



FORMATION, TRANSMISSION, AND VALIDATION OF CERTIFIED ELECTRONIC MAIL

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PEC: Posta Elettronica Certificata (*Certified Electronic Mail*)

- What is PEC?
 - Equivalent to the Registered Mail service with Return Receipt.
- Why PEC?
 - In 2000, the Italian Government decided to adopt electronic exchange of docs between its Public Administrations.
 - By the end of 2008, non-compliant administrations will have their postal financing reduced.

server-to-server interaction

Sender (PEC)

PEC domains

Receiver (PEC)

Access point

- Sender ID verification;
- incoming msg formal checks

Acceptance receipt

Provider: mailbox for take-charge receipts

Take-charge receipt

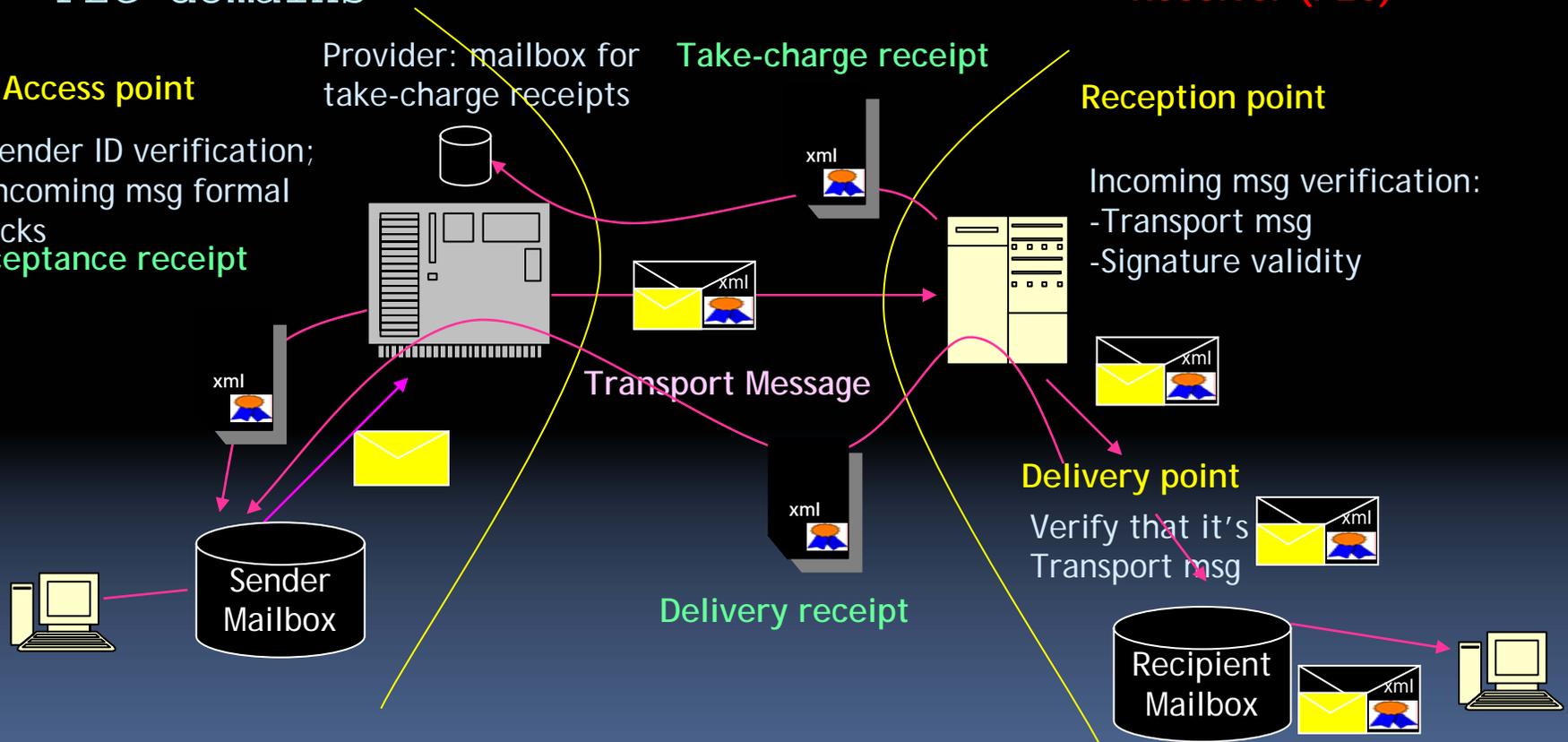
Reception point

Incoming msg verification:

- Transport msg
- Signature validity

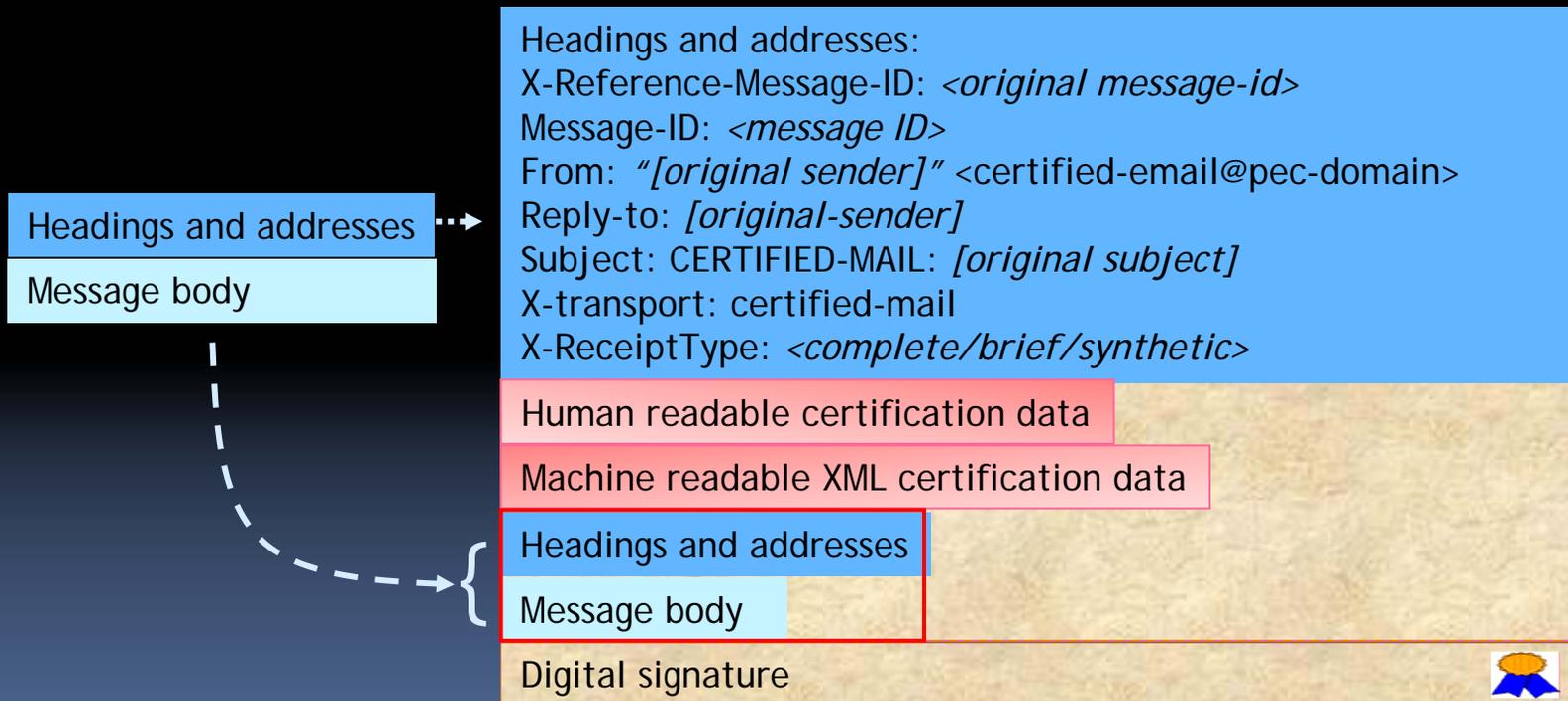
Delivery point

Verify that it's Transport msg



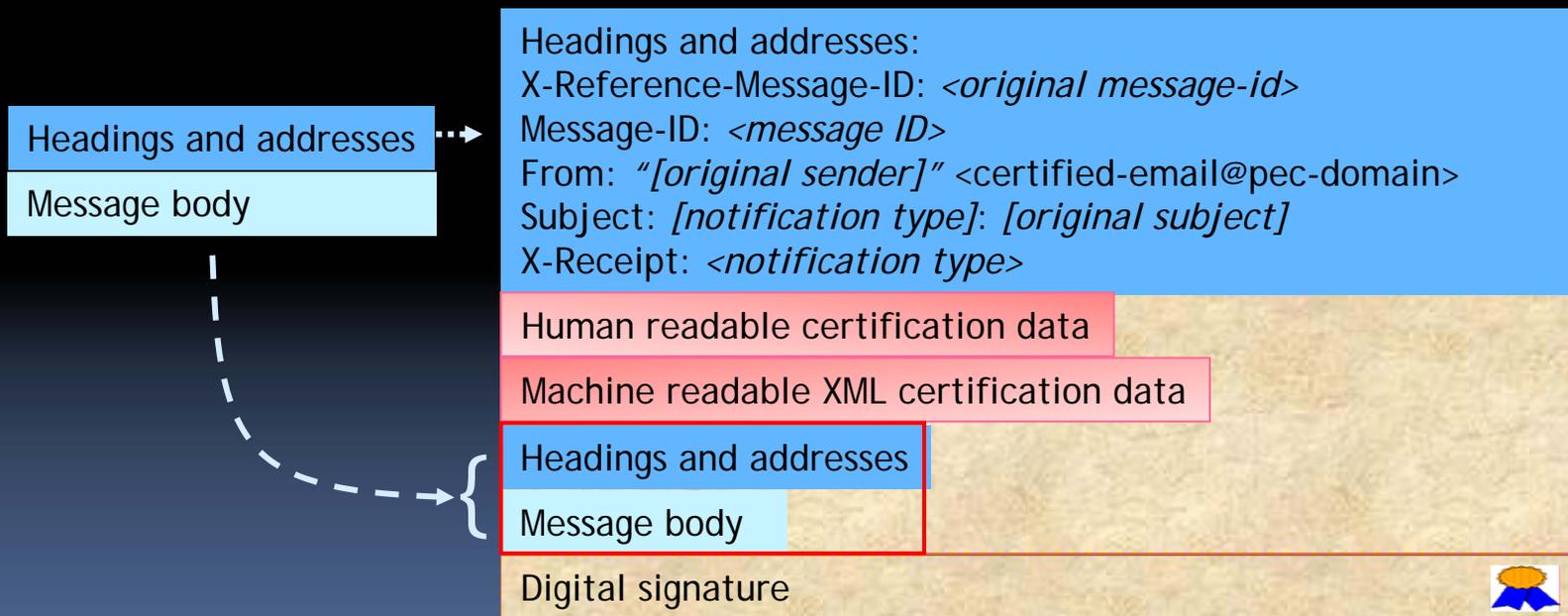
PEC transport message

Original message → Transport message



PEC receipt

Original message → Receipt



Characteristics

- Server-to-server interaction
- Client-server authentication
- (server) Non-repudiation, with proof of origin
- Message integrity
- XML data containing certification information
- Digital signature using FIPS 140-2 Hardware Security Module
- Logs for all PEC operations
- Formal syntax and virus checks both on outgoing and incoming messages.
- Used implementations exist.

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- ISTI-CNR was asked to handle the testing of interoperability of PEC by CNIPA.
 - Intent of request for publication as Informational RFC.
 - Interest in further development.