
PART 1 - Application Guidelines for PEPPOL Access Point Operator

INTRODUCTION

Infocomm Media Development Authority (IMDA) is the PEPPOL Authority for Singapore. As the Authority, IMDA administers the registration of Businesses and Organizations for PEPPOL Identity's (ID's) and owns and manages the Service Metadata Publisher (SMP) where such ID's are published.

IMDA will be authorising Access Point Operators (AP's), for the end user business (Participant) registration and e-invoice routing.

This guideline is intended to provide interested parties with an overview of the authorization framework for parties intending to deploy PEPPOL Access Point operations in Singapore and to guide them in applying for the relevant authorizations.

DESCRIPTION OF PEPPOL ACCESS POINT OPERATOR

Access Point Operators are responsible for compliance to the PEPPOL standards which define appropriate format conversion of Participant invoices and routing of such invoices to the correct destination AP's as well as for registering and updating Participant details in the SMP. Operators intending to operate PEPPOL Access Point service may apply to IMDA for a PEPPOL AP authorization.

REGULATORY FRAMEWORK

All AP's will be regulated in accordance with OpenPEPPOL TIA agreement under the Singapore PEPPOL Authority which is IMDA. No renewal is required for AP's.

APPLICATION PROCEDURE

Interested parties who wish to apply to IMDA for an AP Operator, should submit their application via email to invoice@imda.gov.sg containing complete copies of

- a. Signed TIA agreement (TIA agreement can be downloaded from www.imda.gov.sg/invoice)
- b. Company registration documentation (ACRA bizfile extract or equivalent from country of origin) showing paid up capital amount.

- c. Copy of the OpenPEPPOL membership approval email (pdf format).
- d. AP Services write-up (Optional) – do include Value Added Services if any, ~3 pages.

Local Singapore companies will need to send two signed hardcopies of the TIA agreements to IMDA at the correspondence address below with the cover being marked as “PEPPOL AP Agreement”.

Eligibility to be an AP Operator include

- a. Public or Private limited entities registered with ACRA or equivalent in the country of origin.
- b. Access Point Operators must have a minimum paid-up capital of SGD 10,000 or equivalent in local currency for overseas organizations.
- c. Technical capability – to be demonstrated by showing compliance with the PEPPOL specifications. (verified via the OpenPEPPOL testing process).

Successful applicants for the Access Point Operator will be awarded their authorisation within 14 working days of application submission, provided that the applicants have submitted all the necessary information requested by IMDA for evaluation purposes and that IMDA has completed all the clarifications with the applicants.

CORRESPONDENCE/ENQUIRY

Any enquiry concerning this invitation to submit applications is welcomed.

Enquiries in writing should indicate clearly on the cover/subject line “**Enquiries on PEPPOL AP Authorisation**” and should be addressed to:

Info-communications Media Development Authority of Singapore
10 Pasir Panjang Road
#03-01 Mapletree Business City
Singapore 117438
Attn: The Director
E-Invoicing Project Office

PART 2 – Technical guide to setup a Singapore PEPPOL Access Point (AP)

This document explains how to setup a **Singapore** PEPPOL Access Point (AP), which is the technical function for sending and receiving PEPPOL business documents on behalf of Participants who wish to send E-Invoices.

Pre-approval Stage

Please find below the steps that an organisation must follow to become a PEPPOL Access Point (AP) operator:

- a) Become an OpenPEPPOL member (Write to info@peppol.eu to get the membership form, fill in and sign the form then submit the scanned membership form in pdf format to info@peppol.eu and await an approval email).
- b) Ensure that you read and understand the PEPPOL Business Interoperability Specifications 'BIS' (document specifications) at: <http://peppol.eu/downloads/post-award/>
- c) Ensure that you read and understand the eDelivery Network specifications including the Policy for Use of Identifiers (important to understand how senders and receivers are identified in the PEPPOL network) and the SMP specification (important to understand how the discovery process works and the roles of the SMP and SML) at: <https://peppol.eu/downloads/the-peppol-edelivery-network-specifications/>
- d) Implement your Access Point. You can use open source implementation software or purchase a hosted Access Point software solution – links to various implementations are available at: <https://peppol.eu/downloads/peppolimplementations/>. Alternatively, you may decide to build your own implementation or purchase a hosted Access Point software solution.

Post-approval Stage

Post review of all submitted documentation, IMDA will issue a notification of approval. Upon receiving IMDA's notification of approval:

- a) You can then proceed with your PKI test certificate request through the PEPPOL Service Desk at: <https://openpeppol.atlassian.net/servicedesk/customer/portal/1>
- b) Execute the self-testing process, verifying that you can send and receive a valid PEPPOL BIS document (you can send to and receive from your own Access Point implementation to test the file exchange, in order to be fully prepared for the final Acceptance Test procedure). Please see the link below for an online validation

service where you can ensure your documents comply to the current PEPPOL specifications.

<https://vefa.difi.no/validator/>

- c) When ready, initiate the Acceptance Test with DIFI (information on this test process is provided later in this document). Once successful, the Test Facility will send the documentation of a successful test to your PEPPOL Authority.
- d) Upon notification from your PEPPOL Authority, you can request your Production PKI certificate through our Service Desk at:

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

- e) Download your certificate and enter into production mode.

Operations Stage

- a) Proceed to request for your Access Point Operator account on the Singapore SMP at <https://www.peppolsmp.sg>. You are now ready to register end-user participants onto the SMP and start sending and receiving e-invoices on the PEPPOL eDelivery Network. [Note: The Singapore SMP is targeted to be up and running in Nov 2018.]
- b) Refer to the Appendix A for the Business On-boarding Process.
- c) When ready to receive enquiries, send a request to IMDA to list your Access Point as one of the authorised AP's on the IMDA website.
- d) IMDA will provide an operations requirement document for Access Point to follow on reporting, regular meetings and other related matters.

THINGS TO NOTE

1. *OpenPEPPOL Membership*

OpenPEPPOL membership is mandatory for Access Point Operators. You will find membership and fee details in the '[How to Join](http://peppol.eu/get-involved/join-openpeppol/?rel=tab119)' found at <http://peppol.eu/get-involved/join-openpeppol/?rel=tab119> section of our peppol.eu website. The OpenPEPPOL Membership form must be completed, signed, scanned and sent back to openpeppol@peppol.eu.

OpenPEPPOL will review the form for completeness. You will then receive a notification from OpenPEPPOL to confirm receipt and will be informed about membership approval. Once approved, your organisation will be included in the online list of OpenPEPPOL members.

2. PEPPOL Transport Infrastructure Agreements (TIA)

An OpenPEPPOL Access Point (AP) Operator must sign the PEPPOL Transport Infrastructure Agreements (TIA) for AP Operators with the Singapore PEPPOL Authority i.e. IMDA. The Singapore TIA agreement can be retrieved from <http://www.imda.gov.sg/einvoice> site.

3. PEPPOL Technical Specifications

3.1. PEPPOL Standards

To implement and operate the Access Point services, you must, at all times, comply with the PEPPOL specifications and applicable standards and as announced by PEPPOL Authority which is published here published here: <https://peppol.eu/downloads/postaward/>

To start with the Singapore PEPPOL Authority mandates the use of **BIS 3.0 and AS2** as the default standards for Singapore.

Access Point Operators can choose to additionally support BIS 2.0 and AS4 where they need to support customers who need to transact to external parties who only support such standards.

3.2. PEPPOL eDelivery Network

Before implementing the specifications, it is important for potential Access Point Operators and SMP providers to have a good understanding of the PEPPOL eDelivery Network, how it is structured, how it is governed, the role of an Access Point and/or SMP provider, and the relationship with the respective PEPPOL Authority.

For more information about the Governance of the PEPPOL eDelivery Network and its legal framework, please visit [PEPPOL Transport Infrastructure – An Overview](https://peppol.eu/what-is-peppol/peppol-transport-infrastructure/) found at <https://peppol.eu/what-is-peppol/peppol-transport-infrastructure/>

Please review the technical specifications related to the PEPPOL eDelivery Network (the BusDox specifications) to ensure you have the appropriate infrastructure (hardware/software) and the necessary technical expertise in place. The technical specifications and other network resources are available at '[The PEPPOL eDelivery Network Specifications](https://peppol.eu/downloads/?rel=tab87)' found at <https://peppol.eu/downloads/?rel=tab87>

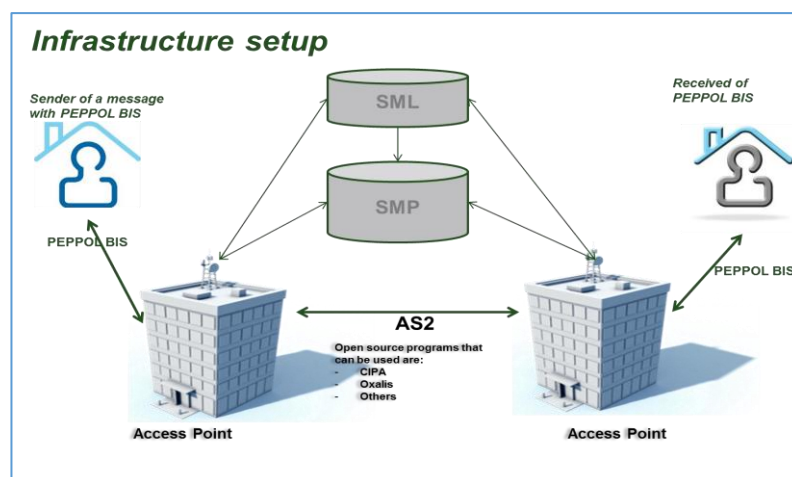
Note: Two types of certificates are used by the Access Point. One certificate is used to sign the message and the acknowledgement according to the AS2/AS4 profile. This certificate is provided by OpenPEPPOL once the Access Point Operator has signed the PEPPOL Transport Infrastructure Agreement. The other type of certificate is used by the AS2/4 web server software for enabling SSL (For Example https:) communication. This certificate is not provided by OpenPEPPOL but must be issued by a well-known provider of server certificates such as Verisign. Self-signed certificates **must not** be used.

3.3. Access Point Resources

AP Server Solutions are available as Open Source, or you can use commercial implementations that are configured/adapted to the PEPPOL specifications.

Sample Implementations of the PEPPOL eDelivery Network are provided on our website at 'Links to Software for PEPPOL Implementations' found at <http://peppol.eu/downloads/?rel=tab245> In particular:

- a) **Oxalis:** sample Implementation for PEPPOL Access Points, widely used in the PEPPOL community, and maintained by the Norwegian Agency for Public Management and eGovernment (Difi), <https://github.com/difi/oxalis>
- b) **CIPA e-Delivery:** sample Implementation for PEPPOL Access Points, SMP, and SML, maintained by the European Commission. <https://joinup.ec.europa.eu/software/cipaedelivery/home>



Note: Access Point service operators can convert a document to the PEPPOL BIS on behalf of the document sender.

3.4. **PEPPOL Business Documents**

In addition to supporting the appropriate communication protocols, PEPPOL Access Point Operators are required to support the Post-Award PEPPOL Business Interoperability Specifications (BIS) in order to provide PEPPOL-compliant document exchange services to prospective buyers and suppliers.

PEPPOL Business Interoperability Specifications (BIS) v3 is mandated by the Singapore PEPPOL authority. The current PEPPOL BIS are:

PEPPOL BIS 1A Catalogue Only
PEPPOL BIS 3A Order Only
PEPPOL BIS 4A Invoice Only
PEPPOL BIS 5A Billing
PEPPOL BIS 28A Ordering
PEPPOL BIS 30A Despatch Advice
PEPPOL BIS 36A Message Level Response

Only the **PEPPOL BIS 4A Invoice** will be adopted for use at the time on this publication.

4. **Testing**

The Norwegian Agency for Public Management and eGovernment (Difi), as a PEPPOL Authority, provides useful tools for testing and self-conformance to PEPPOL specifications (PEPPOL BIS) for Access Point Operators.

Pre-requisites

- a) Request your Test PKI certificate through the PEPPOL Service Desk.
- b) Before contacting Difi to initiate the Acceptance Test, it is important that you perform self-testing, making sure that you can send and receive PEPPOL BIS documents through the PEPPOL eDelivery Network. To carry out self-testing, you can use the following tools provided by Difi at: <https://vefa.difi.no/peppol/tools/ap-test/>. Please note, for testing purposes, Difi will be the receiving organization to which your Access Point will send PEPPOL BIS v3 documents.
- c) Once you are ready to perform Acceptance Testing, you need to send an email to AP@Difi.no with a request to begin the test

Testing Environment Details:

- Difi provides their own test SMP for the acceptance test.
- Difi's PEPPOL Identifier: 9908:810418052 is used as the receiving party in the test
- Check your results at: <https://test-aksesspunkt.difi.no/inbound/>
- You will be testing against the latest version of the Oxalis Access Point software
- Supported documents you can use in the test:
<http://test.vefa.difi.no/smp/9908/810418052>

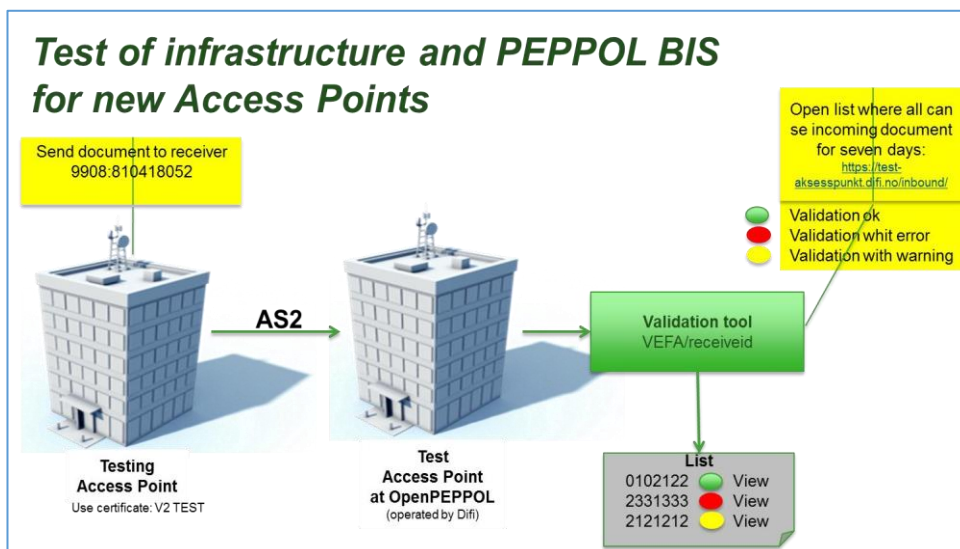
Testing

- d) The test will include:
- i. Verification of certificates (both the PEPPOL and your HTTPS certificate).
 - ii. Sending of a document from your AP to Difi's Test AP.
 - iii. Receiving of a document from Difi Test to your AP.
 - iv. Acknowledgment of the documents sent.
 - v. Completion of the Testing Results Template which will be reviewed as part of the test procedure to ensure all the concepts are understood.

Post-Testing

Once you have successfully completed the testing activities, your results will be sent by Difi to your PEPPOL Authority who will prompt you to request your production PKI certificate through the PEPPOL Service Desk.

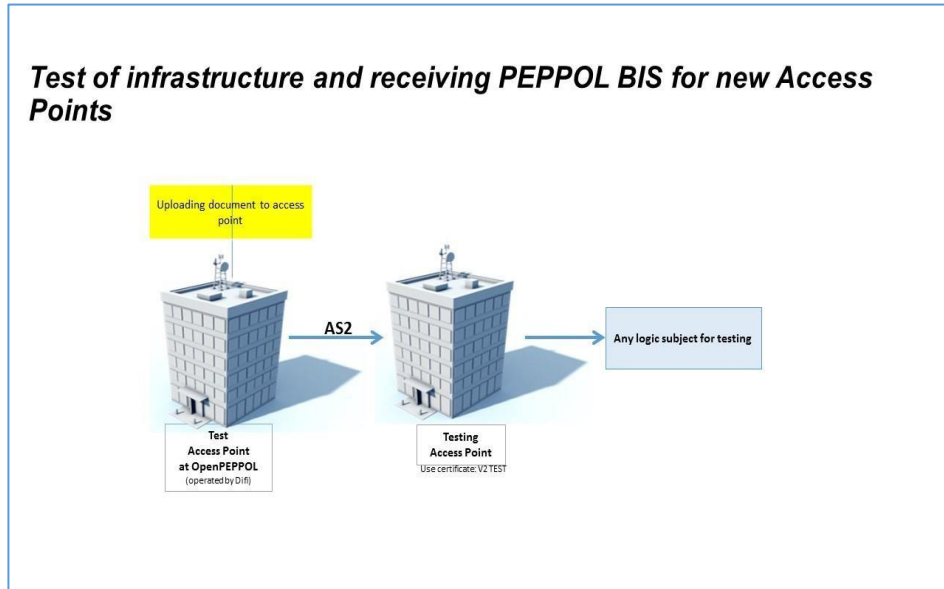
Validation Requirements for Sending BIS documents



As a sending Access Point Operator, you **must** ensure that the business documents received from *your customers* are confirmed as valid instances,

according to the applicable rules, before accepting them for transport through your Access Point services, either by providing such services on behalf of your customers, or by ensuring that your customers have performed such validation.

Test receiving PEPPOL BIS



To test your services as a receiving Access Point Operator, you must send an email to ap@difi.no to find out information on how to send documents from the Difi testing facility to your own Access Point (as a recipient).

When you receive the transmitted document from the Difi testing facility (as a sender), it must be validated as conforming to the BIS 3.0 standards, according to the applicable rules, before accepting it.

5. OpenPEPPOL Accreditation

Once in production, your company name will be added to the list of Certified Access Points www.peppol.eu and you can contact OpenPEPPOL to receive an “OpenPEPPOL Certified Access Point” logo, for use on your website and in your marketing materials.

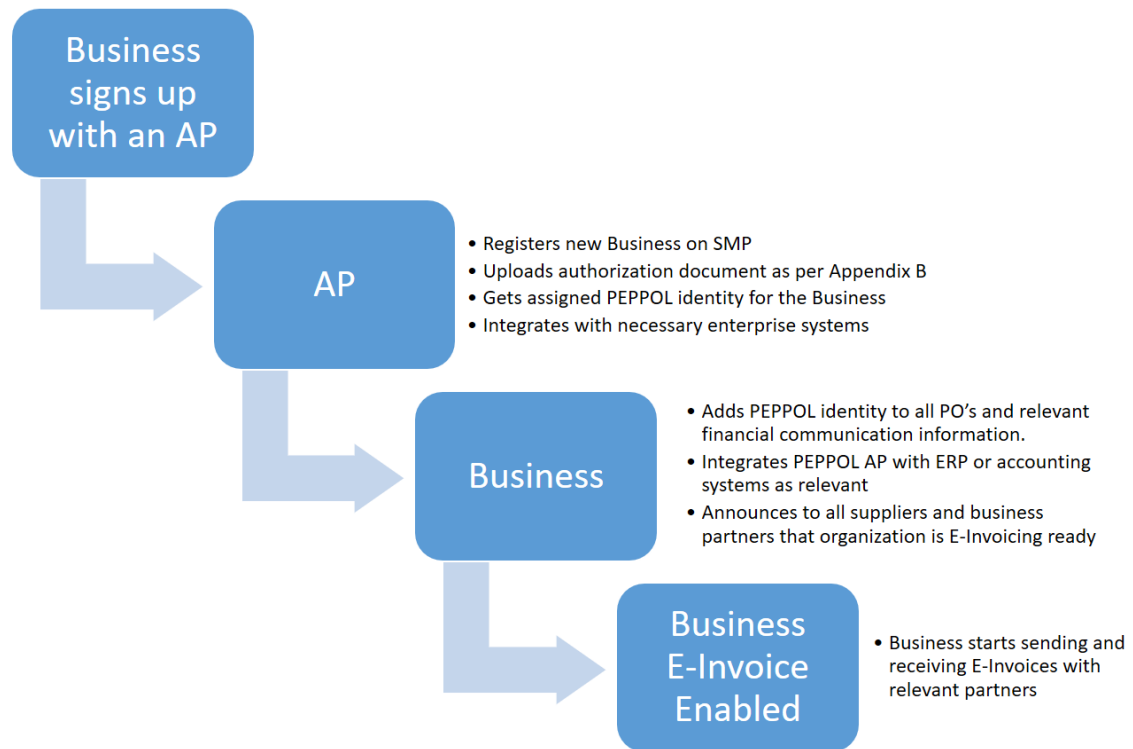
6. Registering Businesses on the Singapore PEPPOL Infrastructure

Every Participant (business entity) registering in the Singapore PEPPOL network will be issued a unique PEPPOL identity. AP’s must ensure that they have the proper authorisation to register the business by ensuring that the PEPPOL authorisation letter is signed and stamped by the company and a scanned copy of the letter is uploaded

on the Service Metadata Publisher(SMP) interface. A sample of a standard authorisation letter is provided in Appendix B.

Appendix A

Business On-boarding Process



Any business needs to first choose an appropriate AP from the list found at www.imda.gov.sg/einvoice, then upon signing up with the AP Operator, they will then follow the process above to register for a PEPPOL ID and connect their systems with the AP for invoice transmission and receipt.

Upon completion and testing of the integration, business will then announce to all partner's supplier that it is e-Invoicing ready and then begins sending or receiving E-Invoices.

Appendix B
Sample Letter of Authorisation

When registering any business on the Service Metadata Publisher (SMP) Access Point Operators must upload a scanned copy of the authorisation document, in order to generate the PEPPOL identity for the business.

Sample

(Please use your own Company Letterhead)

Date:

Ref: Registration of PEPPOL Identity and Transmission/routing of E-Invoices

To:

<<Access Point Operator>>

Dear Sir/Madam

LETTER OF AUTHORISATION

This is to inform you that <<Access Point Operator Name >> is authorized to register for a PEPPOL Identity and undertake transmission/routing of E-Invoices for and on behalf of [state company name and ACRA UEN number or equivalent].

If you require any clarification, please contact me at Tel: _____ or via email at _____.

Yours sincerely

Company Stamp

[Signature]

Officer-in-charge [manager and above]

Name:

Designation: