

國家標準-核心組件技術規範

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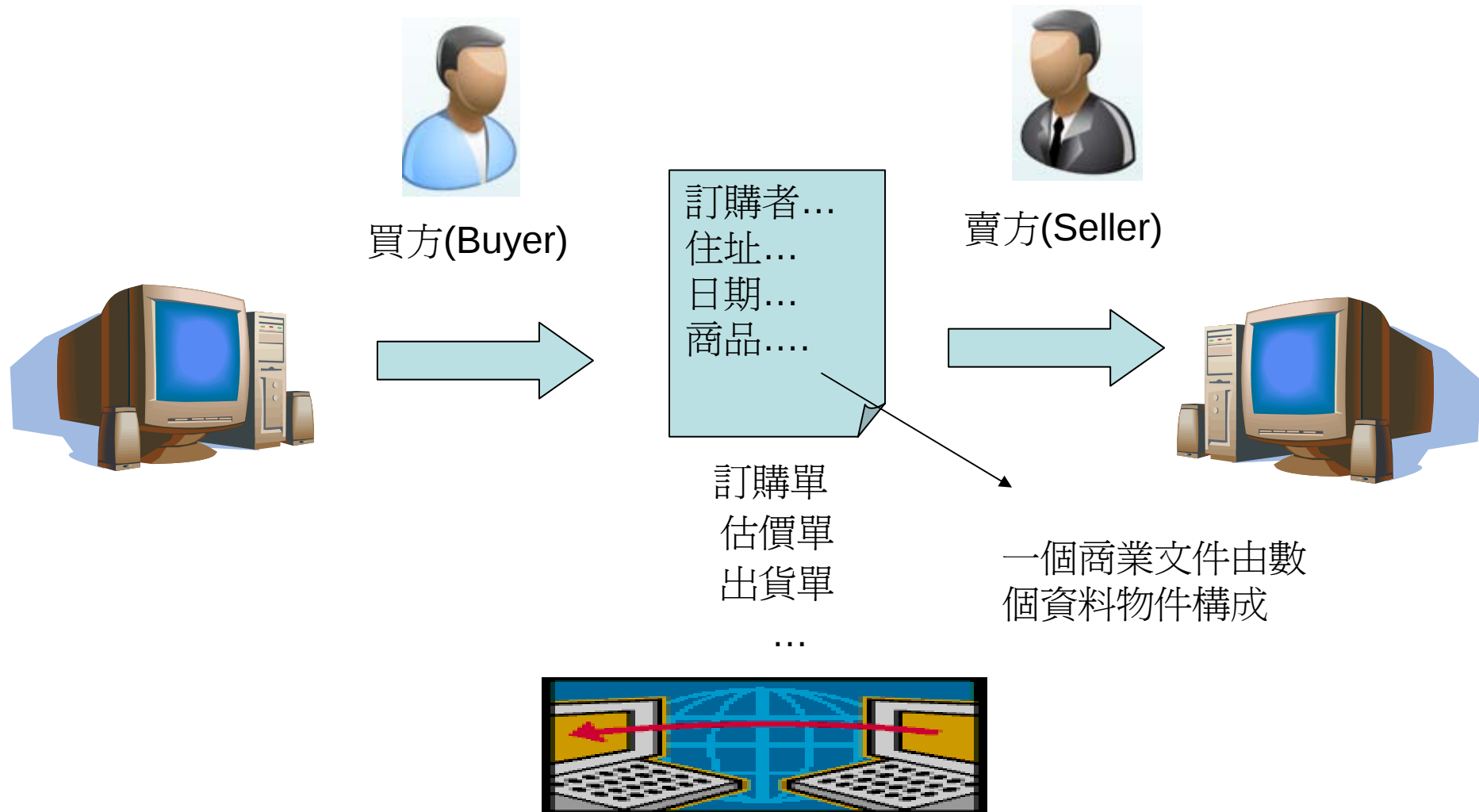
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內容大綱

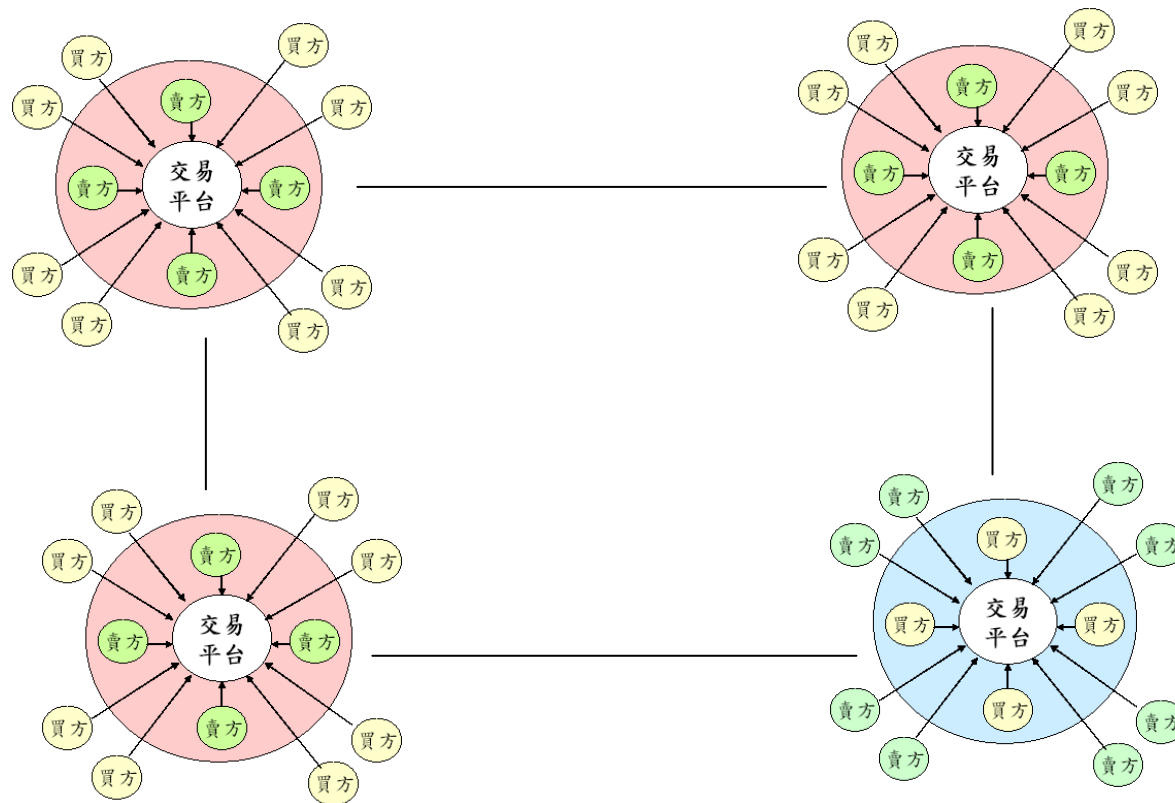
- 核心組件標準的背景
 - 從ebXML談到核心組件
 - ISO 15000 (ebXML電子商務標準)
- 何謂核心組件？
- CNS 15181:電子業務延伸標示語言－第5部：
ebXML核心組件技術規格(CCTS)
- CNS 15182:電子業務延伸標示語言－核心組件館
(CCL)
 - CCL.06A、CCL.08A(新版)
- 核心組件未來發展

核心組件標準的背景

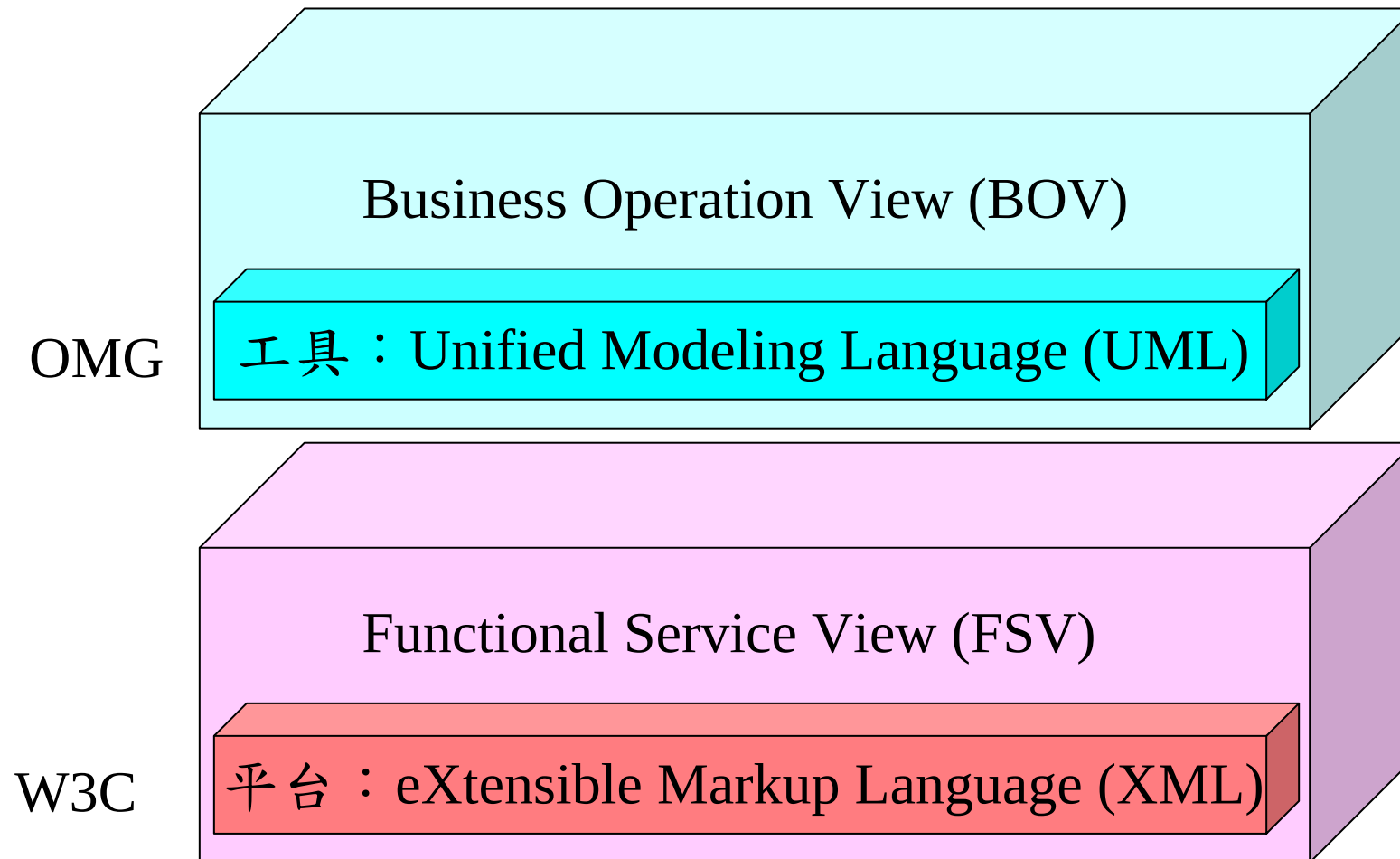


ebXML全球電子市集

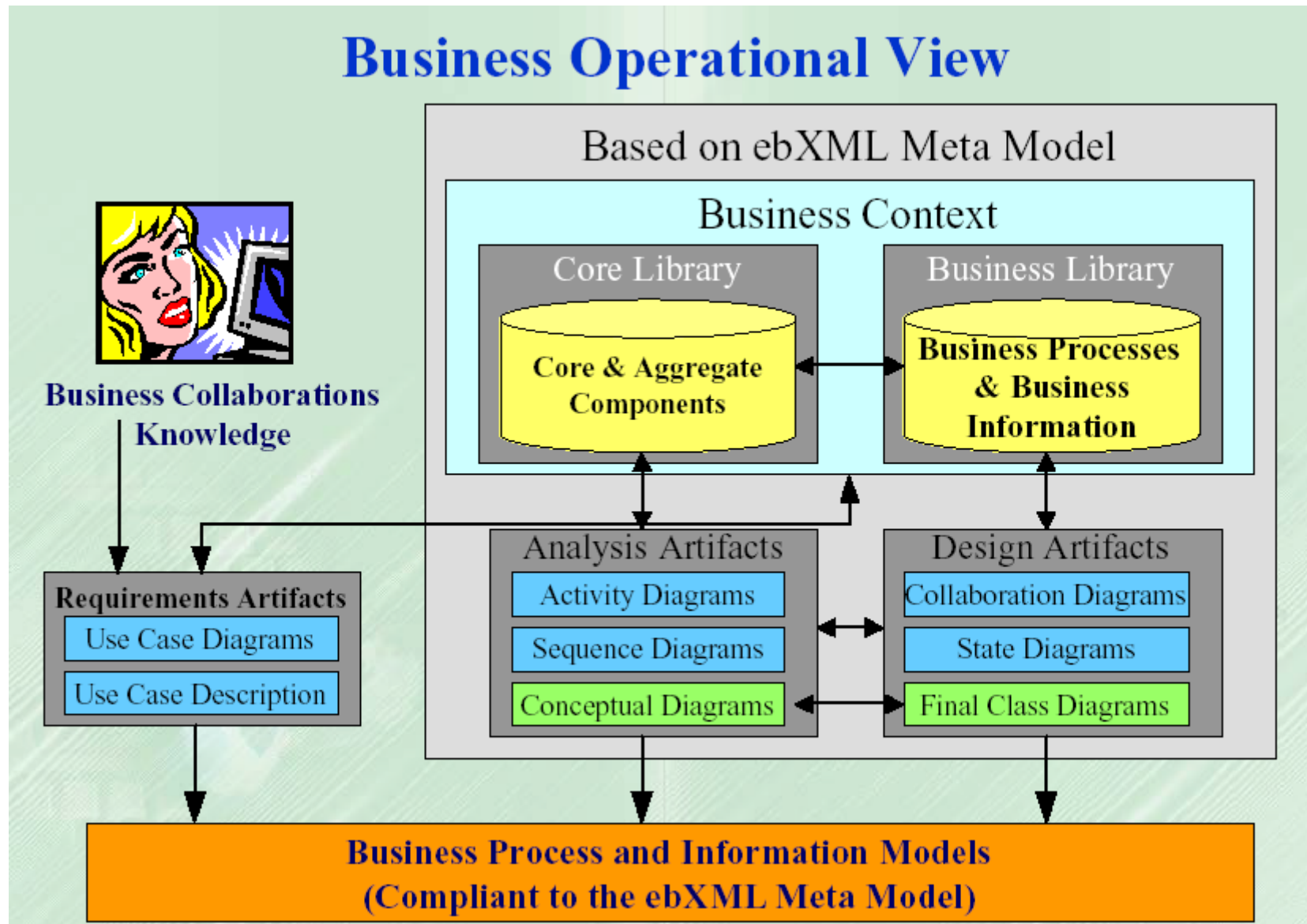
- eMarketPlace Global integration: 貿易全球化之技術核心(**Globalization**)
 - Buyer/Seller Collaboration across countries and across domains



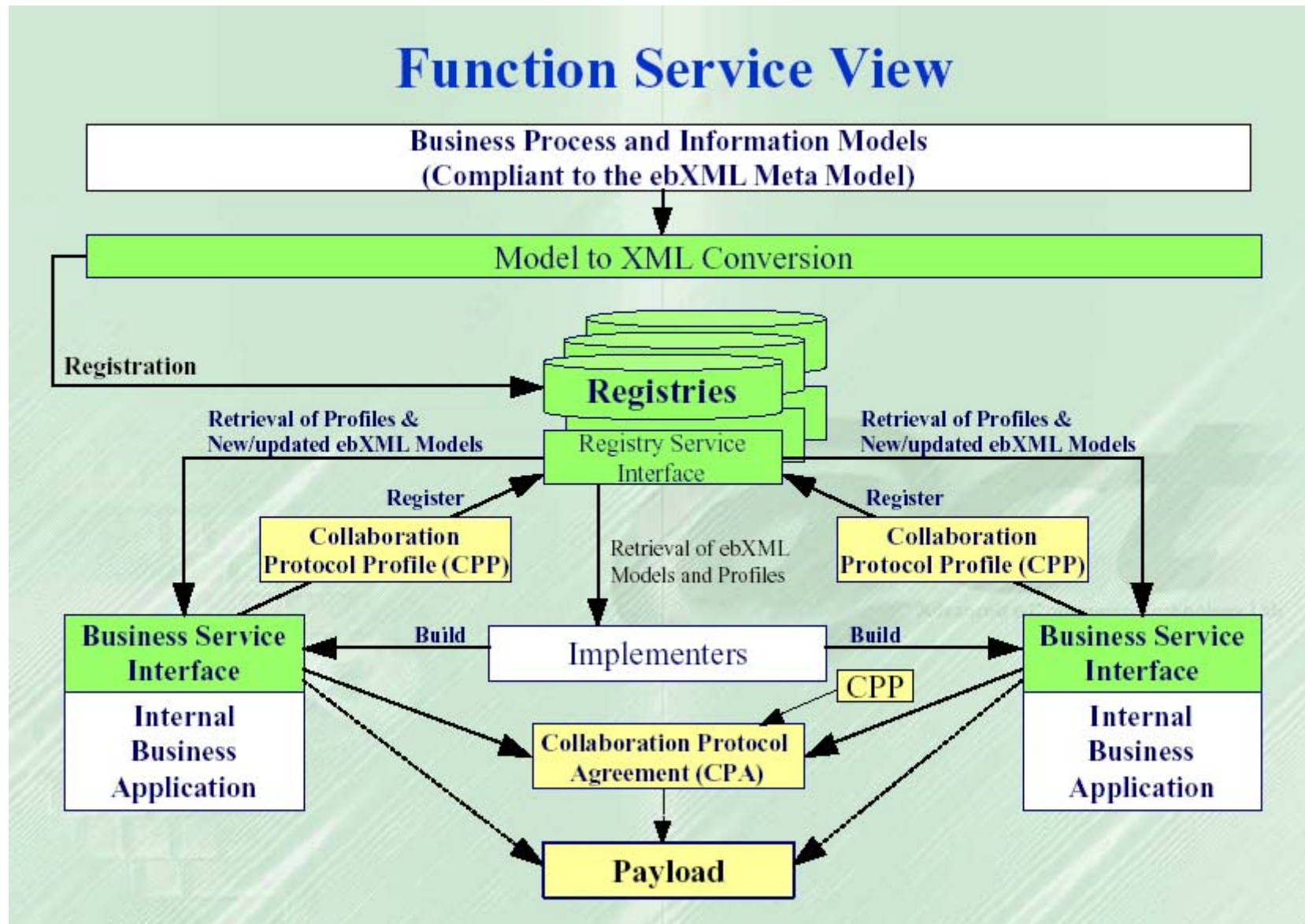
ebXML的系統架構



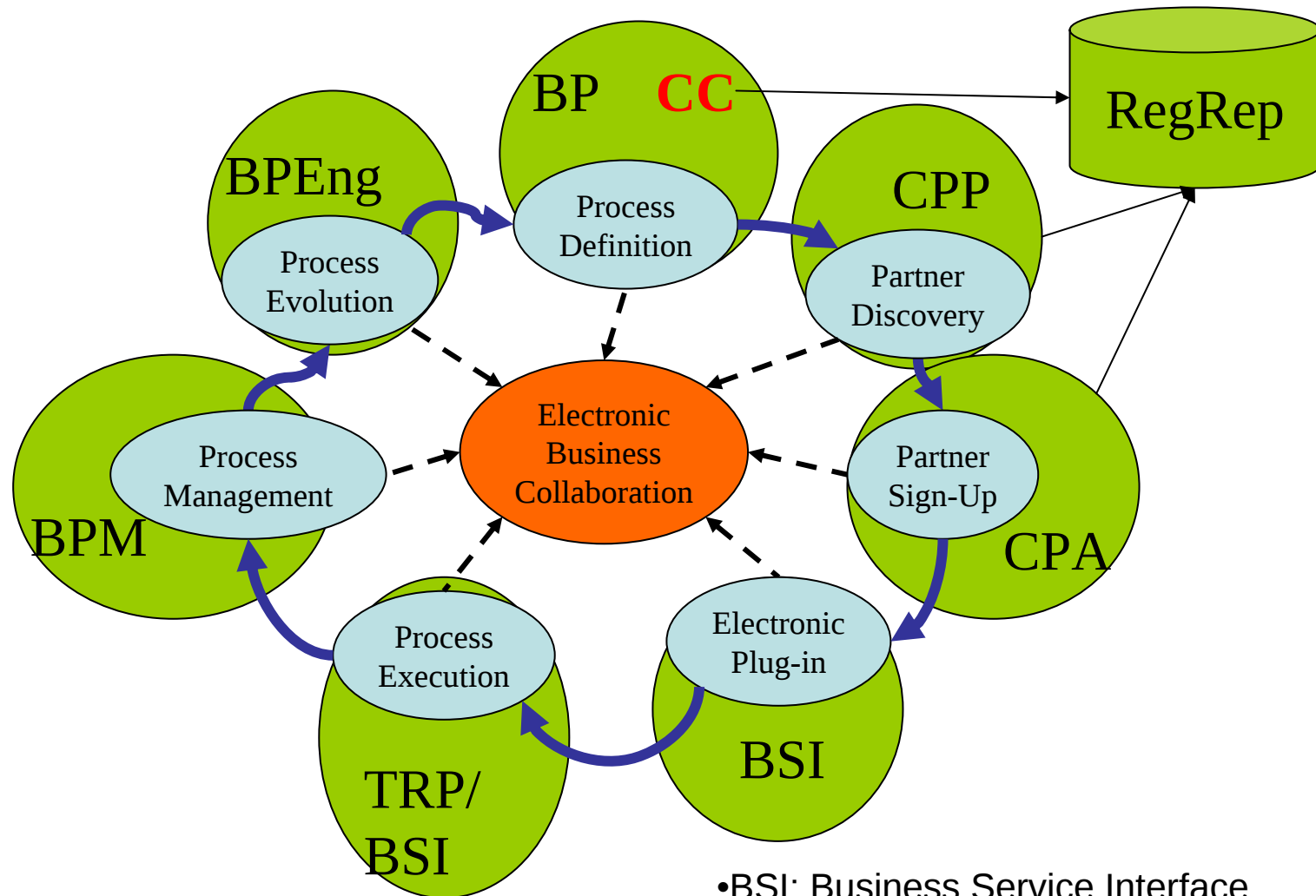
Business Operational View



Function Service View



ebXML Collaborations



•BSI: Business Service Interface

•TRP:Transport, Routing, and Packaging 8

Business Operational View

- 1. 如何將Business Collaboration Knowledge 轉成 UML圖?
 - UMM(UN/CEFACT Modeling Methodology)
 - 訂定ebCPP, ebBPSS標準(ISO 15000)
 - 設計出的UML Artifact稱為BRS(Business Requirement Specification)與RSM，為Business Process 定義
- Business Context
 - 訂定CCTS標準(ISO 15000)
 - CCL(Core Component Library)
 - Core Data Structure
 - Core Library: ACC (Aggregate Core Component)
 - Business Library: ABIE (Aggregate Business Information Entity)

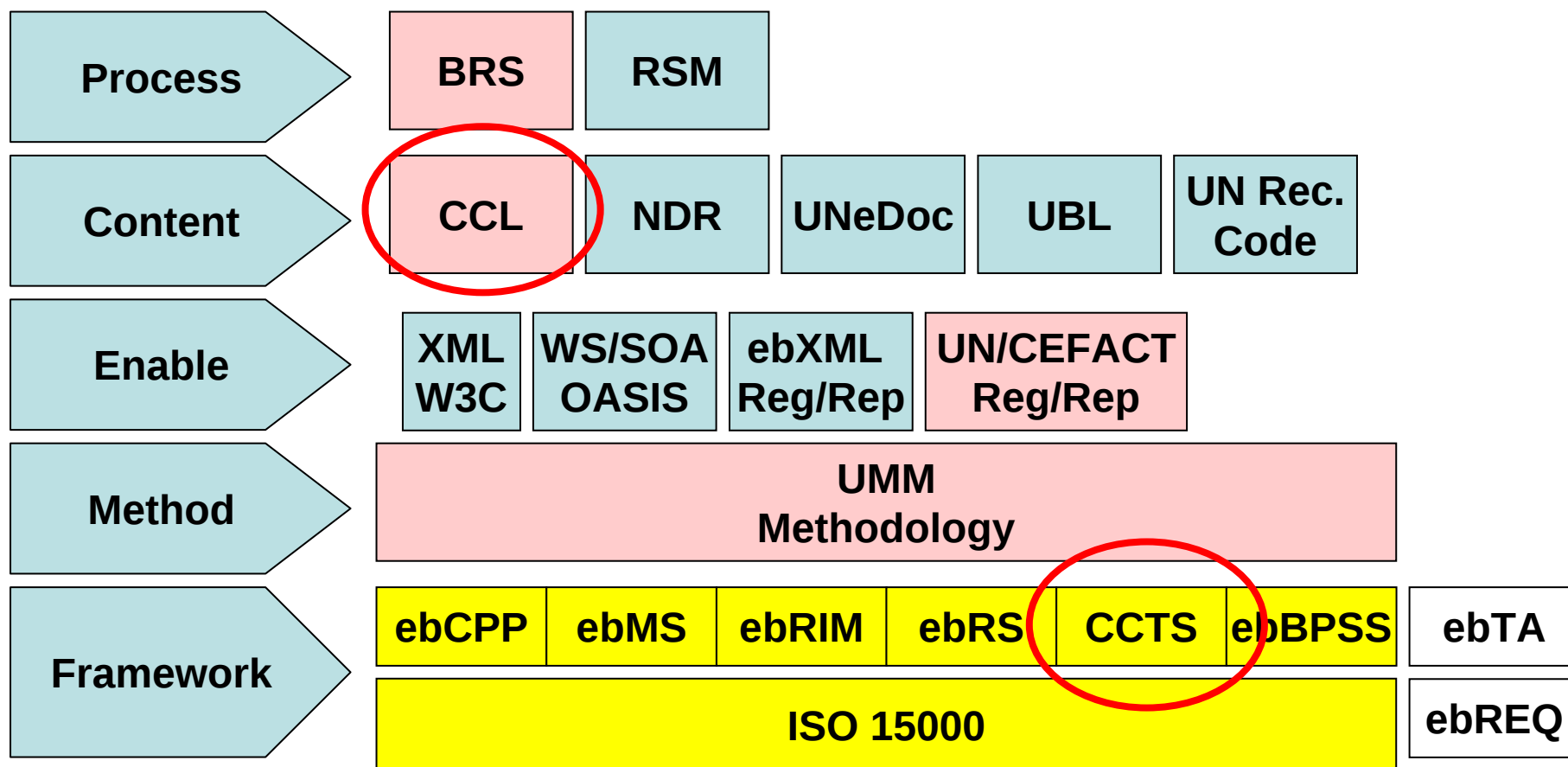
Function Service View

- UN/CEFACT Registry
 - 存XML文件(包括Core Component)
 - 支援XML訊息(SOAP, Web Services)
 - 分散式儲存，聯合作業
 - 支援Object-Oriented Design
 - Relational Database 不太適用
- 訂定ebXML Registry標準 (OASIS+UN/CEFACT)
 - 包括ebRIM, ebRS標準(ISO 15000)
- 訂定UN/CEFACT Registry標準 (UN/CEFACT)
- 訂定ebMS標準(ISO 15000)

ebXML技術標準的核心內容

- ebXML (Electronic business eXtensible Markup Language): ISO/TS 15000
 - Part 1: Collaboration-protocol profile and agreement specification (ebCPP)
 - Part 2: Message Service specification (ebMS)
 - Part 3: Registry information model specification (ebRIM)
 - Part 4: Registry services specification (ebRS)
 - **Part 5: Core Components Technical Specification (CCTS)**
 - Part 6: ebXML Business Process Specification Schema (ebBPSS)
- 未納入ISO
 - ebXML Requirements Specification Version 1.06 (ebREQ)
 - ebXML Technical Architecture Specification v1.0.4 (ebTA)

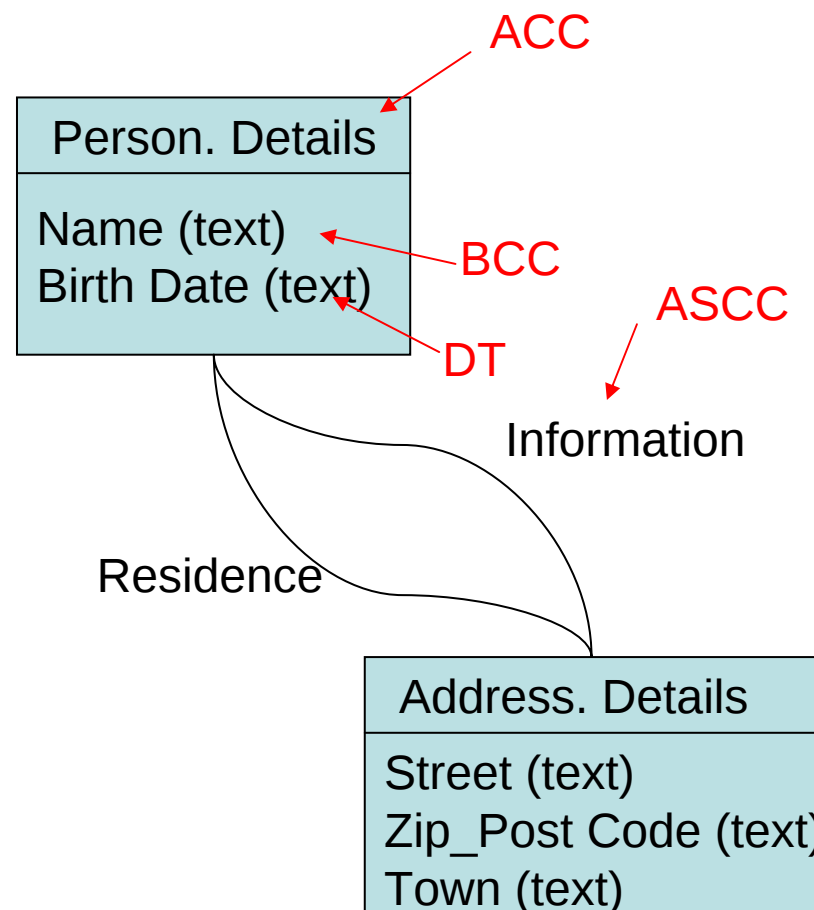
ebXML相關標準文件



何謂核心組件？

Core Component

- 核心組件是各領域資訊應用的共同資料結構
- 用途：
 - 可幫助建立跨領域互通的標準電子文件(eDoc)
 - 並能依此開發可重覆利用的作業流程程式模組。



電子業務延伸標示語言－第5部： ebXML核心組件技術規範(CCTS)

- 本標準是核心組件的母法，規範核心組件主要內容：
 - －核心組件的定義和組成
 - －核心組件的命名規則和格式
 - －核心組件的業務全景類型...

核心組件的組成(1)

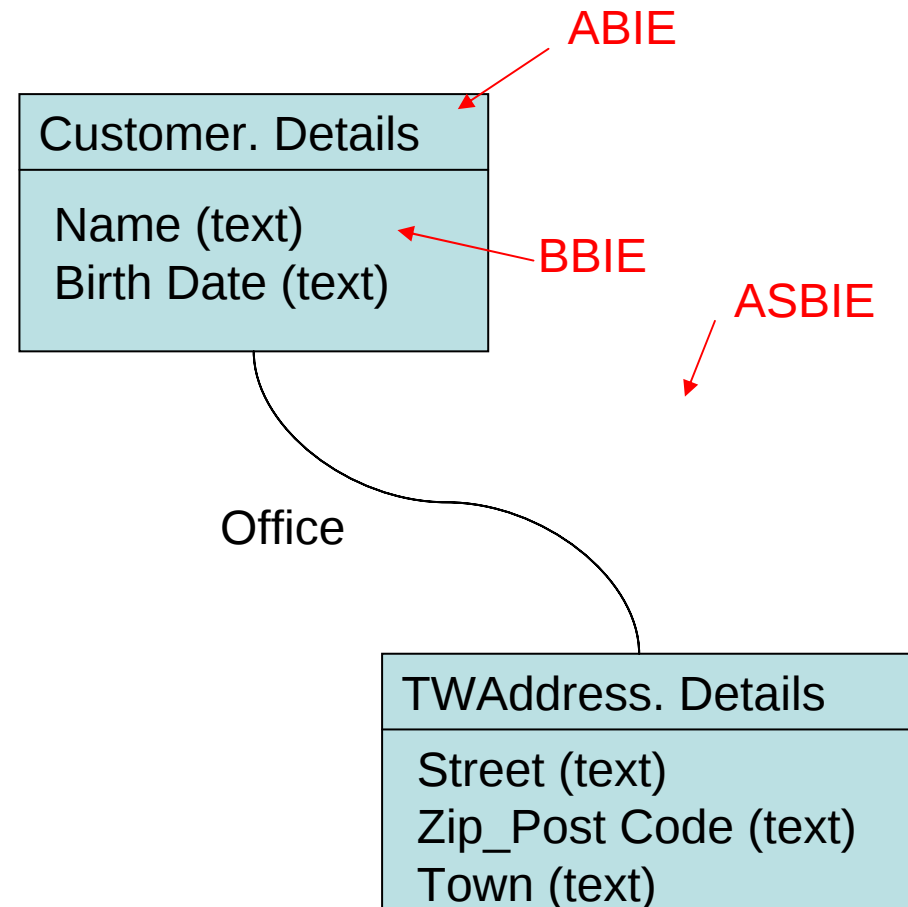
- 聚合核心組件(Aggregate Core Component; ACC)
 - 資訊系統內的資料物件名稱(具有特定概念的資料集)
 - 例：Person. Detail; Address. Detail; Contract. Detail; Document. Detail; Organization. Detail...
- 基本核心組件(Basic Core Component; BCC)
 - 資訊系統內的資料欄位
 - 例：Person. Name; Address. Street; Contract. Price; Document. Description;
- 結合核心組件(Associate Core Component; ASCC)
 - 資料物件之間的關連概念
 - 例：Person. Resident. Address; Contract. Reference. Document;

核心組件的組成(2)

- 加入全景(context)的核心組件
- 聚合業務資訊個體(Aggregate Business Information Entity; ABIE)
 - 例：Customer. Detail; Citizen. Detail; TWAddress. Detail
- 基本業務資訊個體(Basic Business Information Entity ; BBIE)
 - 例：Customer. Name; Citizen. Name
- 結合業務資訊個體(Associate Business Information Entity ; ASBIE)
 - 例：Customer. Office. TWAddress
- 註：CC不考慮商業使用背景（context），所以它是context-free，並非使用於實務的交易協同（business collaboration）中，而BIE因具有明確之商業使用背景，故能用於實際交易中的資訊交換

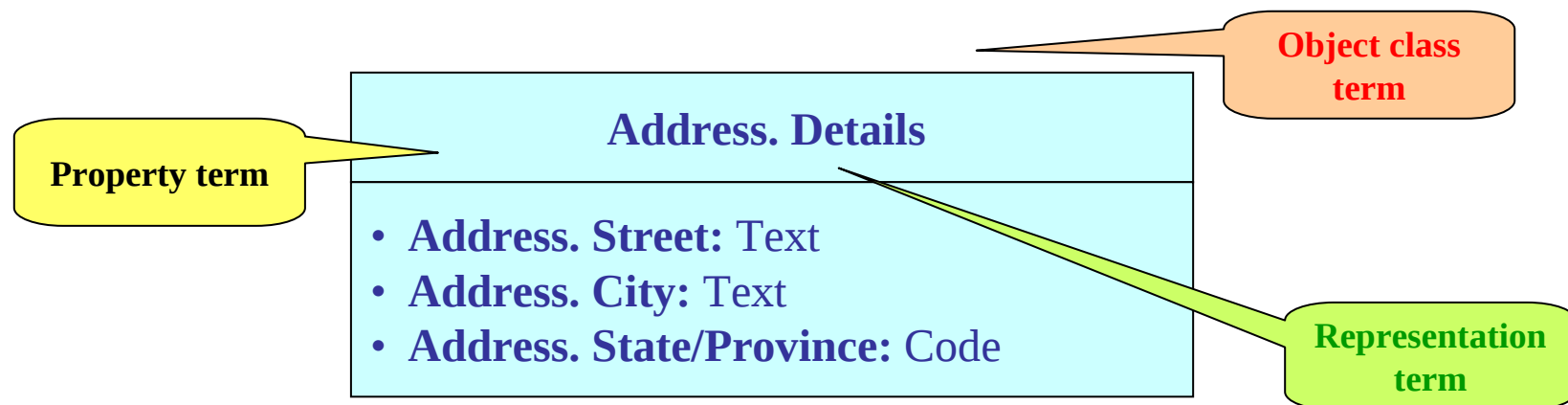
電子商務系統採用核心組件

- B2B電子商務系統採用核心組件
 - Buyer模組使用Person.Details建立Salesman.Details
 - Seller模組使用Person.Details建立Customer.Details
- Buyer模組和Seller模組即可自然互通資料



核心組件的格式

- 每一個核心組件的項目名稱有3個部分
 - 物件類別(Object Class)–如地址(address)或人(Person)
 - 屬性用語(Property Term)–如街道(Street)或名稱 (Name)
 - 表示用語(Representation Term)–如編碼(Code)或文字(text)
- 格式：注意空一格
 - 物件類別. 性質. 表示(Object Class. Property. Representation)
 - 地址. 街道. 文字(Address. Street. Text)



核心組件的命名規則

- 用以描述CC及BIE之字典項目名稱(dictionary entry name)須為唯一
- 字典項目名稱須以英文命名，其拼寫方式最好取自牛津英文字典
- 字典項目名稱須明確、簡潔
- 除非有觀念表達上之必要，否則字典項目名稱應以單數形式表示
- 字典項目名稱僅能以字母組成，構成之字詞可為動詞、名詞或形容詞
- 字典項目名稱可用縮寫字，然須加解釋描述
- 字典項目名稱如由一個以上之字詞構成，則每一字詞間須留間隔，每一字詞之首字母應為大寫

Context Classification Schema

- 八大類：使用於ABIE

Context category	Description	Example
Business Process	The type of business process	Ordering/Delivery
Product Classification	The type of products that the collaboration is about	Parts /Consumer Goods
Industry Classification	The type of industry in which the collaboration takes place	Aerospace /Fast Moving Consumer Goods (FmCG)
Geopolitical	The location of the partners	International/Europe
Official constraints	The legislation that applies	US law / EU law
Business Process Role	The role the partners play in the process	Buyer / Seller
Supporting Role	Roles of relevant parties outside the collaboration	Shipping Agent
System Capabilities	Specific systemrequirements	EAN.UCC System /SAP/Intuit

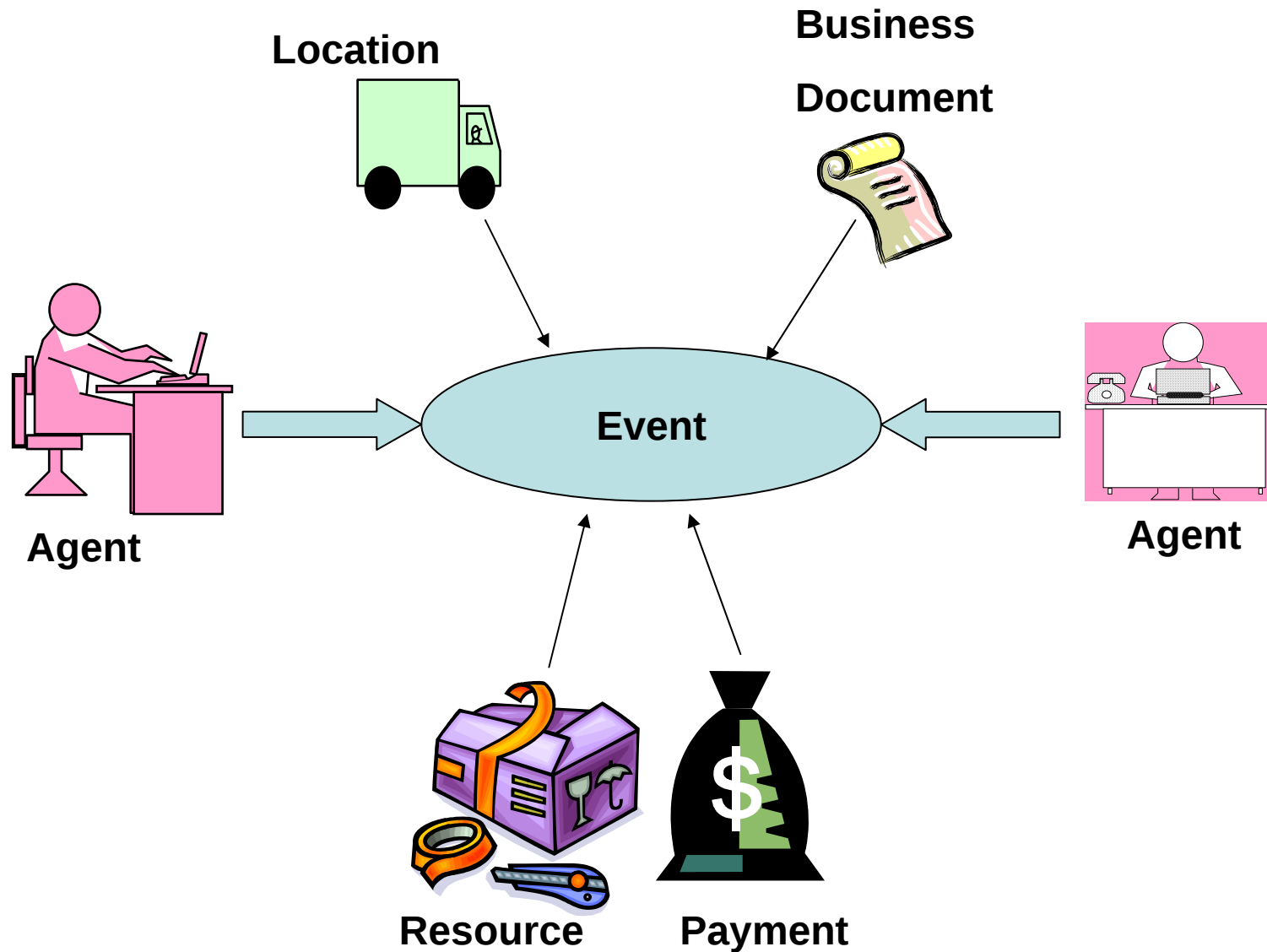
電子業務延伸標示語言－ 核心組件館(CCL)

- 本標準收集了目前UN/CEFACT通過的核心組件內容
- 第一版為CCL 1.0 ，在2006年5月通過(CCL. 06A) 的版本
 - － 共收錄49個聚合核心組件
- 第二版為CCL 1.0 ，在2008年5月通過(CCL. 08A) 的版本
 - － 共收錄188個聚合核心組件

本標準的難題

- CCL和CCTS的性質不同
 - UN/CEFACT公佈的CCL格式為Excel表單，已經有對應的UML物件圖、XML Schema格式
- UN/CEFACT每年公佈兩次CCL修訂版
 - 目前有七個版本：06A, 06B, 07A, 07B, 08A, 08B, 09A
 - 國家標準的訂定速度跟不上國際標準改版速度
- CCL標準適合用內容儲存庫來查詢和管理
 - ICG組訂定UN/CEFACT Registry標準
- 台灣的CNS國家標準只有一種文件格式

UN/CEFACT CCL訂定- By REA Model



Approved CC: CCL 1.0

(2005/10公佈)

REA Classification	Primary Information Component	Secondary Information Component	General Information Component
Agent	Party Person Organization	Communication Contact Registration Business Profile Authorization Work Capability Qualification Staff Technical Capability	Status Preference Calcuration Period Range Condition Metrics Examination Result 共49個ACC
Resource	Product Project Service	Dimension Completed Work Construction Type Package	
Event	Event Contract Process	Guarantee Penalty Trade Terms	
Location	Address Location Geographical Coordinate	Country Country Sub-Division	
Payment	Payment Price Tax	Account Card Currency Exchange Tax Category Payment Means Payment Terms Monetary Adjustment	
Business Document	Document		

CCL的Excel表單

	A	B	C	D	E	F	G	H
	Action	Unique ID	Dictionary Entry Name (DEN)	ACC/ BCC/ ASCC		Library Note	Object Class Term Qualifier(s)	Object Class
1					Definition			
2								
3				ACC	Aggregate Core Component			
4				BCC	Basic Core Component contained within the ACC			
5				ASCC	Associated (Aggregate) Core Component, associated with the ACC			
6				ABIE	Aggregate Business Information Entity			
7				BBIE	Basic Business Information Entity contained within the ABIE			
8				ASBIE	Associated (Aggregate) Business Information Entity, associated with the ABIE			
9		UN00001267	Accounting Account. Details	ACC	A specific account for recording debits and credits to general accounting, cost accounting or budget accounting			Accounting Account
10		UN00001268	Accounting Account. Identification. Identifier	BCC	The unique identifier for this accounting			Accounting Account
11		UN00001269	Accounting Account. Set Trigger. Code	BCC	A code specifying a set trigger for the accounting account to be used in response to a specific event or set of events.			Accounting Account
12		UN00001270	Accounting Account. Type. Code	BCC	The code specifying the type of accounting account such as general(main), secondary, cost accounting, budget account.			Accounting Account
13		UN00001271	Accounting Account. Amount Type. Code	BCC	The code specifying the amount type for a specific accounting account.			Accounting Account
14		UN00000010	Address. Details	ACC	The location at which a particular organization or person may be found or			Address
15		UN00000011	Address. Identification. Identifier	BCC	A unique identifier for this address.			Address
16		UN00000012	Address. Format. Code	BCC	A code specifying the format of this address.			Address
17		UN00000014	Address. Postcode. Code	BCC	A code specifying the postcode of the address.			Address
		UN00000022	Address. Post Office Box. Text	BCC	The unique identifier assigned to text of a			Address

Allowance Charge. Details

(折扣收費、明細)

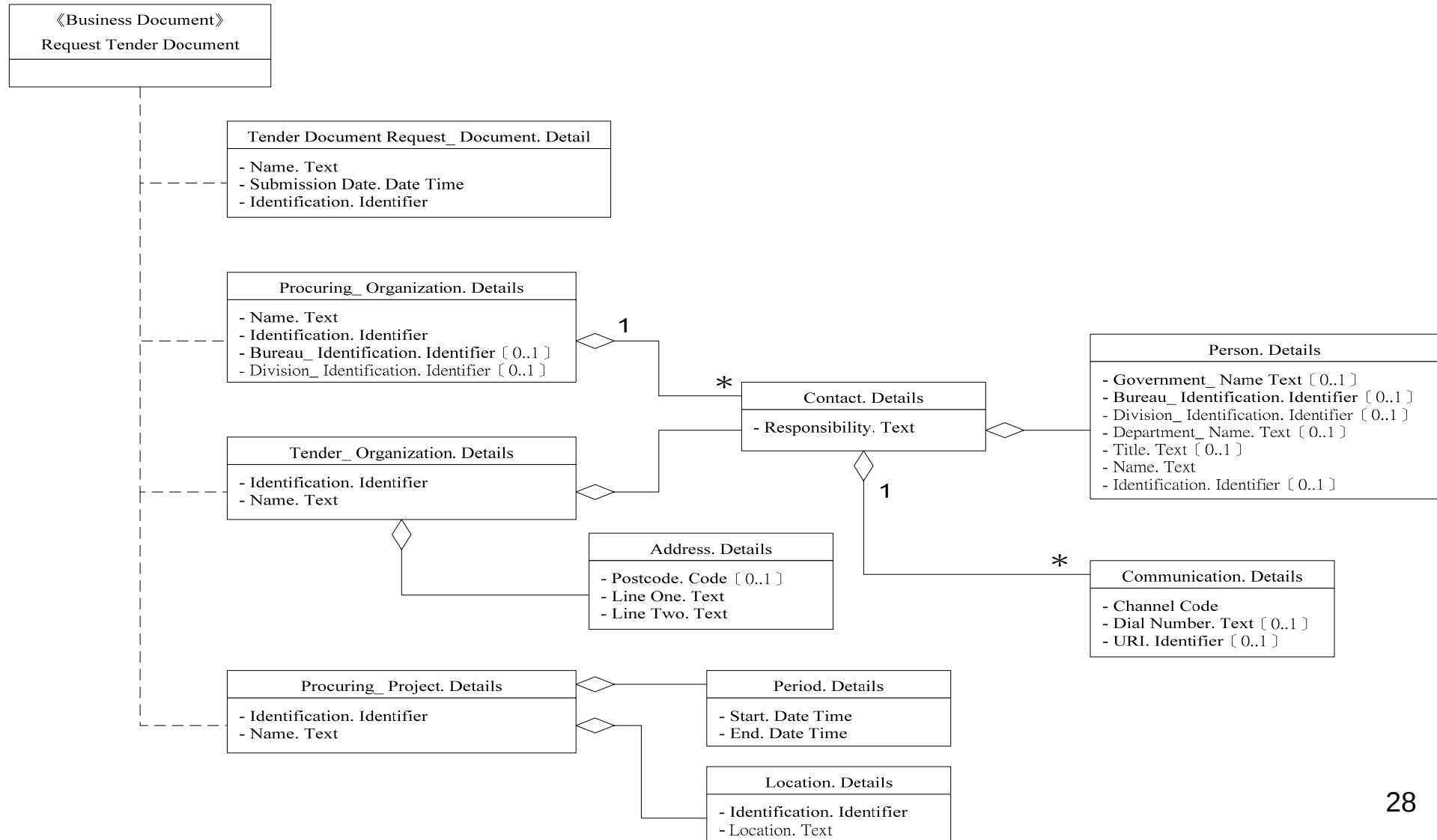
- BCC
 - Allowance Charge. Description. Text(折扣收費、描述. 文字)
 - Allowance Charge. Calculation. Percent(折扣收費、.計算. 百分比)
 - Allowance Charge. Reason. Code(折扣收費、原因. 碼)
 - Allowance Charge. Basis. Amount(折扣收費、基礎. 金額)
 - Allowance Charge. Basis. Quantity(折扣收費、基礎. 數量)
 - Allowance Charge. Calculation. Numeric(折扣收費、計算. 數值)
 - Allowance Charge. Applied. Date Time(折扣收費、應用. 日期時間)
 - Allowance Charge. Actual. Amount(折扣收費、實際. 金額)
 - Allowance Charge. Charge. Indicator(折扣收費、收費、指示符)
 - Allowance Charge. Sequence. Numeric(折扣收費、序列. 數值)
 - Allowance Charge. Prepaid. Indicator(折扣收費、預付、指示符)
- ASCC
 - Allowance Charge. Actual. Currency Exchange(折扣收費、實際、貨幣兌換)
 - Allowance Charge. Category. Tax(折扣收費. 種類. 稅金)
 - Allowance Charge. Identified. Payment Means(折扣收費、確認、付款方式)
 - Allowance Charge. Validity. Period(折扣收費、效力. 期間)

Organization. Details(組織. 明細)

- BCC
 - Organization. Business Type. Code(組織. 業務型式. 碼)
 - Organization. Legal Classification. Code(組織. 法定分類. 碼)
 - Organization. Tax Registration. Identifier(組織. 稅金註冊. 識別符)
 - Organization. Name. Text(組織. 名稱. 文字)
 - Organization. Identification. Identifier(組織. 識別. 識別符)
 - Organization. Description. Text(組織. 描述. 文字)
 - Organization. District. Identifier(組織. 行政區. 識別符)
 - Organization. Authorized. Registration(組織. 授權. 註冊)
 - Organization. Primary. Contact(組織. 主要. 聯繫)
- ASCC
 - Organization. Subordinate. Organization(組織. 從屬. 組織)
 - Organization. Postal. Address(組織. 郵政. 地址)
 - Organization. Physical. Location(組織. 具體. 位置)

核心組件應用範例

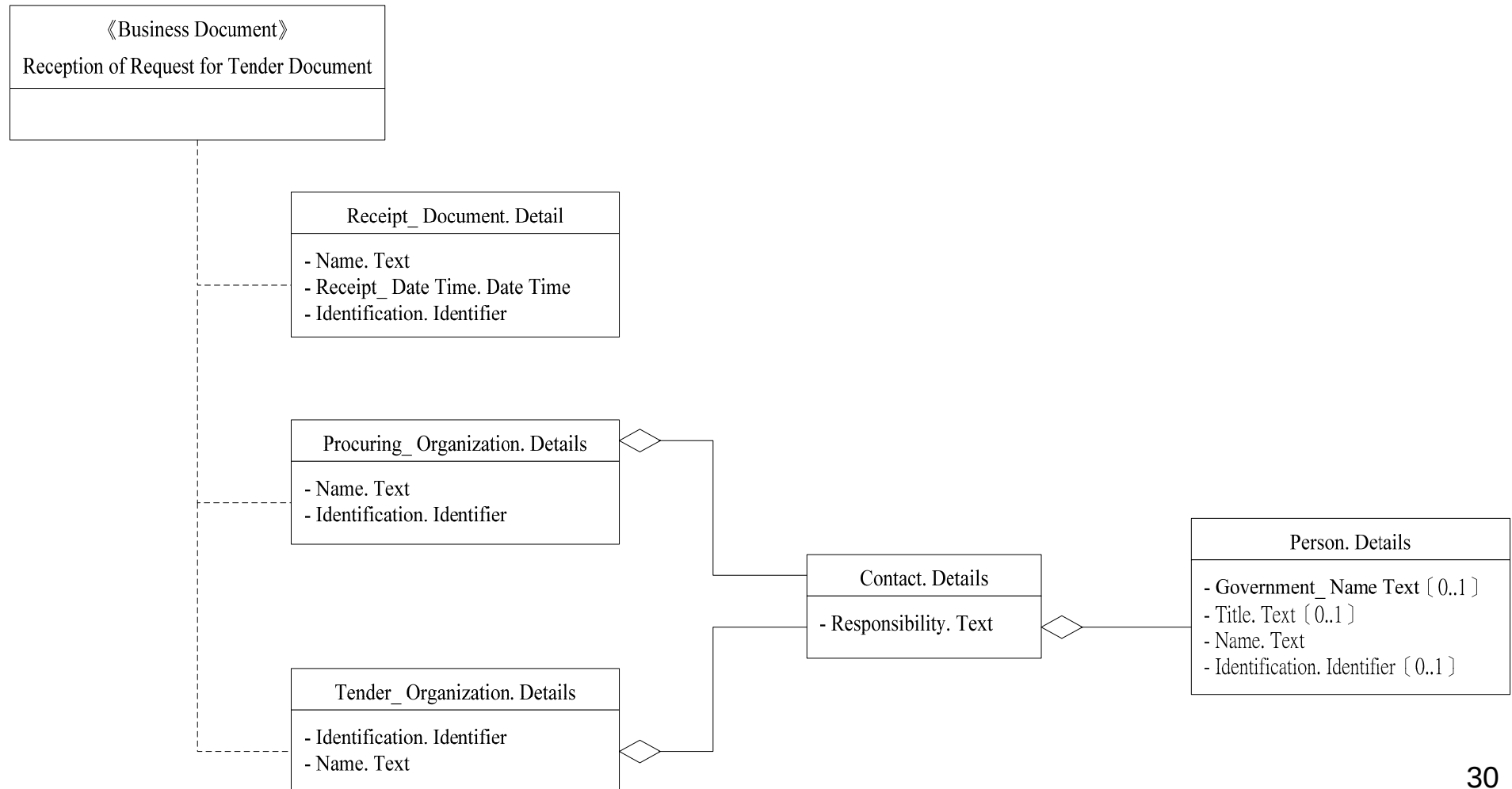
Request for Tender Document



Request for Tender Document

- 構成業務文件資訊內容的主要物件有四個 ABIE：
 - Tender Document Request_ **Document**. Detail
 - Procuring_ **Organization**. Details
 - Tender_ **Organization**. Details
 - Procuring_ **Project**. Details

Reception of Request for Tender Document



Reception of Request for Tender Document

- 構成業務文件資訊內容的主要物件有三個 ABIE
 - Receipt_ **Document**. Detail
 - Procuring_ **Organization**. Details
 - Tender_ **Organization**. Details

核心組件分類明細

- TBG 1 Supply Chain & e-Procurement
 - Trade Agreement(貿易協定), Trade Delivery(貿易交貨)
- TBG 3 Transportation & Logistics
 - Dangerous Goods(危險品), Shipping Marks(嚟頭) ...
- TBG 4 Customs
 - Regulated Goods(管制物品)
- TBG 5 Finance
 - Cheque(支票), Financial Account(金融帳戶)
- TBG 6 Architecture & Construction
 - Assignment(任務), Building(建物)

核心組件分類明細

- TBG 8 Insurance
 - Cargo Insurance(貨物保險), Coverage Limit(承保範圍限制)
- TBG 12 Accounting & Audit
 - Accounting Account(會計帳戶), Accounting Entry(會計分錄)
- TBG 18 Agriculture
 - Agricultural Process(農業流程), Crop Input (作物輸入)
- TBG 19 e-Government
 - Address(地址), Geographical Coordinate(地理座標)
- General
 - Document(文件), Context(上下文)

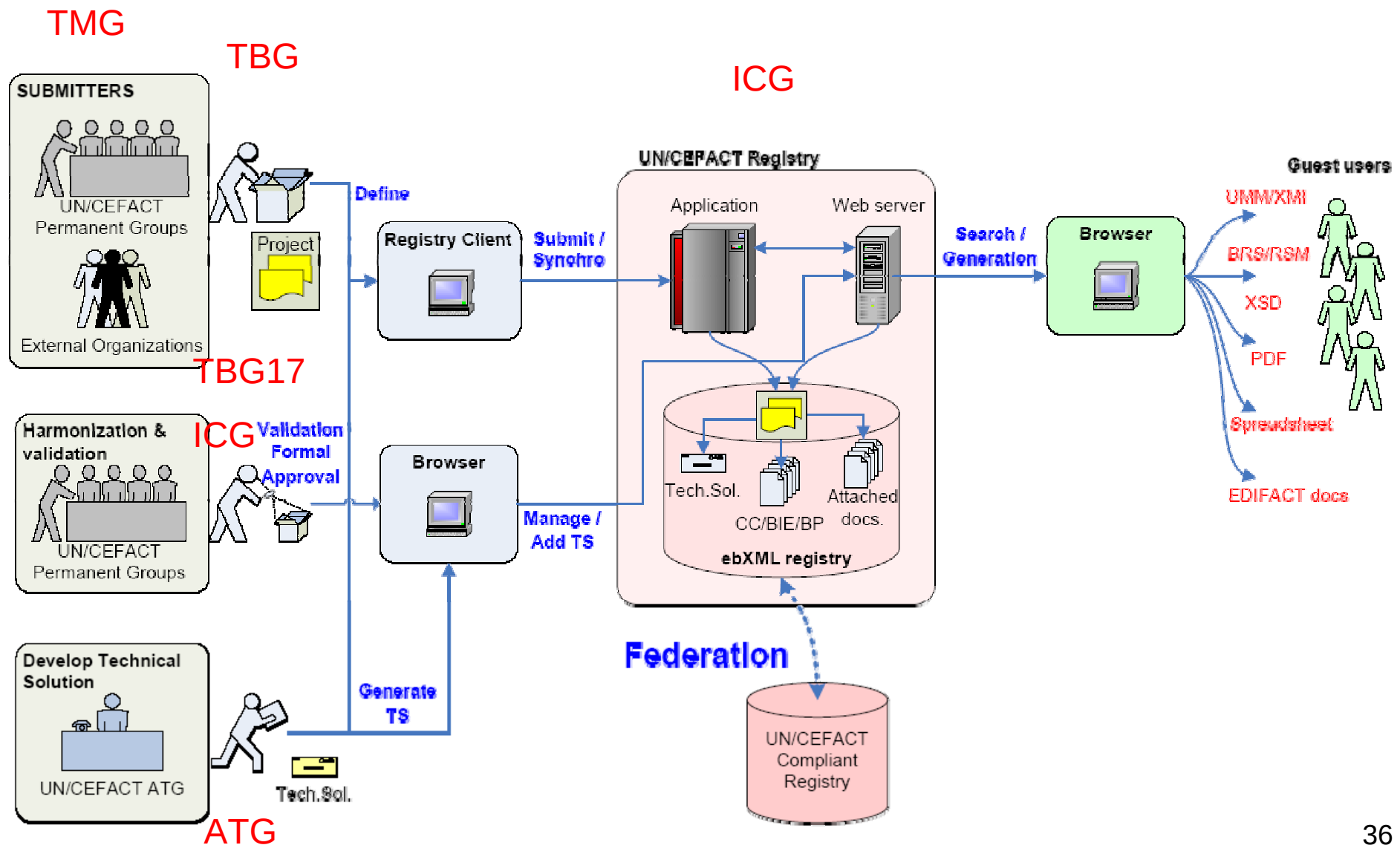
核心組件未來發展

- CCL的編修
 - 配合UN/CEFACT Forum每年公佈兩次
- CCL的儲存和出版
 - UN/CEFACT 註冊儲存庫建置
 - CCL和BRS在各國和各領域的聯合作業
- CCL的使用
 - 使用於各領域的國際標準(WCO, SWIFT, GS1...)
 - 系統分析師發展電子商務系統或各種資訊系統時建模使用

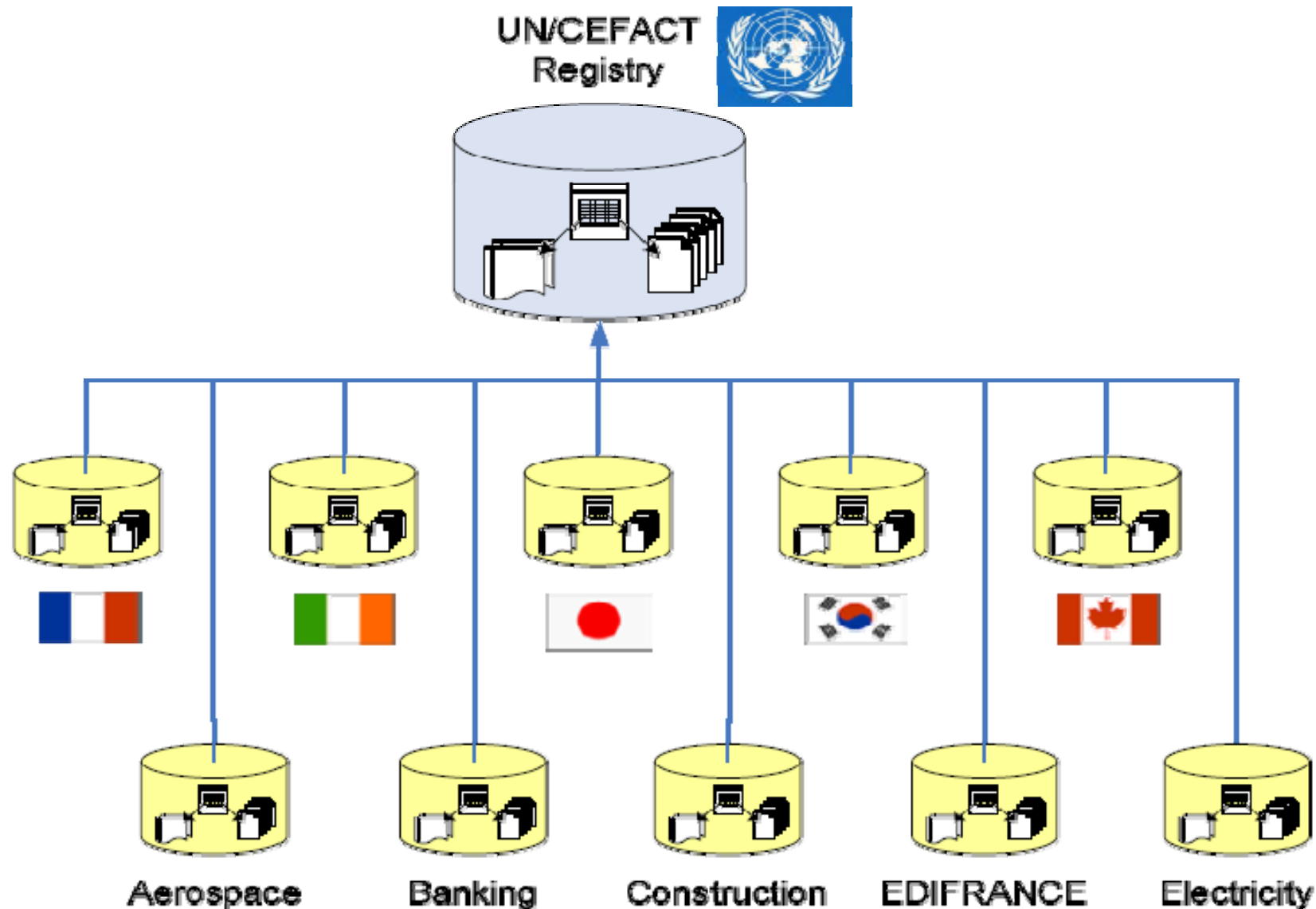
CCL的編修

- 核心組件庫(CCL)在2005年十月公佈後，已經陸續有CCL.06A、CCL.06B、CCL.07A、CCL.07B、CCL.08A、CCL.08B、CCL.09A、共七個版本。
- 標準局中譯版本為CCL.06A、CCL.08A(只有ACC)
 - 在CCL.06A中有49個ACC；
 - 在CCL.06B中有81個ACC和146個ABIE，以及19個QDT；
 - 在CCL.07A中有96個ACC和183個ABIE，以及35個QDT；
 - 在CCL.07B中有105個ACC和230個ABIE，以及35個QDT。
 - 在CCL.08A中有188個ACC和230個ABIE，以及35個QDT。
 - 在CCL.08B中有198個ACC和?個ABIE，以及?個QDT，以及?個uDT。
 - 在CCL.09A中有319個ACC和?個ABIE，以及?個QDT，以及?個uDT。

UN/CEFACT 註冊儲存庫建置



CCL和BRS在各國和各領域 註冊儲存庫的聯合作業



系統分析師建模使用

- UML建模工具軟體將UN/CEFACT訂定的CCL和BRS做線上整合，提供系統分析師和系統設計師在開發電子商務系統時下載使用

結語

- CCL核心組件館已經獲得各領域國際標準組織的認同，並積極導入其新版本的標準中
- 推動電子商務系統模組互通(Inter-operatability)和重複使用(re-usability)是一條漫長的道路，而核心組件館是其捷徑