ▶ The Electronic Transactions Bill which was recently introduced to the public regulates electronic documents, including electronic invoices, and sets out requirements on their issuance and storage, allowing the use of digital signatures to ensure the integrity and authenticity of the electronic document.

South Africa (post audit)

- ▶ South Africa is one of the few African countries where electronic invoicing is specifically regulated, accepted and used in practice.
- ▶ Electronic tax invoices can be issued and sent electronically, provided that the rules for electronic documents are adhered to. A digital signature can be used to meet the security requirements.
- ▶ Legal requirements demand that electronic invoices be archived locally, although with derogation they can be stored abroad. One of the conditions for derogation to be granted is that the electronic archive is located in a country which has entered into a tax assistance treaty with South Africa.

Tanzania (post audit)

- ▶ Suppliers in Tanzania must use a certified Electronic Fiscal Device (EFD) for issuing fiscal documents, including invoices. The EFD generates a unique number (signature) which is appended to and printed on every invoice issued through the EFD.
- ▶ Records may be archived in electronic form and may be stored abroad subject to access and printability in case of an audit.

Tunisia (clearance)

- ▶ Issuance of invoices electronically is regulated in the Finance Law since 2016. The envisaged process requires electronic invoices to be digitally signed and registered with the government appointed entity, Tunisie TradeNet.
- ▶ B2G electronic invoicing is mandatory for large enterprises.



ELECTRONIC INVOICING IN ASIA PACIFIC

Electronic invoicing in Asia Pacific

A couple of trends in the field of electronic invoicing have emerged during the last few years in the Asia Pacific region.

Many countries in Asia Pacific have in recent years started gearing up towards regulating electronic invoicing issuance and associated national standards have been adopted for a wide range of electronic invoicing flows for B2B and B2G scenarios.

Common law legacy vs. Clearance country inspiration

One part of the Asia Pacific region is characterized by jurisdictions with a strong common law legacy, such as Singapore, Australia and New Zealand, which typically focuses regulatory measures on record retention. In the context of electronic invoicing this means that the rules related to electronic invoice issuance are often scarce, whereas more controls exist around electronic archiving. Many of these countries have in recent years started gearing up towards regulating electronic invoicing issuance and associated national standards have been adopted for a wide range of electronic invoicing flows for B2B and B2G scenarios.

On the other side of the spectrum, there are countries that are influenced by the so-called clearance model and where the control infrastructure of electronic invoice issuance centers around government clearance and localisation requirements. Examples of jurisdictions with clearance systems are China, Indonesia and Taiwan. Moreover, electronic invoicing is either partially or completely mandatory in some of these countries, and there is a trend of more countries aiming to introduce mandatory electronic invoicing in stages within the coming years. Notable examples are countries such as Kazakhstan and Vietnam.

Tax reforms – back and forth

Indirect taxes keep emerging in the Asia Pacific region. In addition to China replacing its Business Tax with VAT in 2016 and the introduction of Goods and Services Tax (GST) in India last year, the Gulf Cooperation Council (GCC) has executed a VAT Framework Agreement, ratified by Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates (UAE). This framework simultaneously introduces a value added tax system in 2018 in the region. The common framework sets out baseline VAT applicability principles as well as considerations on cross-border transactions. Following this initiative, Saudi Arabia and the UAE implemented VAT regimes in January 2018. The remaining four Member States are however not yet close to implementation, and the estimated timelines for introducing VAT in these member states vary from 2019 to 2021.

Interestingly, while the larger trend indeed indicates that indirect tax regimes keep spreading in the Asia Pacific, the Malaysian government has recently done the exact opposite: in September 2018 the government officially repealed the GST legislation which was introduced in 2015 and has instead reintroduced the Sales Tax and Service Tax regimes.

Electronic invoicing in Asia Pacific

Australia (post audit)

- ▶ An invoice can be issued and stored in electronic form subject to the integrity and authenticity of the invoice being safeguarded. The legislation mentions EDI as an example of an acceptable method for issuing an electronic invoice.
- ▶ Records stored electronically should be capable of being converted to a readable format, with such examples including a printout, text file, or Excel file.
- ▶ The tax authority requires proper documentation describing the electronic invoicing system and in particular of the archiving system. The system used for record keeping should be secure and a backup procedure is recommended.
- ▶ The Australian Digital Business Council and other Governmental bodies had previously introduced an “eInvoicing Interoperability Framework”, which provides a set of open standards for electronic invoicing that businesses, especially small sized, can choose to adopt.
- ▶ Electronic invoicing is progressively adopted across all levels of government agencies, and the government recommends that electronic invoicing should be adopted in consistency with the Framework.
- ▶ Australia and New Zealand have established a working group on an electronic invoicing standard that would align electronic invoicing processes across Australia and New Zealand.

Azerbaijan (clearance)

- ▶ Electronic invoicing is mandatory.
- ▶ The invoice is issued by means of the sub-system Electronic Tax Invoice of the state-owned Automated Tax Information System, which is available in online and offline modes.
- ▶ The electronic invoice is delivered to the buyer (if registered as a VAT taxpayer) through the Automated Tax Information System. If not registered, the buyer can request invoices to be printed by the Automated Tax Information System, and issued to the buyer in paper form.
- ▶ The process is always tied to a physical person, which means it currently cannot be carried out in an automated fashion.



China (clearance)

- ▶ Electronic invoicing is not fully permitted in China; the bulk of VAT special invoices which is extensively used for B2B transactions still require a paper process.
- ▶ Upon approval of the tax authority, taxpayers can issue so called normal invoices (not eligible for claiming input VAT, commonly used for B2C transactions) electronically to their customers nationwide.
- ▶ VAT normal electronic invoicing is mandatory for the three big telecommunication companies in Beijing (China Mobile, China Telecom and China Unicom).
- ▶ Electronic invoices should be in PDF format and the authenticity and integrity of electronic invoices must be ensured by means of electronic signatures. The taxpayer should furthermore use the VAT invoicing issuance system and hardware/software certified by the tax authority.
- ▶ The tax authority is currently exploring a blockchain technology based electronic invoicing model, which provides the leverage for the tax administration to check, verify, rely on and trace electronic invoices using blockchain.
- ▶ Taxpayers may store accounting documents, including invoices, in electronic form, provided that the e-archive meets certain requirements on authenticity and integrity, and the processing system meets certain requirements on functionality and security.

China

Electronic invoicing has in the past years been rolled out extensively in China. It even became mandatory for certain taxpayers to issue electronic VAT normal invoices to their consumers. Such electronic invoices are verifiable via the taxpayers' and third-party service providers' electronic invoicing portal. Taxpayers wishing to issue VAT normal invoices electronically can apply for permission to issue electronic invoices to their consumers.

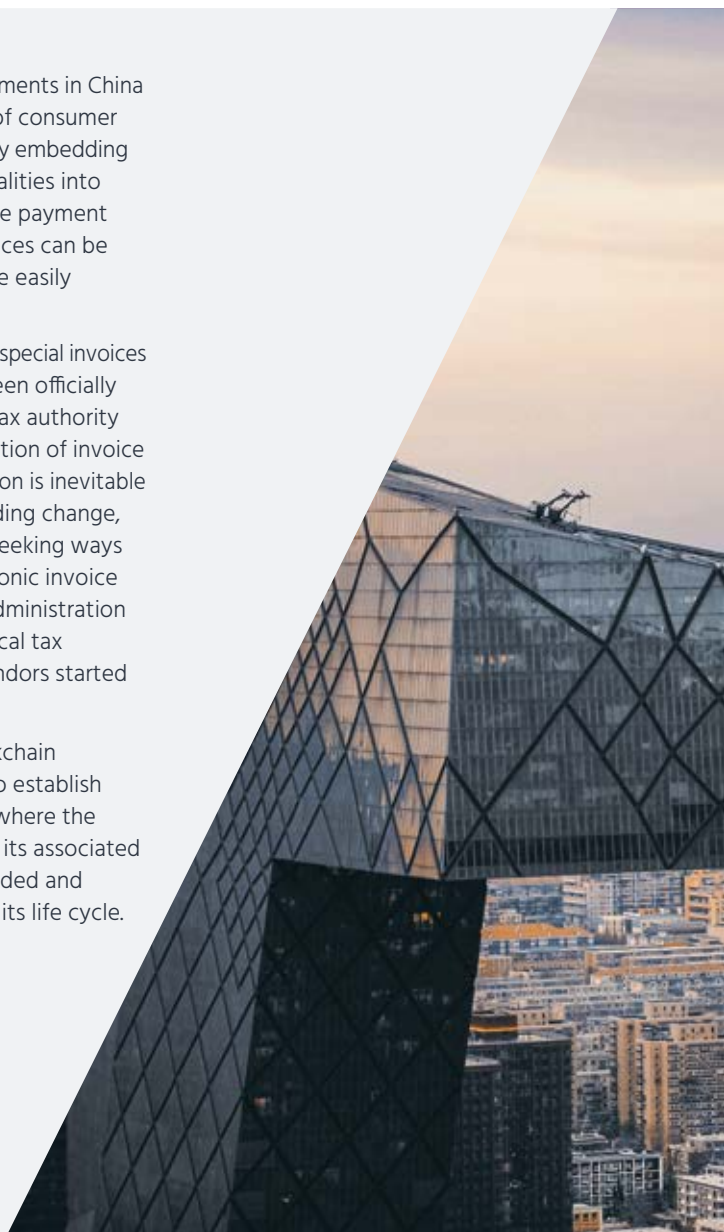
Generally, the taxpayer should use the VAT invoicing issuance system and hardware/software certified by the tax authority. Before issuing the invoices, the invoice numbers to be used are issued by the tax authority to the taxpayer through the certified hardware/software. The issued invoices contain two visual stamps which indicate respectively the identities of the supervising tax authority and the taxpayer.

In the last few years, electronic invoicing has become quite common in consumer facing industries such as telecommunication, catering, electronic commerce, transportation and logistics.

The prosperity of mobile payments in China has increased the prospect of consumer facing electronic invoicing. By embedding electronic invoicing functionalities into those commonly used mobile payment applications, electronic invoices can be maintained and verified more easily by users.

Although the issuance of VAT special invoices in electronic form has not been officially permitted yet, the Chinese tax authority understands that the digitisation of invoice management and tax collection is inevitable and with businesses demanding change, the government is actively seeking ways to ensure an effective electronic invoice roll-out. In 2018, the State Administration of Taxation together with local tax authorities and technical vendors started experiments in some cities.

By experimenting with blockchain technology, China's goal is to establish a trustworthy environment where the circulation of an invoice and its associated data can be accurately recorded and verified by all participants in its life cycle.



Electronic invoicing in Asia Pacific

India (post audit)

- ▶ Effective from 1 July 2017, India has implemented GST across the country. GST has replaced the majority of the previous indirect taxes levied on goods and services on both federal and state level, including the two previous federal taxes, CENVAT and Service tax.
- ▶ Electronic invoicing is permitted for GST. Digital signatures based on the Indian IT Act are required for ensuring the integrity and authenticity of the invoice.
- ▶ The federal and state governments levy the Central GST (CGST) and State GST (SGST) for intra-state supplies of goods and services; the federal government levies Integrated GST (IGST) for inter-state supplies, and the Union Territory's government levies UGST on supplies within one Union Territory.
- ▶ Storage of invoices in electronic form is allowed for all invoices above, subject to requirements set out in the CGST Act and the GST Account and Records Rules.

Indonesia (clearance)

- ▶ Electronic invoicing has been mandatory for all corporate VAT-payers since 2016.
- ▶ Electronic invoices (locally known as *e-Faktur*, *Pajak* or *e-FP*) should be created by applications and systems prescribed by the Director General of Taxation (DGT). These include client desktop applications, web-based applications and host-to-host applications.
- ▶ Electronic signatures are required for the issuance of electronic invoices.
- ▶ Each electronic invoice must be reported to, and approved by, the tax authority.

Israel (post audit)

- ▶ Electronic invoicing is permitted in Israel provided it is prominently stated on the invoice that it is a 'computerized document'.
- ▶ The supplier's digital signature is required to ensure the integrity and authenticity of the invoice.
- ▶ Outsourced issuance by a third party is not known or permitted as a concept, but exemptions to this rule may be provided by the tax authority.
- ▶ If the supplier's income is derived in Israel, the storage of the accounting system including invoices must be in Israel unless derogation has been granted. The same rules apply to the mandatory backups, to be regularly performed.
- ▶ Outsourcing of archiving also requires derogation.

Japan (post audit)

- ▶ Although not specifically regulated under the current Japanese Consumption Tax Law (equivalent to VAT), electronic invoicing is permitted in Japan and is starting to become more commonly used in practice.
- ▶ The requirements for electronic invoicing have to be drawn from the general tax rules on tax-related records and from regulations on the preservation of tax-related records.
- ▶ Invoices should be stored in such a way as to guarantee their integrity, authenticity and availability during the storage period.
- ▶ Taxpayers who archive electronic invoices must either a) apply a timestamp on the invoices, or b) maintain a Storage and Maintenance Guideline document which describes the archiving system in a way prescribed by the tax authority.
- ▶ Foreign storage is allowed provided it fulfils the requirements for storage under Japanese law. Online access, human readability and printability must be ensured upon request from the tax authority.
- ▶ Outsourcing of invoice issuance and archiving is allowed; no requirements or restrictions apply regarding outsourcing agreements or third-party service provider accreditation and place of establishment.
- ▶ A tax reform is ongoing in Japan since early 2018, introducing the plan of implementing a formal tax invoice (in JP: *tekikaku-seikyu-sho*) scheme in October 2023. Under this scheme, only registered consumption taxpayers will be eligible to issue tax invoices. Electronic invoicing will be explicitly allowed for tax invoices subject to the buyer's consent.



Hong Kong (post audit)

- ▶ Electronic invoicing is permitted but not specifically regulated and generally mirrors the common law approach to electronic invoicing.
- ▶ The rules published by the Inland Revenue Department in “Admissibility of Business Records Kept in Electronic Form for Tax Purposes” mainly focus on the storage aspects and general controls within companies.
- ▶ Integrity and authenticity of electronic records must be maintained.
- ▶ Certain recommended audit file presentation formats are published by the Hong Kong Inland Revenue Department.

Kazakhstan (clearance)

- ▶ Kazakhstan’s plans to introduce mandatory electronic invoicing for all taxpayers as of 2017 have been postponed. The new plan includes mandatory electronic invoicing for all VAT-payers as of January 2019.
- ▶ Electronic invoicing is conducted via the so-called Electronic Invoicing Information System (EIIS). The EIIS functionality enables the issuance, submission, registration, acceptance, processing, delivery and storage of the electronic invoice.
- ▶ An electronic invoice must be issued in an approved format and signed with the supplier’s e-signature based on a certificate issued by the Kazakhstan National Certification authority. The invoice is considered issued and sent to the buyer when the EIIS assigns a registration number to the electronic invoice.
- ▶ The issued electronic invoice is archived directly in the EIIS, which makes the stored electronic invoice directly available to the tax administration.
- ▶ Outsourcing of the taxpayer’s activity within the EIIS to any person other than the taxpayer’s employee or structural unit is not envisaged by law.

Macau (post audit)

- ▶ Neither VAT nor GST is levied in Macau.
- ▶ Business entities who engage in commercial and industrial activities or provide services in Macau are subject to Complementary Tax; the law requires taxpayers to maintain and archive accounting documents properly and timely.
- ▶ Electronic storage of accounting documents, including invoices, is allowed.
- ▶ An electronic invoice signed using a qualified electronic signature is presumed to carry integrity and authenticity.

Malaysia (post audit)

- ▶ As of 1 September 2018, the Goods and Services Tax (GST) regime in Malaysia, which was introduced as late as in 2015, has been abolished and replaced with a new Sales and Service Tax (SST) regime.
- ▶ Electronic invoicing is permitted in Malaysia also under the new SST regime. An authorization from the Director General of Customs and Excise is needed for foreign storage.
- ▶ There are no specific technical requirements on the electronic invoice issuance system; however, the company needs to guarantee that invoices are accessible, secure and can be provided locally if required during an audit.
- ▶ Integrity and authenticity are implicitly required, but there is no specific method or technology prescribed by law.

New Zealand (post audit)

- ▶ The Inland Revenue Department allows electronic invoicing, subject to appropriate business processes and systems being used. Integrity and authenticity of electronic invoices must be preserved.
- ▶ The Electronic Transactions Act contains a presumption of reliability for what would be called Advanced Electronic Signatures in the EU, but there are no hard requirements for electronic signatures or any other specific type of technology or process to be used.
- ▶ Derogation is normally required for foreign storage of electronic invoices.
- ▶ New Zealand and Australia have established a working group on an electronic invoicing standard to harmonize electronic invoicing processes across Australia and New Zealand.



Electronic invoicing in Asia Pacific

Oman (post audit)

- ▶ As a member of the GCC and a ratifying party to the GCC VAT Framework Agreement, Oman has announced that the implementation of VAT is postponed to September 2019.
- ▶ Currently, no specific requirements exist for electronic invoice issuance. Under the current Royal Decree on Electronic Transactions it is implicitly required to ensure the integrity and authenticity of an electronic document, such as an invoice. This can be achieved e.g. by means of an electronic signature.

Pakistan (post audit)

- ▶ Prior approval from the Collector of Sales Tax is required for electronic invoicing.
- ▶ Special procedures have been introduced for the collection of Sales Tax for certain types of suppliers. Certain retailers are required to install and operate a Fiscal Electronic Cash Register and issue invoices to customers only from this device; certain taxpayers (e.g. in electric power and natural gas industries) using computerized accounting systems may issue Sales Tax invoices electronically and keep the records electronically in prescribed formats.

- ▶ Requirements exist for electronic signatures based on certificates from certification authorities approved by the Certification Council (ECAC).
- ▶ In principle, storage must take place at the business premises or at the registered office of the taxable person.

Philippines (post audit)

- ▶ Electronic invoicing has been permitted for more than a decade and e-documents should generally have the same value as paper-based. However, in practice a hard copy is still required unless an approval from the authorities has been obtained.
- ▶ All companies that wish to issue invoices electronically or keep their books in electronic form need to apply for permission to use a Computerized Accounting System (CAS), this system being accredited and closely monitored by the tax authorities. Outsourcing of the CAS is possible; the service provider needs to be accredited by the tax administration.
- ▶ The Philippines has launched the Tax Reform for Acceleration and Inclusion (TRAIN) in which a number of tax reform proposals have been introduced and discussed. In the beginning of 2018, the so-called "package 1" of TRAIN was enacted, amending certain provisions concerning VAT in the National Internal Revenue Code 1997.

- ▶ Among other things, in "package 1", mandatory issuance of electronic commercial invoices is planned to be introduced within five years to certain taxpayers, such as those engaged in e-commerce and exports.

Qatar (post audit)

- ▶ Qatar has not implemented VAT yet. As a member of the GCC and a ratifying party to the GCC VAT Framework Agreement, the proposed timeline for introducing VAT in Qatar is January 2019.
- ▶ No specific requirements currently exist for electronic invoice issuance. The current Electronic Commerce and Transactions Law sets out general requirements for so-called data messages, a concept that can be considered to cover electronic invoicing.
- ▶ Ensuring integrity and authenticity of the invoice is an implicit requirement and an electronic signature may be used to this end.
- ▶ Electronic invoices can be kept abroad provided that a copy of the electronic invoice is stored in Qatar.



Saudi Arabia (post audit)

- ▶ As a member of the GCC and a ratifying party to the GCC VAT Framework Agreement, Saudi Arabia has introduced VAT for supply of goods and services as of 1 January 2018.
- ▶ Electronic invoicing is allowed under the VAT legislation. Integrity and authenticity of electronic invoices are implicitly required; necessary security and adequate controls should be in place to prevent electronic invoices from being tampered with.
- ▶ The VAT legislation explicitly allows third parties to issue electronic invoices on behalf of suppliers.
- ▶ Electronic invoices must be stored in a system or server that is physically located within the territory of Saudi Arabia. Upon meeting certain additional requirements, taxpayers who have a subsidiary in Saudi Arabia may have their central computer systems located outside Saudi Arabia.

Saudi Arabia

Following the introduction of the brand-new VAT regime in January 2018, the Kingdom of Saudi Arabia has also started promoting a national electronic invoicing platform called ESAL. This is a joint effort between the Saudi Arabian Monetary Authority (SAMA) and the General Authority of Zakat and Tax (GAZT). These measures are viewed as a response to the low oil price of recent years, as well as the increasing levels of tax evasion in the country.

This national electronic invoicing platform aims to provide suppliers and buyers with a single point to where electronic invoices can be sent, received and processed. By building ESAL's electronic invoicing platform on top of an existing e-bill payment service called SADAD – which facilitates connections between businesses and Saudi Arabian banks – the aim is to also provide a “single source of truth between suppliers and buyers”. More importantly, the platform facilitates communication channels for suppliers and buyers for invoicing processes, including real-time notification and technical means for rejection and approval of electronic invoices.

In line with the relatively strict record-keeping rules in Saudi Arabia which require taxpayers to store invoices locally in the Kingdom, the platform also provides an electronic invoice archiving facility for the transacting parties. This functionality will further enhance the tax record centralisation and localisation in the country.

By establishing such a platform, the tax authority aims to monitor business activities and track billing and invoicing status, to ensure better collection of VAT and reduce tax evasion. Although it is a platform involving only suppliers and buyers – and while there has so far been no indication of real-time clearance of transaction data in the invoicing process – using this platform would, of course, imply a certain level of compliance under the invoicing requirements set out in the Saudi Arabian VAT law.

As one of the two members who implemented VAT and relevant technical measures timely following the Gulf Cooperation Council (GCC) VAT Framework Agreement, Saudi Arabia could be the key indicator of the future trend of VAT control in the GCC.



Electronic invoicing in Asia Pacific

Singapore (post audit)

- ▶ Singapore generally follows the common law tradition, focusing on storage rather than the issuance of the invoice, with the latter not being specifically regulated in law. The rules published by the Inland Revenue Authority of Singapore in “Keeping Machine-Sensible Records and Electronic Invoicing” mainly focus on the storage aspects and general controls within companies.
- ▶ Electronic signatures are mentioned as a possible (but not mandatory) mechanism for ensuring adequate controls.
- ▶ Electronic invoices can be stored abroad.
- ▶ B2G electronic invoicing is mandatory. As a part of the Singaporean government’s plan to make business digitize, Singapore launched a nationwide electronic invoicing standard framework in 2018, which is the Pan-European Public Procurement On-Line (PEPPOL). Singapore is the first country outside Europe to adopt PEPPOL.

South Korea (clearance)

- ▶ Electronic invoicing is mandatory for all corporations and for certain individual taxpayers with supplies over a certain amount.
- ▶ Registration with the National Tax Services (NTS) is needed, as well as a “standard authentication” from the National IT Industry Promotion Agency (NIPA) for facilities and systems.
- ▶ Electronic invoices must be issued using one of the following methods that are designated by tax law: (i) taxpayer’s own electronic invoicing system that has been certified and registered with the competent authority; (ii) a certified application service provider (ASP); (iii) the electronic invoicing system of the NTS.
- ▶ The use of an electronic signature is mandatory. In order to fulfil this legal requirement, the taxpayer may either use (i) a certificate issued by the Public certification authority or (ii) an e-tax certificate issued by the NTS.
- ▶ A summary of the electronic invoice shall be submitted to the NTS in a format prescribed by the NTS.

Taiwan (clearance)

- ▶ Electronic invoicing is permitted and has been mandatory since 2015 for certain industries. Business entities that are registered with a local tax authority are qualified to partake in electronic invoicing.
- ▶ Invoices may be issued using one of three available methods: (i) a Service Platform provided by the Ministry of Finance (MoF); (ii) an accredited private system; or (iii) an accredited service provider. For the latter two methods, it is required to upload information regarding elements such as issuance, cancellation and return of electronic invoices to the Service Platform.
- ▶ Security measures must be in place, including a local digital signature.
- ▶ Electronic invoices must be issued following a specific range of electronic invoice numbers provided by the authorities.



Thailand (post audit)

- ▶ Electronic invoicing has been permitted since 2012. The Thai Revenue Department has introduced a new regulation on electronic invoices and electronic receipts in 2017. Subject to the approval of the Thai Revenue Department, a taxpayer may prepare, deliver and keep its tax invoices or receipts in electronic form.
- ▶ Electronic invoices must be digitally signed using a certificate issued by a certification authority approved by the Thai Revenue Department.
- ▶ The supplier must submit the electronic invoices to the Revenue Department on a monthly basis in xml format for audit purposes.
- ▶ Outsourcing of the issuance of electronic invoices is allowed provided the third-party service providers is certified by the Thai Revenue Department.
- ▶ The Thai Revenue Department has been working closely with the Electronic Transactions Development Agency (ETDA) on electronic invoicing standards. A number of technical standards and recommendations on IT and communication standards for B2B trading information exchange (covering electronic invoicing) have been published.

United Arab Emirates (post audit)

- ▶ As a member of the GCC and a ratifying party to the GCC VAT Framework Agreement, UAE introduced VAT for supply of goods and services as of 1 January 2018.
- ▶ Electronic invoicing is allowed. Ensuring the authenticity and integrity of electronic invoices is explicitly required.
- ▶ There is no restriction on place of storage for electronic invoices, however they must always be readily available at the taxpayer's domicile.

Vietnam (post audit)

- ▶ Electronic invoicing is permitted upon approval from the tax authority but is gradually becoming mandatory.
- ▶ In September 2018 the Vietnamese government published the electronic invoicing decree which provides detailed guidance and makes electronic invoicing mandatory for a large number of taxpayers. The decree is in effect as of November 1, 2018 and the government is aiming that at least 90 percent of the taxpayers will use e-invoices by 2020.
- ▶ Electronic invoices should be digitally signed by the supplier.

References

- ▶ **Ref 1:** Council Directive 2010/45/Eu of 13 July 2010 amending Directive 2006/112/ EC on the common system of value added tax as regards the rules on invoicing.
- ▶ **Ref 2:** Cwa 16460: Cen Workshop Agreement "Good Practice: electronic invoicing Compliance" Guidelines (www.cen.eu/work/areas/ICT/ebusiness/Pages/einvoicing.aspx).
- ▶ **Ref 3:** Regulation (EU) No 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC.
- ▶ **Ref 4:** Directive 2014/55/EU of the European Parliament and of the Council of 16 April 2014 on electronic invoicing in public procurement.





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