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Testbed 2.0

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www.peppol.eu

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Agenda

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7. AU/NZ BIS Billing 3.0 test suite
8. BIS Standard Invoice JP PINT test suite
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1. Introduction

A) Current state

1A. Introduction – Current state (1/2)

Current state - Testbed 1.0

- Used for onboarding new AP Service Providers
 - ensure compliance to the Peppol network and Peppol specifications
- Self initiated process
- Single Conformance/onboarding test suite
 - 4 test cases
 - Test cases must be completed sequentially
- Conformance/onboarding test suite included the following test cases:
 - Message reception test case
 - Message submission test case
 - Large message reception test case
 - Large message submission test case

1A. Introduction – Current state (2/2)

- **Testbed 2.0** in the works
 - Close to finalization
 - Replaces Testbed 1.0

Goal: ensure all Service Providers operate with the same high quality of service

- Verify and validate all the technical capabilities required to operate within Peppol network

How?

- Expand Testbed with additional test suites/test cases and other key verifications
 - Self-initiated test cases that verify SPs technical capabilities
- Make Testbed technically versatile and flexible
 - Multiple **domains** (e.g., Post-award, PINT)
 - variations based on **jurisdiction** (EU, SG, AU/NZ, JP)



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2. Testbed 2.0

- A) Overview
- B) Available test suites
- C) Architecture
- D) Comparison with Testbed 1.0

2B. Testbed 2.0 test suites

Testbed 2.0 available test suites

- AP test suite (available for all jurisdictions)
 - Full eDelivery AP testing
 - Standalone AP testing
- SMP test suite (available for all jurisdictions)

- EU (global) Post-award BIS 3.0 Test suite
- Singapore BIS Billing 3.0 test suite
- AU/NZ BIS Billing 3.0 test suite

- BIS Standard Invoice JP PINT
 - Currently under PINT domain

2C. Architecture redesign

Architecture redesign:

- Two new dimensions have been added to the Test Suite definitions:
 - Domain, Jurisdiction
- Test suites are bundled/separated per **domain** (e.g., post award, PINT)
 - Each domain has its own set of test suites
 - Each test suite provides test case variants based on the **jurisdiction** (C1/C4) selection
- Test cases variants based on **jurisdiction** (C1/C4)
 - Test case descriptions tailored on selected jurisdiction
 - Test cases use specific Jurisdiction-based Participant, Document Identifiers
 - Payload differs based on jurisdiction (Template based BIS document generation)

2D. Testbed 1.0 vs Testbed 2.0

	Testbed 1.0	Testbed 2.0
Domain	1	Post-award, PINT
Jurisdiction	1	EU (global), SG, JP, AU/NZ
Test suite	1	Multiple



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3. AS4 eDelivery test suite

- A) Overview
- B) Test cases

3A. AS4 eDelivery test suite overview

Objective: verify that the under test AP is able to submit/receive documents compliant to Peppol eDelivery AS4 profile.

- Configure and Deploy a Peppol eDelivery Compliant Access Point
 - Ability to dynamically discover a participant's addressing information using SML/SMP
 - Ability to submit a message compliant with Peppol eDelivery AS4 Profile
 - Ability to receive a message compliant with Peppol eDelivery AS4 Profile

3B. AS4 eDelivery test suite test cases (1/2)

- **TC2A.1 TLS grading verification**
 - Assess TLS configuration of under test AP
 - Comply with Peppol security policy (grade A or above in SSL labs)
- **TC2A.2A AS4 message reception (directly)**
 - Under test AP receives a message that adheres to Peppol eDelivery AS4 profile.
 - Testbed sends document to under test AP directly (static configuration – no SMP lookup)
- **TC2A.2B AS4 message reception (full eDelivery)**
 - Under test AP receives a message that adheres to Peppol eDelivery AS4 profile.
 - Testbed sends document to under test AP using eDelivery
 - Testing AP participant needs to be registered in the SMK
- **TC2A.3 AS4 message submission**
 - Under test AP submits a message to the Testbed that adheres to Peppol eDelivery AS4 profile

3B. AS4 eDelivery test suite test cases (2/2)

- **TC2A.4 Invalid certificate handling**
 - Reject transactions from an invalid certificate
 - Comply to Peppol Transport Security policy
- **TC2A.5A Large AS4 message reception (using eDelivery)**
 - Under test AP receives a large message (50+ MB) that adheres to Peppol eDelivery AS4 profile.
 - Testbed sends large document to under test AP using eDelivery
 - Testing AP participant needs to be registered in the SMK
- **TC2A.5B Large AS4 message reception (directly)**
 - Under test AP receives a large message (50+ MB) that adheres to Peppol eDelivery AS4 profile.
 - Testbed sends large document to under test AP directly (static configuration – no SMP lookup)
- **TC2A.6 Large AS4 message submission**
 - Under test AP submits a large message that adheres to Peppol eDelivery AS4 profile
 - Under test AP sends previously received document to Testbed



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4. SMP test suite

- A) Overview
- B) Test cases

4A. SMP test suite overview

Objective: verify that the testing SMP is able to comply with the Peppol SMP specification.

- Configure and Deploy a Peppol SMP
 - Ability to register and unregister a Peppol Participant with its reception capabilities
 - Ability to automatically register a participant to the SML
 - Ability to automatically register a participant to the Peppol Directory

4B. SMP test cases

- **TC2B.1 Register a participant in the SMK**
 - Publish a participant identifier and service metadata in the SMK
- **TC2B.2 Register service metadata**
 - Testbed validates published participant's service metadata (e.g., Peppol ID, supported document types, transport profiles etc.)
- **TC2B.3 Publish to Peppol Directory**
 - Publish a Peppol participant in the Peppol directory
- **TC2B.4 De-register a participant registration in the SMK**
 - Un-publish a participant in the SMK and the Peppol Directory and de-register participant service metadata (e.g., Peppol ID, supported document types, transport profiles etc.)



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5. EU (global) Post award BIS 3.0 test suite

- A) Overview
- B) Test cases

5A. Post award BIS 3.0 test suite overview

Objective: verify that the under test AP is able to comply with the Peppol BIS 3.0 specification and the tester is able to understand and work with the BIS 3.0 specification.

- Comply with the Peppol BIS 3.0 specifications
 - Ability to create and send valid BIS 3.0 artefacts
 - Ability to recognize and reject sending invalid BIS 3.0 artefacts
 - Ability to understand and work with BIS 3.0 specification

5B. BIS 3.0 test suite test cases (1/2)

- **Business Document Submission**

- Tester generates and sends a valid BIS 3.0 Business Document to the Testbed following the test case instructions
- Testbed runs schematron checks and validates the received BIS 3.0 Business Document
- Testbed provides back to the tester informative validation results

- **Business Document Validation**

- Testbed creates a package of artefacts (ready to be sent) by testing AP
- Testing AP validates outgoing BIS 3.0 Business Documents
- Send only valid messages and reject invalid ones

- **Business Document Correction**

- Fix errors of previous test case, validate the files and send back to Testbed

5B. BIS 3.0 test suite test cases (2/2)

The three test cases are being instantiated for the following document types (**total 15 test cases**)

- BIS 3.0 Invoice
- BIS 3.0 Credit Note
- BIS 3.0 Order
- BIS 3.0 Despatch Advice
- BIS 3.0 Invoice Response



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6. SG BIS Billing 3.0 test suite

- A) Overview
- B) Test cases

6A. SG Billing 3.0 test suite

Objective: verify that the under test AP is able to comply with the Singapore Peppol BIS Billing 3.0 specification and the tester is able to understand and work with the Singapore Peppol BIS Billing 3.0 specification.

- Comply with the Peppol Singapore BIS Billing 3.0 specifications
 - Ability to create and send valid Singapore BIS Billing 3.0 artefacts
 - Ability to recognize and reject sending invalid Singapore BIS Billing 3.0 artefacts
 - Ability to understand and work with Singapore BIS Billing 3.0 specification

6B. SG Billing 3.0 test suite test cases

- **Business Document Submission**

- Tester generates and sends a valid Singaporean BIS Billing 3.0 Business Document to the Testbed following the test case instructions
- Testbed runs schematron checks and validates the received Singaporean BIS Billing 3.0 Business Document
- Testbed provides back to the tester informative validation results

- **Business Document Validation**

- Validate outgoing Singapore BIS Billing 3.0 Business Documents
- Send only valid messages and reject invalid ones

- **Business Document Correction**

- Fix errors of previous test case, validate the files and send back to Testbed

The three test cases above are instantiated for the **Invoice** and **Credit Note** document type
(**total 6 test cases**)



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7. AU/NZ BIS Billing 3.0 test suite

- A) Overview
- B) Test cases

7A. AU/NZ BIS Billing 3.0 test suite

Objective: verify that the under test AP is able to comply with the AU/NZ Peppol BIS Billing 3.0 specification and the tester is able to understand and work with the AU/NZ Peppol BIS Billing 3.0 specification.

- Comply with the Peppol Australian/New Zealand BIS Billing 3.0 specifications
 - Ability to create and send valid AU/NZ BIS Billing 3.0 artefacts
 - Ability to recognize and reject sending invalid AU/NZ BIS Billing 3.0 artefacts
 - Ability to understand and work with AU/NZ BIS Billing 3.0 specification

7B. AU/NZ BIS Billing 3.0 test suite test cases

- **Business Document Submission**

- Tester generates and sends a valid AU/NZ BIS Billing 3.0 Business Document to the Testbed following the test case instructions
- Testbed runs schematron checks and validates the received AU/NZ BIS Billing 3.0 Business Document
- Testbed provides back to the tester informative validation results

- **Business Document Validation**

- Validate outgoing AU/NZ BIS Billing 3.0 Business Documents
- Send only valid messages and reject invalid ones

- **Business Document Correction**

- Fix errors of previous test case, validate the files and send back to Testbed

The three test cases above are instantiated for the **Invoice** and **Credit Note** document types (**total 6 test cases**)



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8. BIS Standard Invoice JP PINT Test suite

A) Overview

8A. Standard Invoice JP PINT BIS test suite

Objective: verify that the under test AP is able to comply with the Standard Invoice JP PINT BIS specification and the tester is able to understand and work with the Standard Invoice JP PINT BIS specification.

- Comply with the Standard Invoice JP PINT BIS specifications
 - Ability to create and send valid Standard Invoice JP PINT BIS artefacts
 - Ability to recognize and reject sending invalid Standard Invoice JP PINT BIS artefacts
 - Ability to understand and work with Standard Invoice JP PINT BIS specification
- Japan BIS testing is currently under PINT domain



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**Documentation and next
steps**

Link and Documentation

- **Testbed 2.0**

- User Guide document (in-progress)
- Environment description document (available)

- Acceptance deployment: <https://www.testbedng.acc.peppol.eu/>

Next Steps

- Testbed 2.0 available for review – get familiar with it
- Feedback welcome to improve it
- If you are willing to do intensive testing in the next 4 weeks, contact us and you will be part of a closed group expected to test, give feedback and interact more closely
- Once functionality is verified, will introduce the new testbed replacing the current one – 1Q23

Governance implications

Will need to discuss impact on accreditation

- Introduce SMP accreditation
- Use new test suites for AP accreditation

We can introduce recurring testing

- It is in internal regulations
- We need to decide how often a SP has to test in order to maintain certified status

We can introduce BIS testing in our onboarding process

- Need to understand what capabilities we can really test and verify regarding BIS

We can support jurisdiction – specific accreditation



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9. DEMO



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Questions?



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INFORMATION

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