Peppol Reporting – Guideline for Service Providers

V 1.0

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1 Introduction

This document is a non-normative guideline for Peppol Service Providers (SP) on how to prepare for implementing the requirements of Peppol reporting. This includes the gathering, aggregation and transmission of data to the Peppol Contracting Authority (PCA).

Peppol reporting is split into two major parts: **End User Reporting** (EUR) and **Transaction Statistics Reporting** (TSR). Both parts are covered in this document.

1.1 References

The following references are most relevant for this document

- Peppol Internal Regulations, https://openpeppol.atlassian.net/wiki/download/attachments/2756772071/Internal%20Regulations%20-%20Use%20of%20Peppol%20Network_v1.0%20APPROVED%202021.11.16.pdf?api=v2
- Peppol Reporting BIS: https://test-docs.peppol.eu/reporting/
- Updated Peppol Envelope Specification: https://openpeppol.atlassian.net/wiki/spaces/RR/pages/2832957455/Reporting+BISs

2 Reporting Process overview

For every calendar month (this is the “Reporting Period”) the following steps need to be taken:

- Data sources need to be identified
- Data needs to be gathered by SPs
- SPs aggregate the data based on the rules and requirements of the Peppol Reporting BIS
- SPs send the 2 reports via Peppol eDelivery to the PCA
- The data is processed further by the PCA

3 Data Sources

This chapter deals with the data sources on SP side.

3.1 End User Report

The data for the EUR needs to be taken from an internal system like a CRM system. The exact source of the data is very subjective per SP.

3.2 Transaction Statistics Report

The raw data of the TSR needs to be gathered for all exchanged Peppol Datasets. All necessary raw data can be gathered by looking at the transport protocol and the contents of the Standard Business Document Header (SBDH) only.

According to the Internal Regulations, chapter 4.4, you need to gather the following information elements for each exchanged Dataset:

1. Timing of the exchange
2. Direction of the exchange (incoming or outgoing)
3. Sending Peppol Service Provider
4. Receiving Peppol Service Provider
5. Peppol Dataset Type (Document Type ID)
6. Transport protocol used
7. Country of sender
8. Country of receiver

For each of these fields a quick explanation on the source of the information is provided below.

Note: as these fields are part of the Internal Regulations this dataset can only change after a thorough change management procedure. Therefore, this dataset is considered very stable.

3.2.1 Timing of the exchange

For all timings, the granularity of data gathering is the second, so milliseconds or finer time units are not needed.

All timings need to be converted into the UTC time zone to have it harmonized. The matching Reporting Period is defined AFTER the conversion to UTC.

For messages sent and received via AS4, the content of the User Message element

```
eb:UserMessage/eb:MessageInfo/eb:Timestamp
```

should be used. This value is identical for sender and receiver and should deliver consistent results.

3.2.2 Direction of the exchange (incoming or outgoing)

The Direction of the Dataset exchange is obvious from the action that is taken – sending or receiving.

Peppol Exchanges sent out only need to be counted in the category “outgoing”.

Peppol Exchanges received only need to be counted in the category “incoming”.

3.2.3 Sending Peppol Service Provider

For outgoing Datasets (sending), the Sending Peppol Service Provider is a constant value, currently extracted from the CN of the Peppol Service Provider certificate used for signing the AS4 message.

For incoming Datasets (receiving), the Sending Peppol Service Provider can be deduced from the Peppol signing certificate that is part of the received AS4 message.

3.2.4 Receiving Peppol Service Provider

For incoming Datasets (receiving), the Receiving Peppol Service Provider is a constant value, typically extracted from the CN of the Peppol Service Provider certificate used for decrypting the received AS4 Message.

For outgoing Datasets (sending), the Receiving Peppol Service Provider can be deduced from the Peppol certificate extracted from the SMP query, used for the encryption of the AS4 message.

3.2.5 Peppol Dataset Type (Document Type ID)

The exchanged Peppol Dataset Type ID is part of the AS4 User Message in

```
eb:UserMessage/eb:CollaborationInfo/eb:Action
```

and the SBDH in

```
StandardBusinessDocumentHeader/BusinessScope/Scope[Type=”DOCUMENTID”]
```

Note: Dataset Type IDs are case sensitive, according to the Peppol Policy for use of Identifiers.

3.2.6 Transport protocol used

The transport protocol is defined by the technical connector that is invoked. The value to be used is the one from the eDEC code list on Transport Profiles. For the current AS4 profile the value is

```
peppol-transport-as4-v2_0
```

Note: Transport Protocol IDs are case sensitive, according to the Peppol Policy for use of Identifiers.

3.2.7 Country of sender

The Country of Sender of a Dataset exchange requires the usage of the new Peppol Envelope specification 2.0 that defines a new field for this value.

The Country of Sender can be retrieved from the SBDH via:

```
StandardBusinessDocumentHeader/BusinessScope/Scope[Type=”COUNTRY_C1”]
```

The Sender is one of the End Users of Peppol. An End Users is defined as

> “An identified or identifiable entity that is responsible for the business content of the datasets that is exchanged (by sending and/or receiving) with another such entity using Peppol Services over the Peppol Network.”

or phrased in a less legal way: End Users are the buyer and supplier that have a contract with each other. The supplier sends an invoice for its goods or services it has deliverer, therefore being C1. The buyer receives the invoice and will pay for the goods or services it has received, therefore being C4. On the invoice they are also stated as buyer and supplier.

Note: Until the time, the new Peppol Envelope specification is used in production, the gathering and reporting of these two fields will be optional.

Note: Country codes are case sensitive according to the Peppol Envelope specification.

3.2.8 Country of receiver

The Country of Receiver of a Dataset exchange requires the usage of the new Peppol Envelope specification 2.0 that defines a new field for this value.

The Country of Receiver can be retrieved from the SBDH via:

```
StandardBusinessDocumentHeader/BusinessScope/Scope[Type=”COUNTRY_C4”]
```

The Receiver is one of the End Users of Peppol. See chapter 3.2.7 for the definition and explanation.

Note: Until the time, the new Peppol Envelope specification is used in production, the gathering and reporting of these two fields will be optional.

Note: Country codes are case sensitive according to the Peppol Envelope specification.

4 Data Gathering

This chapter deals with the data gathering on SP side.

4.1 End User Report

The EUR MUST contain the required details of **all** the End Users that are **capable** of sending and/or receiving Peppol Datasets (documents). That means, that they need to be reported, even if they were not included in a Peppol Dataset exchange.

Note: the EUR does not contain any amounts of exchanged documents.

4.2 Transaction Statistics Report

The TSR needs to include **only** messages for which a positive transport level acknowledgement (like an AS4 Receipt) was sent/received.

Assuming that the 8 data source fields (see chapter 3.2) are available for each incoming and outgoing Peppol Dataset, the data may be gathered like this:

- The Timing of the exchange (see 3.2.1) in UTC defines, in which Reporting Period the exchange needs to be considered.
- For incoming exchanges, only the Sending Service Provider (see 3.2.3) needs to be gathered, because the Receiving Service Provider is a constant value and part of the TSR header information.
- For outgoing exchanges, only the Receiving Service Provider (see 3.2.4) needs to be gathered, because the Sending Service Provider is a constant value and part of the TSR header information.
- Depending on the Direction of exchange (see 3.2.2):
    - Every exchange must increase the “total amount of exchanges” in the Reporting Period.
    - Every exchange must increase the “total amount of exchanges per Transport Protocol” (see 3.2.6) in the Reporting Period.
    - Every exchange must increase the “total amount of exchanges per Service Provider and Dataset Type”. This requires a combined key, consisting of the Service Provider ID of the opposite side (for sending the Receiving SP (see 3.2.4), for receiving the Sending SP (see 3.2.3)) and the Dataset Type ID (see 3.2.5).
    - Every exchange must increase the “total amount of exchanges per Service Provider and Dataset Type and Countries”. This requires a combined key, consisting of the Service Provider ID of the opposite side (for sending the Receiving SP (see 3.2.4), for receiving the Sending SP (see 3.2.3)), the Dataset Type ID (see 3.2.5), the Sender Country Code (see 3.2.7) and the Receiver Country Code (see 3.2.8).

4.2.1 Variants of data gathering

There are two variants how the amounts can be counted:

1. All the raw data elements are stored in a table like structure (e.g. a database table) for each exchange and aggregated from this table for the creation of the TSR. This variant has the advantage, that additional aggregations can be created more easily. However, the amount of stored data is larger compared to the other variant.
2. The data is already collected in a way that it matches the required aggregations. This variant uses less storage volume, but the effort for creating new reporting aggregations is higher.

5 Data Aggregation

This chapter deals with the data aggregation on SP side. Data aggregation is the process of transforming and processing data of a single Reporting Period for the purpose of creating a Peppol report. Data aggregation happens after all the data for a Reporting Period is available.

5.1 End User Report

For an EUR nothing needs to be aggregated.

5.2 Transaction Statistics Report

Based on the technical requirements of the BIS, and the chosen variant of data gathering (see chapter 4.2.1) all data of a single Reporting Period needs to be aggregated so that it matches the BIS requirements.

6 Data Transmission

This chapter deals with the data transmission on SP side.

Note: The Peppol participant identifier to send the reports to, will be announced separately.

6.1 End User Report

The steps to transmit an EUR are:

1. Create the EUR XML representation based on the Peppol EUR BIS
2. Validate the EUR against the EUR Schematron
3. Send the message via the Peppol eDelivery network
4. Ensure you received a positive transport level acknowledgement

6.2 Transaction Statistics Report

The steps to transmit a TSR are:

1. Create the TSR XML representation, based on the Peppol TSR BIS
2. Validate the TSR against the TSR Schematron
3. Send the message via the Peppol eDelivery network
4. Ensure you received a positive transport level acknowledgement