



Electronic Secure Cross-Border Trade

Legal Framework of PAA

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Challenges of Cross Border Legal Framework and PKI Mutual Recognition



Probable worries of companies who have interest in e-Trade

Our trade partner is at the opposite side of Internet under different PAA Service Provider. How can we have a guarantee that our partner would also obey the same PAA e-trade rule? We don't know our partner's Service Provider and can't claim them directly even when our partner offend the rule.

Can we claim our Service Provider in order to make our business partner abide the rule through their Service Provider ?

→ Legal effectiveness of **Interconnect Agreement** among PAA Service Providers

→ Legal effectiveness of **Subscriber Agreement** between each Service Provider and end-users

We have replied in time for the validity of selling offer, but the seller sold the goods to other buyer, saying that our reply was late.

In such case, how can you prove that we were not late?

What solution do you have if such case would really happen ?

→ Time lag for processing data by Service Provider shall be defined clearly.

In case of dispute, can Service Provider prove that THIS is the e-document that we have received ?

→ Storage of Data log before and after format conversion.

In the electronic document, we can't find digital signature of our partner, but only of our Service Provider. Can we insist our rights against our partner on such electronic document with the digital signature of our Service Provider instead of our partner ?

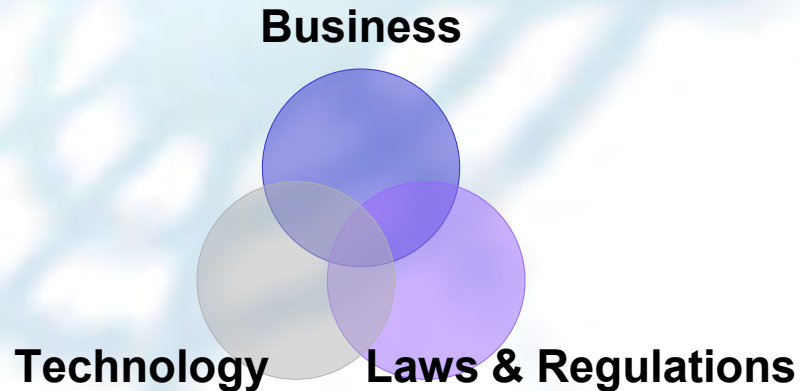
→ Format conversion by Service Provider will damage the original digital signature of the sender.

therefore **PAA Legal Framework** is important to protect the full transaction and to build all users' confidence on PAA scheme, .

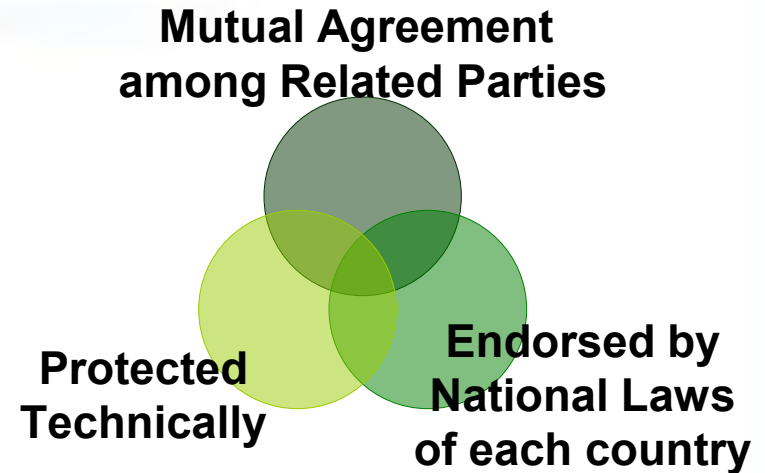


Effectiveness of e-Document protected by robust legal framework

Elements of Legal Framework



Elements to realize effect of e-Documents






Legal Framework shall be established -----

- ◆ along with the requirement of **International Business**.
- ◆ respecting **National Laws** and **International Practices**.
- ◆ endorsed by **Technical Capability**.
(Technical capability and available facility of **each Service Provider**, as well as the Level of the latest Technology.)

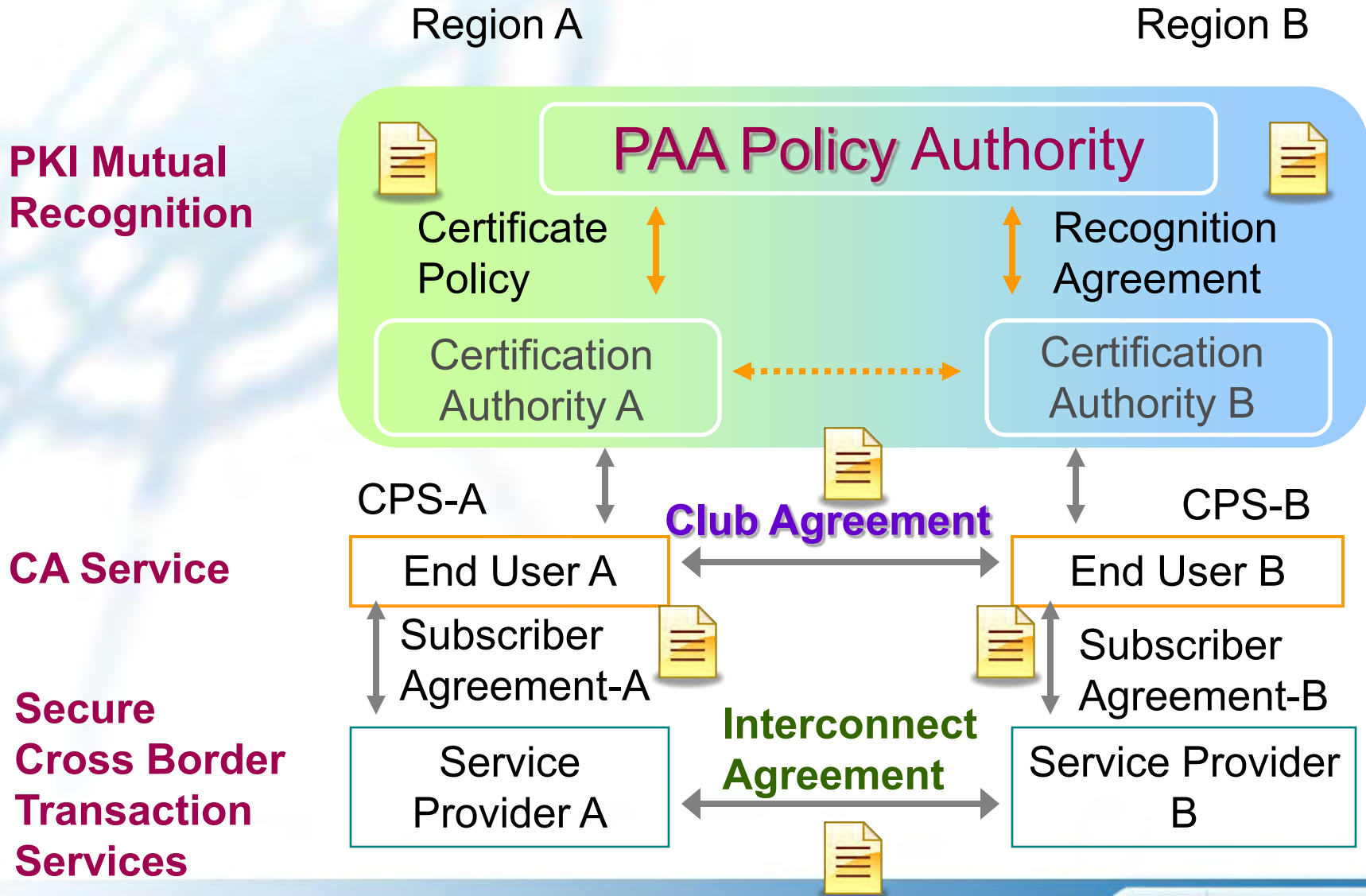
e-Documents will effective when -----

- ◆ Related Parties agree not to challenge e-Doc. in accordance with the Legal Framework.
- ◆ National Law admit e-Doc. as official evidence.
- ◆ e-Doc is protected against any manipulation.

Purpose of Legal Framework for Electronic Cross-border Transaction Network

- ◆  To provide international **common basis** on which all related parties in the countries of the region are legally and evenly bound, for applying electronic transactions for their cross border business.
 - ⇒ In order to legalize the mutual obligation among all related parties, it is necessary to have a common agreement to which all parties shall be bound equally.
- ◆  To clarify the **point of separation** when and where the obligation is transferred from one to another, one country to another country..
 - ⇒ Essential factor to be required for International Legal Framework
- ◆  To protect **end-users** from unexpected nullification of rights and obligations, caused by using Electronic Cross-border Transaction Network of PAA.
 - ⇒ Legal Framework shall be a Safety-net extended by Service Providers based on Professional Consideration in electronic transactions, prepared for the case of conflict among users.
 - ⇒ Many end-users will get into e-trade to enjoy efficiency, believing that even with e-trade, their business routine will be realized exactly the same as trading with paper documents.
It doesn't mean that Service Providers take commercial responsibility of users.

PAA Legal Framework



Linkage of Agreements for Legal Framework

PAA Club Agreement

PAA Service Provider shall include in their Subscriber Agreement, on which **end-user's manual signature** is furnished, a series of conditions to use PAA Service, binding them to **Club Agreement**

Through Interconnection Agreement **manually signed** among all **PAA Service Providers**, it is declared that they are bound to **Club Agreement**

PAA Service Provider shall include in their Subscriber Agreement, on which **end-user's manual signature** is furnished, a series of conditions to use PAA Service, binding them to **Club Agreement**

Interconnection Agreement

Conventional Documentary Agreement with **Manual Signature**

Subscriber Agreement

End-users



PAA Service Providers



PAA Service Providers



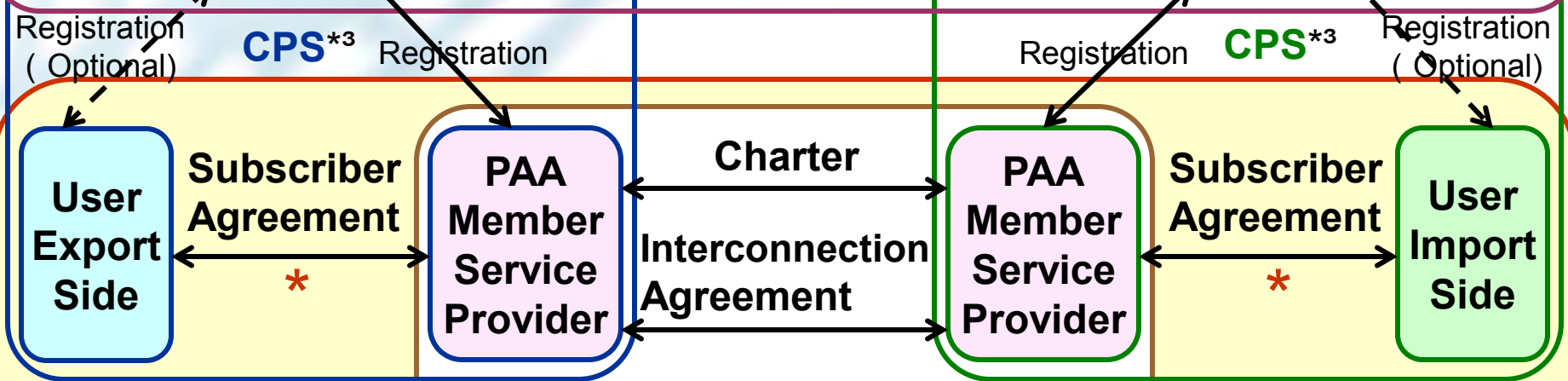
End-users

Not necessary to have particular Direct Agreement for Paperless Trade

PAA Legal Framework for Cross-border Transaction Service

↔ Signed Agreement

PAA Certificate Policy



PAA Privacy Policy

Message Processing Specification

Interconnection Specification

*2 Certification Authority

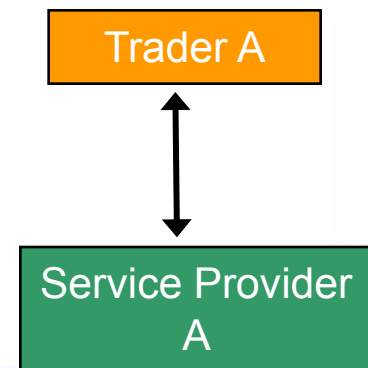
*3 Certification Practice Statement

P A A C l u b A g r e e m e n t

* Note : Through the specific subscriber agreement between users and their PAA Service Provider, the users are regarded to have consented to PAA Club Agreement where rights and obligations of users and providers are clarified.

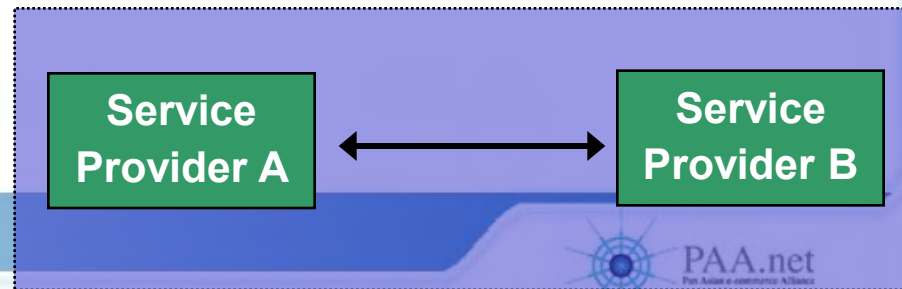
Subscriber Agreement

- ◆ A bilateral agreement between the subscriber and the service provider
- ◆ Subscriber's appointment of service provider as agent for entering into Club Agreement
- ◆ Automatic termination of Club Agreement upon termination of Subscriber Agreement
- ◆ Agreement on service fees and charges



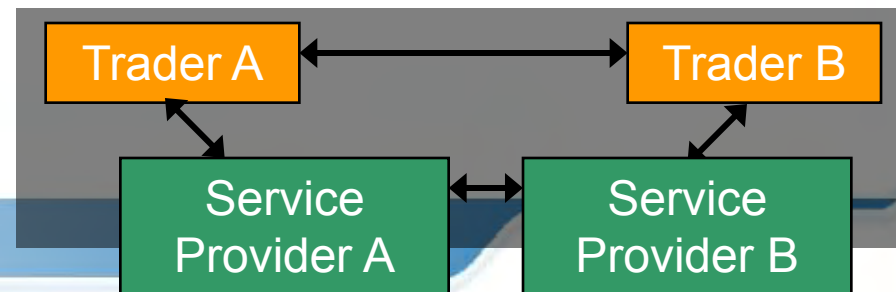
Interconnect Agreement

- ◆ A multi-lateral agreement among all service providers and the PAA company
- ◆ Commitments to inter-service provider service levels and adherence to technical specifications
 - Translate document correctly
 - Verify sending party's signature / certificate
 - Digitally sign to declare document translated correctly & sending party's signature correct
- ◆ Customer service coordination for customer enquiries
- ◆ Procedures for new / termination of customers
- ◆ Procedures for new / termination of service providers
- ◆ Agreement on revenue sharing and payment
- ◆ PAA company commitments
 - Maintain central registry
 - Reconcile & distribute payments

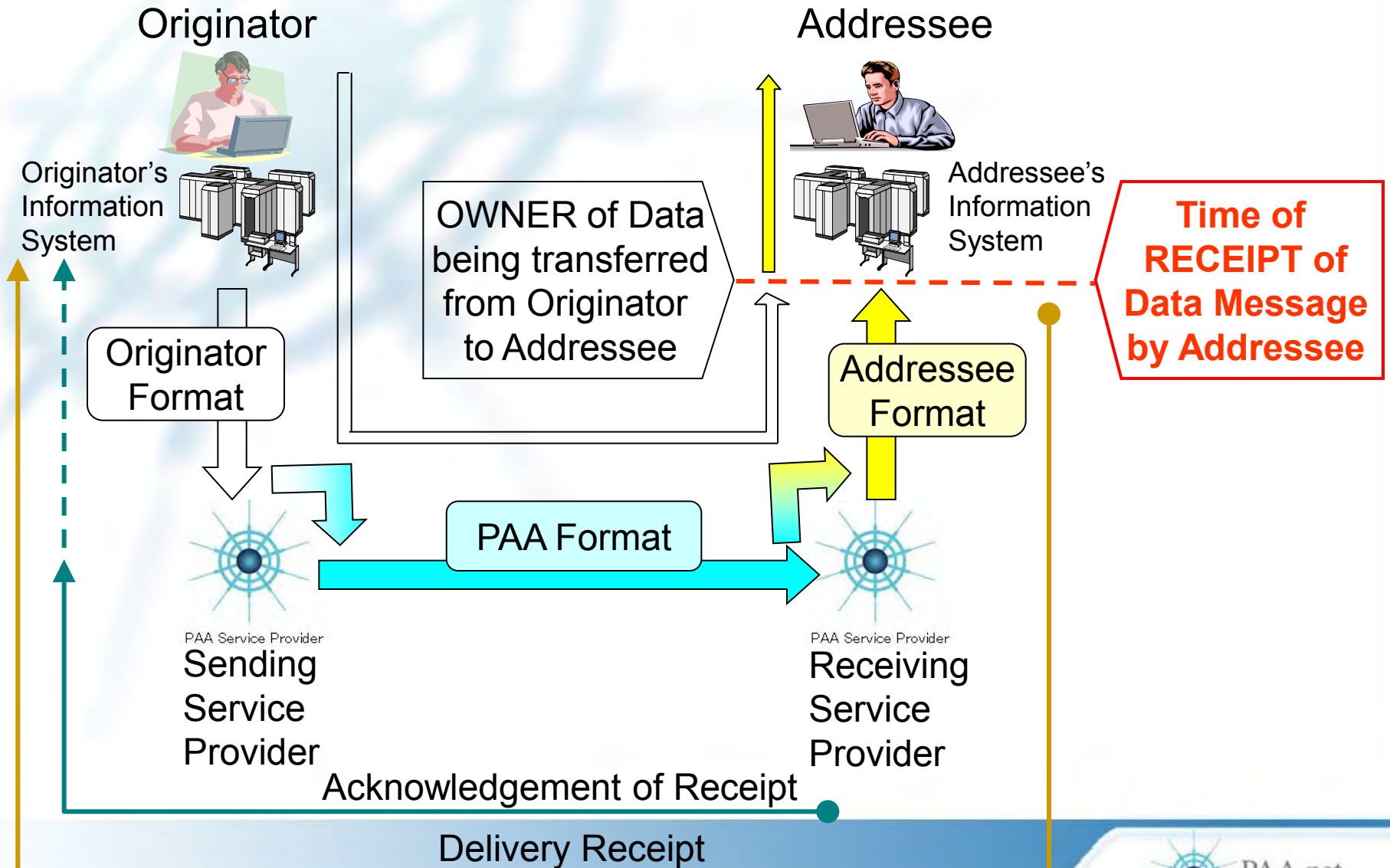


Club Agreement

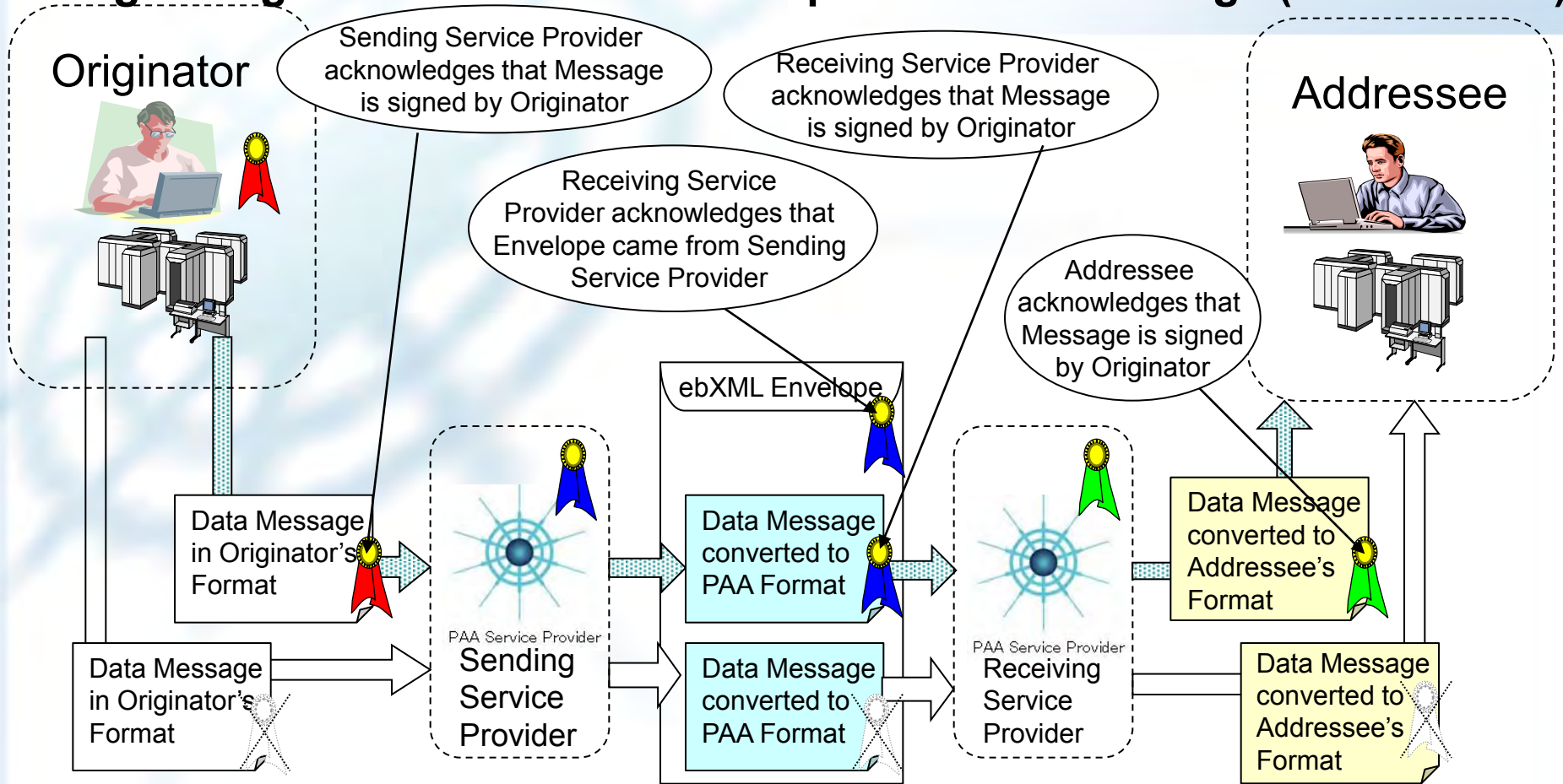
- ◆ A multi-lateral agreement binding all subscribers and service providers
- ◆ Acceptance to the use of electronic records and digital signatures as evidence
- ◆ Procedures for subscriber registration & termination
- ◆ Standard terms and conditions for use in (electronic) documents
- ◆ Definition of PAA service level
- ◆ Default use of arbitration for disputes resolution
- ◆ Subscriber's acceptance of document reformatting and signature verification by service providers



Time of Receipt and Transfer of Ownership of Data Message and Electronic Record



Digital Signature on ebXML envelope and Data Message (e-Document)



Before Originator's e-Document reaches to Addressee, the format is converted twice from the format of Originator to the format of PAA, and then from the format of PAA to the format of Addressee. Digital Signature on the e-Document is destroyed each time when formats are converted from one to another. So the Digital Signature, furnished on the e-Document that Addressee receives, cannot be the signature of Originator but of Receiving Service Provider. PAA legal document stipulates that PAA Service Provider always digitally sign on the envelope but will not sign on e-Document when the received e-Document doesn't have digital signature. So Addressee can know that the original Document has been signed by the Originator, just by finding the digital signature of receiving Service Provider on the received e-Document.

“End User” of PAA Service will be bound by following documents

All **end-users** that utilize the PAA Cross-Border Transaction Service will be bound to the Rules of PAA through the following two legal documents that enables the secure paperless trade.

<1> The “PAA Club Agreement”

- The basic agreement that specifies the terms, conditions and rules governing the use of the PAA services.
- All end-users as well as all PAA Service Providers will be equally bound to this agreement.
- Main contents are:
 - (1) Registration as a user of PAA Service
 - (2) When Data is considered to be received by Addressee
 - (3) Handling of Digital Signature
 - (4) Effectiveness of format-converted Data Message
 - (5) Ownership of Data Message
 - (6) Subscriber's Obligation
 - (7) Confidentiality and Data Privacy
 - (8) Security

<2> PAA Service Provider's "Subscriber Agreement"

- PAA Club Agreement is mutually signed among PAA Service Providers but Subscribers are not required to sign on that Agreement directly. Therefore, instead, in Subscriber Agreements between Subscriber and Service Provider, on which Subscribers furnish signature, some specific conditions are included to bind Subscribers to PAA Club Agreement.
- Main contents are:
 - (1) Subscribers are governed by the PAA Club Agreement for using PAA Services.
 - (2) Authorize their PAA Service Provider to convert format and digitally sign on Data Message.
 - (3) Authorize their PAA Service Provider as its agent to act as PAA Club Member.

◇ "Subscriber Agreement" by Certification Authority (CA) for end-users

- Security of Data transfer from Subscriber to Service Provider shall be agreed mutually. To use Lease Line will be one of solutions. If Subscribers intend to send on internet, unless it were VPN, it will be necessary to apply Digital Signature.
- The use of Digital Signature on Data Message is optional to be determined among relative end-users. However unless it were among family companies or group companies, Digital Signature will be required.
- Once it is decided to apply Digital Signature, end-users must get the Certificate for Digital Signature from PAA accredited CA of each economy, that is required to maintain the service quality as PAA Service.
- In this case another "Subscriber Agreement" with Certification Authority will be necessary.

Other Documents that are released to Subscribers

(1) PAA Privacy Policy

End-users are required to register their personal data for the use of PAA Service through each PAA Service Provider. Such information will be controlled as "Common Subscriber Personal Data (CSP Data)" and protected properly not to be used for other than the purpose of providing PAA Services in accordance with this Privacy Policy.

(2) Message Processing Specification

Supplements for the PAA Club Agreement that specifies the Message Processing requirements that PAA Service Providers should follow. Main contents are:

- (1) Service Level (How the Data Message sent from Originator will be handled by Service Provider.)
- (2) Data Messages are transmitted among Service Providers in ebXML envelope digitally signed by Sending Service Provider supported by Recognized Certificate.
- (3) Audit Trail etc will be maintained 7 years. Etc...

(3) Interconnection Specification

Technical Specification that describes the Messaging Service among PAA Service Providers based on ebXML Messaging Service Ver.2.0.

Normal Messaging Flow, Error Messaging Flow, Status Messaging Flow, Message Structure, various Messaging Samples are described.

Such Information will be necessary when Subscribers intend to establish System network connection.

Other documents that Service Providers are bound to

(1) PAA Charter

- The Charter is the basic document of PAA, describing about the Aim of the alliance, about the membership, organization, obligations and activities etc.
- The Charter is signed by all PAA Service Providers.

(2) Interconnection Agreement

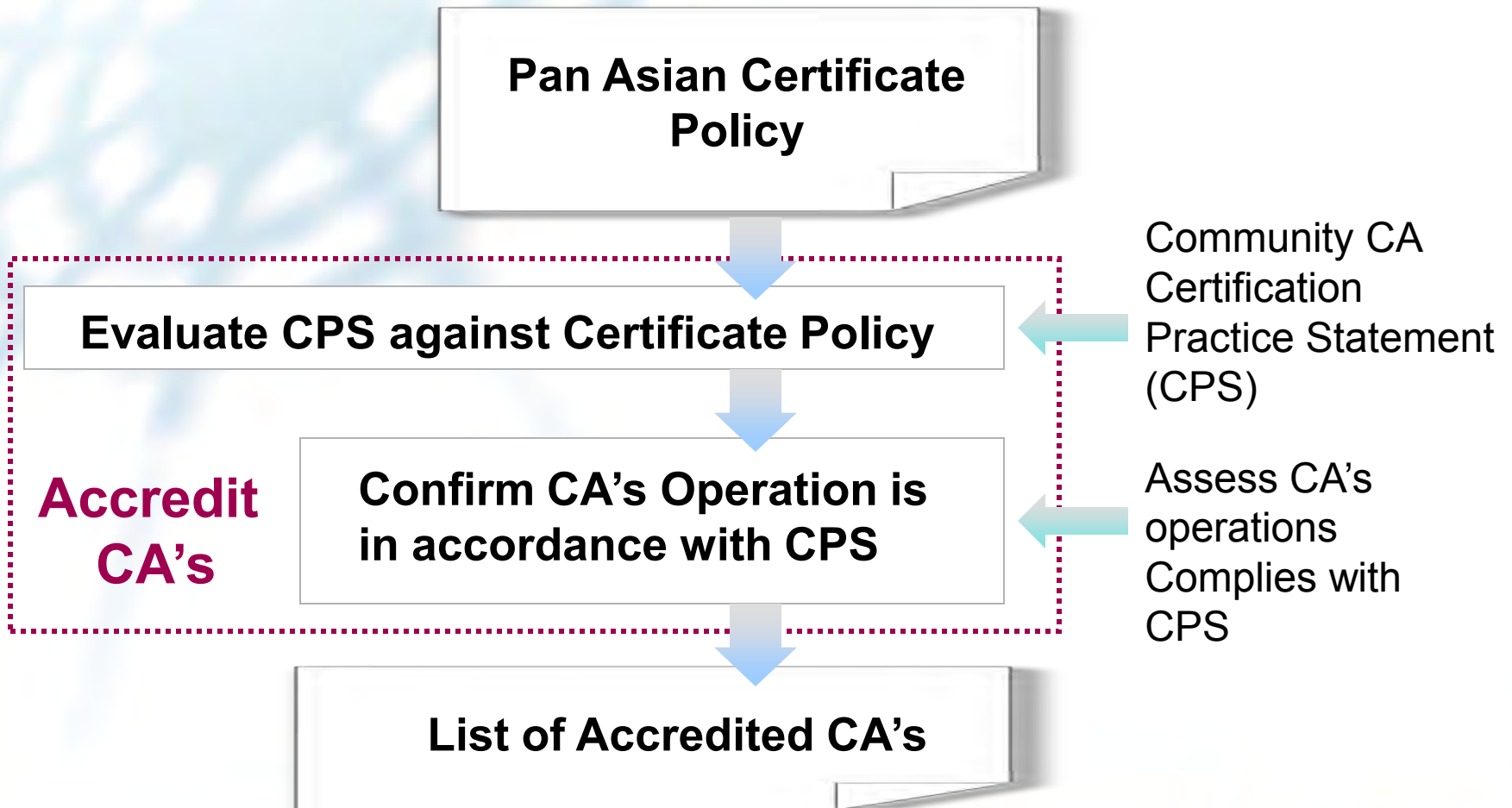
- All PAA Service Providers sign on Interconnection Agreement where all rights and mutual operational obligations of PAA Service Providers are specified for establishing a trustworthy network to provide PAA Services for end-users.
- Mainly following issues are specified:
 - (1) Detailed technical and procedural requirements and rules for Data transfer among PAA Service Providers.
 - (2) Storage and Retrieval of In/Out Data by PAA Service Providers
 - (3) Limit of Liability among PAA Service Providers
 - (4) Audit requirement

(3) PAA Service Support Procedures

- Supplements for the Interconnection Agreement to specify the detailed procedures in the following area:
 - (1) Recruitment of trading partners
 - (2) Maintenance and publishing of PAA Document Format Standard (Superset/Subset)
 - (3) Registration and Maintenance of Subscribers (PAA Club Member Register)
 - (4) Certificate Management (Procedure for the expiry of certificate etc)
 - (5) Customer Support

PKI Mutual Recognition

Pan Asian Certificate Policy Authority



CA Application Procedure

Application Letter (specify certificate profile and website)

Recommendation Letter from PAA member

CPS

**Assessment Report from trusted third party
(confirm compliance of CA's CPS to PAA's CP)**

**Certificate profile, CRL profile,
Interoperability Test Report**

Final review by PAA reviewers

Certificate Authority (CA) related documents

PAA has Certificate Policy Authority Ltd. to authorize CA of each economy as Conforming CA that complies the common standard required as CA of PAA, leveling their Certification Practice Statement (CPS) etc.

(1) Certificate Policy

- Common Certificate Policy prepared by the Certificate Policy Authority that contains the set of rules that govern the issuance and use of digital certificates, and indicate the applicability of the certificates to the communities within PAA.
- It specifies Audit procedure, Revocation, Records archival and Certificate & CRL (Certificate Revocation List) Profiles, etc.
- This is the basis of the Mutual Recognition of Public Key Infrastructure that form a part of conditions for periodical assessment of CA, and each CA will need to ensure that their CPS complies with this Certificate Policy.

(2) Certificate Policy Authority Terms of Reference

This document is to facilitate the process of mutual recognition of the Public Key Infrastructures adopted by each PAA Service Provider under Certificate Policy.

(3) CA Recognition Agreement

- Agreement between Certificate Policy Authority Ltd. and each Certificate Authority contracted by PAA Service Provider in each economy.
- Under this agreement Certificate Policy Authority recognize that the applicant CA is a conforming or accredited CA of PAA.
- Frequency of assessment to have, fees and other details are defined in this Agreement.

(4) CA / CPS (Certification Practice Statement) Recognition Procedure

This document defines the procedure to be used by the Certificate Policy Authority to give recognition to the individual Certification Practice Statement (CPS) and Certificate.

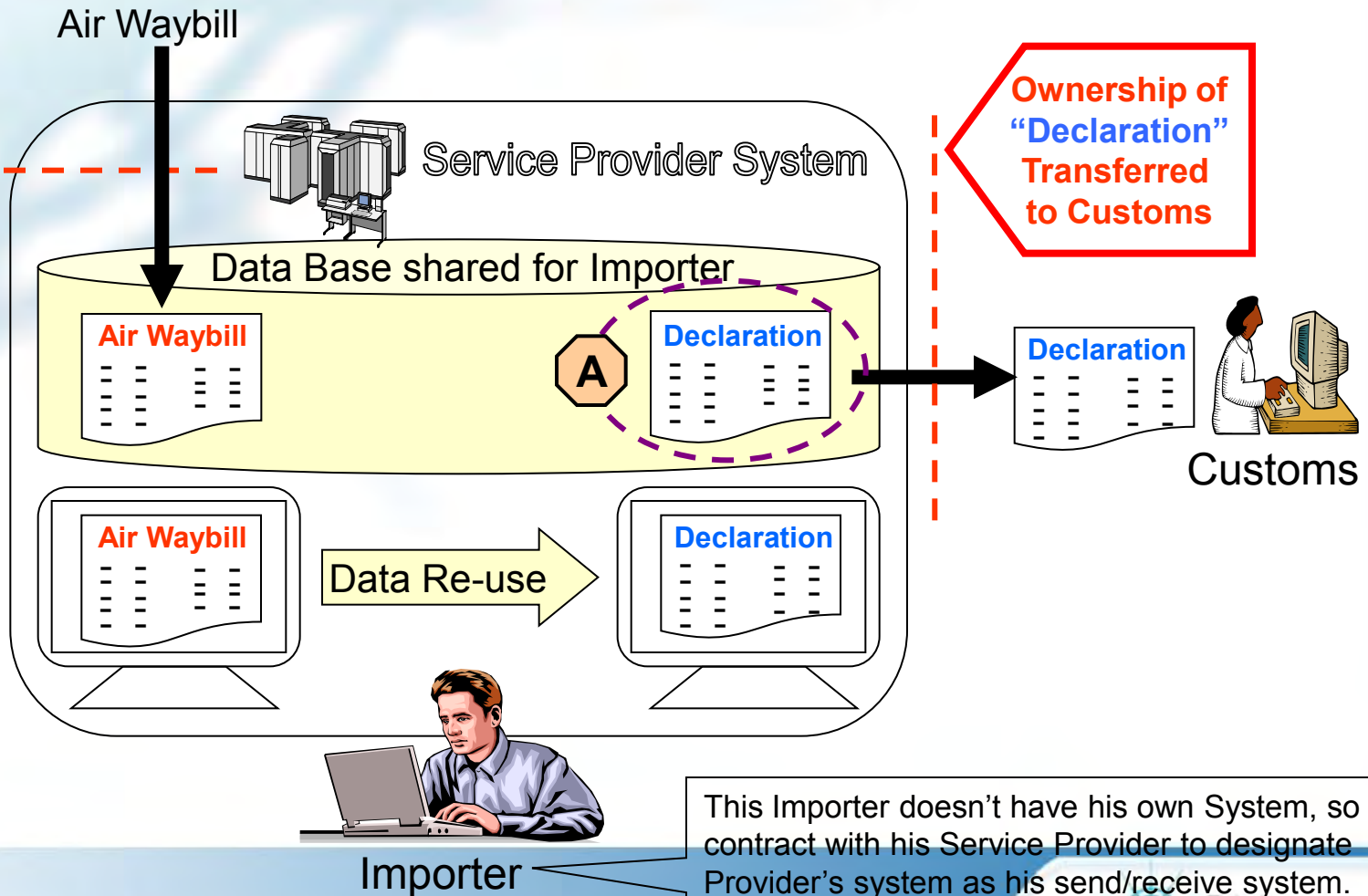
Question !!

Supposing that an Importer receives Air Waybill and on that basis creates Import Declaration and sends to Customs, Customs will be the owner of the Declaration, while the same data will remain in the Data Base of the Service Provider.

What is the status of the data of the Declaration (marked **A** in the Data Base after the ownership having been transferred to Customs?

Can the Importer use it as an evidence of Import even after his losing ownership of Declaration?

**Ownership of
"Air Waybill"
Transferred to Importer**

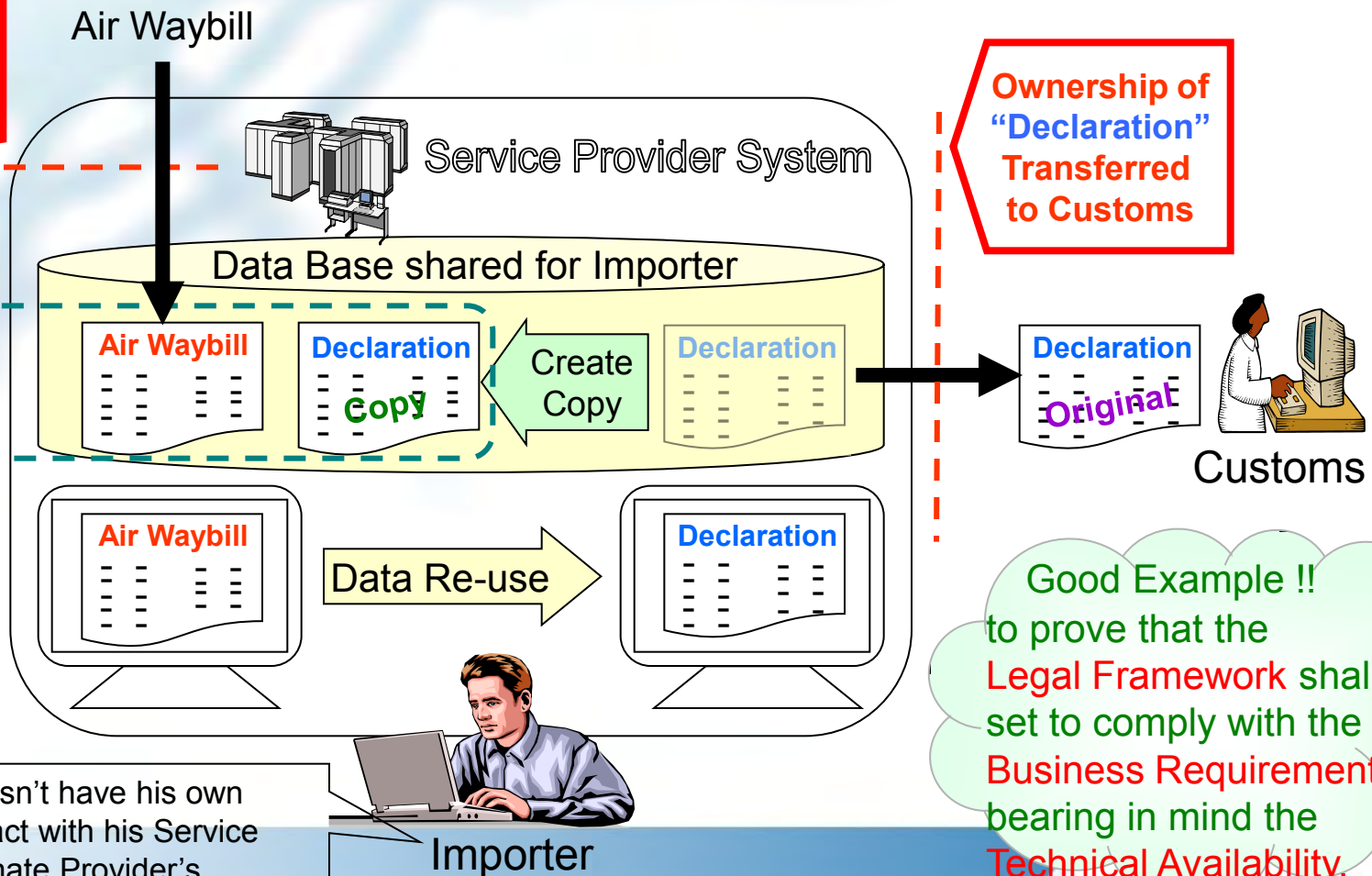


This Importer doesn't have his own System, so contract with his Service Provider to designate Provider's system as his send/receive system.

To cover such case, it should be specified that the Declaration, remaining in the Data Base, is the Copy, created by the Importer from the Original of the Declaration, sent to the Customs. Although the ownership of the Original Declaration is transferred to Customs, the ownership of the Declaration Copy remains at Importer's hand. So he can use it for his needs as its owner.

Appropriate **Legal** interpretation, to support **Business** needs, understanding **System** functions

Ownership of
"Air Waybill"
Transferred
to Importer



Ownership of
"Declaration"
Transferred
to Customs

Data Owner
is Importer

This Importer doesn't have his own System, so contract with his Service Provider to designate Provider's system as his send/receive system.

Good Example !!
to prove that the
Legal Framework shall be
set to comply with the
Business Requirements,
bearing in mind the
Technical Availability.

Thank You!

Comment?

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