

SECURE INTERCONNECTION WITH CUSTOMS SPECIFICATIONS FOR PARTNERS

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**GENERAL DIRECTORATE OF CUSTOMS AND EXCISE
BUREAU C2 – TECHNICAL AND SAFETY ARCHITECTURE**

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In the event of any discrepancy or difference of interpretation,
the French version shall prevail.***

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1 Introduction

1.1 Purpose and Scope

This document presents the interconnection methods between Customs and EDI partners:

- The connection methods and how to use them
- The DGDDI's (General Directorate for Customs and Excise) secure network interconnection point for partners, called PASTEUR. It describes PASTEUR architecture, how to create and operate a new connection.

1.2 Terminology

1.2.1 Operator

Operator is a company with one or several business relations with Customs.

1.2.2 EDI Connection Provider

An EDI connection provider is a business providing a technical service handling the EDI routing of functional messages from an operator to Customs. An operator may handle this function without resorting to the service of a connection provider.

Henceforth, we will use the term EDI partner to identify an operator or a service provider connecting to PASTEUR.

2 Type of Interconnection

The following interconnection modes are feasible:

- An interconnection for systems in production requiring integrity guarantees and exchange confidentiality
- An interconnection for software certification with an e-procedure

An interconnection for systems in production must transit through the PASTEUR system.

An interconnection undergoing tests and certification may transit via PASTEUR, if the provider already has the system, or via simple email.

3 Description of PASTEUR

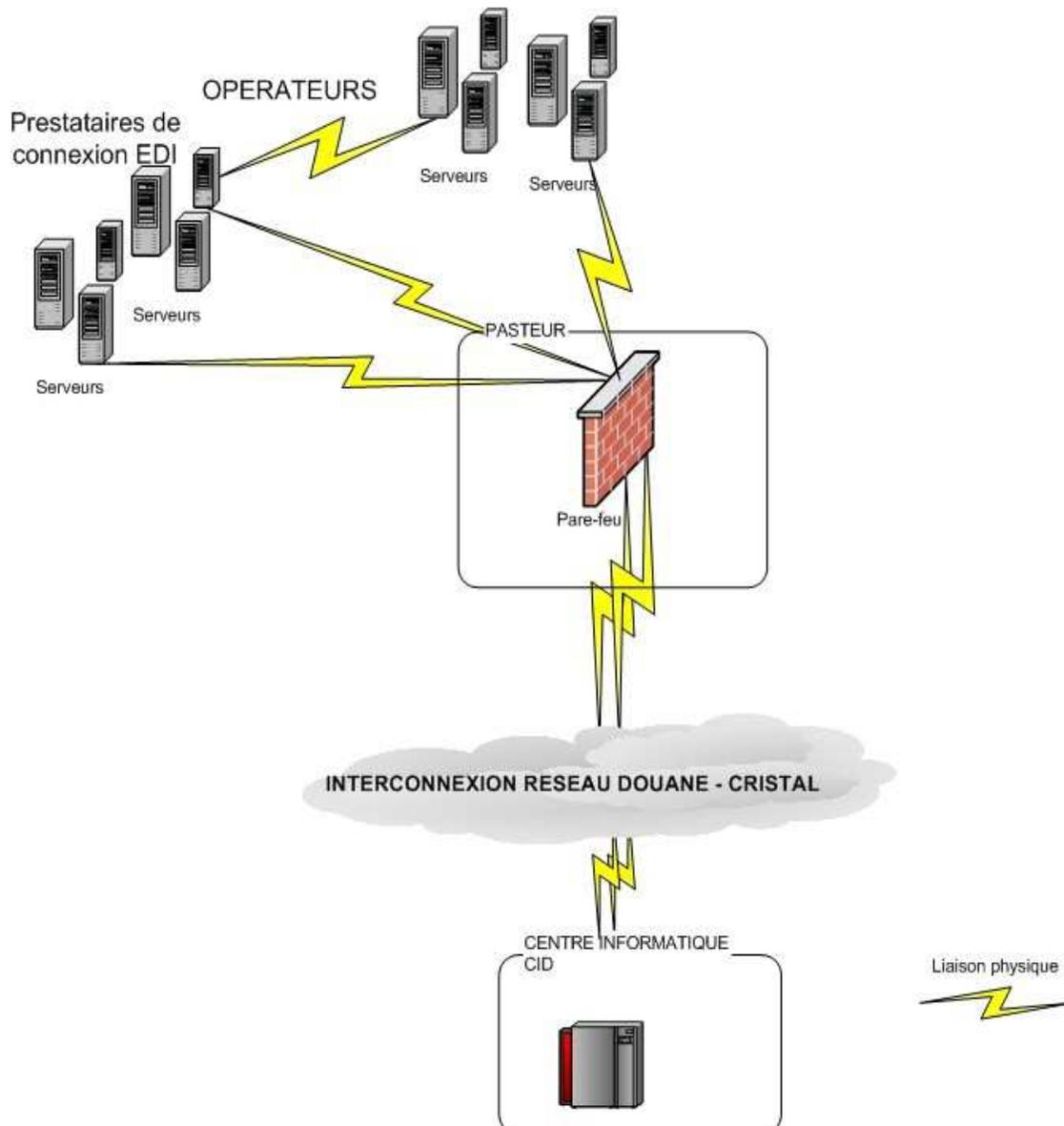
3.1 PASTEUR Functions

To secure EDI message exchanges for e-procedures, the DGDDI has set up a secure access point called PASTEUR, for connecting partner's software to the DGDDI network via a direct secure connection for protocol flows exceeding IP protocols. Pasteur can handle the following flows:

- The EDI Transit flows conveyed via the X400 protocol for flows exceeding the IP protocol. The flows are also conveyed by Atlas, as a back-up measure.
- The SMTP flows used by the MAREVA inter-application email system

3.2 Architecture

The PASTEUR diagram can be found below:



Opérateurs = Operators

Serveurs = Servers

Prestataires de connexion EDI = EDI connection providers

Pare-feu = Firewall

INTERCONNEXION RESEAU DOUANE – CRISTAL = CUSTOMS NETWORK – CRISTAL
INTERCONNECTION

Centre informatique CID = Customs IT Centre (CID)

Liaison physique = Physical link

3.3 The PASTEUR Service

The DGDDI has subcontracted a specialised provider to operate the PASTEUR secure interconnection point, which the provider runs from its data center. The provider is called the 'PASTEUR interconnection provider'.

3.3.1 The PASTEUR Service Arrangement

The secure interconnection service comprises:

- Hosting the equipment required for setting up the direct link between the partner and the provider's PASTEUR interconnection center (e.g. modem, router)
- The address translation between the partner and Customs: consequently, Customs sees the partner's machines with the Customs addresses, and vice-versa for the partner. Neither Customs nor partner needs to change their network addresses, unless they deliberately choose to do so.
- The secure management (filtering) of predefined IP flows (X400, SMTP and specific others) between Customs and EDI partners at known addresses, between the production machines from Customs to the partner and from the partner to Customs.

Only the explicitly defined flows are authorised. All other flows are blocked.

A list of authorised flows is drawn up for each connection with a partner. It comprises the list of IP addresses of the source machine, the target machine and the operational ports.

3.3.2 PASTEUR Service Security

- The PASTEUR interconnection provider supervises PASTEUR 24/7 to guarantee optimum service quality.
- In the event of a breakdown, service is guaranteed to resume within four hours
- Security actions are guaranteed to be carried out within thirty minutes after an alert, 24/7.
- Atlas 400 can provide manual or automatic back-up for X400 flows.

4 PASTEUR - Partner Interconnection

4.1 PASTEUR Connection Mode

The connection mode of the partner's software to the Customs EDI window is a **dedicated connection** whose costs are paid for by the partner. The link must ensure guaranteed throughput, confidentiality and integrity of the transmitted data. The partner is responsible for this.

4.2 PASTEUR-Light Connection Mode

This mode is very similar to the other PASTEUR mode. However, it provides a simpler framework for tests, certification and operations **exclusively for the operators that are handling the EDI service provider function themselves**. This type of connection is not allowed for transactions between a connection service provider and customs when a live system is involved.

The differences between PASTEUR and PASTEUR-Light are:

- PASTEUR-Light costs less for the provider as there is not dedicated connection cost
- PASTEUR-Light is based on the PASTEUR interconnection service provider's VPN on the Internet offer that Customs pays for. The residual costs for the partner are for the Internet access
- PASTEUR-Light requires a technical installation at the partner's that the latter must set up. The PASTEUR interconnection service provider will provide the parameters for the installation.
- PASTEUR-Light offers no service guarantee for throughput and availability. It is based on a simple transmission that does not offer them (the Internet).

However, PASTEUR-Light does offer the other end-to-end levels of guarantee:

- Confidentiality of the link
- Arrival at the entrance to Customs is secured
- NAT (Network Address Translation)
- Conveyance of all types of authorised IP flows, depending on the cases

4.3 Procedure for Creating a PASTEUR Connection

The partner must contact connexion-edi@douane.finances.gouv.fr to connect to PASTEUR.

The PASTEUR task officer will inform the PASTEUR interconnection service provider of the request and put the provider in touch with the EDI partner so as to get the latter's physical connection with the centre of the PASTEUR interconnection service provider underway.

Before the scheduled end of the work to install the physical connection, the PASTEUR task officer implements the logical connection procedure (interconnection, NAT, authorisation of the flows transiting through PASTEUR).

Once this is done, the tests can be conducted to finalize flow migration toward PASTEUR.

If the tests are successful, the partner will sign an EDI mode connection contract that will lay down the formal terms of the creation of the PASTEUR connection.

The EDI window contact at the DGDDI is: connexion-edi@douane.finances.gouv.fr

(Bureau C2: dg-c2@douane.finances.gouv.fr - Phone: +33 (0)1 57 53 45 49)

4.4 Tests

Tests will be run between the partner and the teams at the CID (Customs IT Center). Test guidelines can be found below:

- Check the end-to-end logical link (ping between CID system and partner system)
- Transmission/reception tests on the relevant port
- Test and pre-operational test games (including conveyance over the ATLAS back-up for the special case of X400-Transit and SOFI notification)
- Switchover to monitored release

5 Incident Management

When the connection is up and running, the usual reporting procedure to the SAU (User Help Line) at the *Centre Informatique Douanier* (CID, +33 (0)1 30 75 65 29) is still valid. The SAU will report any incident involving PASTEUR and provide information on the emergency procedure to implement.

However, the partner will also have a hot line number for the PASTEUR interconnection service provider, so that the partner can report any problems with the physical connection.