



# Peppol

The future is open

## OpenPeppol Test and Onboarding

Version 1.4

Published: June 2nd, 2023

**OpenPeppol AISBL**

Rond-point Schuman 6, box 5  
1040 Brussels Belgium

[info@peppol.eu](mailto:info@peppol.eu)

[www.peppol.eu](http://www.peppol.eu)

Last updated: 02/06/2023

## Table of Contents

1	Revision History .....	3
2	Scope .....	3
3	OpenPeppol Testbed .....	3
4	The Onboarding Process .....	4
4.1	Prerequisites and configuration .....	4
4.2	Supported web browsers .....	4
4.3	Entering the Testbed for the first time .....	5
4.4	Preparation .....	5
4.5	eDelivery test suite walkthrough .....	6
4.6	Finalizing and submitting test report .....	13

## 1 Revision History

Version	Date	Summary
1.0	26-11-2018	First version
1.1	12-12-2018	Updated supported browsers and allowed certificate
1.2	10-02-2019	Changed links
1.3	15-08-2022	Changed template and removed all AS2 references
1.4	02-06-2023	Updated supported browsers, new testbed screenshots and link replacement

## 2 Scope

This document provides guidance on how to use the OpenPeppol testbed when onboarding as a new Access Point (AP) in the PEPOL eDelivery Network. It explains the prerequisites and walks you through the onboarding process.

## 3 OpenPeppol Testbed

The OpenPeppol testbed will be used for onboarding new Service Providers aiming to ensure compliance to the Peppol Network and the Peppol specifications. The testbed support Peppol AS4 testing and will be based on self-initiated test using automated testing procedures with as little human interaction as possible.

Successful completion of Acceptance testing will be validated through evaluation of test results by the OpenPeppol Operating Office. A positive result is required before OpenPeppol can issue a Peppol PKI production certificate allowing the new service provider to enter into production mode.

## 4 The Onboarding Process

### 4.1 Prerequisites and configuration

The following prerequisites must be met by the testing service provider before initiating any test sessions:

- Make sure you have your PKI v3 AP Test certificate at hand. The certificate needs to be imported into your browser and to be used for client authentication.
- Make sure you have the URL for your AS4 endpoint ready.
- Make sure you are using “**acc.edelivery.tech.ec.europa.eu**” as the SML (Please consult the documentation for the access point software you are using).
- Your AP must implement HTTPS with certificate chains to Certificate Authorities (CAs) which are trusted by the Peppol community. Your certificate must be trusted by both Microsoft and Oracle CAs. Self-signed certificates are considered non-compliant and will not be accepted when onboarding as a Peppol service provider. To test your SSL configuration, go to <https://www.ssllabs.com/ssltest/>. It must be a grade A or above. This will eventually also be controlled by the OpenPeppol Operating Office.
- Your AP MUST be configured with the very same PKI v3 AP TEST certificate that you use when accessing the Testbed.
- Your AP URL MUST only refer to HTTPS.

### 4.2 Supported web browsers

We can only guarantee that the Testbed website behaves in the correct manner if you are using any of the below web browsers:

- Google Chrome, version 100.0 and above
- Firefox, version 99.1 and above
- Microsoft Edge, version 101.0 and above

If you end up in a situation where you are able to enroll for a test suite, but you never see it displayed as an active suite, then your browser setup is most likely not supported, please use an alternative one if possible.

### 4.3 Entering the Testbed for the first time

A Peppol PKI AP or SMP Test Certificate must be installed (depending on what test you're running) in your browser before visiting the Testbed for the first time.

Client certificate authentication must be setup in your browser according to the following instructions:

[Windows Google Chrome](#)

[Windows Mozilla Firefox](#)

[OS-X Generic](#)

### 4.4 Preparation

After installing the PKI certificates, go to <https://www.testbed.peppol.org>, which is the URL of the Testbed environment.

The browser will prompt you to identify yourself with a certificate; choose your Peppol PKI AP TEST certificate.



*Figure 1 example of certificate prompt*

An example of the prompt (might look different in your environment depending on your OS and browser) is illustrated in Figure 1.

## 4.5 eDelivery test suite walkthrough

This part aims to show you how to use and complete the eDelivery test suite. This part requires that you have correctly setup your browser by installing a Peppol PKI test certificate as specified in sections 4.3 and 4.4.

Navigate to <https://www.testbed.peppol.org> after installing a Peppol Test AP certificate in your browser. The Testbed environment will automatically recognize that it is an AP certificate and load the eDelivery test suite page if your browser is set correctly and the certificate is installed.

If this is your first time using the eDelivery test suite, you must first enroll by providing the following information:

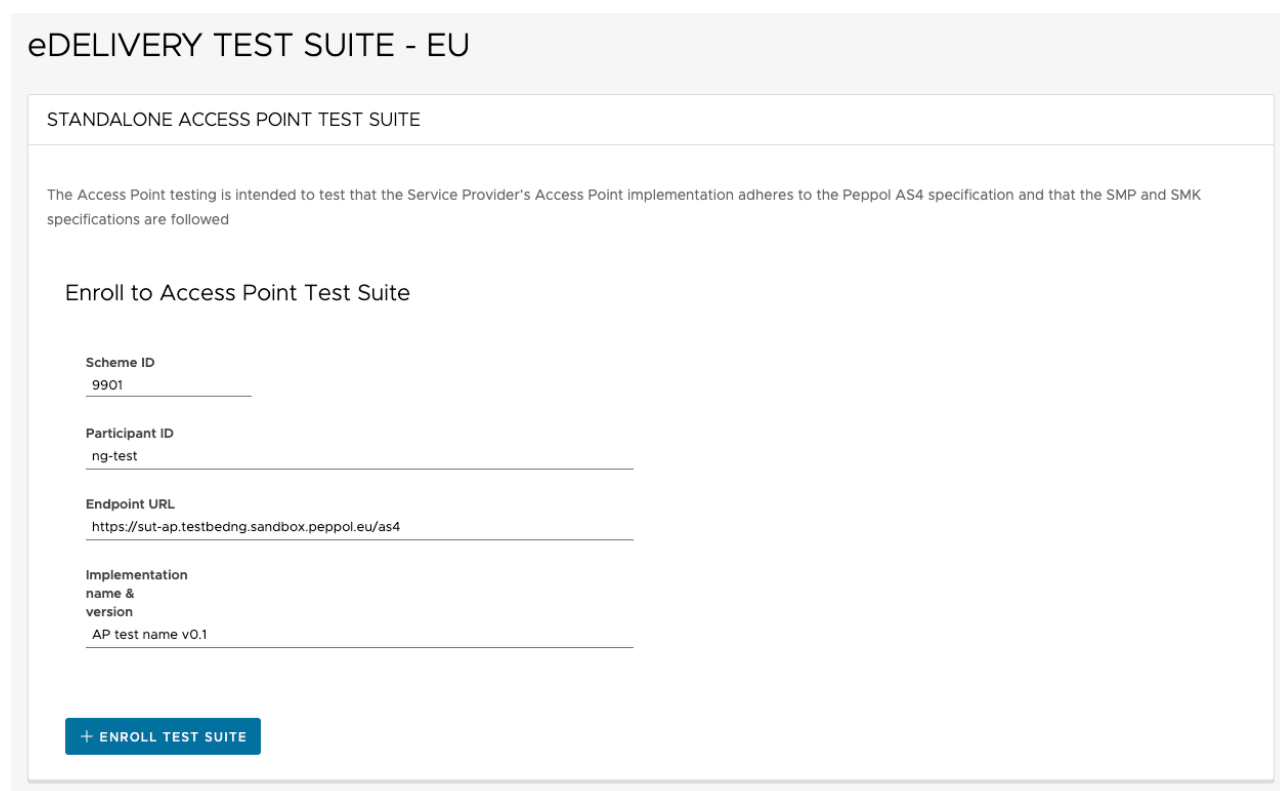
**Participant ID and Scheme ID:** Give a valid participant identifier. All the test cases available in the test suite will be carried out by using these identifiers

**Endpoint URL:** The participant's AS4 endpoint

**Implementation name & version:** Give a name and version for your AP implementation

After filling in the information, click the "ENROLL TEST SUITE" button.

An example filled-in the enrolment form is shown in Figure 2.



eDELIVERY TEST SUITE - EU

STANDALONE ACCESS POINT TEST SUITE

The Access Point testing is intended to test that the Service Provider's Access Point implementation adheres to the Peppol AS4 specification and that the SMP and SMK specifications are followed

Enroll to Access Point Test Suite

Scheme ID  
9901

Participant ID  
ng-test

Endpoint URL  
<https://sut-ap.testbedng.sandbox.peppol.eu/as4>

Implementation name & version  
AP test name v0.1

+ ENROLL TEST SUITE

Figure 2 example AP filled in form

You will be presented with the available test cases for this test suite once you have successfully enrolled in the test suite. Figure 3 illustrates this. The following are the test cases included in the AP test suites:

- TLS grading verification
- AS4 message reception
- AS4 message submission
- Invalid certificate handling
- Large AS4 message reception
- Large AS4 message submission

It's worth noting that the eDelivery test suite's test cases don't have to be performed in order. Instead, any test case is ready to be run at any moment. The sole restriction is that **only one test case may run at a time**. Once a test case is running, the remainder of the test cases become **unavailable** until the current one is finished.

FULL eDELIVERY ACCESS POINT TEST SUITE
RESET TEST SUITE

The Access Point testing is intended to test that the Service Provider's Access Point implementation adheres to the Peppol AS4 specification and that the SMP and SMK specifications are followed

Available test cases

Select test case to see more details

TC2A.1: TLS grading verification	Paused
TC2A.2A: AS4 message reception	Paused
TC2A.3: AS4 message submission	Paused
TC2A.4: Invalid certificate handling	Paused
TC2A.5A: Large AS4 message reception	Paused
TC2A.6: Large AS4 message submission	Paused

> Enrolled configuration

TC2A.3: AS4 message submission

Paused

The AccessPoint under test is expected to send the document(s) supplied by the TestBed. Sender will now be **9901:ng-test**, and receiver will be **9922:NGTBCNTRLB1001**. No changes should be made to the document and it is essential that the Document ID (Invoice number of the payload) is kept intact.

▶ START

Figure 3 AP test suite Test cases

The "TLS grading verification" test case performs an automatic grading of the TLS configuration on the provided endpoint URL. The result must be an A or above to fulfil Peppol's requirements to pass this test. This test case may take up to 15 minutes to complete depending on how complex your infrastructure is to evaluate. The grading is done by a tool provided by Qualys SSL Labs. The grade is A in this example walkthrough supplied endpoint URL; therefore, it passes the test, as seen in Figure 4.

Available test cases	
Select test case to see more details	
TC2A.1: TLS grading verification	Passed
TC2A.2A: AS4 message reception	Paused
TC2A.3: AS4 message submission	Paused
TC2A.4: Invalid certificate handling	Paused
TC2A.5A: Large AS4 message reception	Paused
TC2A.6: Large AS4 message submission	Paused
> Enrolled configuration	

## TC2A.1: TLS grading verification

Passed

Testbed will perform an automatic grading of the TLS configuration on the provided hostname. To pass this test the result must return a grade of A or above, to meet the Peppol specifications.

▶ START

## Audit Log

Event Time	Action	Description	Status
2023-01-27T12:51:08	START	The test case has been successfully initiated and your hostname (sut-ap.testbedng.sandbox.peppol.eu) is currently being analyzed by <a href="#">Qualys SSL Labs</a> (you can click this link to follow your analysis in an interactive manner). The process of this test might take up to 15 minutes, do not try to restart your test case during this time frame to avoid an even longer verification time. Leave the test case in its running state and it will automatically be updated when the verification process completes.	Running
2023-01-27T12:59:48	EVALUATION	You have successfully verified your TLS configuration as being aligned to the Peppol specification. Your grade was evaluated as A. To view a detailed report of your TLS configuration follow this link to <a href="#">Qualys SSL Labs</a> (this link will only be working for a limited time).	Passed

Figure 4 TLS grading example evaluation

In the “AS4 message reception” test case, the Testbed environment will generate a file and send it to the under-test AP. No SMK/SMP participant registration is required, a static configuration will be utilized to address the transaction directly to the AP endpoint URL provided during the AP enrolment form. Figure 5 depicts successfully receiving the message (directly with no SMK/SMP) and passing the test.



Available test cases Select test case to see more details	
TC2A.1: TLS grading verification	Passed
TC2A.2B: AS4 message reception	Passed
TC2A.3: AS4 message submission	Passed
TC2A.4: Invalid certificate handling	Passed
TC2A.5B: Large AS4 message reception	Passed
TC2A.6: Large AS4 message submission	Paused
> Enrolled configuration	

## TC2A.2B: AS4 message reception Passed

Testbed will generate a file and send to the AccessPoint that is under test. Transaction will be addressed to receiver **9901:peppol-pgd-sb** from **9922:NGTBCNTRLBS1001**. There is no need for the receiver to be registered in the SMK, a static configuration will be used to address the transaction to AP endpoint URL <https://sut-ap.testbedng.sandbox.peppol.eu/as4>.

[▶ START](#)

## Audit Log

Event Time	Action	Description	Status
2022-11-25T15:06:55	START	Transaction (with instance identifier PGD000001-74-20221125T150655) to testing AP was sent without any reported errors.	Passed

Figure 5 AS4 message reception

In the “AS4 message submission” test case, the under-test AP is expected to send a document supplied by the Testbed environment. The sender will be the participant provided during enrolment (participant id and scheme id), and the receiver will be the Testbed. Download the zip package containing the ready-to-send XML artifact, as shown in Figure 6. Before sending the file, do not alter it in any way, as the Testbed may have trouble correlating it appropriately. Figure 6 also depicts successfully passing the test. In case of errors, examine them, and once corrected, restart the test.

Available test cases	
Select test case to see more details	
TC2A.1: TLS grading verification	Passed
TC2A.2A: AS4 message reception	Passed
TC2A.3: AS4 message submission	Passed
TC2A.4: Invalid certificate handling	Paused
TC2A.5A: Large AS4 message reception	Paused
TC2A.6: Large AS4 message submission	Paused
> Enrolled configuration	

## TC2A.3: AS4 message submission Passed

The AccessPoint under test is expected to send the document(s) supplied by the TestBed. Sender will now be **9901:ng-test**, and receiver will be **9922:NGTBCNTRLSB1001**. No changes should be made to the document and it is essential that the Document ID (Invoice number of the payload) is kept intact.

[▶ START](#)

## Audit Log

Event Time	Action	Description	Status
2023-01-27T13:23:39	START	Here is a prepared <b>ZIP-package</b> , download it locally and extract its contents. It contains one or more files that are ready to be sent by your Access Point implementation. Please send them in any sequence you like and be observant of any errors that would occur. Do not manipulate the files in any way before sending them, otherwise the Test Bed might experience problems correlating them appropriately.	Running
2023-01-27T13:26:40	RECEIVE	Received file: PGD000001-151-20230127T132338. It matched correctly and was expected to be seen.	Passed

Figure 6 AS4 Message submission

The “Invalid certificate handling” verifies that your implementation can identify invalid certificates. Download the zip package, containing ready-to-send XML artifacts. The zip package includes 3 XML artifacts to be sent. Please send them in the same sequence as their naming suggests and be observant if any errors occur. Before sending the file, do not alter it in any way, as the Testbed may have trouble correlating it appropriately. Figure 7 shows the successful test scenario. If any errors occur, examine them, and once corrected, restart the test case.

Available test cases	
Select test case to see more details	
TC2A.1: TLS grading verification	Passed
TC2A.2A: AS4 message reception	Passed
TC2A.3: AS4 message submission	Passed
TC2A.4: Invalid certificate handling	Passed
TC2A.5A: Large AS4 message reception	Paused
TC2A.6: Large AS4 message submission	Paused
> Enrolled configuration	

## TC2A.4: Invalid certificate handling Passed

In the Peppol eDelivery network only certificates from the OpenPEPPOL PKI infrastructure must be entrusted. This test case verifies that your implementation is able to identify invalid certificates. Files will be prepared by the Test Bed that the Access Point under test is expected to transact. Start the test case and follow the instructions carefully.

▶ START

## Audit Log

Event Time	Action	Description	Status
2023-01-27T13:29:59	START	Here is a prepared <a href="#">ZIP-package</a> , download it locally and extract its contents. It contains one or more files that are ready to be sent by your Access Point implementation. Please send them in the same sequence as their naming suggests and be observant of any error that would occur. Do not manipulate the files in any way before sending them, otherwise the Test Bed might experience problem correlating them appropriately.	Running
2023-01-27T13:30:33	RECEIVE	Received file: TestFile_001__BISv3_Invoice.xml. It matched correctly and was expected to be seen.	Passed
2023-01-27T13:30:33	EVALUATION	Please continue with sending the next expected file.	Running
2023-01-27T13:31:21	RECEIVE	Received file: TestFile_003__BISv3_Invoice.xml. It matched correctly and was expected to be seen.	Passed

Figure 7 Invalid certificate handling

In the “Large AS4 message reception” test case, the Testbed environment will generate a large file and send it to the under-test AP. No SMK/SMP participant registration is required, a static configuration will be utilized to address the transaction directly to the AP endpoint URL provided during the AP enrolment form. Figure 8 Large AS4 message reception example depicts successfully receiving the message (directly with no SMK/SMP) and passing the test.

Available test cases Select test case to see more details	
TC2A.1: TLS grading verification	Passed
TC2A.2A: AS4 message reception	Passed
TC2A.3: AS4 message submission	Passed
TC2A.4: Invalid certificate handling	Passed
TC2A.5A: Large AS4 message reception	Passed
TC2A.6: Large AS4 message submission	Paused
> Enrolled configuration	

## TC2A.5A: Large AS4 message reception Passed

In order to properly receive the AS4 message that will be sent by the testbed AP, you must register your enrolled participant to your SMP, with the capability of receiving **Peppol BIS 3.0 Based Orders** (document Type Id: **busdox-docid-qns::urn:oasis:names:specification:ubl:schema:xsd:Order-2::Order#urn:fdc:peppol.eu:poacc:trns:order:3::2.1**, Process ID: **cenbii-procid-ubl:urn:fdc:peppol.eu:poacc:bis:ordering:3**). Testbed will generate a large file (50 MB+) and send to the AccessPoint that is under test. Transaction will be addressed to receiver **9901:ng-test** from **9922:NGTBCNTRLSB1001**. The receiver must be registered in the SMK to address the transaction to AP endpoint.


[▶ START](#)

## Audit Log

Event Time	Action	Description	Status
2023-01-27T13:32:50	START	Transaction (with instance identifier PGD000001-155-20230127T133249) to testing AP was rejected, with reason; Transaction unsuccessful, Unable to send message because SMP lookup failed..	Failed
2023-01-27T13:34:08	RESTART	Transaction (with instance identifier PGD000001-156-20230127T133408) to testing AP was sent without any reported errors.	Passed

Figure 8 Large AS4 message reception example

In the “Large AS4 message submission” test case, the under-test AP is expected to send a large document supplied by the Testbed environment. The sender will be the participant provided during enrolment (participant id and scheme id), and the receiver will be the Testbed. Download the zip package containing the ready-to-send XML artifact, as shown in Figure 9. Before sending the file, do not alter it in any way, as the Testbed may have trouble correlating it appropriately. Figure 9 also depicts successfully passing the test. In case of errors, examine them, and once corrected, restart the test. When the test suite is complete (all test cases are passed), the test suite is automatically marked as complete and a PDF report is now made available for download, as shown in Figure 9.

Available test cases	TEST SUITE COMPLETED
Select test case to see more details	
TC2A.1: TLS grading verification	Passed
TC2A.2A: AS4 message reception	Passed
TC2A.3: AS4 message submission	Passed
TC2A.4: Invalid certificate handling	Passed
TC2A.5A: Large AS4 message reception	Passed
TC2A.6: Large AS4 message submission	Passed
> Enrolled configuration	
DOWNLOAD REPORT 	

## TC2A.6: Large AS4 message submission

The AccessPoint under test is expected to send the document(s) supplied by the TestBed. Sender will be **9901:ng-test**, and receiver will be **9922:NGTBCNTRL5B1001**. No changes should be made to the document(s) and it is essential that the Document ID (invoice number or Order number of the payload) is kept intact.

▶ START

## Audit Log

Event Time	Action	Description	Status
2023-01-27T13:50:18	START	Here is a prepared ZIP-package, download it locally and extract its contents. It contains one or more files that are ready to be sent by your Access Point implementation. Please send them in any sequence you like and be observant of any errors that would occur. Do not manipulate the files in any way before sending them, otherwise the Test Bed might experience problems correlating them appropriately.	Running
2023-01-27T13:51:10	RECEIVE	Received file: PGD000001-157-20230127T135017. It matched correctly and was expected to be seen.	Passed

Figure 9 Large AS4 message submission example

## 4.6 Finalizing and submitting test report

When you have downloaded your test report it needs to be uploaded to the Peppol Service Desk which can be accessed here:

<https://OpenPeppol.atlassian.net/servicedesk/customer/portal/1>


In here you choose the request type called “Test and Onboarding” as shown in Figure 10:

Help Center / Peppol Service Desk


## Peppol Service Desk

Welcome! You can raise an Peppol Service Desk request from the options provided.


**What can we help you with?**




**French-POC Certificate Request**  
This is exclusively certificates for the Service Providers participating in the French POC




**Test and Onboarding**  
If you have completed the AS4 onboarding test to become a certified Peppol Access Point provider, please submit your test report along with all other mandatory information needed for this request type. The OpenPeppol Operating Office will review your report, verify your test, and inform you about the next steps.




**PKI Certificate Request (Remember mandatory attachments)**  
For Production certificates you MUST attach a copy of your signed Peppol Service Provider Agreement and you MUST attach a recent copy of your business registration document with every PKI request. (the business registration document is a document verifying that you are registered as a company in your country and it must not be more than three months old).  
For Test certificates you MUST attach a recent copy of your business registration document with every PKI request. (the business registration document is a document verifying that you are registered as a company in your country and it must not be more than three months old). For Test certificates you MUST either attach a signed Peppol Service Provider Agreement or a signed Peppol Member form if you dont have a signed Peppol Service Provider agreement yet




**Request for Change (RFC)**  
Any suggestions for changes and improvements related to the Peppol document specifications, validation artifacts and e-Delivery Network specifications



**General support**  
Need support or have a question related to OpenPeppol or the Peppol Network?



**Report a bug**  
Tell us if you are experiencing problems or found issues or errors related to the Peppol Network and Peppol specifications



**Compliance Issue**  
If you are experiencing compliance issues (receiving Invalid schematron files from a sending Access Point or problems related to the actual exchange process – missing MDNs etc.)

Figure 10 Service desk ticket creation

Please fill in all the necessary information and make sure you attach the test report. OpenPeppol Operations will then review your test and if everything is OK they will prompt your Peppol Authority who will contact you to request your Production PKI certificate through the Peppol Service Desk.