

eDelivery Interoperability Forum

3 May 2023



eDelivery Interoperability Forum

Discussion & feedback

27 June 2023



Reminder



The meeting **is not being recorded**



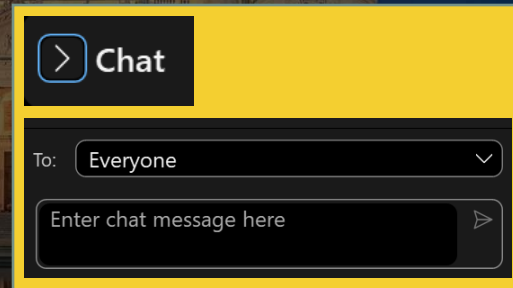
Place your Qs **in the chat section** or



Raise your hand if you want to speak or ask Q



Mute your microphone when you do not speak



Welcome

Maya Madrid



Welcome!

The eDelivery Interoperability Forum:

- is a platform for the eDelivery BB and for **solution and services providers** to explore together the technical evolution, market opportunities and market needs around eDelivery
- aims to promote knowledge sharing, provide feedback on challenges, needs and preferences, and facilitate the discussion for the way forward

Objectives

The forum's objectives:

- keep eDelivery solution and services providers up to date with the evolution of the eDelivery building block (e.g., technical specifications)
- bring projects and solution/service providers together to facilitate match-making between business needs and service offering
- collect input from solution/service providers to guide building block's strategy

Format

The forum's format:

- online meeting of one to two hours
 - 2-4 times / year depending on participation, evolution and needs
-
- Today's meeting is organised as a « re-launch » meeting after a 2,5 years gap

Agenda

- Today's agenda:
 - Various updates regarding the eDelivery building block **(1h-1h15min)**
 - Hear back from you **(45-60 minutes)**

DIGITAL EUROPE PROGRAMME

Policy Update

2014

Launch of the
Connecting
Europe
Facility

2014-2020's Multiannual Financial Framework

2021

Launch of the
Digital Europe
Programme

2021-2027's Multiannual Financial Framework

DIGITAL EUROPE PROGRAMME

Digital Europe Work Programmes

- Work Programme 2021-2022
 - Adopted in November 2021
 - CSP budget: **39M**
 - eDelivery budget: **5.8M**
- Work Programme 2023-2024
 - Adopted in April 2023
 - European Digital Identity and Trust Ecosystem: **20M**
 - eDelivery budget: **5M** for the two years

DIGITAL EUROPE PROGRAMME

DIGITAL EUROPE 2023-24 – Specific Objective 5



Accelerating the Best Use of Technologies



Other SOs relate to High Performance Computing (SO1), Cloud, Data, AI (SO2) Cybersecurity (SO3) and Digital Skills (SO4)

European Blockchain
Services Infrastructure

Blockchain

Public
Services

Confidence
in Digital
Transform.

An illustration on a dark purple background featuring four stylized human figures. In the top left, a woman in a yellow shirt and dark skirt holds a tablet. In the top right, a woman in a white lab coat holds a folder. In the bottom left, a man in a white shirt and light blue pants holds a smartphone. In the bottom right, a man in a yellow shirt sits on a white folding chair using a laptop. The central text 'THANK YOU!' is written in large, white, bold, sans-serif capital letters. The background is decorated with abstract purple and blue shapes, including a large central circle, several smaller circles, and a grid of white dots in the top right corner.

**THANK
YOU!**

#DigitalEUProgramme

Today's detailed agenda

1 eDelivery news (by Bogdan Dumitriu)

New market opportunities

eDelivery service offering updates

2 eDelivery profiles updates (by Pim Van Der Eijk)

eDelivery AS4 profile 2.0

eDelivery SMP profile 2.0

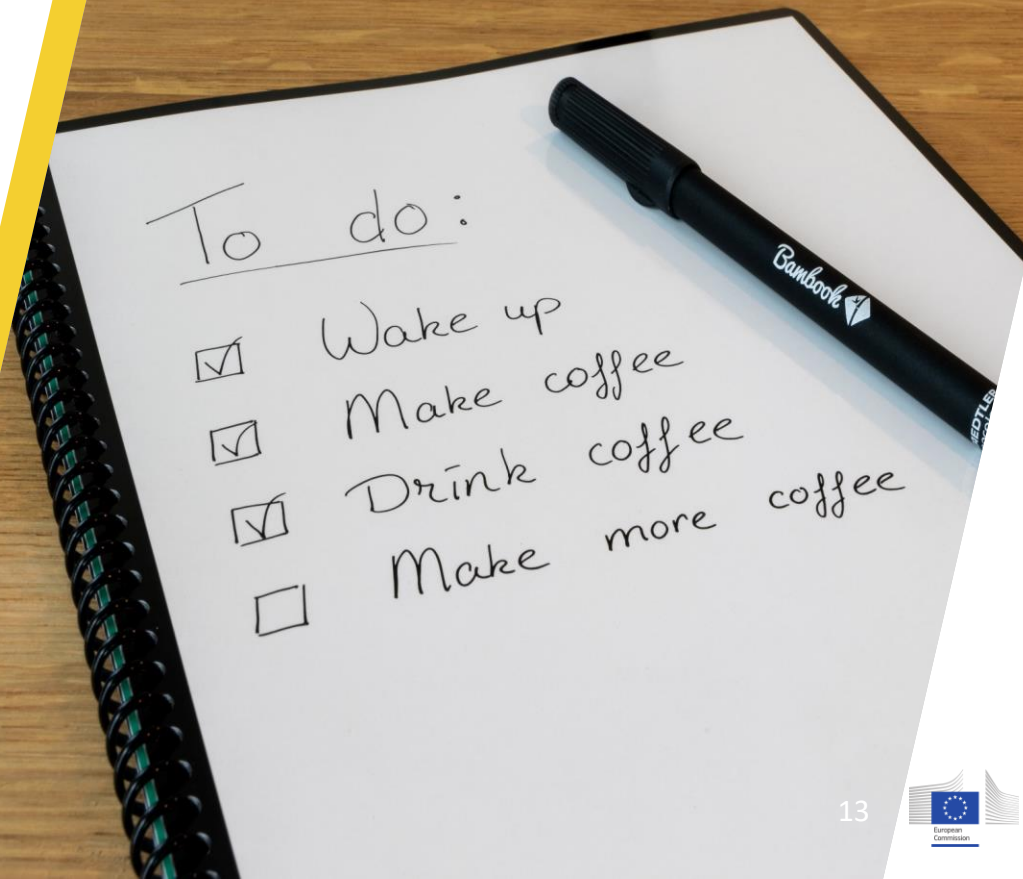
3 Conformance testing service updates (by Bogdan Dumitriu & François Gautier)

New conformance testing platform (demo)

New presentation of conformant solutions

4 Discussion (all)

Sharing needs, expectations, feedback, etc



eDelivery news

Bogdan Dumitriu



The eDelivery symbiosis

Building block

Promote and facilitate the use of eDelivery in the European digitalisation

Ensure long-term custodianship of eDelivery specifications and baseline services

Provide level playing field for projects/users to learn about solution and service providers

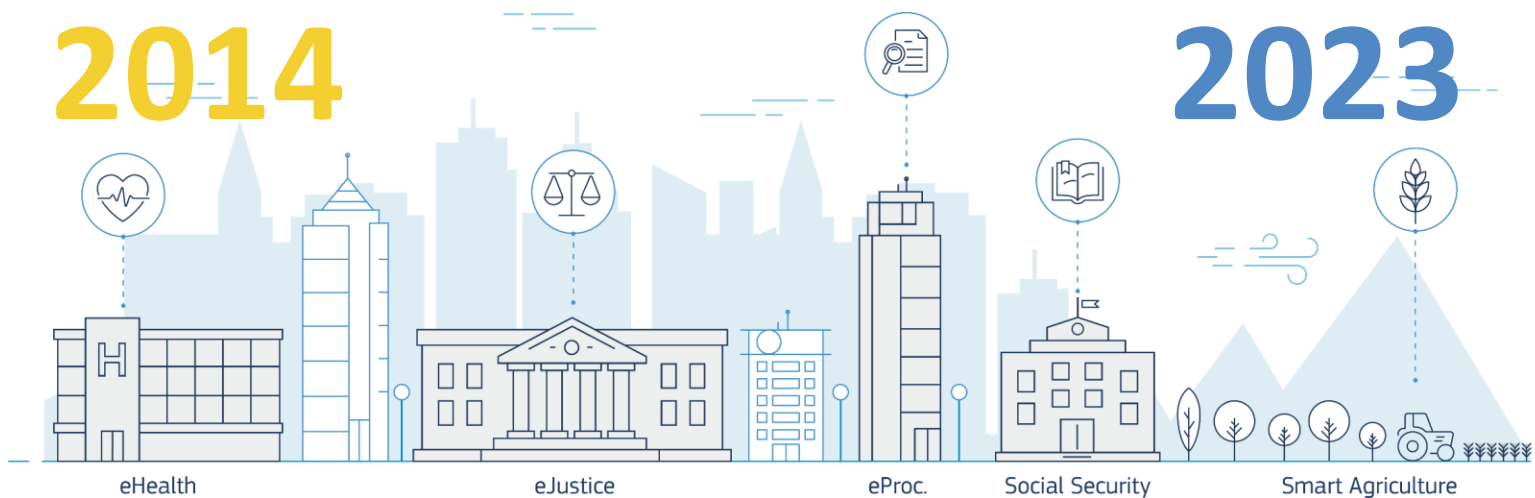
Solution and service providers

Provide eDelivery service offerings in response to market needs

Evolve services in line with specifications and provide tailored and user-friendly support

Learn and address customer needs

Building Block adoption



- **338** projects reusing a Building Block.
- **53** projects committed to reuse.
- **88** projects committed to analyse.
- **150%** increase in reuse since 2018.

Projects using / planning to use eDelivery



Once-Only Technical System (OOTS)



European Health Data Space (HealthData@EU)



DECIDE Decision



Council Information Exchange Platform (CIxP)



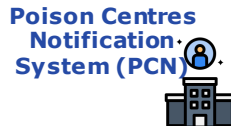
European Hull Database (EHDB)



European Crew Database (ECDB)

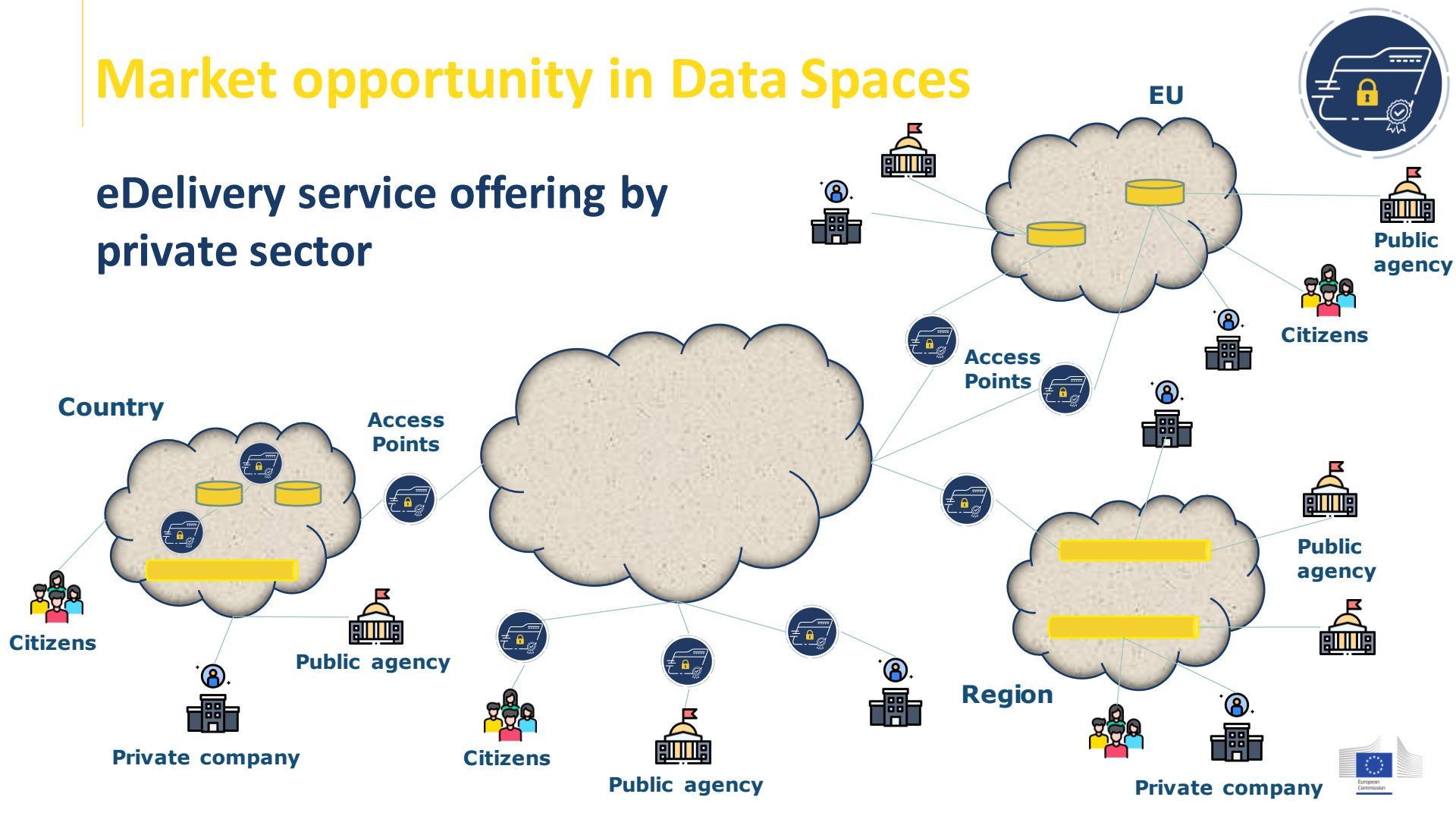


EU Common Entry Gate for Tobacco Reporting (EU-CEG)



Market opportunity in Data Spaces

eDelivery service offering by private sector



eDelivery AS4 2.0 specification



- **Modernisation of cryptography**
- **Adoption of ebCore Agreement Update**

Nov 2020



eDelivery AS4 1.15

Q3-Q4 2023



eDelivery AS4 2.0



eDelivery SMP 2.0 specification



May 2018



eDelivery SMP 1.10

- Support for OASIS SMP version 2.0
- Allow publishing multiple certificates

Q3-Q4 2023



eDelivery SMP 2.0





eDelivery Specification Change Process

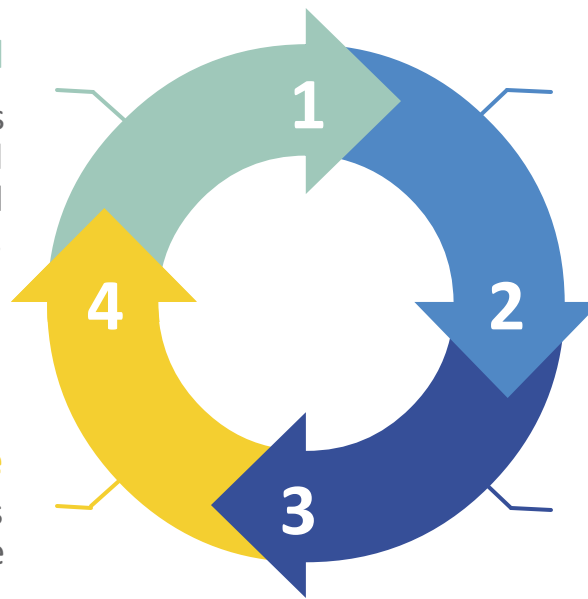
The consultation is part of our change management process to involve the eDelivery community (transparently) in the assessment of change requests and in the creation of community drafts

Change proposal

The **eDelivery team** reviews user information, feedback and previous comments and develops a draft specification.

Publish the Change

The **eDelivery team** publishes the new version of the specification.



Public consultation

The **eDelivery Community** is invited to contribute their thoughts and comments to the current specification as well as to the suggested change proposals.

Review & Approval

The **eDelivery team** reviews and consolidates the suggestions and shares the assessment with the eDelivery Community and the eDelivery OMB is asked to approve the publication of the specification.

eDelivery Specifications 2.0

- The public consultation will be launched in Q2 2023



eDelivery Conformance Testing Service



New conformance testing platform

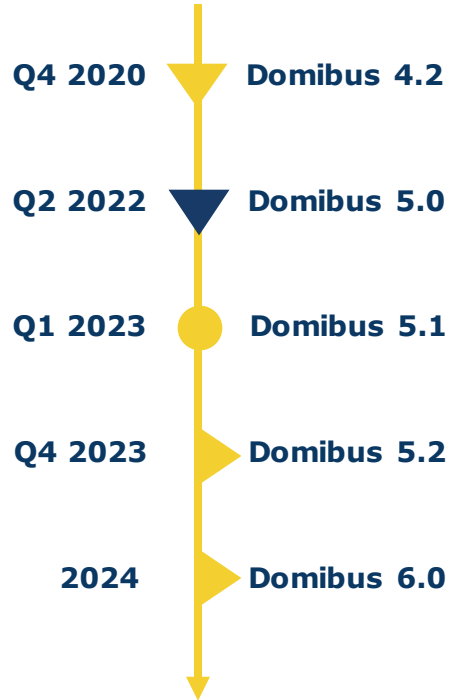
A new conformance testing platform will be launched on **19 May 2023**. You will see a preview later today.

New display of conformant solutions

Conformant eDelivery AS4, SMP and SML products will be displayed in a new way to make sure recently tested products (and product versions) are clearer to the users.



Product updates: Domibus 5.0



- **Focused on performance improvements**
 - instantaneous *and*
 - over time
- **Archival support**
- **Push support in web service backend interface**



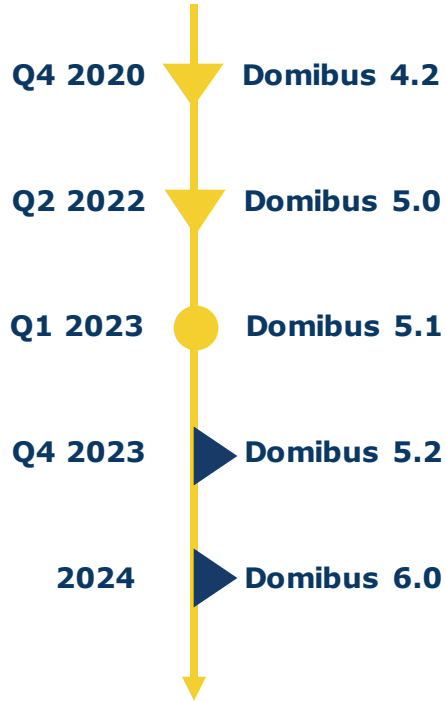
Product updates: Domibus 5.1



- **Support for self-sending messages**
- **Support different security algorithm configurations**
- **Support different/multiple (types of) private keys to be used by different security configurations**
- **Smarter retry strategy and retention policy**
- **Admin console improvements**



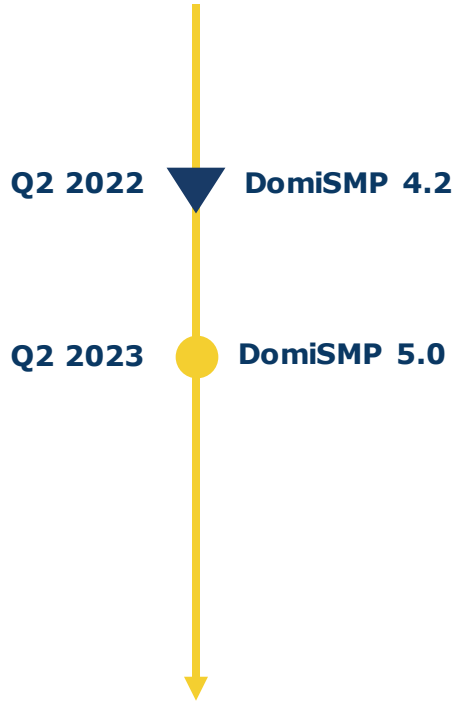
Product updates: Domibus 5.2 & 6.0



- Upgrade to Java 11
- Support for eDelivery 2.0 specifications
- ...



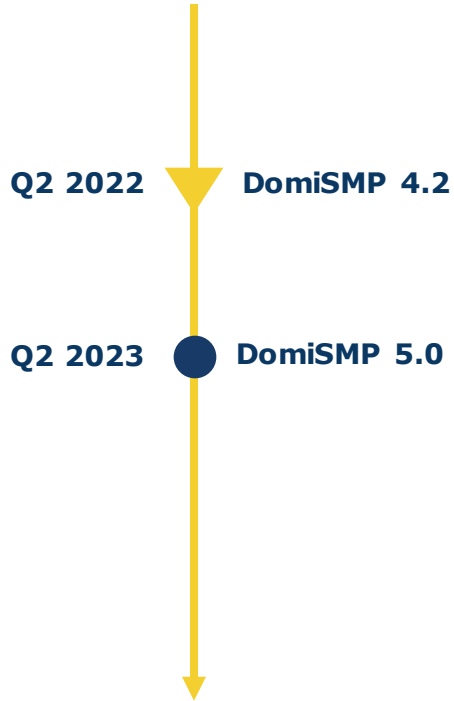
Product updates: DomiSMP 4.2



- **Security enhancements:**
 - Support for external CAS authentication
 - Support for external payload security verification (e.g., malware scanning)
 - Access to admin endpoints can now be restricted to a private network
 - More secure handling of X.509 certificates
 - Support for email alerts in case of security events
- **Functional enhancement:**
 - UI editing of configuration properties



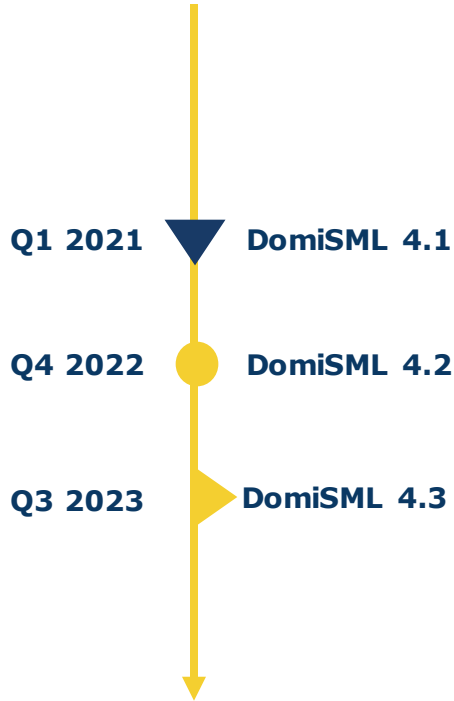
Product updates: DomiSMP 5.0



- **Multi-document type support (SMP 1.0, SMP 2.0, CPPA 3.0/CPP)**
- **Support for SpringBoot**
- **New UI look and feel**
- **Flexible role management**



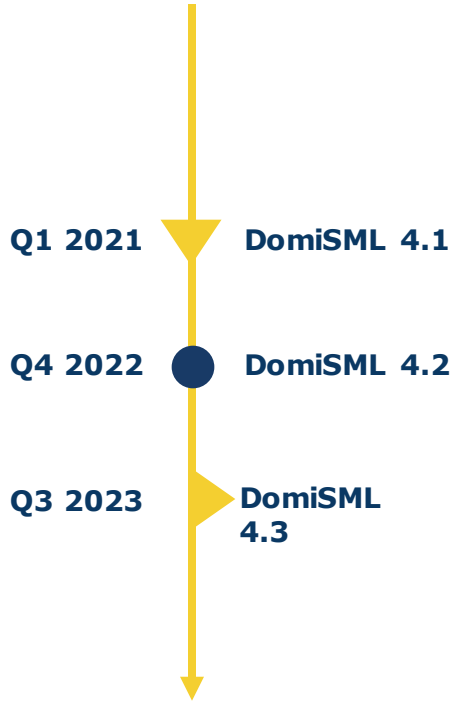
Product updates: DomiSML 4.1



- **Security enhancements:**
 - More secure handling of X.509 certificates
 - Ability to provide SMP certificate validation rules using regular expressions
- **Functional enhancements:**
 - Configuration option to support RFC 4848 and Oasis BDXL U-NAPTR regular expressions



Product updates: DomiSML 4.2

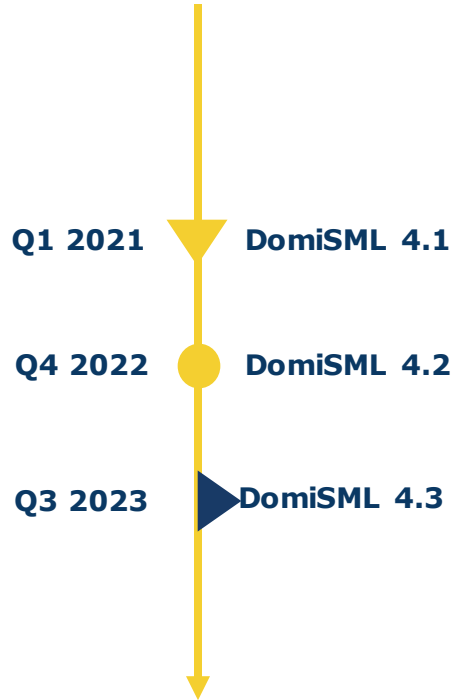


- **Security enhancements:**
 - Automatic detection of SMPs with outdated certificates
- **Functional enhancements:**
 - Restrictions on the number of participants per business domain
 - Support for SpringBoot



Product updates: DomiSML 4.3

- Support for OCSP certificate validation
- Add new algorithms for Sig(0) signatures for the DNS integration



Would like to learn more about eDelivery?

Stay in touch!



eDelivery User Community

The eDelivery User Community space enables stakeholders to share experiences and best practices on the exchange of electronic data and documents between public administrations, businesses and citizens. Pan-European projects (re)using eDelivery have their own sub-communities within this space.

Register for personalised eDelivery news

here  <https://europa.eu/!8rtpfj>

More about eDelivery

 @edeliveryBB

 <https://europa.eu/!hwcjvy>

 [eDelivery events \(DEP\) - YouTube](#)



Newsletter



Events



Interoperability Forum



Webinars



Informal
Cooperation
Network
11 May



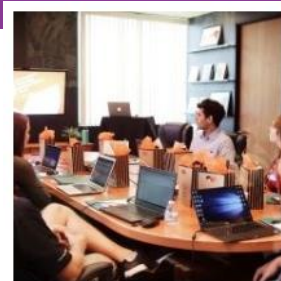
2023 Calendar



Archive of
past events



Webinar
Dynamic
Discovery
8 June



Webinar
eDelivery
value
proposition
28 September

Publications

Feel free to register here
eDelivery (4x/year)

<https://europa.eu/!v4njKB>

Building Blocks (2x/year)

<https://europa.eu/!jj87JU>



Digital eDelivery Newsletter

Get the latest news about eDelivery, part of the eIDAS enablers family of Building Blocks

Hello everyone,

We are excited to share with you this first edition of the Digital eDelivery Newsletter. This newsletter will inform you on important news and technical updates for eDelivery, provide an outlook of what we have planned for the coming months, and share information on our upcoming events. Highlights include an invitation to our hands-on webinar on the 13th of July, and news that eDelivery has been proposed as best reusable solution for the Once-Only Technical System (OOTS).

We hope you enjoy this first edition of the Newsletter. If you have a story to tell us about how eDelivery is helping you creating a Digital Europe, just reply to this email and you may be featured in our next newsletter.

Please scroll to the end for information about this newsletter.



Digital Europe Newsletter

Get the latest news about eIDAS enablers family of Building Blocks.

Hello everyone,

We are excited to welcome you to the very first edition of our DIGITAL Building Blocks Bulletin and want to **warmly thank you for your continued interest in the Building Blocks!**

The beginning of 2022 has marked a new chapter in our collective efforts for creating a truly digital Europe. The work begun under CEF Digital continues under the **Digital Europe Programme (DIGITAL) (2021-2027)**, the EU's new funding programme aiming to bring digital technology to businesses, citizens, and public administrations.



Events



Success stories



News



Technical Updates

eDelivery AS4 and SMP profiles updates

Pim Van Der Eijk





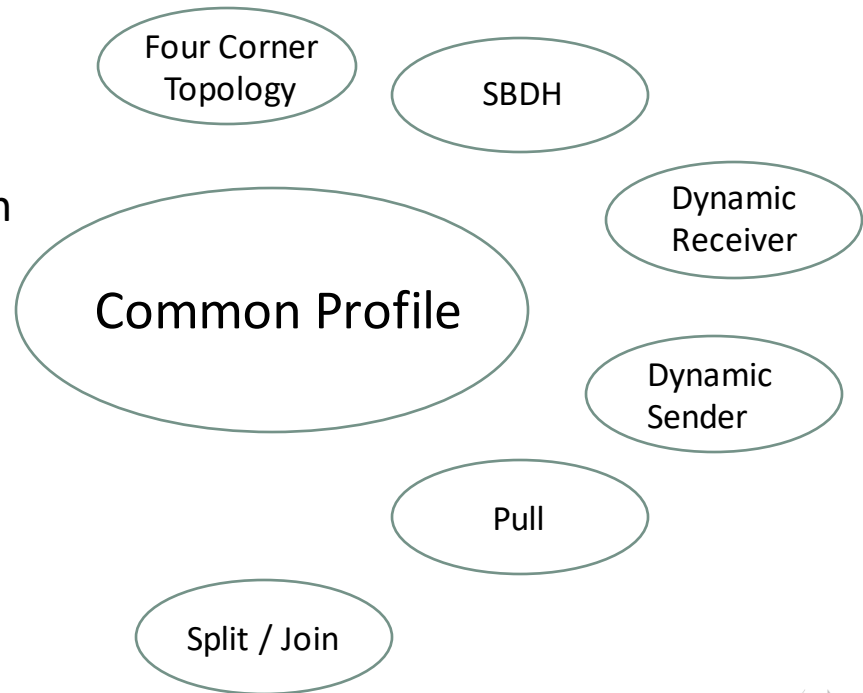
Overview of the presentation

1. eDelivery AS4 background and context
2. Rationale and approach for security update in eDelivery AS4 2.0
3. Updates for message layer security
4. Updates for transport layer security
5. New feature: support for ebCore Agreement Update
6. Updates for eDelivery SMP 2.0
7. Status and next steps



1. eDelivery AS4 background and context

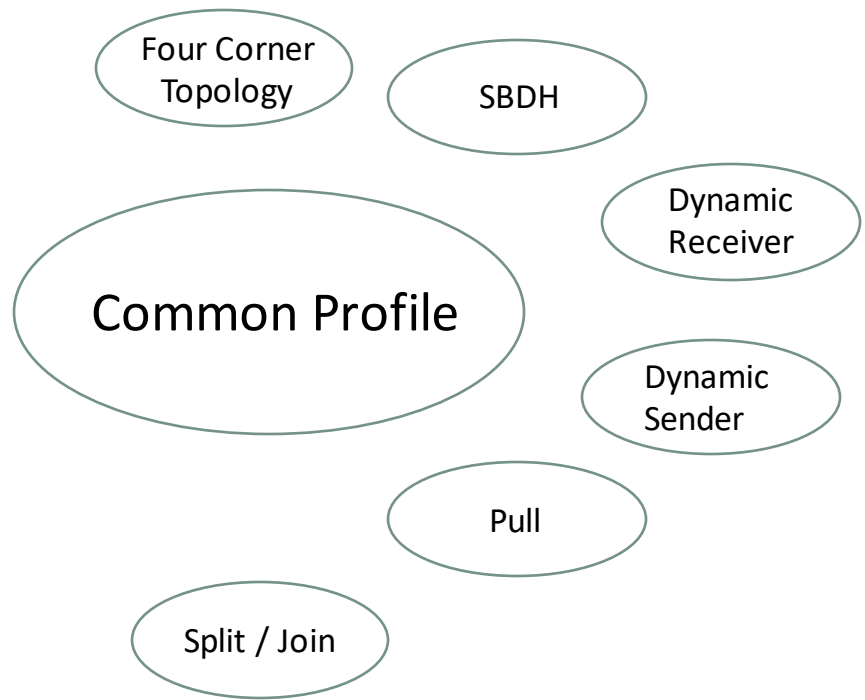
- **e-Justice use of ebMS3 (e-CODEX, from 2010)**
 - Four-corner topology
- **Usage profile for gas trade and transport (ENTSOG from 2013)**
 - Common security, reliability, compression parameters
 - ENISA best practice recommendations
- **EU e-SENS large scale pilot (from 2014)**
 - Combines e-CODEX, ENTSOG inputs
 - SBDH, dynamic receiver (PKI), dynamic sender (BDXL, SMP) features





1. eDelivery AS4 background and context

- **eDelivery 1.13 (May 2018)**
 - Reorganized in common profile and four profile enhancements after CEF handover
- **eDelivery 1.14 (October 2018)**
 - Adds optional enhancement for Pull
- **eDelivery 1.15 (November 2020)**
 - New large message splitting and joining enhancement





2. Rationale and approach for AS4 security update

Cryptography and Internet security continues to evolve

- The security parameters of eDelivery AS4 were high-end when they were selected but have only been marginally updated since 2014
- Current profile is still secure but is no longer leading edge
- New algorithms and key types based on elliptic curve cryptography are commonplace and their use is expected for new applications and protocols
 - IETF RFC 9231 allows their use in XML Security, WS-Security and AS4
- By aligning with state-of-the-art security we provide continuity and investment protection



2. Rationale and approach for AS4 security update

Approach

- Continue promote eDelivery as a cross-domain, general purpose solution
- Independent experts (cryptography, info sec) and IETF editor for support



3. eDelivery AS4 2.0 message layer security

Message signing

- Mandatory support (Common Profile) for Ed25519 (elliptic curve signature algorithm using EdDSA and Curve25519)

Message encryption

- Mandatory support for encryption using X25519 (elliptic curve Diffie-Hellman key exchange using Curve25519)





3. eDelivery AS4 2.0 message layer security

Message encryption

- ECDH allows two parties to jointly agree on a shared secret using an insecure channel.
- ECDH-ES mode involves a stable shared recipient public key
- Optional full ephemeral mode in combination with new ebCore Certificate Update (enhancement)

Optional support (enhancement) for ECDSA (for cryptographic agility and/or interoperability with some MS scheme)



4. eDelivery AS4 2.0 transport layer security

Transport Layer Security

- Support for TLS 1.3
- Modern curves





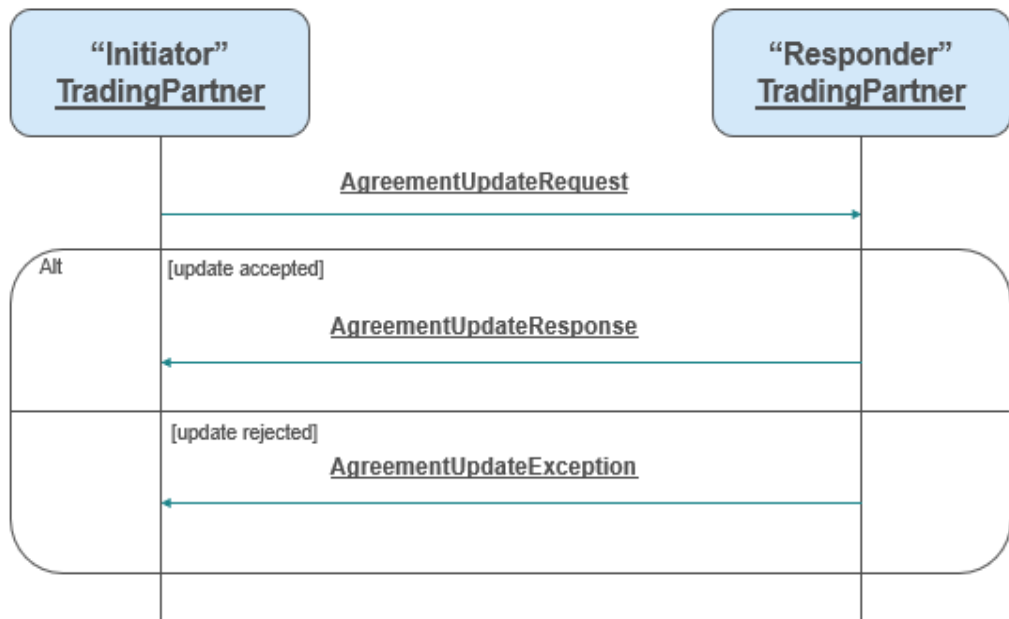
5. New feature: OASIS ebCore Agreement Update (1/2)

ebCore Agreement Update is an OASIS specification for interoperable message-based updating of messaging configurations.

It is already part of ENTSOG's AS4 profile.

Certificate update

- Signing, encryption, key exchange certificate updates
- Sharing short-lived, partner-specific key exchange public keys





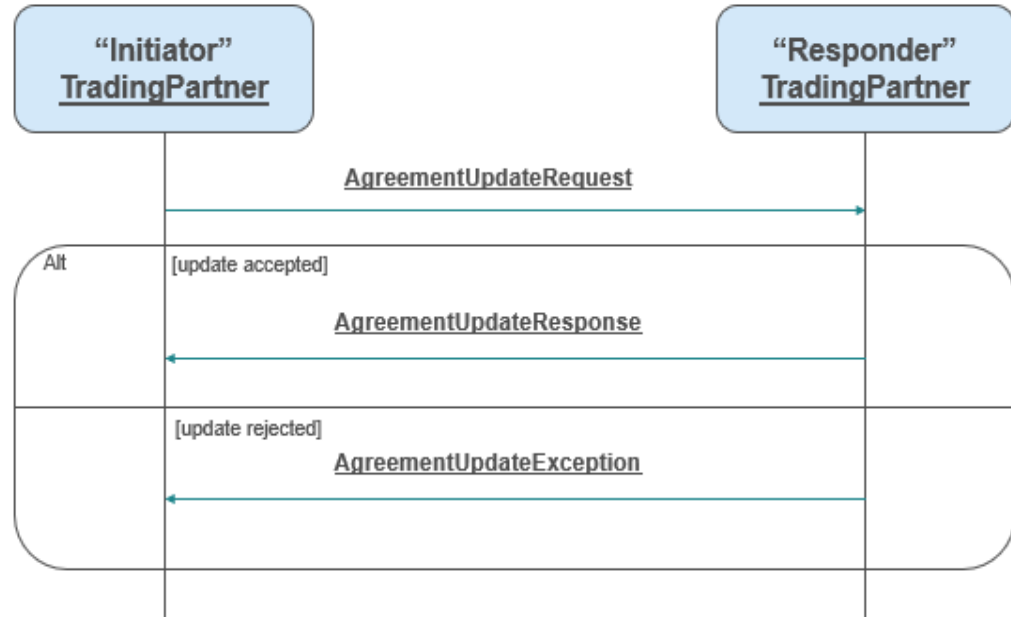
5. New feature: OASIS ebCore Agreement Update (2/2)

(Optional, future) **endpoint update**

- Endpoint URLs, profile versions, algorithms, network security updates

Benefits

- Automation for direct trust / mutual exchange networks
- No dependency on central services
- Approximates full ephemeral ECDH





6. Updates to dynamic sender enhancement

eDelivery SMP 2.0

- Support for OASIS SMP version 2.0
- Allows publishing multiple certificates (signing, encryption, key exchange) for a transport
- Supports eDelivery AS4 1.15 and 2.0

No change needed in BDXL





7. Status and next steps

Status

- eDelivery AS4 profile 2.0 draft available: <https://ec.europa.eu/digital-building-blocks/wikis/x/NabXGw>
- eDelivery SMP profile 2.0 draft available: <https://ec.europa.eu/digital-building-blocks/wikis/x/xqfXGw>

Next steps

- Invitation to provide comments (Consultation) – coming soon
- Proof-of-concept implementations
- Engage with Certification Authorities on provision of certificates

Conformance testing service updates

Bogdan Dumitriu
François Gautier



eDelivery AS4 conformant solutions

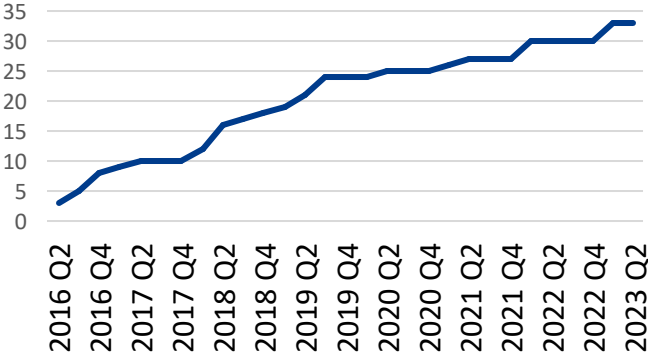


More information on Digital Europe

[Conformant Solutions >](#)



Evolution of eDelivery AS4 conformant solutions (2016-2023)



SMP conformant solutions



More information on Digital Europe

[Conformant Solutions >](#)

 qvalia

 phsmp
OSS



ion-SMP

 Galaxy
GATEWAY

 Harmony
eDelivery Access

 eas.x
edicomas server



 eConnect

 dataX
interchange

- [Datainterchange - EPIC](#)
- [eConnect – Procurement Service Bus \(PSB\)](#)
- [Edicom SMP](#)
- [eefacta server](#)
- [Galaxy Gateway](#)
- [Harmony eDelivery Access](#)
- [Ion SMP](#)
- [phoss](#)
- [Qvalia](#)
- [SMP \(EC sample software\)](#)



New presentation of conformant solutions

Most recently tested solution first

Conformant solutions will be presented in reverse chronological order based on the date when the product was tested.

Product versions will be displayed

The major and minor version of the tested product will be displayed.

Conformance testing methodology will be displayed

As the conformance testing methodology (test suite) will evolve more rapidly over time, a versioning system will be introduced and displayed. Products will be grouped based on the version of the methodology.

User feedback

Users will be invited to provide feedback concerning issues encountered with a particular product. The feedback will be critically reviewed by the eDelivery team and not displayed on the web site but may inform changes to the conformance testing methodology.

eDelivery conformance testing



- eDelivery AS4 profile (based on OASIS/ISO ebMS3/AS4)
 - Common profile
 - Profile enhancements
- eDelivery SMP profile (based on OASIS SMP)

Conformance testing platform



- Current solution (Minder) allows conformance testing of:
 - eDelivery AS4 profile v1.15
 - Common profile
 - 3 (out of 6) profile enhancements
 - + ENTSOG usage profile
 - eDelivery SMP profile v1.10

New conformance testing platform



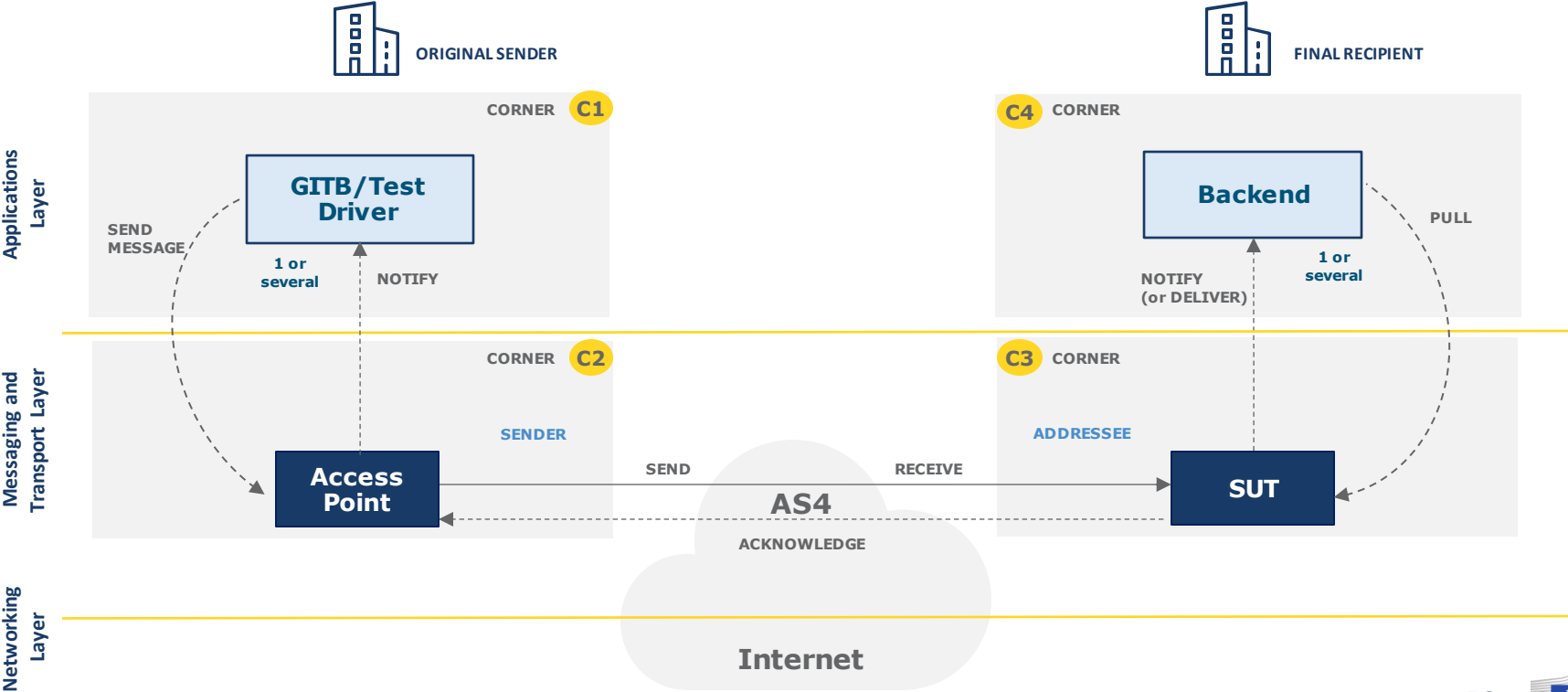
- The new conformance testing solution:
 - Is based on Interoperable Europe's GITB (Generic Interoperability Test Bed);
 - Will be launched on 19 May 2023;
 - Will initially contain the same tests and conformance statements present in the current platform for eDelivery AS4;
 - Will evolve over the next year to support the 3 missing profile enhancements and eDelivery AS4 and SMP 2.0 specifications.

New conformance testing platform



- The new conformance testing solution:
 - Will allow you to troubleshoot a lot more independently;
 - Will be more modern, user-friendly and will allow the project team to expand the test suite much faster in the future;
 - Will allow you to easily upgrade the conformance statement when the conformance testing methodology or the eDelivery specifications evolve.

eDelivery Four-Corner Model



Demonstration of the new Conformance Testing Platform



What are the best practices and expectations that will help support the development of a vibrant market for eDelivery software vendors and service providers?

Have a question?



eDelivery

Exchange data and documents
online reliably and securely



Bogdan Dumitriu



To continue the conversation,
contact our team via email

Emails:

EC-digital-building-blocks@ec.europa.eu



EC-eDelivery-support@ec.europa.eu



Thank you

& stay in touch



Discussion



Do not hesitate to share



Experiences



Challenges



Opportunities



Needs

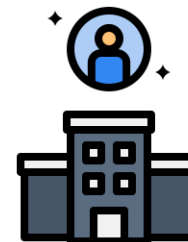


Plans



Please try to limit your intervention at 5 minutes

We are very grateful for your feedback!



Thank you

& stay in touch

