

# The Once-Only Technical System: A hands-on guide to eDelivery

The Once-Only Technical System will reuse eDelivery to create a virtual secure network, establishing cross-domain and cross-sector interoperability across the EU.

**26 January 2023, 10:00 – 12:15 CET**

*Bogdan Dumitriu, Cosmin Baciuc and Thomas Fillis*



# Today's agenda...

## **Welcome and Introduction – 10:00 – 10:10**

Thomas FILLIS (DIGIT-EXT)

Caroline CORNEAU (DIGIT)

Bogdan DUMITRIU (DIGIT)

## **Hands-on activities: each participating Member States performs the following with guidance from the eDelivery team: – 10:10 - 12:40**

Cosmin BACIU (DIGIT-EXT)

## **Open discussion – 12:40 - 13:00**

## **Closing – 13:00**

Thomas FILLIS (DIGIT-EXT)

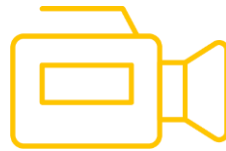
# Instructions for active participants this live webinar:

When in doubt, write in the chat – our team are there to help

This is an interactive session. There will be time for questions and answers throughout the session via the chat.



Click “Connect audio” to hear the presenters and please mute your microphones when not speaking.



*Please note this webinar will be recorded.*



For **observers**, those who did not send a URL for an installation environment by the communicated deadline, please note Q&A is reserved for active participants as a priority.



## **Welcome and introduction**

Caroline CORNEAU (DIGIT), OOTS project officer,  
European Commission

Bogdan DUMITRIU (DIGIT), eDelivery  
project officer, European Commission



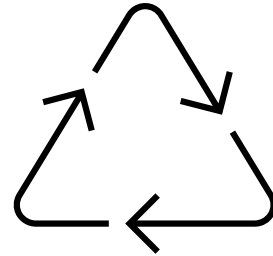
# The Once-Only Technical System

Part of Europe's Digital Single Gateway, as set out in Regulation [\(EU\)2018/1724](#)



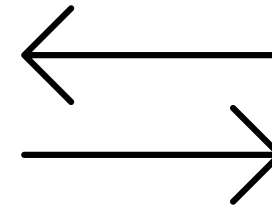
## Transform the Single Market

by enabling citizens and business to exercise their rights to live, work and operate in other EU countries even more easily.



## Reuse Pre-existing architecture

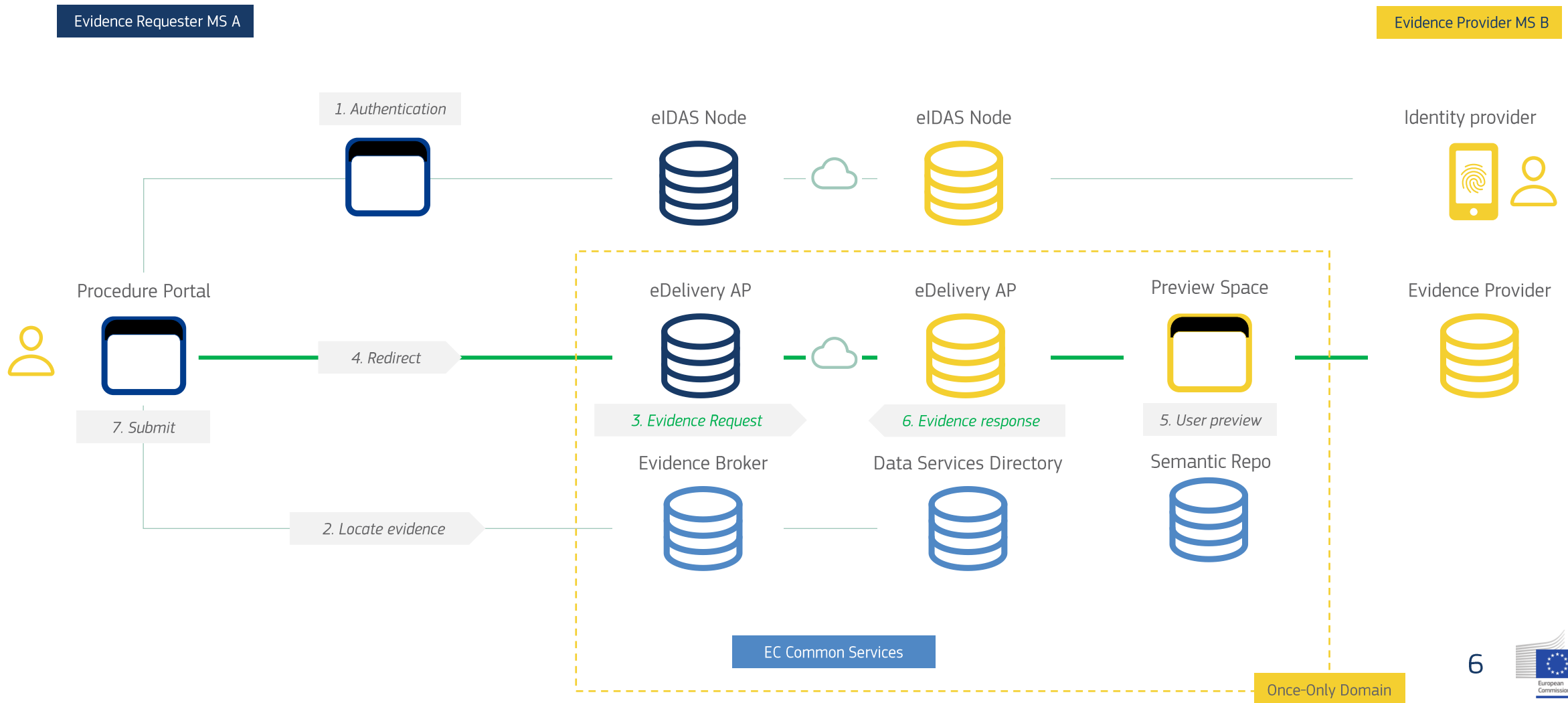
By building on pre-existing EU digital infrastructure (eID, eDelivery)



## Exchange evidences

By creating a virtual secure network, establishing cross-domain and cross-sector interoperability across the EU.

# The OOTS uses eDelivery



# 7 key steps in the once only journey

Scope of the OOTS



# Digital Europe Building Blocks

A **Building** Block is an open and reusable digital solution.

## What?

It can take the shape of **frameworks, standards, software products or software as a service (SaaS)**, or any combination thereof.

## How?

It promotes the adoption of the same **open standards and technical specifications** by the **different sectors** of the Union for the most basic & common functionalities of their projects or platforms.

## Why?

Building Blocks enable interoperability across borders and sectors.



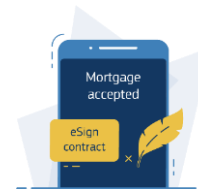
### eDelivery

Exchange online data and documents reliably and securely.



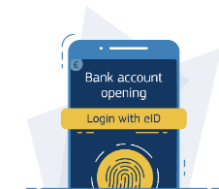
### eInvoicing

Promote the implementation of the European standard for electronic invoicing across borders.



### eSignature

Create and verify electronic signatures between businesses and EU citizens.



### eID

Allow citizens to prove who they are across borders, making it easier to access online services in another EU Member State.

and more...



# What is eDelivery?



## eDelivery

Exchange data and documents online reliably and securely.



## Interoperability

eDelivery enables the exchange of documents and data among heterogeneous information systems using a standardized protocol, thereby laying the foundation for cross-domain and cross-project interoperability.



## Scalability and performance

eDelivery solutions ensure sustainable levels of performance and maintainability even as the number of participants and/or messages in a network grows.



## Security and accountability

eDelivery ensures data integrity and confidentiality in every transmission through the use of digital signatures and encryption. eDelivery also guarantees legal assurance and accountability by mandating that the recipient of a message must send a digitally signed acknowledgement of receipt for every message received.

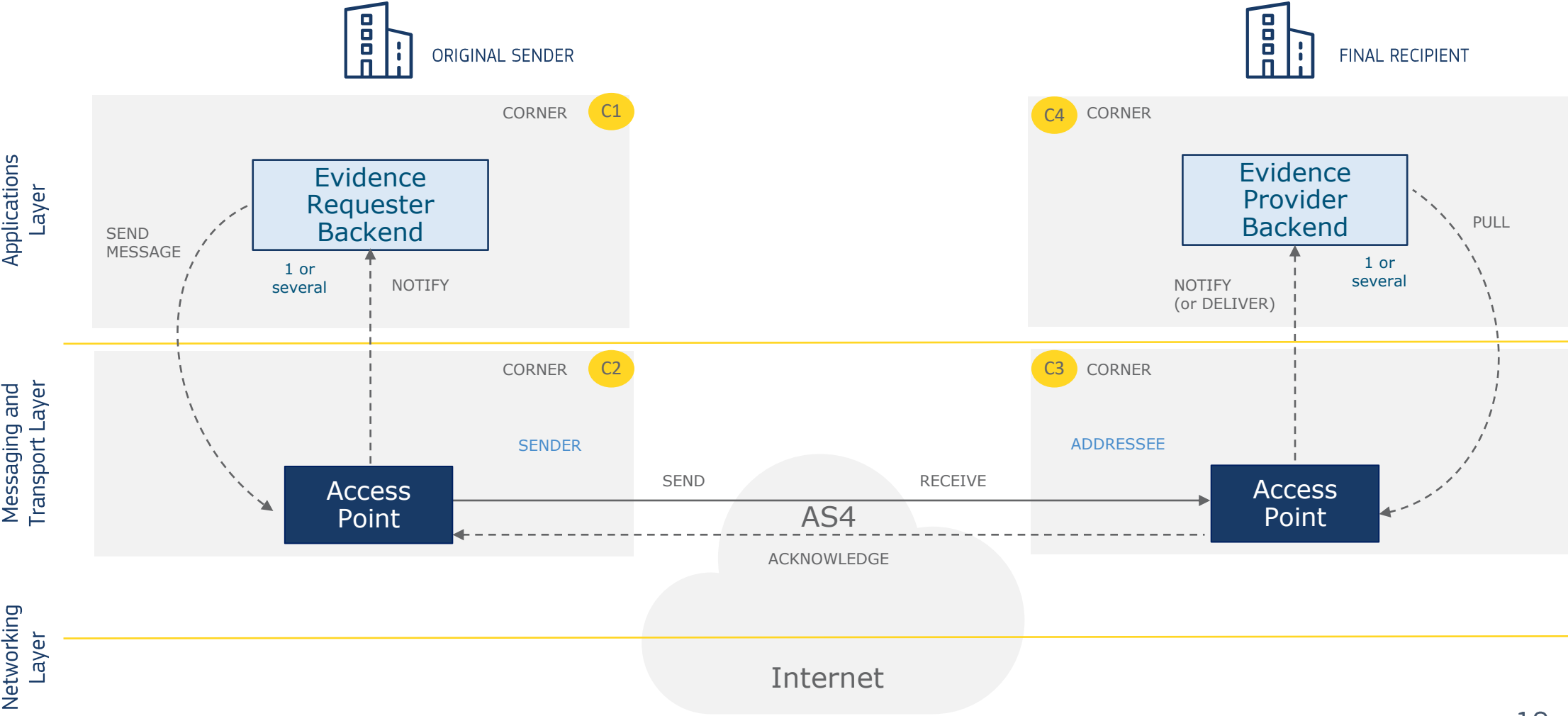


## Vendor and platform agnostic

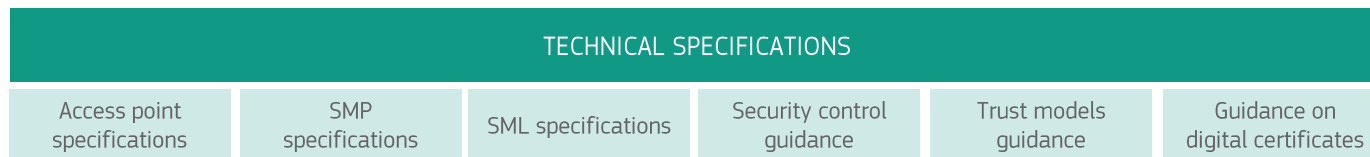
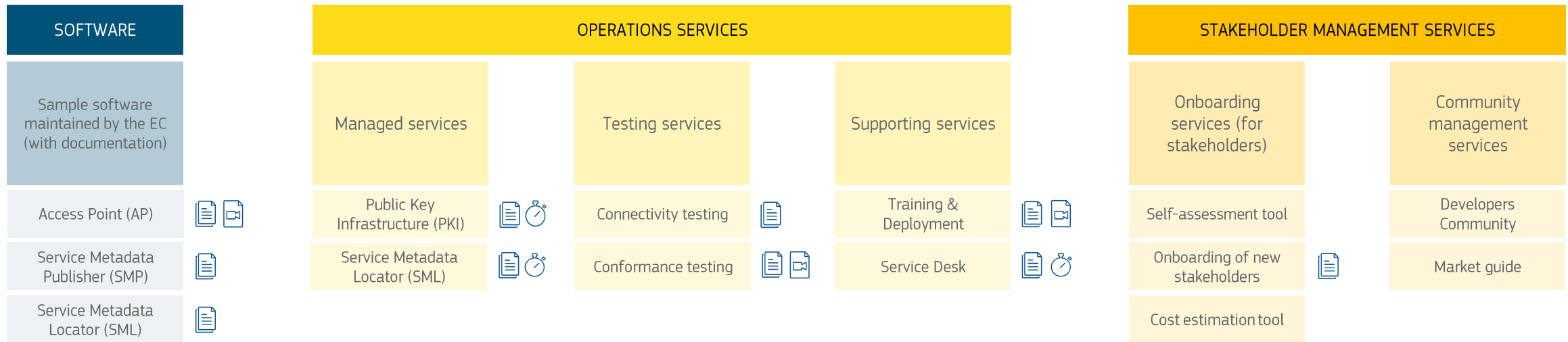
Because this is a vendor and platform neutral solution, its specifications are not proprietary or controlled by one vendor alone. Also, eDelivery is available in multiple products and solutions from different vendors you can choose from.

# eDelivery Four-Corner Model

Static discovery



# eDelivery Service offering



## Service offering Description (SoD)

All services are described in an SoD describing its purpose, the users for which it is for, its benefits and the process to obtain it



## Service Level Arrangements (SLA)

Documents that describe Service Level Targets to be reached when delivering Building Block Services.



## eLearning, videos, success stories

Some services feature multimedia such as eLearnings, instructional videos or success stories to help grasp what the service is about

## Digital Europe platform

eDelivery service offering, and more about the building block, can be found online



# Domibus-based Access Points

Available options

## Native installation

- Several **production-ready distributions** available for Domibus 5.0.x. Domibus 5.1 will be released in Q1 2023
- **Application servers:** WebLogic, WildFly, Apache Tomcat  
**Database servers:** MySQL 8, Oracle  
**Java:** Oracle JRE8, Oracle OpenJDK 11
- Available at <https://ec.europa.eu/digital-building-blocks/wikis/x/ZInXGw>

## Dockerised installation

- **Test-ready Docker images** available with Domibus 5.0.3 for Tomcat, ActiveMQ, *MySQL* and HTTPD load balancer
- **Production-ready Docker images** based on Domibus 5.1 will be available by mid-2023
- Currently available in temporary repository (code.europa.eu). Images will be published in new repository by end February 2023



**eDelivery  
ICN 30  
March**

**Register**



# 2023 Calendar



**Webinar  
eDelivery  
value  
proposition  
28 September**

**Register**



**Webinar  
Split&Join  
7 March**

**Register**



**eDelivery  
Interoperability  
Forum  
3 May**

**Register**

**Webinar  
Dynamic  
Discovery  
8 June**



**Register**

## **Hands-on activities: each participating Member States performs the following with guidance from the eDelivery team**

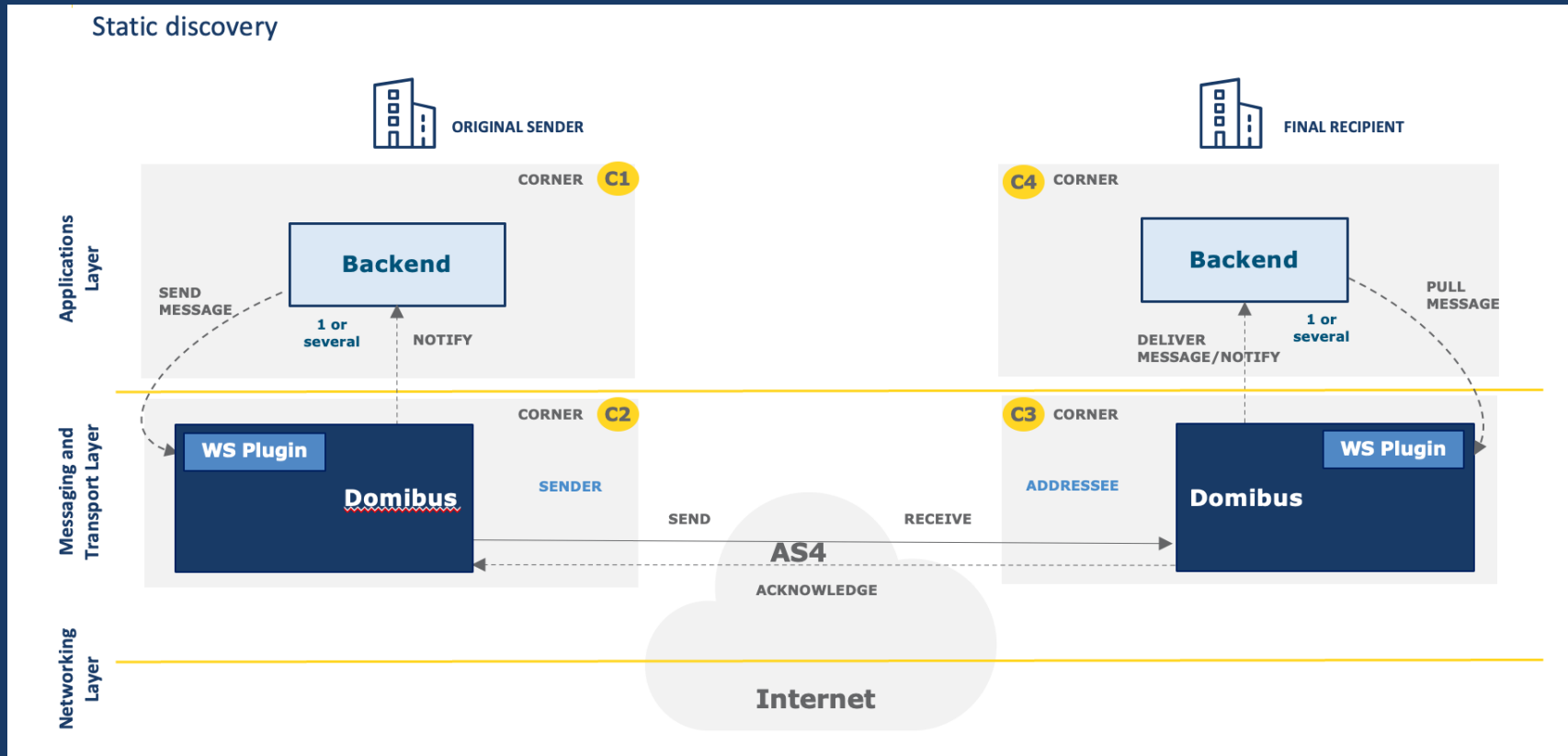
1. Set up a Domibus single instance on your local machine using Docker
2. Configure Domibus to exchange AS4 messages with the eDelivery Domibus Access Point and the other webinar participants
3. Exchange AS4 messages with the eDelivery Domibus Access Point using SoapUI and the Web Service Plugin
4. Exchange AS4 messages between the webinar participants

Cosmin BACIU (DIGIT-EXT), chief architect of the eDelivery project, European Commission



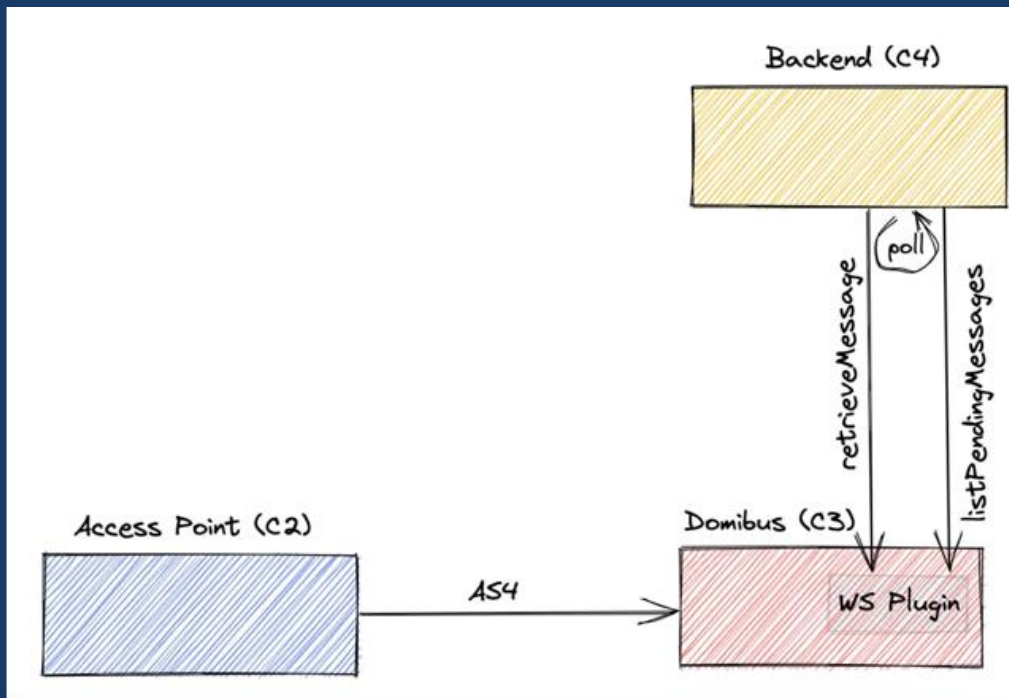
# eDelivery Four-Corner Model

## Static discovery



# Web Service Plugin

- We use the WS Plugin to send and receive messages via Domibus
- We use the WS Plugin in pull mode at C4's side





# Webinar prerequisites reminder

- SoapUI
- Docker engine including docker compose
- A public IP with firewall rules allowing a port reachable from the internet
- Docker images already pulled
- The package containing the PKI certificates, PMode file and the SoapUI project



## Step 1 – Docker login

Login to the edelivery Docker repository by executing the following in the command line:

**docker login code.europa.eu:4567**

You can use the Docker credentials:

User: OOTS

Password: jZ1n9y1sW2cK-EYhss8m



## Step 2 – Download Docker images

Download Docker images:

### **ActiveMQ**

```
docker pull code.europa.eu:4567/edelivery/docker/domibus-tomee:5.0.2
```

### **MySQL**

```
docker pull code.europa.eu:4567/edelivery/docker/domibus-mysql8:5.0.2
```

### **Tomcat**

```
docker pull code.europa.eu:4567/edelivery/docker/domibus-tomcat9:5.0.2
```

### **Httpd**

```
docker pull code.europa.eu:4567/edelivery/docker/edelivery-httpd:2.4.39
```



## Step 3 – Download docker-compose.yml file

- Download the following Docker compose file into a new directory. We will refer to this directory as DOMIBUS\_DOCKER:

<https://code.europa.eu/edelivery/oots-webinar/-/raw/main/docker/docker-compose.yml?inline=false>

- Make sure that it's saved under the name **docker-compose.yml**
- Open the docker-compose.yml file and locate the following:

### **ports:**

- **"18080:8080"**
- Change the 18080 port to the port that you have opened to the internet. We will refer to the port opened to the internet as YOUR\_PORT.
  - If you use a reverse proxy, you need to configure the reverse proxy to forward to the internal port



## Step 4a – Start Domibus

Execute the following commands in a terminal from DOMIBUS\_DOCKER directory:

- `docker-compose up -d`
- `docker-compose logs -f`

Note: Please be patient, it can take between 2-10 minutes to start

When you see the following line in the logs, it means that Domibus started successfully:

**`org.apache.catalina.startup.Catalina.start Server startup in [52508] milliseconds`**



## Step 4b – Start Domibus

- A folder named **domibus** is created in the DOMIBUS\_DOCKER and contains the Domibus configuration files
- Please make sure your user has write permissions to the **domibus** folder created above



## Step 5 – Login into the Domibus Admin Console

- Open a browser and open the following URL: [http://YOUR\\_DOMIBUS\\_URL:YOUR\\_PORT/domibus](http://YOUR_DOMIBUS_URL:YOUR_PORT/domibus)
- Login in the Domibus Admin Console with the credentials:
  - admin/123456



## Step 6 – Upload PMode file

- Navigate to PMode → Current page
- Upload the PMode file you have received from the eDelivery team
- You can also find here the package specific to your party containing the PKI certificates, PMode file and the SoapUI project:
  - <https://code.europa.eu/edelivery/oots-webinar/-/tree/main/packages>





## Step 7 – Configure Domibus keystore

- Execute the following in a terminal from the `DOMIBUS_DOCKER` directory:  
**`docker-compose stop`**
- Override the existing keystore **`DOMIBUS_DOCKER/domibus/keystores/gateway_keystore.jks`** with the **`gateway_keystore.jks`** file you have received from the eDelivery team
- Modify the property **`domibus.security.key.private.alias`** from the **`DOMIBUS_DOCKER/domibus/domibus.properties`** file to set it to your party id

Eg: `domibus.security.key.private.alias=be_test_ap`



## Step 8 – Configure Domibus truststore

- Execute the following in a terminal from the DOMIBUS\_DOCKER directory:  
**docker-compose start**
- Login into the Domibus Admin Console:
  - [http://YOUR\\_DOMIBUS\\_URL:YOUR\\_PORT/domibus](http://YOUR_DOMIBUS_URL:YOUR_PORT/domibus)
  - Credentials: admin/123456
- Navigate to Truststores → Domibus
- Upload the truststore you have received from the eDelivery team. Password is: test123
- Press the button “Reload KeyStore” on the lower right corner. You should see the message “Keystore was successfully reset”



## Step 9 – Send message to the eDelivery Domibus Access Point

- Open SoapUI
- Import the SoapUI project you have received from the eDelivery team:
  - File → Import Project
- Open the evidence request in SoapUI:
  - OOTS-eDelivery-AS4 → OOTS-Evidence-Request → Submit-Evidence-Request->Test Steps->OOTs-Evidence-Request
- Submit request



## Step 10 – Exchange messages between webinar participants

- Exchange messages between the participants



**Open discussion**



## Wrap-up

Cosmin BACIU (DIGIT-EXT)



## Next steps

To do before 31 January 2023

1. Complete the [satisfaction survey](#) for this meeting (it really does help)
2. Sign-up to the [OOTS Projectathon Collaborative Space](#) (introduce yourself in the "Forum" function)
3. Register - #3 [Implementers Café: eID and OOTS Projectathon process](#) on 31/01/2023.

# Thank you

See you soon!

We're here for you at:

[EC-OOTS-SUPPORT@ec.europa.eu](mailto:EC-OOTS-SUPPORT@ec.europa.eu) (technical questions about your OOTS implementation and reusing eDelivery)