

WHITE PAPER

The Most Common E-Invoicing Integration Approaches

The cost savings and other benefits of e-Invoicing are well known. While many enterprises are still generating and processing paper invoices, mandates are now forcing companies to embrace e-Invoicing. Let's walk through the most common e-Invoicing integration approaches and the challenges and benefits for each.



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E-Invoicing is a common business-to-business (B2B) practice and has been available in various forms for decades. Research consistently demonstrates the cost saving of moving away from paper invoices. For example, Billentis estimates that senders of e-Invoices can save about 59 percent on costs and recipients can save 64 percent, as compared to paper-based processes. Removing paper from invoicing processes is a critical step in digital transformation efforts designed to achieve true efficiencies in accounts receivable and accounts payable.

So why aren't all invoices e-Invoices? If the savings are so clear and the benefits well known, it seems logical that a rapid transition from paper to e-Invoices would occur – especially in business to business (B2B) transactions. While significant cost and time savings can be achieved by removing paper and manual processing from your invoicing, the amount saved via e-Invoicing is determined by the level of integration between you and your trading partners. In VAT regimes however, changing tried-and-tested paper-based invoicing processes does introduce risks of audit problems, penalties and fines from tax authorities.

How E-Invoicing Works

There are four common approaches to e-Invoicing. The level of integration between the supplier and buyer, as well as the potential benefits, vary significantly with each approach.

- The supplier provides a signed PDF to the buyer.
- One party provides a portal for non-digital trading partners (e.g., a large buying hub makes available a supplier portal for smaller vendors).
- Supplier creates invoices in a digital format (EDI/XML) and sends them electronically.
- Supplier and buyer integrate with a government provided portal either for pre-approval of the invoice (clearance) or for tax reporting purposes.

In this paper, we'll address each approach, its benefits and challenges, adoption of each approach, and even some best practices for each approach.

Not quite e-Invoicing...

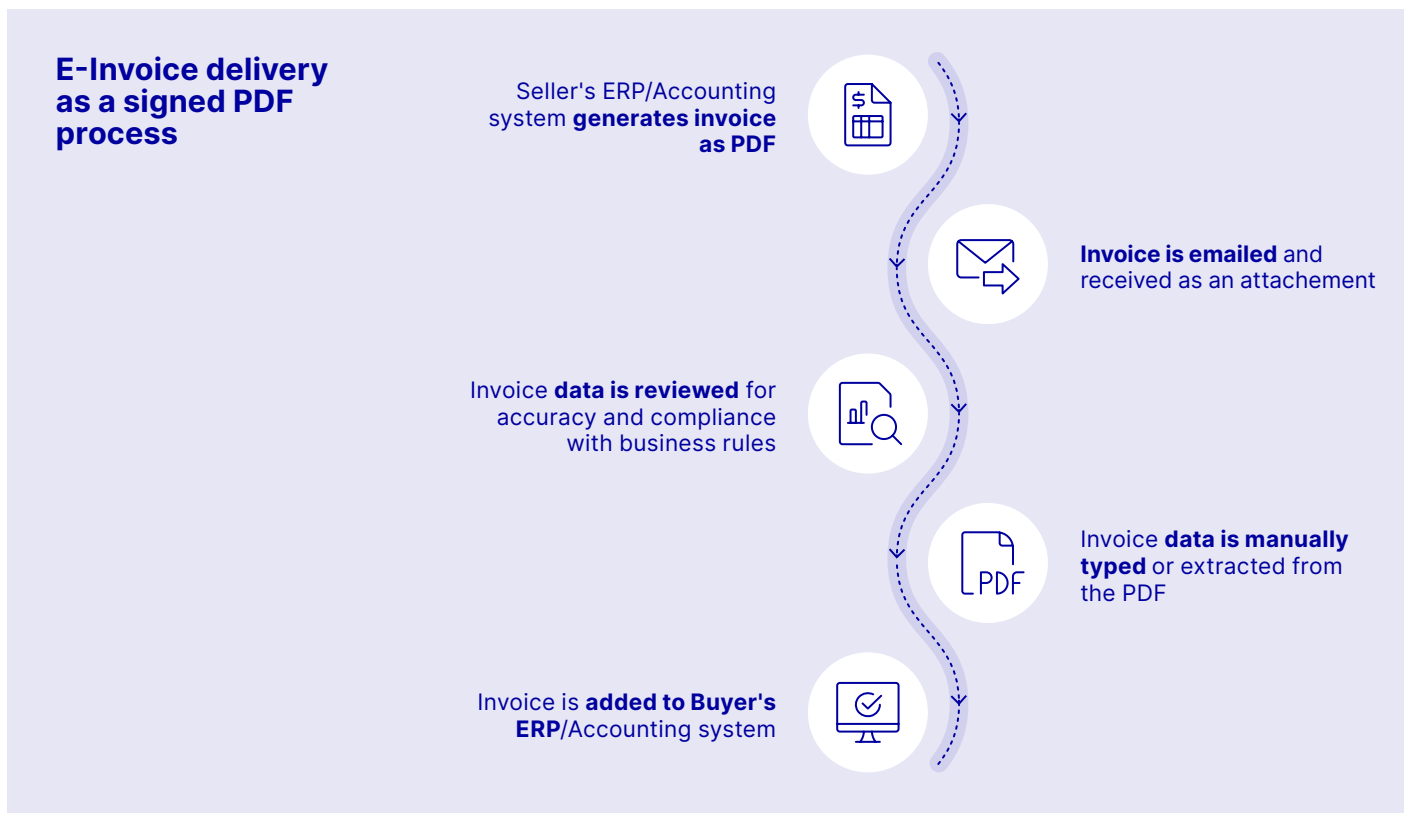
There is a method that allows a buyer to automate invoice processing by converting paper or unstructured PDF/Microsoft® Word/spreadsheet invoices to structured data via technology. In this method, paper or documents are converted to structured electronic format using a combination of scanning, workflow, and Optical Character Recognition (OCR) technologies. While these technologies have proven to help automate invoicing processing – especially of paper invoices, it does not meet the criteria for e-Invoicing. This is especially true in countries where electronic invoices are allowed for tax reporting and government regulation has defined what is meant by an e-Invoice. In those countries, if the original invoice is paper, the buyer must retain paper copies for tax and audit.

Approach 1: E-Invoice is delivered as a signed PDF

This approach allows a supplier to automate its invoice process by sending a signed PDF invoice. Technically, the PDF contains unstructured data, but in many countries with regulations regarding e-Invoicing, a signed PDF is considered a valid e-Invoice. This has proven to help the invoicing process, particularly in reducing the amount of paper storage required, but this approach still requires manual data entry on the buyer side.

While in some countries an unsigned PDF may be accepted this requires keeping additional electronic audit trail documentation which is often burdensome for businesses.

There are also now PDF formats that include embedded structured data such as the ZUGFeRD standard in Germany, which has been adopted also in France as Factur-X. When structured data is included with a PDF, it will be easier for buyers to automate the processing of inbound PDF-based e-Invoices. Efforts like this are currently regional and still require investment in special software on behalf of both parties; it could be argued that if you can generate the mandatory and strict XML data format for a ZUGFeRD-type invoice, you could just as easily use Approach 3 which, as you will see, offers far greater benefits all around.



Benefits

This approach primarily benefits the supplier as it does not have the cost of printing and mailing an invoice. It eliminates the need for either party to store paper copies for audit and record keeping. This approach also satisfies legal e-Invoice requirement for tax audit purposes in many countries.

Challenges

Both the seller and buyer face challenges with this approach. First, the seller needs to be able to both generate the PDF and must be able to guarantee the integrity and authenticity of the invoice, typically through digitally signing the document.

While non-signed PDFs may be accepted in some regions, the requirement for businesses to maintain additional process related documentation for audit is not well defined and may still not guarantee the integrity and authenticity of the invoice.

Secondly, the buyer needs to be able to receive the PDF and convert to a format it can consume into their ERP/accounting system (either by manually typing or using software to extract data). Depending on the number of suppliers and variation in invoice formats, being able to convert all invoices may be challenging.

Why isn't everyone doing it?

Many smaller organizations may not be willing to make the investment necessary to create the processes and audit trail needed to guarantee the integrity and authenticity of an e-Invoice. Digital signatures typically go through a third party and there is a cost associated with setting up the process and signing each document. Larger buying organizations may not accept PDF invoices because of the manual data entry required. NOTE: this may change with the introduction of standards for supplementing PDFs with embedded structured data.

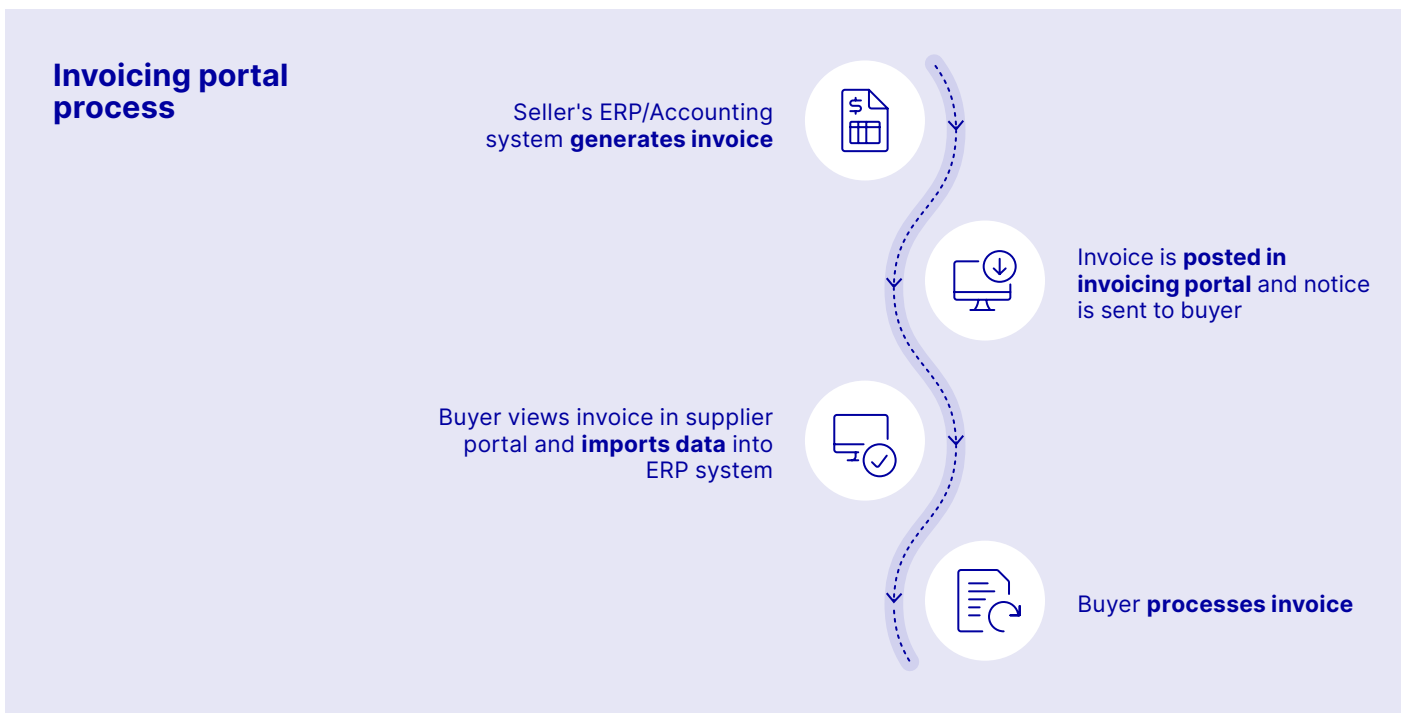
Best practices

If you are a supplier creating signed PDF invoices for buyers, look for a service provider who can sign and provide tax audit compliance in the countries you do business. If you are a buyer receiving PDF invoices without structured data, seek to automate the extraction of data from a PDF for as many invoices as possible.



Approach 2: One Party Provides a Portal for Non-Digitized Trading Partners

The next approach is to provide a portal for e-Invoicing. Suppliers have little leverage in this situation to get buyers to use a portal and supplier-based portals are unusual, so most e-Invoicing portals are provided by the buyer for suppliers to enter invoices in a web form. The forms on the portal can help to ensure all required data is included and saved in an electronic format suitable for importing into the ERP system. The buyer can integrate the portal with its invoice processing system to provide status and other payment information to the seller.



Benefits

This approach is best for integrating with smaller suppliers who cannot invest to exchange data digitally. The advantage of portals is the bi-directional nature and ability to automate some communication. When used in conjunction with Approach 3, all invoices can be processed in the same way, with the same tools/software.

Challenges

Small sellers will need to key some data into the portal manually. Some data entry errors are likely to occur, although fixing errors is easier via the portal as compared to fixing paper-based errors. It helps if the portal also supports the placing of orders, in which case the portal can pre-fill forms for the supplier with data from the order and reduce manual data entry even further. The biggest challenge is getting the other party to use the portal. Buying organizations have some leverage over suppliers because they can refuse to purchase or pay unless billed through an electronic invoice or via the portal.

Why isn't everyone doing it?

Since many of the benefits of e-Invoicing portals go to the portal host (usually the AP department of a buying organization), it is challenging to get suppliers to adopt and participate. However, education of trading partners can be used to demonstrate the value to suppliers in terms of reduced calls from AP, fewer errors, and faster payments.

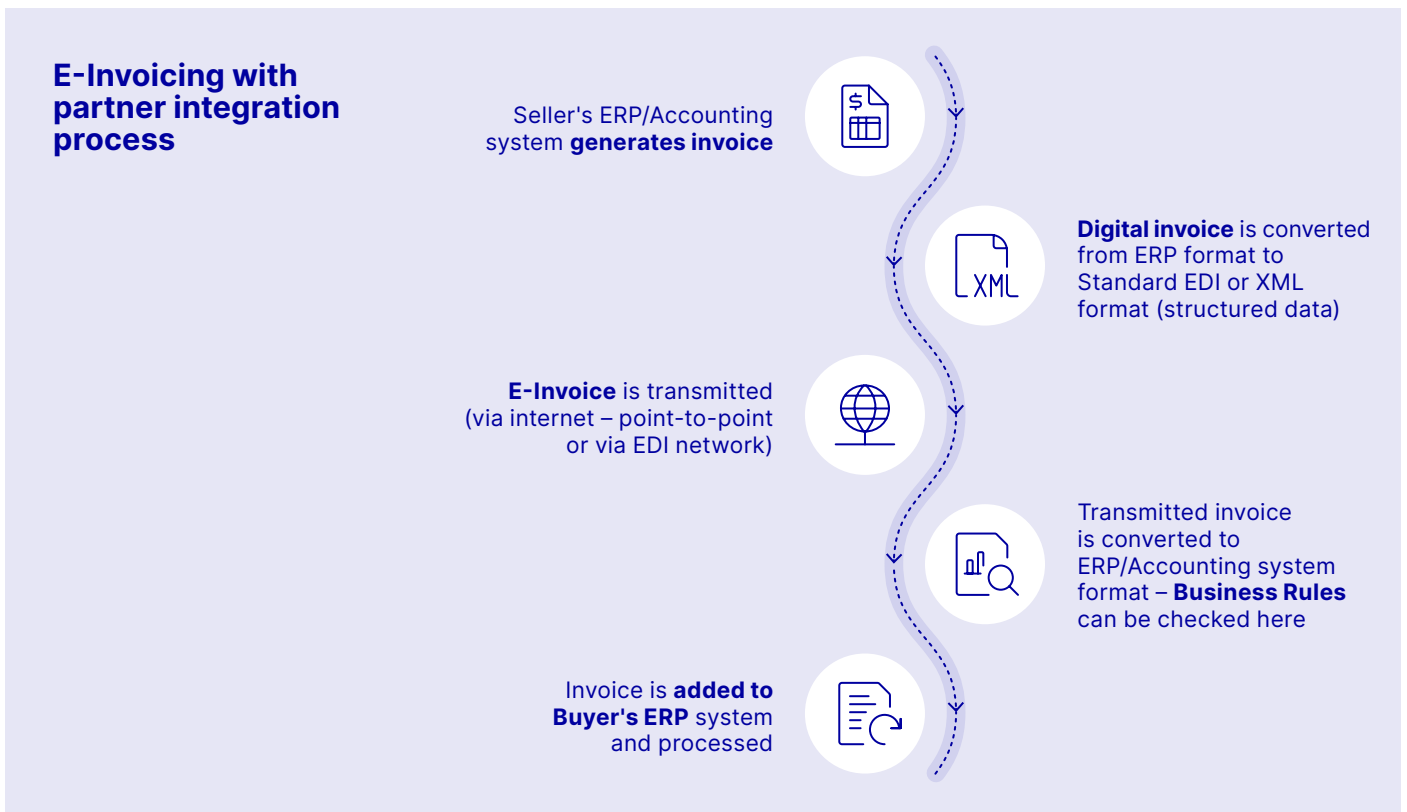
Best practices

Two things can increase partner adoption of an e-Invoicing portal:

1. **Education** – teach your trading partners how to leverage the portal efficiently and use it for communicating.
2. **Use the portal for the entire transaction set** – rather than just providing an e-Invoicing portal, provide a portal that enables full transaction lifecycle communication. If the buyer can place an order and have it appear in the portal, small and medium sized sellers can respond directly in the portal. The portal can also allow trading partners to do a “PO turnaround” to take the order data and pre-fill forms for advanced shipping notices and invoices – making the portal much more beneficial and reducing the amount of data entry required.

Approach 3: E-Invoicing with B2B digital partner integration

The third approach for electronic invoicing is for suppliers to generate and send e-Invoices, while buyers receive electronic invoices directly in digital format and automatically process them in their ERP/accounting system. This eliminates the buyer's need to do any data entry, speeds the process, and enables all the benefits that come from electronic invoicing.





The conversion steps are due to challenges faced when integrating buyer's AP with supplier's AR systems. Each accounting vendor outputs invoice data in its own preferred format. And different companies frequently have differing required fields and data elements. While the buyer and supplier can do the conversion using EDI translation software, many organizations are opting to engage third-party service providers who offer a broad range of translation and protocol mediation services.

Benefits

This exchange of digital information between trading partners is the most efficient way to exchange e-Invoices. It also allows for some valuable interaction between buyer and seller. For instance, many buyers do extra processing during the conversion step to ensure all the right data is available and accurate or within tolerances before the data goes into the ERP or accounting system. If required data is missing, part numbers don't exist, or the amount billed is too different from the order amount – the invoice can be rejected, and a digital message sent to the supplier that errors exist in the invoice.

In addition, B2B integration typically goes far beyond the invoice, enabling partners to automatically exchange purchase orders, confirmations, shipping notifications / goods receipts and payments in electronic format. In this way the maximum benefits from digitization of your selling and purchasing invoice processes can be realized.

Challenges

The initial set-up and configuration between the buyer and seller require work. The conversion steps on both sides can be done in-house, using mapping and translation software or can be outsourced using B2B managed services. If you use your own software, you need to meet with each trading partner and determine the EDI or XML data format documents will be transmitted in. If you use B2B managed services, your provider will do that work for you and create the conversion map, as well as hosting and managing transmission of the data.

Why isn't everyone doing it?

While this approach generates the greatest benefits, it also requires the most upfront effort. This is why many companies, especially small and medium sized businesses, have been slow to adopt e-Invoicing. This option also requires the participation of both buyer and seller. It is usually easy to get large or high-volume trading partners to participate, but small to medium sized and low volume partners may need encouragement to invest in B2B integration, or else require other approaches.

Best Practices

Target highest volume trading partners first for end-to-end e-Invoicing. The benefits are measurable, and the more invoices you exchange, the greater the ROI. Many organizations target the top 20 percent of partners by number of invoices.

Include more than just e-Invoicing in your integration. The effort to set up additional transaction types with the same trading partner can be spread across transactions and the level of automation that is enabled can greatly streamline both AR and AP processes.

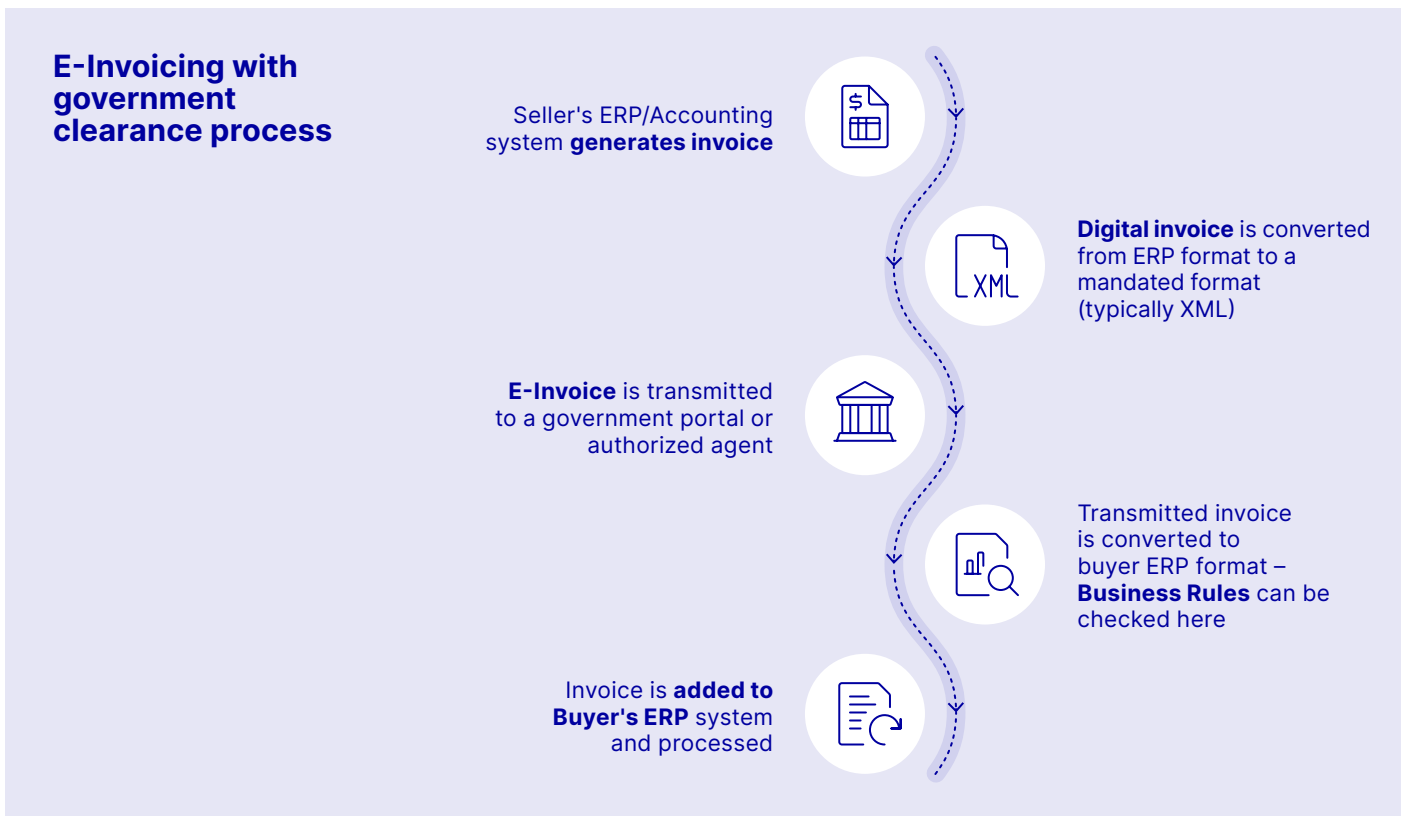
Make sure your e-Invoicing provider can ensure your compliance with applicable government regulation for tax audit. A wide variety of rules exist regarding invoice and tax compliance across the globe and it is challenging to meet all the requirements.

Approach 4: E-Invoicing in government clearance regimes

This fourth approach is different to the other three in one important way. In an increasing number of countries it is a mandatory approach for electronic invoicing. Since the invoice is the central document in tax audits, governments have recognized significant benefits in fraud prevention by getting directly involved in the invoicing issuance process.

While the specifics vary from country to country, generally the process is for suppliers to generate invoices in a specific, government mandated digital format and to have the supplier present the invoice for pre-approved or “clearance” to a centralized tax authority portal. In some countries the tax authority portal will manage delivery to the buyer directly on your behalf. In other countries it remains the responsibility of the supplier to send the approved or cleared invoice to the buyer separately.

Buyers receive their electronic invoices directly in the mandated digital format and convert them for automatic processing in their ERP/accounting system. This offers many of the benefits of integrated B2B eInvoicing but does introduce additional complexity.



As with the B2B integration approach, conversion steps are necessary to take the output format provided by the suppliers ERP/accounting software and to convert to the government mandated format. Each country will specify its own format, generally XML, and will require different required fields and data elements which are usually validated by the centralized tax authority portal during the approval or clearance process. Invoices commonly must be electronically signed before submission to the tax authority portal.

Once again the buyer and supplier can do the conversion themselves using translation software or opt to outsource to third-party service providers who support translation to the mandatory format and provide the connection to the government portal.

Benefits

When governments introduce this approach, they are most concerned about the benefits to them in terms of reducing tax fraud and increasing state revenues. They are typically not focusing on the benefits to taxpayers although some will certainly consider this and implement a framework that does not introduce too many additional burdens to businesses.

In the best case, buyers and suppliers can continue to exchange invoices in parallel using one of the approaches described already, allowing for many of the benefits we have already discussed.

On the plus side the clearance approach does remove any uncertainty about what businesses must do to be compliant. If your invoice is approved or cleared by the portal then you have an assurance of compliance. Invoices may still be rejected by the buyer if they contain incorrect information, but typically these kinds of dispute must happen separately to the government portal, and must subsequently be corrected by issuing a credit note / corrective invoice.

Another advantage is that there is generally only one conversion required from your internal data format to the government mandated format enabling you to reach all of your partners so it greatly simplifies one aspect of your e-Invoice process.

Finally, since all taxpayers in a clearance country must comply with the mandate you are assured of 100% digitization of all of your invoices, both inbound and outbound, direct and indirect, so that all benefits are maximized.

Challenges

In a mandatory clearance regime non-compliance is very simply equated with tax fraud, and fines and penalties can be harsh, including the closure of your operations and even criminal prosecution. As each clearance country has its own framework and requirements, your challenges increase with the number of clearance countries in which you have domestic operations in, and the number of countries implementing such systems increases each year.

Fully centralizing the e-Invoice process around the tax authority portal may limit the benefits seen by the buyer and supplier in terms of automating and digitizing the entire buying and selling process. Additional effort is often required in order to maximize these benefits. For example, this may mean setting up parallel flows for invoice disputes, while ensuring credit notes are still correctly sent to the government clearance portal.

Why isn't everyone doing it?

If you operate in a clearance regime then you have no choice but to do it or face heavy penalties. Therefore, regardless of the effort involved with connecting to a government portal and converting to their mandatory format, e-Invoicing adoption is maximized so the benefits for businesses more than outweigh the challenges.

Best Practices

As mandates spread many larger companies choose to outsource their e-Invoicing process to a global service provider to consolidate their e-Invoicing operations, relying on a trusted partner to manage the complexity of connecting to many different government portals in each clearance country they operate in.

In addition, a global B2B managed service provider can often provide the capability to fully digitize and automate the buying and selling process, integrating the government clearance portal process into their overall flow and maximizing the benefits.

Why You Need an E-Invoicing Strategy – Sooner Rather Than Later

As we have seen, electronic invoicing should be a simple decision for most organizations. The benefits in cost savings and process efficiency are clear and significant, and increasing directives from tax administrations are making it mandatory.

But switching is not without challenges. Many organizations balk at the challenges and procrastinate, failing to realize any of the potential benefits, or fall short and implement paper scanning and OCR solutions that fail completely to remove the reliance on paper and typically add cost and complexity to your processes.

Although it is important to appreciate that it may take some time to get to the promised land of 100-percent invoice automation, for most organizations simply targeting the low hanging fruit of those partners who are ready and willing to switch over can get you a significant portion of the potential savings, freeing up your internal resources to then focus on the long tail. Early wins in e-Invoicing can help fund continued efforts.

How do I Get There from Here?

To get the full benefit of an e-Invoicing project, you need to find a long-term solution partner who can rapidly automate all the different invoicing flows you have in your business. The solution should provide all the different approaches we've discussed so far and include the following capabilities.

Integration with your internal systems

The solution should easily integrate with your current workflow, invoicing, and accounting systems without requiring replacement of existing functionality. Consequently, you can use your own financial system environment to process the data presented, leverage your investment in workflow and management tools, and control the initiation of the payment transaction.

Trading Partner Enablement

The ROI for e-Invoicing programs increases as more trading partners participate. Most companies are sourcing from or selling to trading partners in multiple countries. The solution should enable all trading partners to easily participate, both large and small, regardless of where they are located. Ensure your chosen partner has a large, global, dedicated team of experienced staff to successfully plan and execute the program and roll out to your community.

Although your initial area of concern might be on either buy-side or sell-side ensure your provider has strong experience enabling both customer and supplier communities, and is not limited to either direct procurement or indirect only. Seek a provider that can help you support all the e-Invoicing approaches discussed in this paper.

Remember that your highest invoice volumes (and greatest savings) will generally come from your largest partners and these companies are the obvious targets for fully automated e-Invoice exchanges.



For the smallest customers who are not able to participate in an automation program or a portal, you are often able to send them signed PDFs without any significant changes to their processes. If they don't have any automation or integration capabilities, receiving a PDF is no different than receiving paper, the only difference is their requirement to archive the PDF instead of paper. They can reduce their reliance on paper-based files and reduce the risk of losing invoices at audit time. If they are not confident in their ability to retain their electronic invoices, ensure your vendor can optionally provide them with a secure electronic archive as well.

Regulatory compliance

Don't forget that automating your invoice process increasingly means complying with specific legislation that regulates electronic invoicing. Although these regulations are often similar in purpose, the specific requirements vary by country. Ensure your chosen solution can meet the technical requirements that relate to invoice content, form and format requirements, integrity and authenticity, archiving and audit requirements, as well as contractual requirements such as buyer consent and third-party issuance mandates.


If you trade in many countries globally, it is important to ensure your chosen solution meets requirements for clearance countries, which can provide real-time communication with government tax portals, or mandate the use of certified local providers.

Do-It-Yourself vs. Hosted E-Invoicing?

You can implement an e-Invoicing solution using your own internal resources or you can leverage a third-party solution. Third-party, hosted e-Invoicing solutions can shield you from many of the complexities faced when implementing an e-Invoicing solution.

Examples of how Hosted E-Invoicing can help your business

- **E-Invoicing network access and B2B standards**
With a variety of e-Invoicing networks required by various countries globally, participation in and access to specific e-Invoicing networks, such as the PEPPOL network, is required. Additionally, support for a broad range of B2B documents and communications standards will help increase supplier adoption by offering different standards and versions of these electronic documents.
- **Compliance and Archiving**
Maintaining compliance with tax authorities globally requires a solution that monitors changes and applies new regulations and archiving requirements proactively to keep you compliant in any country.
- **On-boarding trading partners**
A combination of self-service tools and robust community management expertise with a dedicated team is required to rapidly bring new trading partners on board. Success requires agreed upon protocols and processes and the ability to manage change within your existing trading partner community.
- **Integration options**
Support for a broad range of integration mechanisms—Web forms, adapters for accounting packages, integration to ERP systems.
- **Multi-lingual, global support**
Doing business with trading partners in different countries will require you support various local e-Invoicing regulations and tax requirements. Additionally, the partners will need technical support in a variety of local languages.

 Supply chain optimization

 Digital business integration

 Business Network

Conclusion

E-Invoicing isn't new, and the benefits are well documented. However, the digital capabilities of trading partners vary, while regulations become increasingly varied and complex. A single e-Invoicing approach is unlikely to meet the needs of your business and most of your trading partners.

Seeking a provider who can support the different approaches described here, and with the experience and services to help you rapidly achieve the potential return on investment will ensure a successful project.

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