



United Nations Economic Commission for Europe  
United Nations Centre for Trade Facilitation and Electronic Business  
**UN/CEFACT**

# **Technical Frameworks Some Strategic Technical Topics and Alternative Ways Forward**

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- The purpose is to take a detailed look at what UN/CEFACT produces, and what it should produce given available resources
- Four options identified
  - Current approach
  - Produce only the Core Components plus Technical Specifications
  - Second approach, plus the ability to produce outputs and register outside conformant solutions
  - Collaborative approaches
- In all approaches, UN/CEFACT will remain the maintenance authority for EDIFACT



## Option 1: Current Approach

		CEFACT Provides Specifications	CEFACT Produces	Others Produce	Conformance Statements Follow CEFACT Guidelines
Types	<b>Core Data Types</b>	DTC	Data Type Catalogue		
Semantics	<b>Core Components</b>	CCTS/UPCC	CC Library		
	<b>Context</b>	UCM	Context Graph	Context Graphs	
	<b>Business Information Entities (including BDTs)</b>	CCTS/UPCC+UCM (UMM ,BRS, RSM)	BIE Library	BIE Library(s)	
Business Processes	<b>Business Processes</b>	UMM, UCM, UPCC, BRS Template	BRSES/Business Process Library	BRSES/Business Process Libraries	
Structure	<b>Document Models</b>	Message Assembly Template/Specification?	Message Library	Message Library(s)	
Syntax	<b>Formats</b>	NDR	Schemas	Schemas	
Implementation	<b>Implementation Guidelines</b>	Implementation Guideline Specification (profiling and variance)			



- **Advantages:**

- Familiarity
- Standard is global, neutral, and coherent overall
- Complete solution produced
- Well-documented processes
- High level of interoperability

- **Disadvantages:**

- Confusion and competition in the marketplace about standards
- CC and BIE libraries are too tightly coupled
- Does not allow us to acknowledge work done by outside parties using CEFACT methodologies
- Large buy-in scares off some potential participants and users
- Relatively resource intensive
- Does not address implementation needs



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## Option 2: CCs Only

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**Option 2: CCs Only**

- **Advantages:**

- Low resource requirements
- Highly focused organization

- **Disadvantages:**

- Does not address implementation needs
- Does not satisfy all user demands identified in the gap analysis, such as UN/CEFACT XML schema
- Usability of methodologies comes into question
- Possible multiple competing solutions based on UN/CEFACT core component library





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Option 3: Registration of  
Conformant Developments

- Five different options
- UN/CEFACT can still produce an output even if outside organizations also do so
- Regardless of option, Core Components and BIE qualifier terms should be centrally managed
- Could be evolved into Option 4 over time



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**Option 3: Registration of  
Conformant Developments**

- **Advantages:**

- Low resource requirements
- Highly focused organization
- Allows the user community to tailor the syntactic implementation based on their individual needs
- Provides great flexibility
- Allow us to acknowledge work done by outside parties using CEFACT methodologies
- Leverages competencies of outside groups and allows more efficient use of CEFACT resources





- **Disadvantages:**

- May not address implementation needs
- May not satisfy all user demands identified in the gap analysis, such as CEFACT XML schema
- May make collaboration with CEFACT significantly less attractive, since CEFACT may only produce a small part of the solution
- Possible multiple competing solutions based on CEFACT core component library
- Potential lack of interoperability at the syntactic level



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## Option 3a: Essential

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	<b>Business Information Entities (including BDTs)</b>	CCTS/UPCC+UCM (UMM ,BRS, RSM)	BIE Library	BIE Library(s)	
Business Processes	<b>Business Processes</b>	UMM, UCM, UPCC, BRS Template	BRSES/Business Process Library	BRSES/Business Process Libraries	
Structure	<b>Document Models</b>	Message Assembly Template/Specification?	Message Library	Message Library(s)	
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Implementation	<b>Implementation Guidelines</b>	Implementation Guideline Specification (profiling and variance)			





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Business Processes	<b>Business Processes</b>	UMM, UCM, UPCC, BRS Template	BRSES/Business Process Library	BRSES/Business Process Libraries	
Structure	<b>Document Models</b>	Message Assembly Template/Specification?	Message Library	Message Library(s)	
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Option 4: Collaborative  
Production Approaches

- Three different approaches
- Would potentially work similar to an open source model
- All solutions would be stored in a UN/CEFACT maintained registry



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**Option 4: Collaborative  
Production Approaches**

- **Advantages:**

- Complete solution produced
- Allow us to acknowledge work done by outside parties using UN/CEFACT methodologies
- Leverages competencies of outside groups and allows more efficient use of UN/CEFACT resources
- Addresses implementation needs (provided a certain level of coordination exists)
- Encourages reuse
- Reduces buy-in costs



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**Option 4: Collaborative  
Production Approaches**

- **Disadvantages:**

- Possible coherence and lack of interoperability issues, if not carefully managed, particularly with externally developed BIE libraries (different property term qualifiers)
- Can create duplication
- Produces additional competition and confusion
- Potentially requires extensive agreements with outside entities
- Potentially large resource requirements to implement any buy back of external deliverables



## Option 4a: Collaborative Products

		CEFACT Provides Specifications	CEFACT Produces	Others Produce	Conformance Statements Follow CEFACT Guidelines
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Semantics	<b>Core Components</b>	CCTS/UPCC	CC Library		
	<b>Context</b>	UCM	Context Graph	Context Graphs	
	<b>Business Information Entities (including BDTs)</b>	CCTS/UPCC+UCM (UMM ,BRS, RSM)	BIE Library	BIE Library(s)	
Business Processes	<b>Business Processes</b>	UMM, UCM, UPCC, BRS Template	BRSES/Business Process Library	BRSES/Business Process Libraries	
Structure	<b>Document Models</b>	Message Assembly Template/Specification?	Message Library	Message Library(s)	
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Implementation	<b>Implementation Guidelines</b>	Implementation Guideline Specification (profiling and variance)			



## Option 4b: Collaborative BIEs

		CEFACT Provides Specifications	CEFACT Produces	Others Produce	Conformance Statements Follow CEFACT Guidelines
Types	<b>Core Data Types</b>	DTC	Data Type Catalogue		
Semantics	<b>Core Components</b>	CCTS/UPCC	CC Library		
	<b>Context</b>	UCM	Context Graph	Context Graphs	
	<b>Business Information Entities (including BDTs)</b>	CCTS/UPCC+UCM (UMM ,BRS, RSM)	BIE Library	BIE Library(s)	
Business Processes	<b>Business Processes</b>	UMM, UCM, UPCC, BRS Template	BRSES/Business Process Library	BRSES/Business Process Libraries	
Structure	<b>Document Models</b>	Message Assembly Template/Specification?	Message Library	Message Library(s)	
Syntax	<b>Formats</b>	NDR	Schemas	Schemas	
Implementation	<b>Implementation Guidelines</b>	Implementation Guideline Specification (profiling and variance)			





## Option 4c: Collaborative Messages

		CEFACT Provides Specifications	CEFACT Produces	Others Produce	Conformance Statements Follow CEFACT Guidelines
Types	<b>Core Data Types</b>	DTC	Data Type Catalogue		
Semantics	<b>Core Components</b>	CCTS/UPCC	CC Library		
	<b>Context</b>	UCM	Context Graph	Context Graphs	
	<b>Business Information Entities (including BDTs)</b>	CCTS/UPCC+UCM (UMM ,BRS, RSM)	BIE Library	BIE Library(s)	
Business Processes	<b>Business Processes</b>	UMM, UCM, UPCC, BRS Template	BRSES/Business Process Library	BRSES/Business Process Libraries	
Structure	<b>Document Models</b>	Message Assembly Template/Specification?	Message Library	Message Library(s)	
Syntax	<b>Formats</b>	NDR	Schemas	Schemas	
Implementation	<b>Implementation Guidelines</b>	Implementation Guideline Specification (profiling and variance)			





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## Self Conformance Checklist

		CEFACT Provides Specifications	Claims for Self Conformance
Types	<b>Core Data Types</b>	DTC	<input type="checkbox"/> Uses only types contained in the DTC <input type="checkbox"/> Complies with rules contained in the DTC
Semantics	<b>Core Components</b>	CCTS/UPCC	<input type="checkbox"/> Applies CCTS Naming Rules <input type="checkbox"/> Fits CCTS metamodel
	<b>Context</b>	UCM	<input type="checkbox"/> Conforms with UCM methodology <input type="checkbox"/> Context graph is compatible with CEFACT graph
	<b>Business Information Entities (including BDTs)</b>	CCTS/UPCC+UCM (UMM ,BRS, RSM)	<input type="checkbox"/> Fits CCTS metamodel <input type="checkbox"/> Uses Core Component Library <input type="checkbox"/> Fits Context metamodel <input type="checkbox"/> Uses UN/ECE code lists
Business Processes	<b>Business Processes</b>	UMM, UCM, UPCC, BRS Template	<input type="checkbox"/> Contains the same information as the CEFACT BRS template <input type="checkbox"/> Conforms with UMM <input type="checkbox"/> Conforms with UCM <input type="checkbox"/> Conforms with UPCC
Structure	<b>Document Models</b>	Message Assembly Template/Specification?	<input type="checkbox"/> Conforms to Common Assembly Structure <input type="checkbox"/> Supported by descriptions of business process/context of use
Syntax	<b>Formats</b>	NDR	<input type="checkbox"/> Conforms with NDR
Implementation	<b>Implementation Guidelines</b>	Implementation Guideline Specification (profiling and variance)	<input type="checkbox"/> XML Schema validation <input type="checkbox"/> Uses valid code list values



Claims for Self Conformance	OASIS Universal Business Language (UBL)	OAGIS (Open Application Group Integration Specification) 9.x	OAGIS (Open Application Group Integration Specification) 10.x
<input type="checkbox"/> Uses only types contained in the DTC	Yes (CCTS 2.01 UDT)	Yes (CCTS 2.01 UDT)	Yes (CCTS 3.0, DTC 3.0)
<input type="checkbox"/> Complies with rules contained in the DTC	Yes (CCTS 2.01 UDT)	Yes (CCTS 2.01 UDT)	Yes (CCTS 3.0, DTC 3.0)
<input type="checkbox"/> Applies CCTS Naming Rules	Yes	Yes	Yes
<input type="checkbox"/> Fits CCTS metamodel	Yes	Yes	Yes
<input type="checkbox"/> Conforms with UCM methodology	No	No	Yes
<input type="checkbox"/> Context graph is compatible with CEFACT graph	No	No	Yes
<input type="checkbox"/> Fits CCTS metamodel	Yes	Yes	Yes
<input type="checkbox"/> Uses Core Component Library	No (70% aligned)	Partially	Yes
<input type="checkbox"/> Fits Context metamodel	No	No	Yes
<input type="checkbox"/> Uses UN/ECE code lists	Yes	Yes	Yes
<input type="checkbox"/> Contains the same information as the CEFACT BRS template	Yes	No	Yes
<input type="checkbox"/> Conforms with UMM	No	No	Yes
<input type="checkbox"/> Conforms with UCM	No	No	Yes
<input type="checkbox"/> Conforms with UPCC	No	No	Yes
<input type="checkbox"/> Conforms to Common Assembly Structure	No	Yes	Yes
<input type="checkbox"/> Supported by descriptions of business process/context of use	Yes	Yes	Yes
<input type="checkbox"/> XML Design validation	No (uses UBL NDRs)	Yes	Yes
<input type="checkbox"/> XML Schema validation	No (uses UBL schemas)	Yes	Yes
<input type="checkbox"/> Uses valid code list values	No (uses genericode)	Yes	Yes