Peppol Academy

Lession 2

Overview of general transactions methods. Assess your current process and identify your next step.

Going from manual to digital

Embracing digital transformation in all financial processes begins with enhancing data quality.

Switching from manual processes to e-invoicing and e-orders can initially seem challenging, requiring significant IT expertise and financial resources. However, adopting Peppol can simplify this transition significantly.

This guide will help you evaluate your current accounts payable (AP) and accounts receivable (AR) processes, identify areas for improvement, and understand how Peppol can streamline your operations.

Transaction methods

What's your process for managing and exchanging transactions?
– Let's deepdive into the most common practices

1 Paper and PDF-based manual process

No digitization has been made, and it might have worked fine for you. With just a few suppliers and customers per month, adopting digital solutions hasn't been worth the investment besides handling PDFs. However, the method comes with costs and risks. Typical pain points include manual, monotonous process steps, manual errors, and insufficient analytics capabilities. The process is costly for both suppliers and buyers.

\+ No maintenance or updates
\- Very challenging to scale
\- Increasingly non-regulatory
\- High scaling costs

Assessment

- Do I have time to enter my invoices into my ERP manually?
- Does the process create errors?
- What is the regulatory landscape?

Improvement potential

Signing up for a web-based e-invoice management solution with Peppol network access is the easiest and least expensive way to use e-invoices and other electronic business messages.

Transcription methods

2 # PDF-based with internal scanning

You are using optical character recognition (OCR) software to interpret supplier invoice information, so you don't need to enter it into your accounting software or workflow manually. A decade ago, OCR was a state-of-the-art technology that was more convenient than handling paper invoices. It is now regarded as a legacy tech with significant downsides compared to modern alternatives.

The main challenge is that OCR can't perfectly interpret the information from PDFs. Image files like PDFs lack the structured normalized data that e-invoices and other electronic business messages contain. Missing or misinterpreted information is a key source of errors in the financial process, which requires ongoing manual attention for quality assurance. Often, only header data is captured, and scanned invoices must be transferred to the ERP.

+ Makes paper and PDF-based processes more efficient
– Time consuming
– High software costs
– Continuous quality risks

Assessment

- Do I have a sufficient process to monitor and ensure quality?
- Is my process scalable?
- What is the cost compared to electronic business messages?

Improvement potential

E-invoices and other electronic business messages are the natural progression from analog formats.

Transaction methods

③ PDF-based with scanning service provider
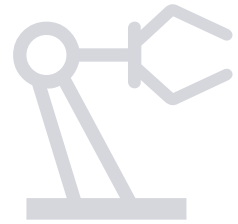
You rely on PDFs but use a service provider to scan paper formats and do the OCR. It makes internal processes more efficient and automatically scales according to your transaction volumes.

Regardless of whether the work is done outsourced or in-house, OCR has the same technology issues. PDFs do not provide the structured, normalized data found in e-invoices and other electronic business messages. This regularly leads to errors due to missing or incorrectly interpreted information, necessitating continuous manual oversight to ensure data quality. Furthermore, the dependence on an external part for manual work in critical processes exposes you to additional risks like missing invoices and late deliveries. High costs per transaction and support make, in general, these services expensive.

+ Scalable solution
– High costs
– Outdated technology
– Continuous quality risks
– Continuous service delivery risks

Assessment

Does the service provider have a sufficient process to monitor and ensure quality?
Do I have a sufficient process to monitor and ensure quality?
Is my process scalable?
What is the cost compared to electronic business messages?

Improvement potential

E-invoices and other electronic business messages are the natural progression from analog formats.

Transaction methods

4 ## Point-to-point EDI managed inhouse

Electronic Data Interchange (EDI) is the collective term for establishing and maintaining unique connections between two business partners. Once set up as point-to-point, the connection is hardcoded and robust. The practice uses fully digital formats, lossless transmission, and machine-readable normalized data.

Connecting new suppliers is a substantial IT undertaking. Custom conversion and mapping between data formats efforts alone demand 40-80 hours of work. Any modifications to the ERP system on either side often necessitate a complete redo. This setup also requires continuous maintenance, demanding a high level of internal IT expertise.

+ Suitable for small networks with very high transaction volumes
– High implementation cost
– Extensive IT expertise needed
– Vulnerable to changes
– No scalability

Improvement potential

The Peppol network enables the next-generation technology for EDI. Its open participant directory and standardized Peppol BIS formats radically simplify connections and maintenance.

Transaction process cheat-sheet

1 Paper and PDF-based manual process

Pros: No maintenance or updates required.
Cons: Difficult to scale, non-compliant with modern regulations, high scaling costs.
Key considerations: Time-consuming manual entry, prone to errors, limited analytical capabilities.

2 PDF-based with internal scanning (OCR)

Pros: Improves efficiency over manual processes.
Cons: Time-consuming, high software costs, continuous quality risks.
Key considerations: Inaccuracy in data capture, requires significant manual quality assurance.

3 PDF-based with scanning service provider

Pros: Scalable solution.
Cons: High costs, reliance on outdated technology, continuous service and quality risks.
Key considerations: Dependency on external parties, ongoing manual oversight needed.

4 Point-to-point EDI managed inhouse

Pros: Suitable for small networks with high transaction volumes.
Cons: High implementation and maintenance costs, requires extensive IT expertise, non-scalable.
Key considerations: Significant IT resources required, vulnerable to any changes in system or partners.

5 Point-to-point EDI managed by service provider

Pros: Handles technical setup and maintenance.
Cons: High costs, dependency on third-party service providers.
Key considerations: May be restrictive and expensive for businesses with fluctuating transaction volumes.

6 VAN service providers

Pros: Simplified EDI, greater reach within the network.
Cons: High costs, acts as gatekeeper, limited traceability.
Key considerations: Necessary for businesses needing broad network access but costly and less transparent.

7 Peppol network via service providers

Pros: Cost-efficient, compliant internationally, highly scalable, transparent participant directory.
Cons: Relatively new and unknown, may not support complex messages fully.
Key considerations: Offers a standardized and simplified system, but lesser known compared to traditional methods.
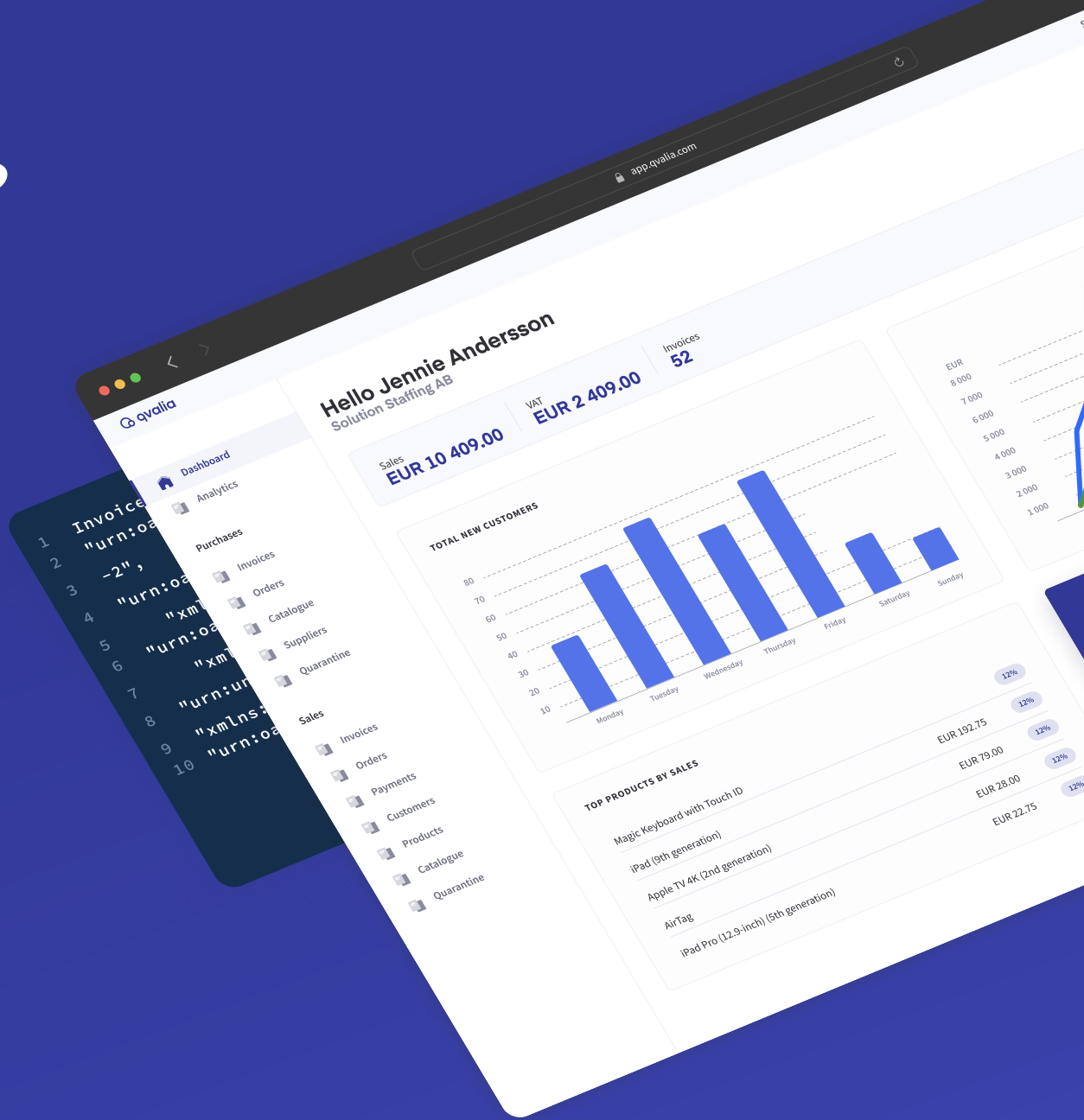
Efficient Peppol service provider

Get dynamic omnichannel transaction management.
Gain full control.
Automate processes.
Integrate via API.

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Transaction methods

5 # Point-to-point EDI managed by service provider

Using a solution provider for point-to-point EDI connections is convenient compared to setting up and maintaining connections with internal IT resources. The service provider takes care of all technical aspects, integrations, and file transformations which makes handling easy, but the costs for implementation and support, as well as fixed and volume-based transaction fees, are often considerable.

+ Suitable for small networks with very high transaction volumes
– High costs
– 3rd party dependency
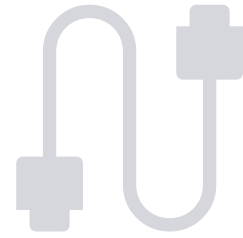
Improvement potential

The Peppol network enables a competitive and modern alternative to solutions from EDI service providers. The open participant directory and standardized formats offers an infrastructure for businesses of all sizes. The ease of use makes business messaging via Peppol accessible for smaller companies, which support the digitization throughout the supply chain.

Transaction methods
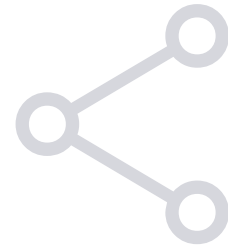
6 VAN service providers

VAN service providers, also called operators, provides a more convenient solution compared to business messaging using point-to-point EDI by enabling access to of the Value-Added Network (VAN). By using a four-corner model, VAN offers a connection to the customer's ERP, and/or a complementary web-based portal, and maintain connections and interoperability with other VAN operators. Incoming business messages are transformed to the customer's inhouse format, the so-called canonical format. The VAN operator makes the necessary transformations for outgoing messages.

VAN operators act as gatekeepers to a semi-open network, which contribute to high transaction costs. One message includes fees for the sending party, the receiving party, and for transformations in both ends.

Traceability is also a limiting factor, as VAN operators only can provide information about processed messages. Support is needed every time a user wants to investigate if a sent business message has been received.

+ Simplified EDI
+ Greater reach
– High cost
– Gatekeeper position
– Lack of traceability

Improvement potential

The Peppol network enables a competitive and modern alternative to VAN. The open participant directory and standardized formats offers an infrastructure for businesses of all sizes. The ease of use makes business messaging via Peppol accessible for smaller companies, which support the digitization throughout the supply chain.

Transaction methods

7 Peppol network via service providers

Peppol is a game changer in electronic business messaging. Instead of building connections point-to-point or utilizing VAN, companies can connect directly using a common participant directory, exchange infrastructure, and standardized formats for sending and receiving most types of business messages: e-invoices, e-orders, e-catalogs, punchout, responses, and much more.

It requires one setup with a so-called access point to reach the entire network. Peppol is well-established in Europe, and increasingly countries in Asia and America are getting connected.

Standardization facilitates simplified use and reduces costs throughout the supply chain. Although it is a new technology and lesser known than the alternatives, most companies using electronic business messaging today already have access through their VAN operator or EDI service provider.

+ Most cost-efficient method
+ International compliance
+ Highly scalable
 + Transparent participant directory
+ Continuous development
- New and fairly unknown
- Incomplete support for complex messages

What is data transformation?

Transformation is often necessary to make business messages such as e-invoices compatible between ERPs and other systems. The process involves conversion and mapping the original file.

- Conversion refers to the process of changing the format of data from its original form into another. For example, converting an XML-based invoice to a JSON format.
- Mapping involves aligning data fields from the source format to the corresponding fields in the target format. For example, changing field names or structure.