

IBX PEPPOL Access Point – The details

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1. Introduction to PEPPOL

Pan-European Public Procurement Online (PEPPOL) is an initiative started by the European Union to define a common European standard and format for the electronic exchange of business transactions within the public sector and its business partners.

The PEPPOL network is built up of independent service providers that use a secure Internet infrastructure, together with public principles and standards, to exchange procure-to-pay-related XML messages on behalf of their customers.

An initiative of the European Union, PEPPOL is now managed by OpenPEPPOL AISBL. OpenPEPPOL is an international non-profit organization under Belgian law founded by former PEPPOL consortium partners with membership open to public and private organizations. Capgemini has been an active member of OpenPEPPOL since it was founded in 2012.

1.1 Basic Interoperability Concept of PEPPOL

The PEPPOL network currently consists of about 100 service providers and public authorities across Europe that exchange business documents with each other on behalf of their customers.

The concept behind this is a four-corner model where each sender and receiver of a message only interacts with his own service provider and the service providers exchange their messages on behalf of their own customers only.

Bilateral interoperability agreements between approved PEPPOL Access Point providers are not required. Charges for business document routing through PEPPOL must be agreed between each service provider and its customers.

2. Services Overview

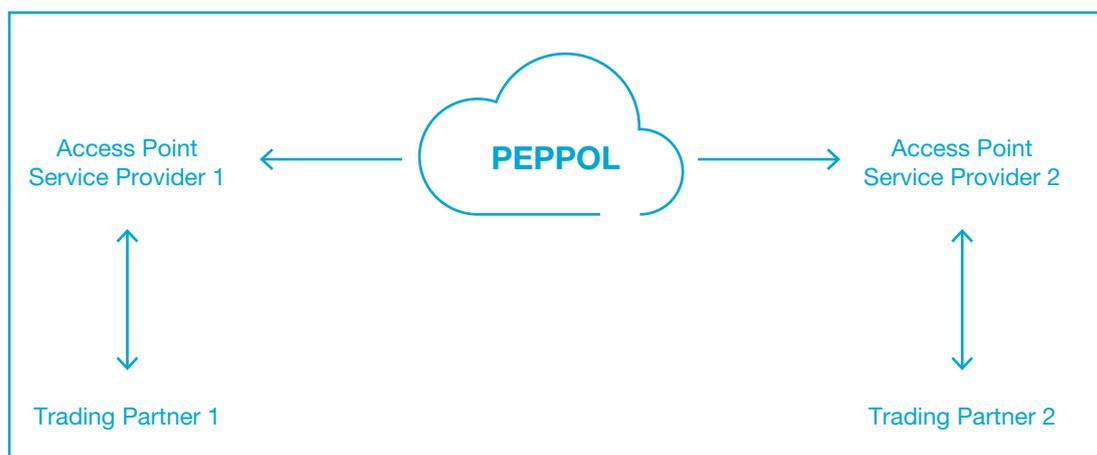
2.1 Certified PEPPOL Access Point Provider

Capgemini IBX Business Network is a certified PEPPOL Access Point provider and can provide your organization with full and seamless access to the PEPPOL network. Since the initiative started in 2008, we have helped our customers get connected to the PEPPOL network. We are one of the most experienced Access Point providers within both the public and private sectors.

2.2 Business Processes and Document Types

Capgemini IBX Business Network supports the following business processes and document types as part of the PEPPOL Access Point service:

- **Catalog:** Catalogs include information about the products and services that the supplier is offering the buyer.
- **Catalog Response Message:** By sending a catalog response message the catalog receiver confirms that they received the catalog and that they accept (or reject) the catalog.
- **Purchase Order:** Purchase orders are sent from the buyer's purchasing organization to suppliers.
- **Order Response:** The supplier notifies the buyer if a purchase order is accepted, rejected, or accepted with changes.
- **Despatch Advice:** The despatch advice is a shipment notification sent by the supplier.
- **Invoice:** The invoice is sent from the supplier to the buyer and specifies the amount and cost of products or services that have been provided by the supplier.
- **Credit Note:** The credit note is sent by the supplier and states that a certain amount has been credited to the buyer's account.



- **Reminder:** The reminder is sent by the supplier to remind the buyer that an invoice is soon to be due or that it is overdue.
- **Message Level Response:** A message level response can be used to improve reliability by allowing a receiver of a business document to inform the sender about the results of receiver validations and, in case of negative results, to inform the sender about the error details.

The exchange of business documents can be done through system-to-system integration or via the IBX Business Network portal.

Detailed business interoperability specifications for these documents are available at the website of OpenPEPPOL.

2.3 Codelists and Identifiers

To maintain interoperability for the exchange of documents via different service providers and across borders, clear rules have been agreed on how to define the identities of trading partners as well as products via widely accepted types of identifiers including:

- Global Localization Number (GLN)
- European Article Number (EAN)
- Global Trade Identification Number (GTIN)
- Standard ISO code for units of measurement, countries, languages and so on.

2.4 Catalog Management

The catalog is the supplier's unique shopping window facing its buying customers. This is where the supplier shows its assorted offerings. The catalog contains information such as prices, delivery lead times, product descriptions and images. Through the IBX Business Network, the supplier can easily upload and publish catalogs to any buying organization connected to the PEPPOL network and all buyers using IBX Business Network.

2.5 Order Management

Purchase orders, order responses, and shipment notices can be exchanged through system-to-system integration for full process automation. As a supplier, it is also possible to receive orders via email.

Via the IBX Business Network portal, the supplier can check for new orders and define how to get notified when new orders arrive. Full order history is available, attachments can easily be downloaded and orders can easily be printed

to facilitate back to the buyer with an order response or a shipment notice using the IBX Business Network portal. The buyer also has access to orders and order responses via the IBX Business Network portal to keep track of all procurement transactions in one place.

2.6 Invoice Management

Electronic invoices enable faster payment cycles, eliminate manual errors and increase productivity. Invoices, credit notes, and reminders can be sent through system-to-system integration for full process automation or manually via the IBX Business Network portal. If the order is available, it is easy to flip the order into an invoice in a few steps. It is also possible to upload invoices via FTP. Supplier users have access to full transaction history via the IBX Business Network portal and can easily search for invoices and related documents.

2.7 Business Document Integration

The IBX Business Network provides the fast and secure exchange of business documents between buyers and suppliers linked to the PEPPOL network. The IBX Business Network features predefined, quick and easy to implement connectivity to all major ERP systems.

Self-service capabilities for connecting your ERP system to the IBX Business Network can help speed up integration, reducing required effort. An Integration Workbench is provided to work with XML documents, including validation against schemas and business rules, and conversion between various formats. Buyers and suppliers are also able to self-manage routing details for documents, so that your personnel can check and modify in which format and to which endpoints these documents are routed.

Capgemini's experienced integration experts are also there to help you succeed with your integration.

3. Business Documents Exchange

3.1 Transformation, Formats, and Transport Protocols

Part of the service is the transformation between different formats to serve multiple systems and integration interfaces on both the buyer and supplier side.

Formats supported are:

- xCBL 3.5 and UBL 2.1
- SAP IDOC for trading partners with a SAP landscape
- OXTA-OAGIS for trading partners with an Oracle landscape

- cXML (e.g., used by Ariba)
- EDI flatfile formats (ANSI X12, EDIFACT)

The supported transport protocols are SOAP, HTTP/S, SFTP/FTPs, AS2, X400, SMTP (email) and PEPPOL.

3.2 Validation

As a general rule within the PEPPOL network, every Access Point provider is obliged to submit only valid messages to other Access Points. "Valid" means that an XML document is both well-formed and syntactically valid according to its appropriate XML schema and that it passes the relevant business rules validation.

The set of business rules relevant for a document in the Universal Business Language (UBL) format depends on the business process to which the exchanged document refers to such as ordering or invoicing. Country-specific customizations of validation rules are also possible. On a technical level, the validation is based on two parameters inside an UBL document, the Profile ID and Customization ID that identify the business rules that apply to the document. Every document that moves from the IBX Business Network to another PEPPOL Access Point is validated against XML schema and applicable business rules before it is transferred. If the validation fails, then the document is not submitted, and its original sender will be informed and necessary actions taken.

4. Registration with the PEPPOL Network

To be able to receive any type of message (catalog, order, invoice, etc.) via PEPPOL, an organization has to be connected to an approved PEPPOL Access Point provider who will then make sure the organization is registered in the PEPPOL network to receive specific types of messages.

It is possible to have one PEPPOL Access Point provider to receive catalogs and another for receiving invoices. However, it is not possible to be registered for receiving the same type of document via two different PEPPOL Access Point providers.

An organization that has an agreement with Capgemini that includes PEPPOL Access Point service can request to be registered for receiving any of the supported PEPPOL document types. This is handled via a Service Request to the IBX Service Desk with the following input:

- Legal organization name
- Company registration number and type of registration number (e.g., Norway organization number, Danish CVR number, GLN number)
- Contact details
- List of document types to be received via the IBX PEPPOL Access Point

The registration is done in IBX PEPPOL SMP registry for all countries but Norway which uses ELMA. This is the Norwegian national PEPPOL SMP registry. Both are synchronized with the central PEPPOL SML registry (Service Metadata Locator) hosted by the European Union.

As soon as registration is complete, any trading partner can look up the capabilities of a specific organization to receive business documents through the PEPPOL network. The IBX Integration Workbench allows for the querying of the PEPPOL registry for a specific organization number to see which type of document the organization can receive via PEPPOL. Using the services of a PEPPOL Access Point provider, a supplier can then start sending documents such as catalogs and invoices to the registered customer if these document types are supported by the registration.

5. Further Details on PEPPOL Document Types

Customers can send and receive the following document types through the IBX PEPPOL Access Point.



Description	Process Identifier	Customization ID	Document Identifier
PEPPOL BIS Catalog Only 2.0 (Profile 01A)	urn:www.cenbii.eu:profile:bii01:ver2.0	urn:www.cenbii.eu:transaction:biitrns019:ver2.0:extended:urn:www.peppol.eu:bi:peppol1a:ver4.0	urn:oasis:names:specification:ubl:schema:xsd:Catalogue-2::Catalogue##urn:www.cenbii.eu:transaction:biitrns019:ver2.0:extended:urn:www.peppol.eu:bi:peppol1a:ver4.0::2.1
PEPPOL BIS Catalog Only 2.0 (Profile 01A)	urn:www.cenbii.eu:profile:bii01:ver2.0	urn:www.cenbii.eu:transaction:biitrns058:ver2.0:extended:urn:www.peppol.eu:bi:peppol1a:ver2.0	urn:oasis:names:specification:ubl:schema:xsd:ApplicationResponse::ApplicationResponse##urn:www.cenbii.eu:transaction:biitrns058:ver2.0:extended:urn:www.peppol.eu:bi:peppol1a:ver2.0::2.1
EHF Catalog 1.0 (Profile 01A)	urn:www.cenbii.eu:profile:bii01:ver2.0	urn:www.cenbii.eu:transaction:biitrns019:ver2.0:extended:urn:www.peppol.eu:bi:peppol1a:ver2.0:extended:urn:www.difi.no:ehf:katalog:ver1.0	urn:oasis:names:specification:ubl:schema:xsd:Catalogue-2::Catalogue##urn:www.cenbii.eu:transaction:biitrns019:ver2.0:extended:urn:www.peppol.eu:bi:peppol1a:ver2.0:extended:urn:www.difi.no:ehf:katalog:ver1.0::2.1
EHF Catalog 1.0 (Profile 01A) Response	urn:www.cenbii.eu:profile:bii01:ver2.0	urn:www.cenbii.eu:transaction:biitrns058:ver2.0:extended:urn:www.difi.no:ehf:katalogbekteftelse:ver1.0	urn:oasis:names:specification:ubl:schema:xsd:ApplicationResponse::ApplicationResponse##urn:www.cenbii.eu:transaction:biitrns058:ver2.0:extended:urn:www.difi.no:ehf:katalogbekteftelse:ver1.0::2.1
PEPPOL BIS Order Only 2.0 (Profile 03A)	urn:www.cenbii.eu:profile:bii03:ver2.0	urn:www.cenbii.eu:transaction:biitrns001:ver2.0:extended:urn:www.peppol.eu:bi:peppol03a:ver2.0	urn:oasis:names:specification:ubl:schema:xsd:Order-2::Order##urn:www.cenbii.eu:transaction:biitrns001:ver2.0:extended:urn:www.peppol.eu:bi:peppol03a:ver2.0::2.1
PEPPOL BIS Ordering 2.0 (Profile 28A)	urn:www.cenbii.eu:profile:bii28:ver2.0	urn:www.cenbii.eu:transaction:biitrns001:ver2.0:extended:urn:www.peppol.eu:bi:peppol28a:ver1.0	urn:oasis:names:specification:ubl:schema:xsd:Order-2::Order##urn:www.cenbii.eu:transaction:biitrns001:ver2.0:extended:urn:www.peppol.eu:bi:peppol28a:ver1.0::2.1
PEPPOL BIS Ordering 2.0 (Profile 28A) Response	urn:www.cenbii.eu:profile:bii28:ver2.0	urn:www.cenbii.eu:transaction:biitrns076:ver2.0:extended:urn:www.peppol.eu:bi:peppol28a:ver1.0	urn:oasis:names:specification:ubl:schema:xsd:OrderResponse-2::OrderResponse##urn:www.cenbii.eu:transaction:biitrns076:ver2.0:extended:urn:www.peppol.eu:bi:peppol28a:ver1.0::2.1
EHF Ordering 1.0 (Profile 28A)	urn:www.cenbii.eu:profile:bii28:ver2.0	urn:www.cenbii.eu:transaction:biitrns001:ver2.0:extended:urn:www.peppol.eu:bi:peppol28a:ver1.0:extended:urn:www.difi.no:ehf:ordre:ver1.0	urn:oasis:names:specification:ubl:schema:xsd:Order-2::Order##urn:www.cenbii.eu:transaction:biitrns001:ver2.0:extended:urn:www.peppol.eu:bi:peppol28a:ver1.0:extended:urn:www.difi.no:ehf:ordre:ver1.0::2.1
EHF_ORDER_RESPONSE	urn:www.cenbii.eu:profile:bii28:ver2.0	urn:www.cenbii.eu:transaction:biitrns076:ver2.0:extended:urn:www.peppol.eu:bi:peppol28a:ver1.0:extended:urn:www.difi.no:ehf:ordrebekteftelse:ver1.0	urn:oasis:names:specification:ubl:schema:xsd:OrderResponse-2::OrderResponse##urn:www.cenbii.eu:transaction:biitrns076:ver2.0:extended:urn:www.peppol.eu:bi:peppol28a:ver1.0:extended:urn:www.difi.no:ehf:ordrebekteftelse:ver1.0::2.1

Description	Process Identifier	Customization ID	Document Identifier
PEPPOL BIS Despatch Advice 2.0 (Profile 30A)	urn:www.cenbii.eu:profile:bii30:ver2.0	urn:www.cenbii.eu:transaction:biitrns016:ver1.0:extended:urn:www.peppol.eu:bis:peppol30a:ver1.0	urn:oasis:names:specification:ubl:schema:xsd:DespatchAdvice-2::DespatchAdvice##urn:www.cenbii.eu:transaction:biitrns016:ver1.0:extended:urn:www.peppol.eu:bis:peppol30a:ver1.0::2.1
EHF Despatch Advice 1.0 (Profile 30)	urn:www.cenbii.eu:profile:bii30:ver2.0	urn:www.cenbii.eu:transaction:biitrns016:ver1.0:extended:urn:www.peppol.eu:bis:peppol30a:ver1.0:extended:urn:www.difi.no:ehf:pakkseddel:ver1.0	urn:oasis:names:specification:ubl:schema:xsd:DespatchAdvice-2::DespatchAdvice##urn:www.cenbii.eu:transaction:biitrns016:ver1.0:extended:urn:www.peppol.eu:bis:peppol30a:ver1.0:extended:urn:www.difi.no:ehf:pakkseddel:ver1.0::2.1
OIOUBL – Invoice	urn:www.nesubl.eu:profiles:profile5:ver2.0	OIOUBL-2.02	urn:oasis:names:specification:ubl:schema:xsd:Invoice-2::Invoice##OIOUBL-2.02::2.0
OIOUBL – Credit Note	urn:www.nesubl.eu:profiles:profile5:ver2.0	OIOUBL-2.02	urn:oasis:names:specification:ubl:schema:xsd:CreditNote-2::CreditNote##OIOUBL-2.02::2.0
PEPPOL Invoice PEPPOL BIS Profile: “BII04 – Invoice Only,” v.2	urn:www.cenbii.eu:profile:bii04:ver2.0	urn:www.cenbii.eu:transaction:biitrns010:ver2.0:extended:urn:www.peppol.eu:bis:peppol4a:ver2.0	urn:oasis:names:specification:ubl:schema:xsd:Invoice-2::Invoice##urn:www.cenbii.eu:transaction:biitrns010:ver2.0:extended:urn:www.peppol.eu:bis:peppol4a:ver2.0::2.1
PEPPOL Invoice PEPPOL BIS Profile: “BII05 – Billing,” v.2	urn:www.cenbii.eu:profile:bii05:ver2.0	urn:www.cenbii.eu:transaction:biitrns010:ver2.0:extended:urn:www.peppol.eu:bis:peppol5a:ver2.0	urn:oasis:names:specification:ubl:schema:xsd:Invoice-2::Invoice##urn:www.cenbii.eu:transaction:biitrns010:ver2.0:extended:urn:www.peppol.eu:bis:peppol5a:ver2.0::2.1
PEPPOL Credit Note PEPPOL BIS Profile: “BII05 – Billing” v.2	urn:www.cenbii.eu:profile:bii05:ver2.0	urn:www.cenbii.eu:transaction:biitrns014:ver2.0:extended:urn:www.peppol.eu:bis:peppol5a:ver2.0	urn:oasis:names:specification:ubl:schema:xsd:CreditNote-2::CreditNote##urn:www.cenbii.eu:transaction:biitrns014:ver2.0:extended:urn:www.peppol.eu:bis:peppol5a:ver2.0::2.1
EHF Invoice 2.0 (Profile 04A)	urn:www.cenbii.eu:profile:bii04:ver2.0	urn:www.cenbii.eu:transaction:biitrns010:ver2.0:extended:urn:www.peppol.eu:bis:peppol4a:ver2.0:extended:urn:www.difi.no:ehf:faktura:ver2.0	urn:oasis:names:specification:ubl:schema:xsd:Invoice-2::Invoice##urn:www.cenbii.eu:transaction:biitrns010:ver2.0:extended:urn:www.peppol.eu:bis:peppol4a:ver2.0:extended:urn:www.difi.no:ehf:faktura:ver2.0::2.1
EHF Creditnote 2.0 (Profile XXA)	urn:www.cenbii.eu:profile:biixx:ver2.0	urn:www.cenbii.eu:transaction:biitrns014:ver2.0:extended:urn:www.cenbii.eu:profile:biixx:ver2.0:extended:urn:www.difi.no:ehf:kreditnota:ver2.0	urn:oasis:names:specification:ubl:schema:xsd:CreditNote-2::CreditNote##urn:www.cenbii.eu:transaction:biitrns014:ver2.0:extended:urn:www.cenbii.eu:profile:biixx:ver2.0:extended:urn:www.difi.no:ehf:kreditnota:ver2.0::2.1
EHF Invoice 2.0 (Profile 05A)	urn:www.cenbii.eu:profile:bii05:ver2.0	urn:www.cenbii.eu:transaction:biitrns010:ver2.0:extended:urn:www.peppol.eu:bis:peppol5a:ver2.0:extended:urn:www.difi.no:ehf:faktura:ver2.0	urn:oasis:names:specification:ubl:schema:xsd:Invoice-2::Invoice##urn:www.cenbii.eu:transaction:biitrns010:ver2.0:extended:urn:www.peppol.eu:bis:peppol5a:ver2.0:extended:urn:www.difi.no:ehf:faktura:ver2.0::2.1

Description	Process Identifier	Customization ID	Document Identifier
EHF Credit Note 2.0 (Profile 05A)	urn:www.cenbii.eu:profile:bii05:ver2.0	urn:www.cenbii.eu:transaction:biitrns014:ver2.0:extended:urn:www.peppol.eu:bis:peppol5a:ver2.0:extended:urn:www.difi.no:ehf:kreditnota:ver2.0::	urn:oasis:names:specification:ubl:schema:xsd:CreditNote-2::CreditNote##urn:www.cenbii.eu:transaction:biitrns014:ver2.0:extended:urn:www.peppol.eu:bis:peppol5a:ver2.0:extended:urn:www.difi.no:ehf:kreditnota:ver2.0::2.1
EHF Reminder (Profile XY)	urn:www.cenbii.eu:profile:biixy:ver1.0	urn:www.cenbii.seu:profile:biixy:ver1.0#urn:www.difi.no:ehf:purring:ver1	urn:oasis:names:specification:ubl:schema:xsd:Reminder-2::Reminder##urn:www.cenbii.eu:transaction:biicoretrdm017:ver1.0:#urn:www.cenbii.eu:profile:biixy:ver1.0#urn:www.difi.no:ehf:purring:ver1::2.0
Svefaktura v1 (*supported only outbound from IBX towards buyer)	urn:sfti:services:documentprocessing:BasicInvoice:1:0	urn:sfti:documents:BasicInvoice:1:0	urn:sfti:documents:BasicInvoice:1:0::Invoice##urn:sfti:documents:BasicInvoice:1:0::1.0
PEPPOL BIS Message Level Response 2.0 (Profile 36A)	urn:www.cenbii.eu:profile:bii36:ver2.0	urn:www.cenbii.eu:transaction:biitrns071:ver2.0:extended:urn:www.peppol.eu:bis:peppol36a:ver1.0	urn:oasis:names:specification:ubl:schema:xsd:ApplicationResponse-2::ApplicationResponse##urn:www.cenbii.eu:transaction:biitrns071:ver2.0:extended:urn:www.peppol.eu:bis:peppol36a:ver1.0::2.1



About IBX Business Network

The IBX Business Network is part of the Capgemini Group, one of the world's foremost providers of consulting, technology, and outsourcing services. The Group reported 2015 global revenues of EUR 11.9 billion. Together with its clients, Capgemini creates and delivers business, technology, and digital solutions that fit their needs, enabling them to achieve innovation and competitiveness. A deeply multicultural organization, Capgemini has developed its own way of working, the Collaborative Business Experience™, and draws on Rightshore®, its worldwide delivery model.

Connecting over 350 large buying organizations, 550,000 suppliers and providing services in more than 140 geographies, the IBX Business Network is a cloud-based e-Procurement platform that optimizes user experience, and enables superior spend management, while exacting lower total cost of ownership. A complete ready-to-run procurement service, the IBX Business Network supports the entire closed-loop Source-Purchase-Pay process and results in lower costs and faster ROI, increased spend visibility and transparency, increased control and compliance, and improved supplier quality.

Learn more about us at

www.capgemini.com/ibx

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