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White Paper
UN/CEFACT CCL Utilization in Japan

Business Infra. Guide Book

SIPS

UN/CEFACT Japan Committee
Supply Chain Information Platform Study Group

Introduction

The Japan Electronic Data Interchange Council (hereinafter referred to as JEDIC) implemented the business infrastructure project (for creating the framework for freely exchanging and sharing information beyond corporations and industries) from FY2009 to FY2011, and formulated the "Cross-Industry EDI Specifications V1.1." This time, with the expansion of target fields and target business processes from the original specifications, the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) Japan Committee Supply Chain Information Platform Study Group (hereinafter referred to as SIPS) upgraded the specifications and complied this guidebook in order to explain the new specifications.

In the business infrastructure project of JEDIC, the "Cross-Industry EDI Specifications V1.1" was formulated as a tool for realizing "Cross Border" "Cross Industry" and "Soundness" with the aim to create a "desirable industry-standard EDI" that can serve as a business infrastructure.

Japanese manufacturers, the Cross-Industry EDI Specifications V1.1 can be used as a reference for securing the soundness of order-receiving companies including small and medium-sized companies that conduct EDI (Electronic Data Interchange) trade with several companies in the industry. Moreover, based on the results of four demonstration in the business infrastructure project, the Cross-Industry EDI Specifications V1.1 defined inter-enterprise business processes (business coordination) and information entities with regard to firm orders in three business categories (electrical and electronic, automobile, and chemical) and related trade among small and medium-sized enterprises.

In FY2012, the SIPS conducted a survey on Japanese enterprises that advanced into overseas including small and medium-sized enterprises. Also, with the expectation of disseminating the Cross-Industry EDI Specifications in Asia, the SIPS extended the scope of the Cross-Industry EDI Specifications V1.1 (that targets the order process (order/order response) as the business process) by adding the common information entities and basic messages including those for the shipping advice process and the billing process. The new specifications are called the "Cross-Industry EDI Specifications V2.0." As the target business fields, the SIPS also formulated the messages for small and medium-sized enterprises that conduct local trade in overseas as well as the messages for local governments that perform the business operations of purchasing general consumables. Moreover, the SIPS created the framework of cross-Industry data Library in order to extend and disseminate such common information entities and basic messages and business messages in Japan and overseas.

The Business Infrastructure Guidebook V2.0 consists of the following chapters.

Chapter I: Business Infrastructure Guidebook V2.0 Instruction Manual
Chapter II: Cross-Industry EDI Specifications V2.0, Business Coordination Definition
Chapter III: Cross-Industry Data Library
Chapter IV: Cross-Industry EDI Basic Message Library
Chapter V: Small and Medium-sized Enterprises Common EDI Specifications V1.0
Chapter VI: Local Government Consumables Purchase EDI Specifications V1.0

We are pleased if this guidebook is used as a reference for doing business by persons in charge in industry groups that issue industry-standard EDI, user corporations, IT vendors, and national and local administrative organizations.

Finally, we express our gratitude to those who provided guidance and cooperation in various task forces of SIPS.

March 2013

UN/CEFACT, Japan Committee
Supply Chain Information Platform Study Group

*This guidebook can be freely copied and reused free of charge.

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Chapter I: Business Infrastructure Guidebook V2.0 Instruction Manual

This instruction manual clarifies the purposes and applicable scopes of the "Business Infrastructure Guidebook V2.0," which was open to the public by the SIPS, and how to apply the technical specifications and frameworks contained in the guidebook to EDI user-corporations and EDI solution-providing IT vendors when they refer to the guidebook.

The Business Infrastructure Guidebook V2.0 consists of the documents in the following six chapters.

Chapter I: Business Infrastructure Guidebook V2.0 Instruction Manual

This manual explains the purpose and scope of the "Cross-Industry EDI Specifications V2.0," which is referred across industries, and the information infrastructure framework based on the "Cross-Industry Data Library" and "Message Library."

Chapter II: Cross-Industry EDI Specifications V2.0 Business Coordination Definition

This definition documents defines the target scopes of the firm order process, shipping advice process, and billing process, business coordination requirements, use case diagrams, activity graphs, and conceptual data models, according to the style of "Business Requirements Specifications (BRS)" of UN/CEFACT.

Chapter III: Cross-Industry Data Library

This library defines the reference information entities for order, shipment, and billing in three business categories (electrical and electronics, automobile and chemical) and related trade among small and medium-sized enterprises. The meanings of the information entities are defined in Japanese used in target business categories in Japan with reference to UN/CEFACT's EDI common library (Core Component Library: hereinafter referred to as UN/CEFACT CCL) in conformity with the core component technical specifications of UN/CEFACT. The Cross-Industry Data Library is defined in the table (Attachment 1).

Chapter IV: Cross-Industry EDI Basic Message Library

The messages are defined with reference to the Cross-Industry Data Library. As the minimum basic messages that are expected to be referred to across industries, this library describes the data models and message definition tables of order message, order response message, dispatch advice message, and invoice message.

Chapter V: Small and Medium-sized Enterprises Common EDI Specifications V1.0

The specifications v1.0 describes the definition of the processes (firm order process, shipping advice process, and billing process) that are set for using EDI in place of paper document and FAX by small and medium-sized enterprises. To implement the specifications, this

chapter also describes the small and medium-sized enterprises common EDI "Basic specifications" message library and the small and medium-sized enterprises common EDI "Small and medium-sized manufacturing industry specifications" message library. These message libraries are based on the Cross-Industry Data Library.

Chapter VI: Local Government Consumables Purchase EDI Specifications V1.0

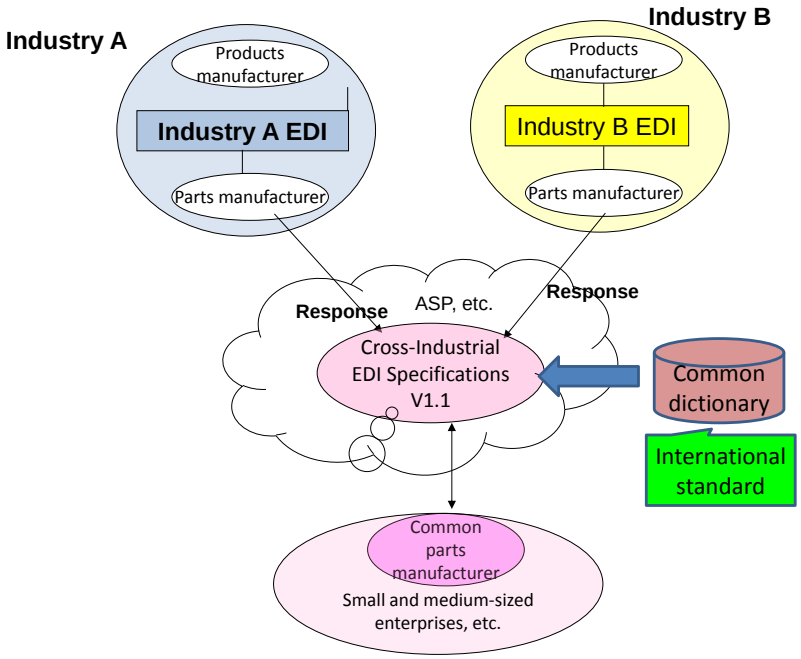
The specifications v1.0 describes the definition of the billing process for purchasing consumables by local governments. To implement the specifications, this chapter also describes the local government consumables purchase message library (delivery and invoice). This message library is based on the Cross-Industry Data Library.

1. Purpose and scope of the Cross-Industry EDI Specifications V2.0

1.1 Background and purpose

In FY2009, four demonstrations were implemented as the business infrastructure projects of the Ministry of Economy, Trade and Industry, and the Cross-Industry EDI Specifications V1.0 was experimentally formulated with reference to the information entities used in such demonstration projects.

Based on the Cross-Industry EDI Specifications V1.0, the Cross-Industry EDI Specifications V1.1 was formulated by JEDIC from FY2010 to FY2011 by compiling the references that can be commonly referred to after hearing requirements from user industries (electrical and electronics, automobile, and chemical industry). In particular, the specifications focused on providing the environment where small and medium-sized enterprises that conduct trade with several industries can easily introduce EDI. (See Fig.1-1-1).



(Explanation of the figure)

The industry A and the industry B respectively use EDI based on the standard EDI specifications of each industry. If a common parts manufacturer, which conducts trade with both the industry A and the industry B, uses the Cross-Industry EDI Specifications V1.1, it can use the standard EDI specifications of the two industries via conversion services such as ASP that mediate networks. Moreover, the information entities of the Cross-Industry EDI Specifications V1.1 correspond to the information entities of the common Library that conforms to the international standard.

Fig. 1-1-1 Positioning of the Cross-Industry EDI Specifications

The meanings of the "Cross Industry" "Soundness" and "Cross Border" in the Cross-Industry EDI Specifications V1.1 are interpreted as follows.

"Cross Industry"
A corporation can reduce the labor required for dealing with the EDI that conforms to the standards of several industries.

"Soundness"
Corporations and departments that have been delayed in introducing IT including those of small and medium-sized enterprises are not forced to shoulder excessive burden by their business partners.

"Cross Border"
The definition of information entities is based on UN/CEFACT CCL.

In FY2012, the SIPS promoted the implementation of cross-Industry EDI specifications in Japan and formulated the Cross-Industry EDI Specifications V2.0 by upgrading the specifications in consideration of the requirements from Japanese-affiliated companies in Bangkok, Thailand based on the on-site investigation.

When upgrading the specifications, the following points are considered.

(1) The Cross-Industry EDI Specifications V1.1 was issued by JEDIC with the agreement of participating industries (electrical and electronics, automobile, chemical, and small and medium-sized enterprises), and the contents will not be corrected in principle. However, corrections should be made as to errors in editing and adjustment of inconsistent parts with UN/CEFACT CCL.

(2) A trade normally concludes in a combination of order, shipment, and billing. In addition to the order and order response of the Specifications V1.1, the shipment operation process and the billing operation process are defined and necessary information entities and messages are added to create the Specifications V2.0.

(3) Based on the results of overseas on-site survey, the information entities required for overseas local EDI (expected to be used among Japanese-affiliated companies in Bangkok) are added.

(4) The mechanism (framework) that consists of both the specifications common among industries and the specifications specific to the industry is established and the management method based on the "Cross-Industry Data Library" and the "Message Library" is proposed. The "Cross-Industry Data Library" covers both the specifications common among industries

and the specifications specific to the industry and is a subset of UN/CEFACT CCL. The "Message Library" stores EDI messages by each business process that is defined using information entities registered in the "Cross-Industry Data Library," by specific business area.

1.2 Target trade process

As a precondition of the industry standard EDI, each industry assumes each trade process model. However, since trade process models differ among industries, there are differences of the names and usages of EDI information entities. When studying the commonality of information entities, a mutual understanding of each industry standard trade process is indispensable.

While we were studying trade processes, it became clear that the processes had patterns. If we can share these patterns, it will be effective for approximation of EDI information entities among different industries.

When sharing trade process patterns, based on trade process models of each industry, we set the "trade process class and information type" as shown in Fig.1-1-2. The commercial trade stage at the top class is authorized as the standard for the business process matrix in UN/CEFACT.

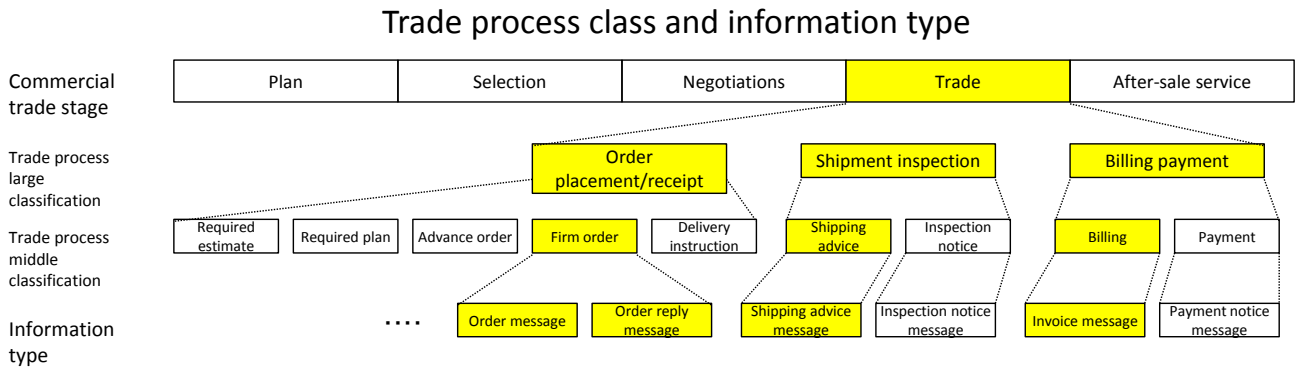


Fig.1-1-2 Trade process patterns

The large classification of trade processes at the second class shows a breakdown into detailed processes by each commercial trade stage. The figure here shows the trade stage that can be broken down into the large classification processes of order placement/receipt, shipment inspection and billing payment. It can be considered that this trade stage is common to manufacturing industries in general.

The middle classification of trade processes at the third class is a breakdown of the large classification of trade processes. From the background of past studies, it is recognized that this

middle classification level has definitions specific to each industry. This depends on the business characteristics of each industry and is difficult to commonize among manufacturing industries. Therefore, as a measure to facilitate a correspondence to the specific processes defined by each industry, we formulated standard firm order process, shipping advice process, and billing process as the "Cross-Industry EDI Specifications Business Coordination Definition." Each industry can deepen the shared understanding among industries by corresponding its specifically-determined middle classification processes to the "Cross-Industry EDI Specifications Business Coordination Definition." When considering actual application of EDI, it is recommended to approximate information entities after the parties concerned define trade processes as ones that can be shared among make industries.

The middle classification in the figure above was considered within normal trade, and, therefore, the middle classification process should be added and revised in the future if necessary.

The information type in the fourth class represents EDI messages that constitute the trade processes of middle classification. As seen in the firm order process, there is a case that consists of a dispatching message and a reply to the message (responding message), while as seen in the shipping advice process, there is a case that consists of one-way notification of information.

In the Cross-Industry EDI Specifications V1.1, the "firm order" process was defined and the corresponding information types are "order message" and "order response message".

In the Cross-Industry EDI Specifications V2.0, the "dispatch advice message" was added as the information type of the "shipping advice" process and the "invoice message" was added as the information type of the "billing" process.

1.3 Concept of formulating the Cross-Industry EDI Specifications V2.0

The Cross-Industry EDI Specifications V1.1, which was open to the public by JEDIC in March 2012, was formulated by sorting out information entities that become necessary for using cross-Industry EDI in the electrical and electronics, automobile, and chemical industry and trade among small and medium-sized enterprises and by comparing the information entities with the information entities of UN/CEFACT CCL. The Specifications V1.1 is designed to deal with trade with small and medium-sized enterprises based on specific trade forms, target products, business processes and other terms and conditions.

The Cross-Industry EDI Specifications V2.0, which was open to the public by SIPS in March 2013, encompasses the Cross-Industry EDI Specifications V1.1 and consists of cross-Industry information entities that are required for the "shipping advice" process and the "billing" process. The relevant

"shipping advice" process and "billing" process were verified as the trade among small and medium-sized enterprises and the local government's business of purchasing public consumables. However, no verification was conducted to the two processes using the requirements in other industries (electrical and electronics, automobile, and chemical industry).

1.3.1 Electrical and electronics industry (Cross-Industry EDI Specifications V1.1)

- E-commerce among corporations that trade electronic equipment, semiconductors, and electronic parts.

- As the business form, normal trade (including delivery agency service and just-in-time) is assumed

- As the business process, the firm order (individual contract application) is assumed on the conditions that a basic contract document is exchanged to use EDI and the "determination of specifications and products," "agreement of prices," and "presentation of required delivery plans" are all ensured.

- As the firm order information type of JEITA/ECALGA, 149 information entities are defined, of which 15 information entities are the essential entities. The Cross-Industry EDI Specifications V1.1 consists of the 15 essential information entities as well as "the presence or absence of complementary information file," "drawing and specification No.," and "complementary information file name" as additional information entities in order to define products with customer-specific specifications such as custom-made products.

The matters mentioned above are proposed by the Japan Electronics and Information Technology Industries Association (JEITA)/EC Center as the representative.

1.3.2 Automobile industry (Cross-Industry EDI Specifications V1.1)

- Trade of mass-produced parts between finished products manufacturers and parts manufacturers in the assembly of vehicles in the automobile industry.

- As the business processes, "firm order" is assumed.

- The target information is about 35 information entities that are transmitted to small and medium-sized manufacturers using paper, and the information was registered excluding the entities specific to the industry.

The matters mentioned above were proposed by Japan Automobile Manufacturers Association, Inc. (JAMA) as the representative.

1.3.3 Chemical industry (Cross-Industry EDI Specifications V1.1)

- The trade forms are not only direct trade but also trade via trading companies, which consist of general trading companies and specialized trading companies in various sizes. Also there are trade among chemical companies, which consists of direct trade and trade via trading companies. However, the Cross-Industry EDI Specifications V1.1, excludes trade via trading companies.

- As the target of Cross-Industry EDI Specifications V1.1, we noted the following business categories, which conduct current trade of chemical products.

  A. Industries that handle processed chemical products

     Such as paint, rubber/plastic processed goods, detergent/cosmetics, drug and photo.

  B. Industries that handle material chemical products (including other industries of a like nature)

     Such as inorganic chemical products, organic chemical products, synthetic dye, synthetic rubber, petrochemical products, synthetic resin, synthetic fiber and electronic material.

- The Cross-Industry EDI Specifications V1.1 targets only order and order confirmation.

- Regarding the selection and standard creation of EDI, the use in both sales and purchase operations is considered. However, the Cross-Industry EDI Specifications V1.1 excludes international trade.

- As the business process, EDI is regarded as inter-enterprise information interchange and the Cross-Industry EDI Specifications V1.1 considers that information interchange is established in a combination of "firm order information" and "firm order response information."

- The unit of data exchange is set not by the number of units but on the basis of total amount. Moreover, trade is conducted not by consecutive daily order placement/receipt but by inventory-basis and by the basis of one order to one case.

- A total of 77 information entities are defined in the Order Create of Cheme eStandards (ordering information), of which 40 information entities are essential items.

・ We proposed 32 information entities in the Cross-Industry EDI Specifications V1.1.

The matters mentioned above are proposed by Japan Petrochemical Industry Association/CEDI Subcommittee as the representative.

1.3.4 Trade among small and medium-sized manufacturing industries

・ The Cross-Industry EDI Specifications V1.1 was formulated by extracting common information entities from industry EDI-standard information entities set by the three business categories of manufacturing industries (electrical and electronics, automobile, and chemical), and the conformity to small and medium-sized manufacturing industries trade was verified. However, since the information entities specific to each industry was deleted in the discussion process, the specifications were defined not as implementation specifications but as reference specifications among industries.

・ FAX and paper documents are mostly used in current trade among small and medium-sized enterprises, and the specifications for implementing EDI that can replace paper trade with EDI trade is demanded. Moreover, small and medium-sized enterprises are engaged in trade with diversified industries, and the need of general-purpose common EDI implementation specifications that are not limited to manufacturing industries is recognized.

・ In consideration of such conditions, we formulated the "Small and Medium-sized Enterprises Common EDI Specifications V1.0" as the EDI implementation specifications for small and medium-sized enterprises industries based on the Cross-Industry EDI Specifications V2.0.

・ Matters considered when formulating the "Small and Medium-sized Enterprises Common EDI Specifications V1.0"

  ➢ With the aim to use EDI for commercial trade papers (for example, Kokuyo paper slips which are widely used among small companies in Japan.) that are extensively used in trade among small and medium-sized enterprises, the small and medium-sized enterprises common message library uses the information entities described in those commercial trade papers as the "Small and Medium-sized Enterprises Common-EDI Message Library "basic specifications"" (hereinafter referred to as "SME basic specifications)." Moreover, in consideration of application to versatile trade among small and medium-sized enterprises, information entities that are commonly used in Japan and Thailand were surveyed and then added to the "SME basic specifications".

- In trade among small and medium-sized manufacturing industries, information entities specific to the manufacturing industries, which are not included in the "SME basic specifications." are used. Therefore, we added information entities for trade among small and medium-sized manufacturing industries to the "SME basic specification" to formulate the small and medium-sized enterprises common-EDI message library "Small and Medium-sized Manufacturing Industries Specifications" (hereinafter referred to as the "SME manufacturing industries specifications"). We expect the "SME manufacturing industries specifications" to be used not only in trade among small and medium-sized manufacturing industries but also in trade between major manufacturing industries and small and medium-sized manufacturing industries, but consultation with major industries will be necessary on this matter in the future.

- We assume that it takes time to introduce EDI to small and medium-sized manufacturing industries and that the period of simultaneous use of paper sheets will be rather long. During this period of simultaneous use, we make it possible for frequently used data entities among data entities printed on paper sheets to be used for the small and medium-sized enterprises common-EDI to help smooth switching from paper trade to EDI trade. Since paper packing lists to be attached to delivery products are required after the introduction of EDI, we selected the information entities so that frequently used data entities among data entities printed on paper sheets can be transmitted via EDI.

- When information entities specific to the specific industry are additionally required in trade among small and medium-sized enterprises, we standardize the extended message library by specific industry and add the library as the industry' extended specifications in the small and medium-sized enterprises common-EDI specifications.

The matters mentioned above were proposed by the specified nonprofit organization IT Coordinators Association as the representative.

1.3.5 Local government consumables purchase business

・As purchase business in local governments, there are a number of trade including those for "public work" and "schools." Here, we focused on general consumables purchase business in local governments and made the definitions.

・Many local governments use common electronic bidding systems when deciding "suppliers" and "prices." Therefore, we excluded the decision process of "suppliers" and "prices" from the consumables purchase business in local governments.

・Although the decision of "suppliers" and "prices" is systematized in the electronic bidding system, the shipment and inspection of products afterwards are not systematized and handled by manual operations. Moreover, each local government uses individual shipment and inspection methods, and even in the same local government, each facility (such as City Museum, Silver Human Resources Center, etc.) has different processing method.

・Therefore, each local government and each local government's facility use different statement of delivery when products are delivered. Moreover, billing is handled by manual operations, and the name of financial institution may need to be entered in every billing operation.

・Therefore, based on the currently used statements of deliveries and invoices, we have proposed the local government consumables purchase business definition that can be commonly used among local governments in Japan, for the scope of delivery and billing.

The matters mentioned above were set based on the results of the FY2012 Aichi Prefecture Demonstration Project "the demonstration experiment concerning the application of the international standard EDI (UN/CEFACT) for global supply chain to small and medium-sized enterprises."

2. How to apply the Cross-Industry EDI Specifications V2.0

The Cross-Industry EDI Specifications V2.0 proposes the mechanism that consists of both the specifications common among industries (reference specifications) and the specifications specific to the industry (implementation specifications). The specifications common among industries are a subset of UN/CEFACT CCL and selected, formulated, and managed under the agreement of SIPS members and industry committee members. The specifications specific to the industry refer to the specifications common among industries to inherit useful parts and necessary information entities are added within the scope of the UN/CEFACT CCL specifications. The specifications specific to the industry are assumed to be formulated and managed by business area and corporate group. Users normally implement the mechanism of EDI based on specifications specific to the industry (implementation specifications). However, the Cross-Industry EDI Specifications V2.0 provides semantic information of information entities and messages and is not based on specific syntaxes and network infrastructure.

(Note) Cross-Industry EDI Specifications V1.1

The Cross-Industry EDI Specifications V1.1 was formulated as reference specifications. The reference specifications are assumed to be used as a dictionary the corporations that implement EDI refer to or quote from in approximation of business processes and mutual mapping of information entities. Moreover, it is recommended that the specifications are referred to in order to realize the interoperability with other industry standards when a specific industry formulates the EDI standard of the relevant industry.

2.1 Cross-Industry data Library and message Library

The Cross-Industry EDI Specifications V2.0 consists of the "Cross-Industry Data Library" and the "Message Library" based on the mechanism (framework) that consists of both the specifications common among industries and the specifications specific to the industry. The "Cross-Industry Data Library" covers both the specifications common among industries and the specifications specific to the industry and is a subset of UN/CEFACT CCL. The "Message Library" stores EDI messages by each business process that is defined using information entities registered in the "Cross-Industry Data Library," by specific business area. The basic Message Library defines basic messages common in among industries as reference specifications.

The Cross-Industry EDI Specifications V2.0 framework based on the "Cross-Industry Data Library" and the "Message Library" is shown in Fig.1-2-1.

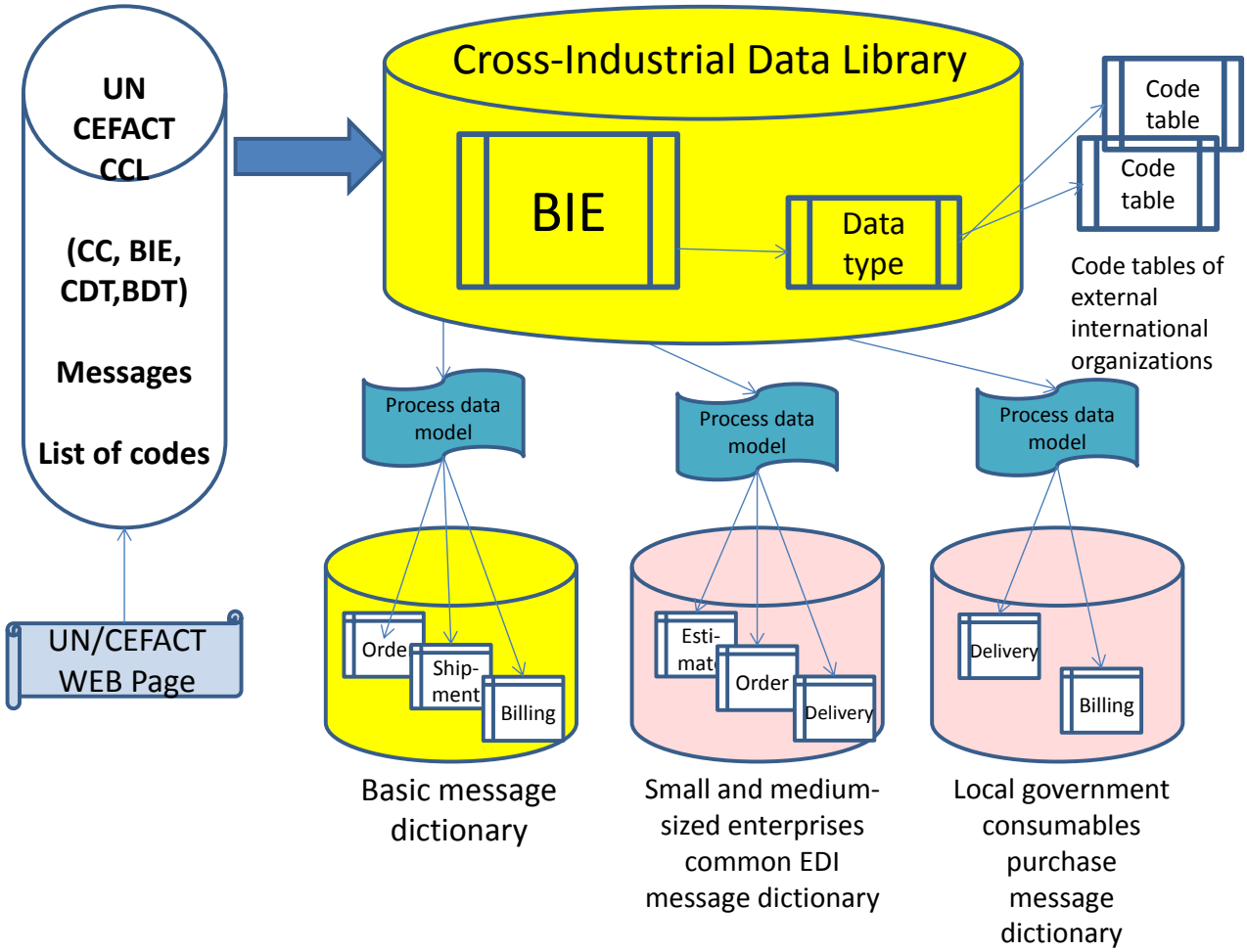


Fig.1-2-1 Cross-Industry EDI Specifications V2.0 framework

The "Cross-Industry Data Library" is a subset of UN/CEFACT CCL and describes all Business Information Entities (BIE) and Data Types (DT) used for the basic messages of the Cross-Industry EDI Specifications and registered business area messages. The "Cross-Industry Data Library" describes English definition of UN/CEFACT CCL and Japanese notations of dictionary entry names, business-specific terminologies, and definitions. As the code tables for code data types (i.e. price type code) and identifier data types (i.e. country code), reference information for the code tables of external standard organizations (such as ISO and UN/ECE) are described.

The "Message Library" describes the Message Assembly (MA) and related information (business processes definitions and data models) regarding the basic messages of the Cross-Industry EDI Specifications (the Cross-Industry EDI Specifications V2.0 contains "order message," "order response message," "dispatch advice message," and "invoice message") and the registered business area messages (the Cross-Industry EDI Specifications V2.0 contains the messages of "small and medium-sized enterprises common-EDI" and "local government consumables purchase" area.).

2.2 Management of the Message Library (plan)

The messages that are formulated and maintained by each business area need to be easily retrieved for developing new areas and mutual mapping across industries. At the stage of the Cross-Industry EDI Specifications V2.0, retrieval is easy because, other than basic messages, there are only two areas - small and medium-sized enterprises common-EDI and local government consumables purchase. However, if business areas increase and overseas business area messages become targeted for registration in the future, a register for coordinating message libraries of different administration authorities, namely "Message Library registry" will be required. In the "Message Library registry," the summary information of each business area message library (administration authority information, registered message information, reference Cross-Industry Data Library, code tables specific to business area) and their URLs will be registered and managed.

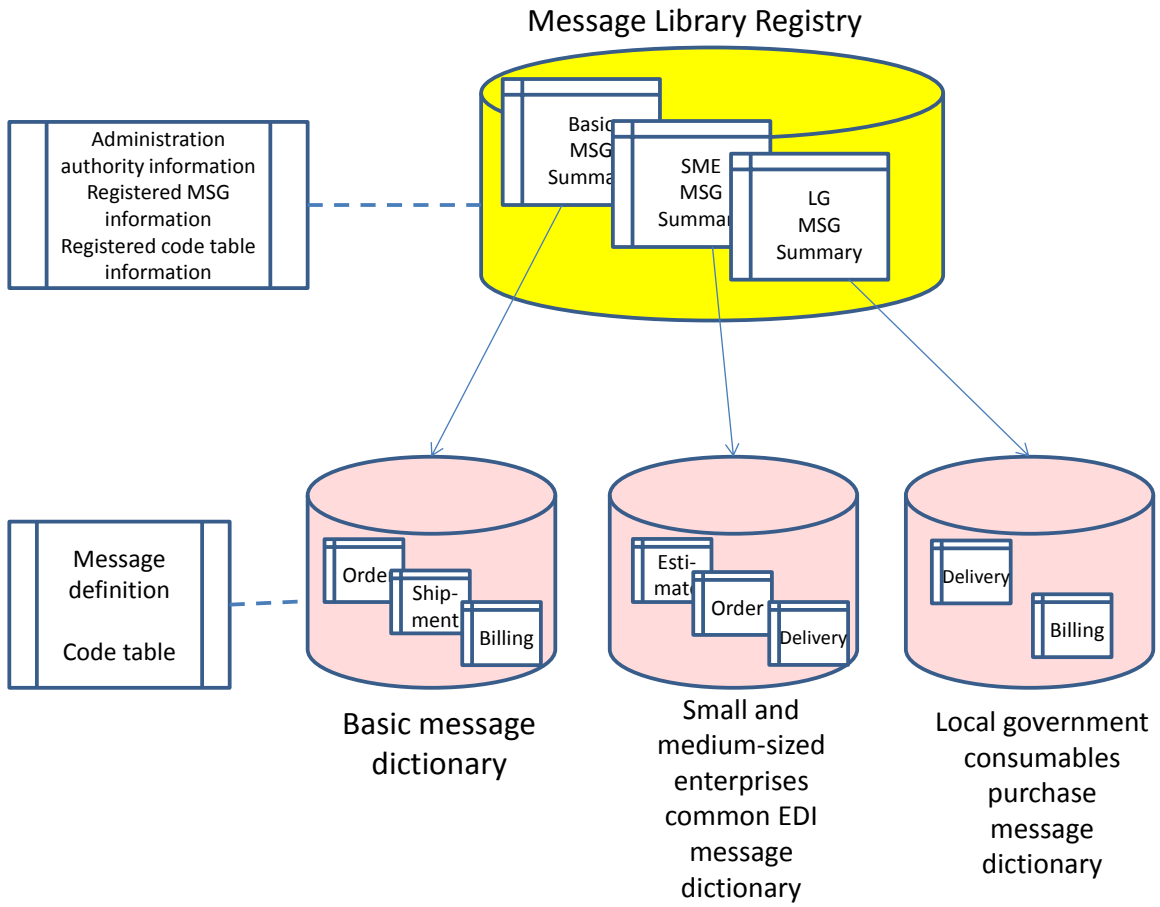


Fig.1-2-2 Message Library registry

The "message Library registry" is still in a conceptional phase and is not contained in the Cross-Industry EDI Specifications V2.0.

Chapter II: Cross-Industry EDI Specifications V2.0 Business Coordination Definition

The Business Coordination Definition document of the Cross-Industry EDI Specifications V2.0 is based on the Cross-Industry EDI Specifications V1.1, which was open to the public by JEDIC in March 2012, and targets the order process, shipment inspection process, and billing payment process in the order placement/receipt of the supply chain of Japanese manufacturing industries. The Business Coordination Definition is assumed to be referred to when trade parties concerned coordinate in-house business processes of both sides for the purpose of realizing standard, efficient supply chain of manufacturing industries.

1. Scope of the trade

The Business Coordination Definition targets normal trade in the supply chain of Japanese manufacturing industries and is intended for information exchange between the buyer and the supplier. (See Fig.2-1-1).

The Business Coordination Definition does not target trade with supplied articles and in installment delivery.

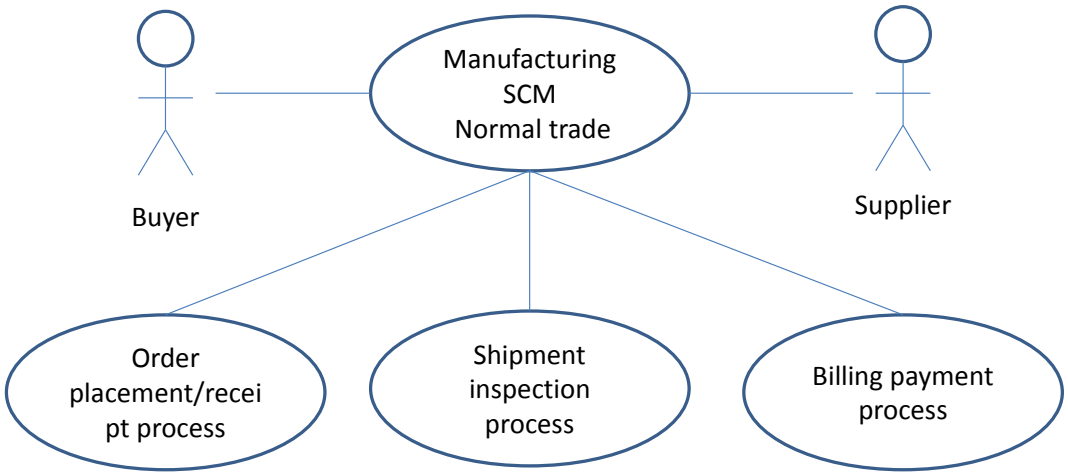


Fig. 2-1-1

2. Message template

The messages described in the Basic Message Library V2.0 regard trade information in supply chain as a general-purpose model (all messages have the same structure). The relevant general-purpose model (template) is shown in Fig.2-2-1.

Supply chain trade information messages (order message, order response message, dispatch advice message, invoice message, etc.) consist of an exchange document class and a trade transaction class.

The exchange document class consists of document control information such as document name, document number, issue date and contains the note class if necessary.

The trade transaction class collects all information concerning trade transaction such as agreement, delivery, settlement, and details.

The agreement class provides the terms of the contract by the parties concerning trade (buyer, supplier, etc.) and contract-related documents (contract document, etc.). This class can provide a contract by detail under the detail line class.

The delivery class provides the conditions concerning delivery destination and delivery. This class can provide a contract by detail under the detail line class.

The settlement class provides settlement method, payment terms and information of the amount concerning settlement (total amount, tax, etc.). This class can provide a contract by detail under the detail line class.

The detail line document class identifies detail lines using the line identifier (number).

The trade product class is placed under the detail line document class and provides the characteristics of products targeted for trade and products-related information.

The logistics packing class is placed under the detail line document class and provides detailed information concerning logistics such as packing and the mode of packing.

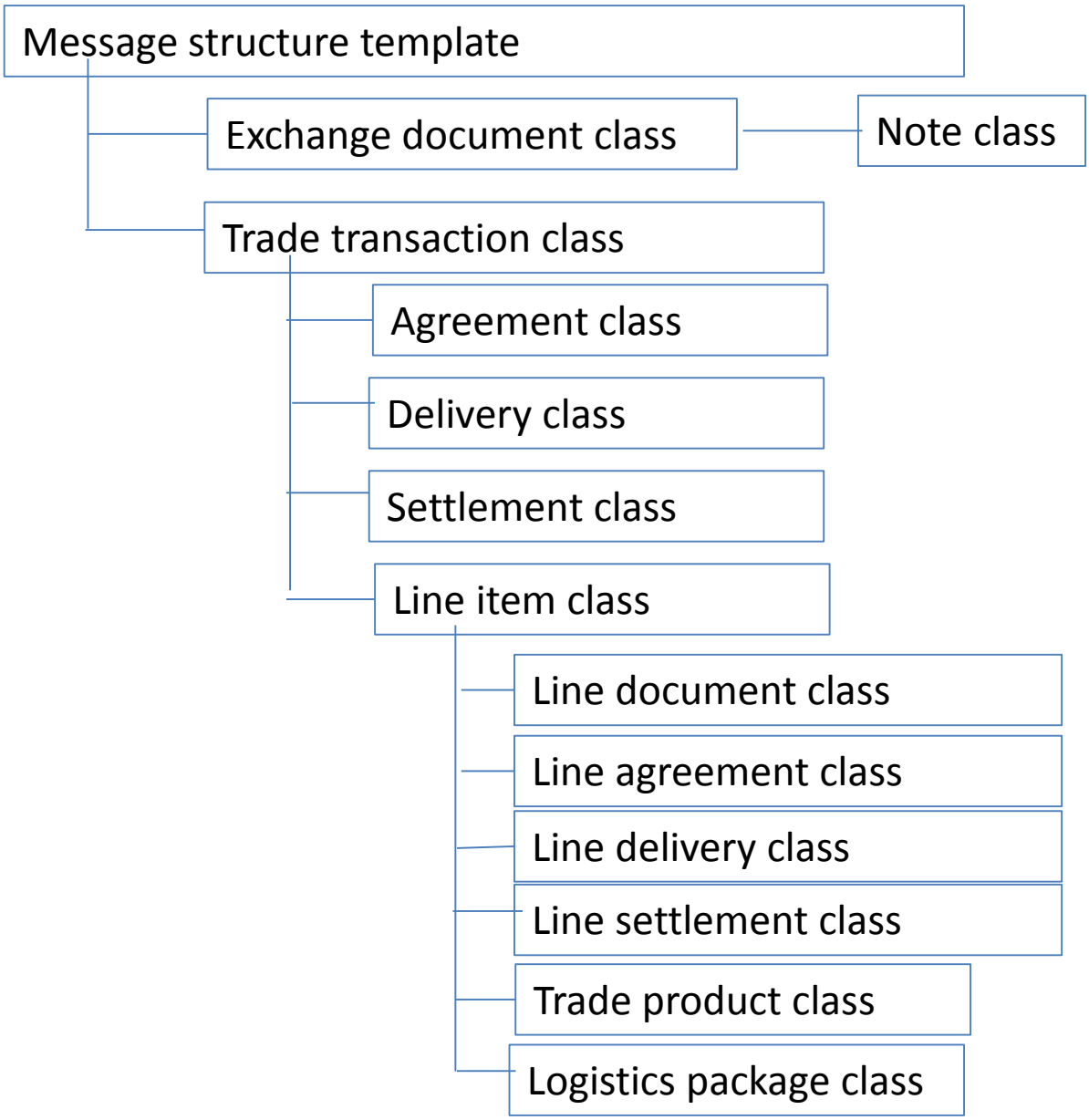


Fig. 2-2-1 Supply chain trade message template

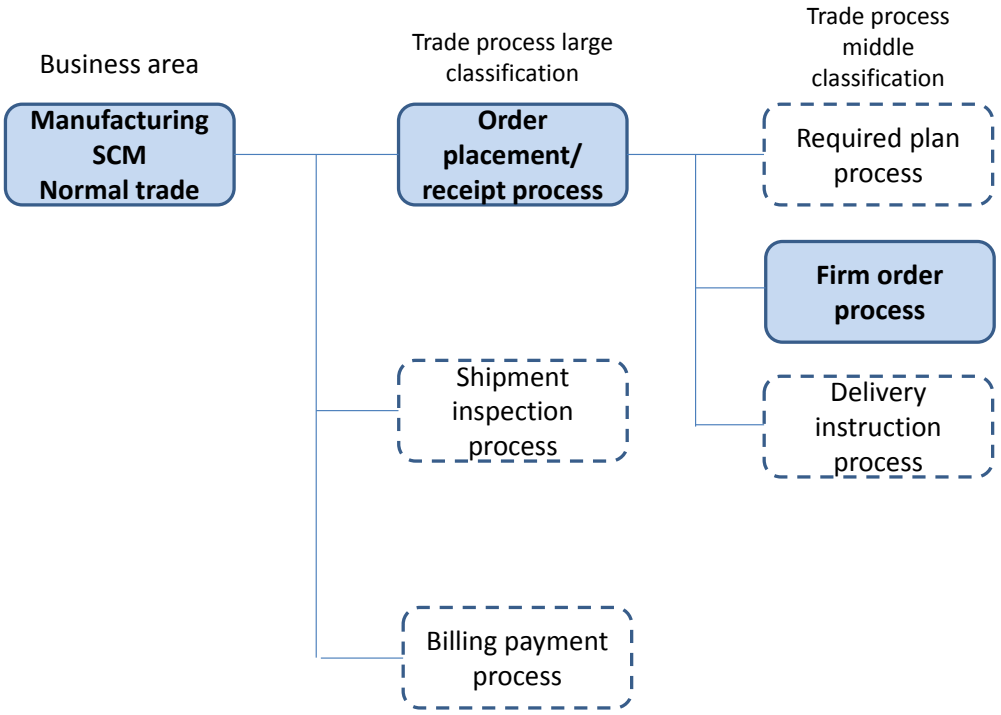
3. Firm order process

3.1 Purpose of the firm order process

The buyer and the supplier confirm the order contents and determine the order under the agreement of both parties to make the application for individual contract including "the securing of products (rendering of service)" clear.

3.2 Business area

Among the order placement/receipt business in the supply chain of Japanese manufacturing industries, the firm order process is targeted.



3.3 List of transactions

Requirement No.	Business requirement	Trade process	Transaction
—	Preliminary process (not included in the Business Coordination Definition)	Required plan	
A.1	The buyer determines all terms and conditions of the contract, and issues the firm order information when applying for an individual contract.	Firm order	Order transaction

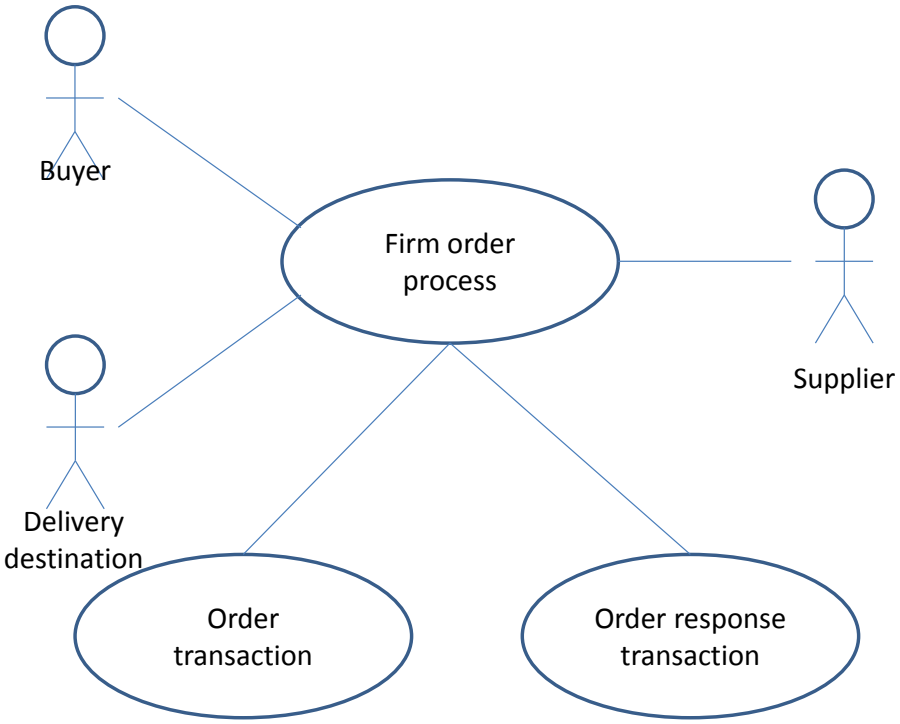
Requirement No.	Business requirement	Trade process	Transaction
A.2	As declaration of intention for the application for individual contract, the supplier creates the firm order response information. The buyer and the supplier decide in advance if the firm order response information should be returned to all cases or only in the case of conditional acceptance and refusal.	Firm order	Order response transaction
—	Follow-up process (not included in the Business Coordination Definition)	Delivery instruction	

3.4 Process definition

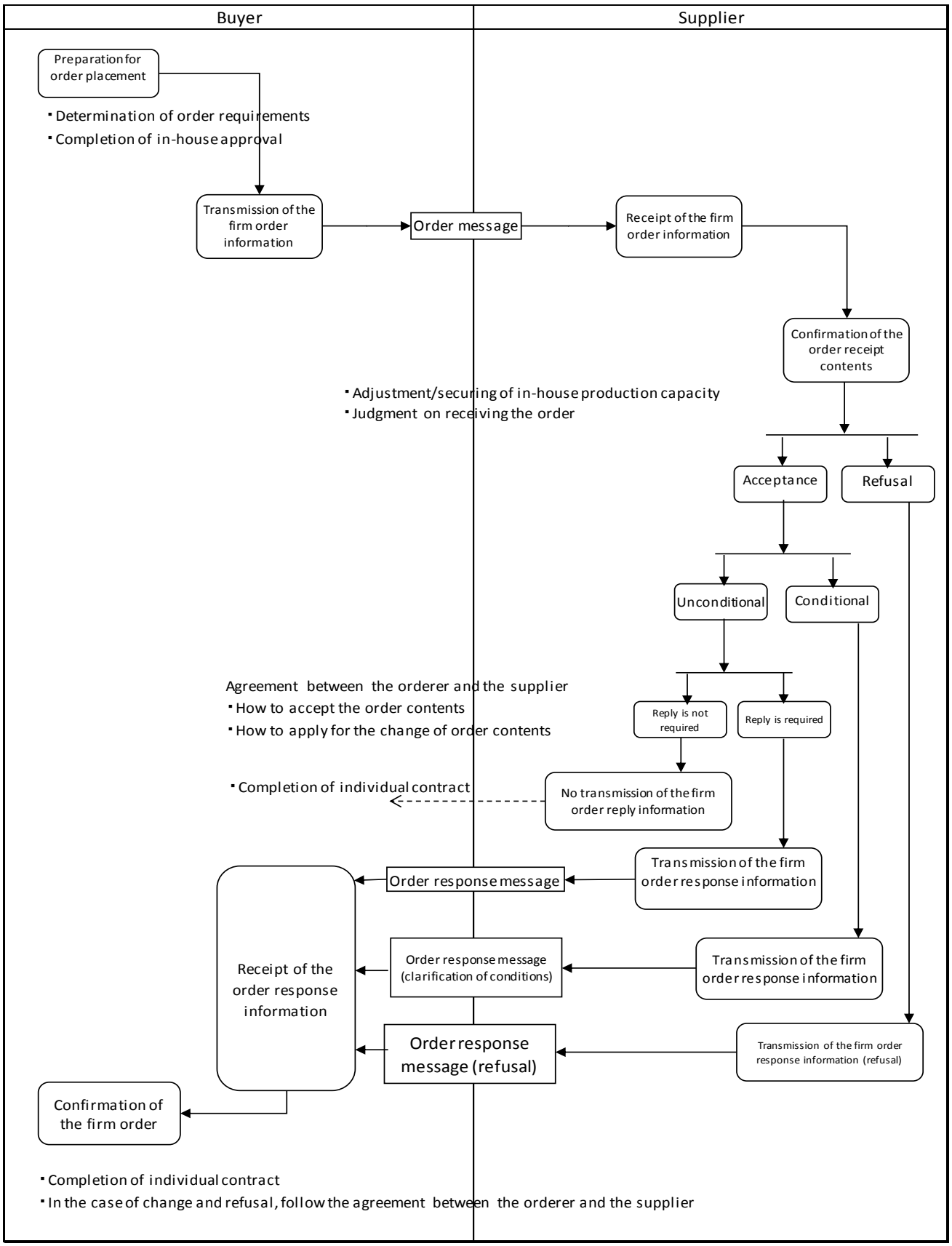
Business processes description	
Outline	
Name	Firm order
Explanation	The buyer and the supplier confirm the order contents and determine the order under the agreement of both parties to make the application for individual contract including the "securing of products (rendering of service)" clear.
Details	
Business area	Manufacturing SCM
Process area	Order placement/receipt process: Firm order
Persons concerned with business processes	Buyer/Supplier/Corporation as delivery destination (the corporation designated by the buyer)
Person in charge of business processing	Purchasing department (buyer), sales department (supplier)
Initiation and termination	
Conditions when starting the business process	Preparation for order placement (determination of order requirements and completion of in-house approval)
Conditions when ending the business process	Order response confirmation (completion of individual contract)
Business processes start period	Order information transmission
Business processes end	Order response information reception

<table>
<tr><td>period</td><td></td></tr>
<tr><td>Activities within business process</td><td>Operation rules concerning the order response information
1) The buyer and the supplier decide in advance if the firm order response information should be returned to all cases or only in the case of conditional acceptance and refusal.
2) Main items subject to conditional acceptance
<table><tr><td>Item name</td><td>Order quantity unit</td><td>Unit price</td><td>Order quantity</td><td>Time of delivery</td></tr></table>
3) If the supplier transmits the order response information of conditional acceptance, the individual contract is not completed.
4) If the supplier transmits the order response information of conditional acceptance, the buyer does not process the change of the firm order and retransmit the order information with the results of adjustment of conditions by both parties. If the both parties agree on the first conditions as a result of adjustment of conditions, the buyer retransmits the order information of the same contents.</td></tr>
<tr><td>Explanation of exception handling</td><td>If the order response information is not returned, the process is judged according to the basic contract or EDI individual contract. Basically, individual contracts are often completed without the order response.</td></tr>
<tr><td colspan="2">Relations with other business</td></tr>
<tr><td>Business processes to be included</td><td></td></tr>
<tr><td>Business processes and business information to be affected</td><td>The "shipment inspection process" and the "billing payment process" coordinated with order number are affected.</td></tr>
</table>

3.5 Use case figure



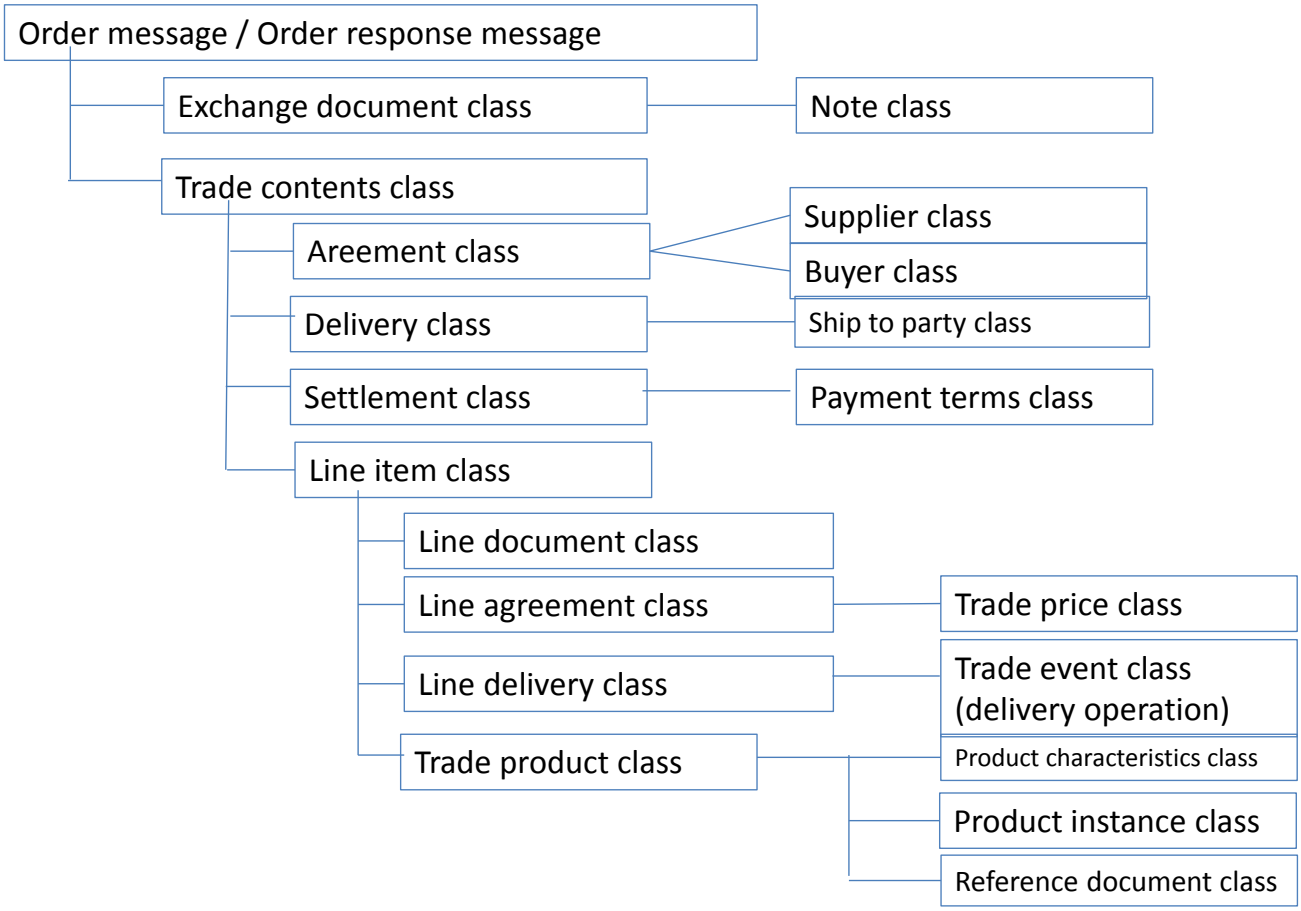
3.6 Activity figure



3.7 Conceptional data model

(1) Order message/order response message

Order message and order response message have the same conceptional data model.



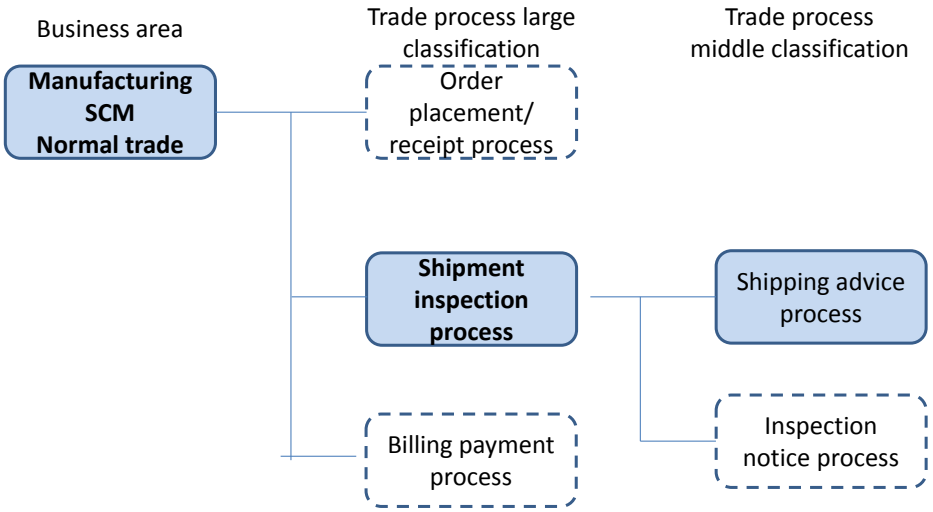
4. Shipping advice process

4.1 Purpose of the shipping advice process

The supplier notifies the buyer of the shipment contents of ordered products in advance to make the receipt and inspection of the buyer smooth.

4.2 Business area

Among the order placement/receipt business in the supply chain of Japanese manufacturing industries, the shipping advice process is targeted.



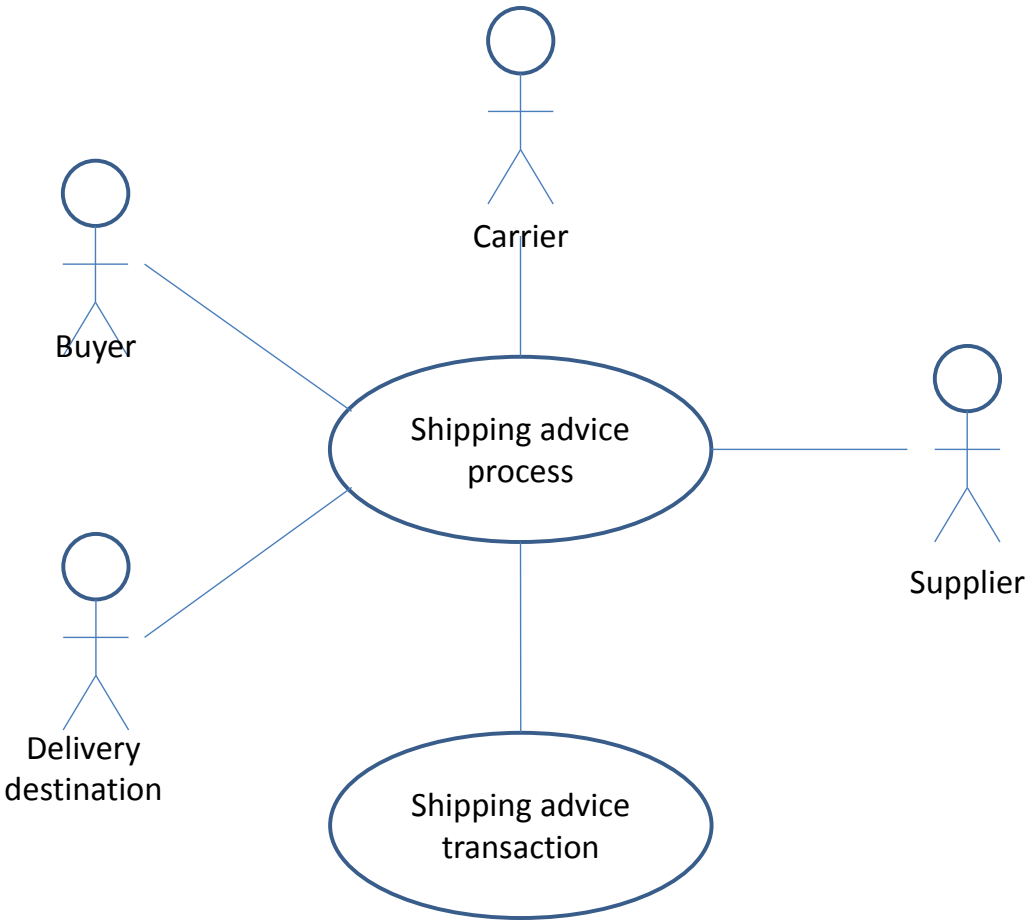
4.3 List of transactions

Requirement No.	Business requirement	Trade process	Transaction
—	Preliminary process (not included in the Business Coordination Definition)	Delivery instruction	
A.1	If the terms and conditions of delivery and shipment are determined, the supplier issues the dispatch advice information to the buyer.	Shipping advice	Shipping advise transaction
—	Follow-up process (not included in the Business Coordination Definition)	Inspection notice	

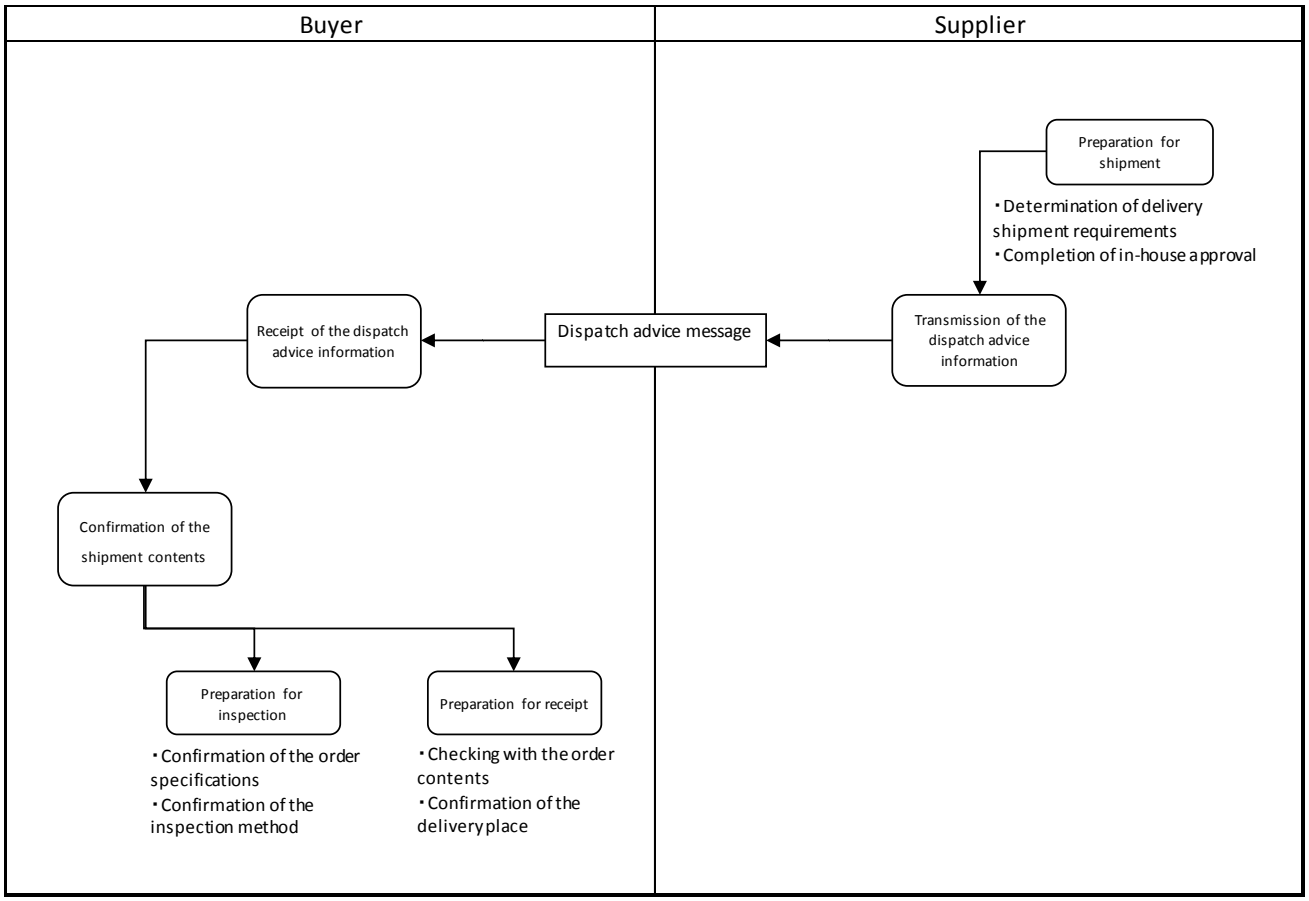
4.4 Process definition

Business processes description	
Outline	
Name	Shipping advice
Explanation	The supplier notifies the buyer of the shipment contents to make the receipt and inspection of the buyer smooth.
Details	
Business area	Manufacturing SCM
Process area	Shipment inspection process: Shipping advice
Persons concerned with business process	Buyer/Supplier/Corporation as delivery destination (the corporation designated by the buyer) / Public carrier
Persons in charge of business processing	Purchasing department (buyer), sales department (supplier)
Initiation and termination	
Conditions when starting the business process	Preparation for shipment (determination of delivery shipment conditions)
Conditions when ending the business process	Confirmation of shipment contents
Business process start period	Shipping advice information transmission
Business processes end period	Shipping advice information reception
Activities within business process	Operation rules concerning the shipping advice information 1) The dispatch advice information is transmitted after delivery shipment conditions such as delivery quantity, delivery date, delivery destination, public carrier, mode of packing, and packing number are determined. 2) The buyer and the supplier agree in advance the processing method when transmitting the shipping advice information if a part of the shipment conditions mentioned above is undetermined.
Explanation of exception handling	The buyer and the supplier agree in advance the processing method when actual delivered products differ from the contents of shipping advice information.
Relations with other business	
Business process to be included	
Business process and business information to be affected	The "shipment inspection process (inspection notice process)" and the "billing payment process" coordinated with order No. are affected.

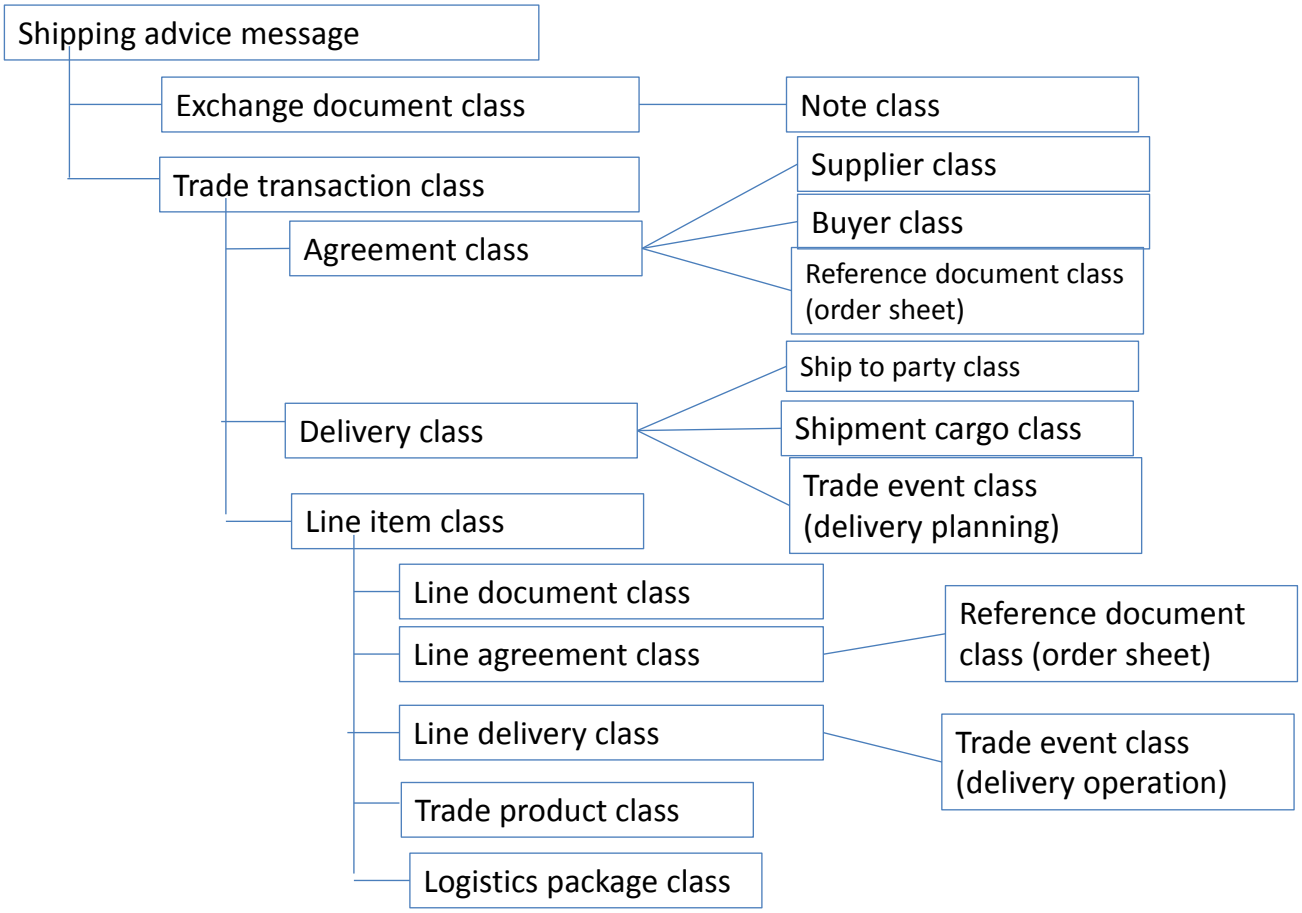
4.5 Use case figure



4.6 Activity figure



4.7 Conceptional data model



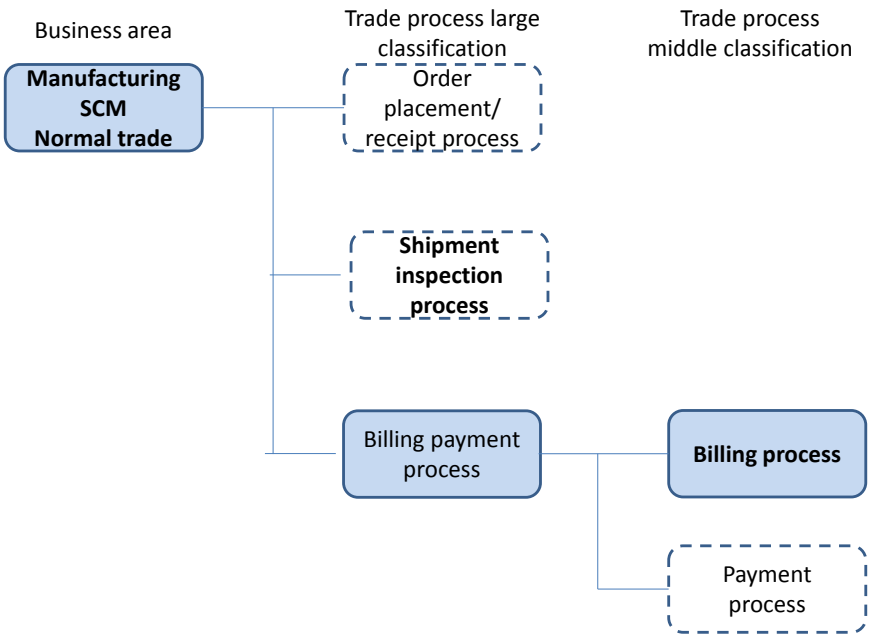
5. Billing process

5.1 Purpose of the billing process

After the contents of shipping advice by the supplier and the contents of inspection by the buyer are confirmed, the supplier can immediately handle the billing.

5.2 Business area

Among the billing and payment business in the supply chain of Japanese manufacturing industries, the billing process is targeted.



5.3 List of transactions

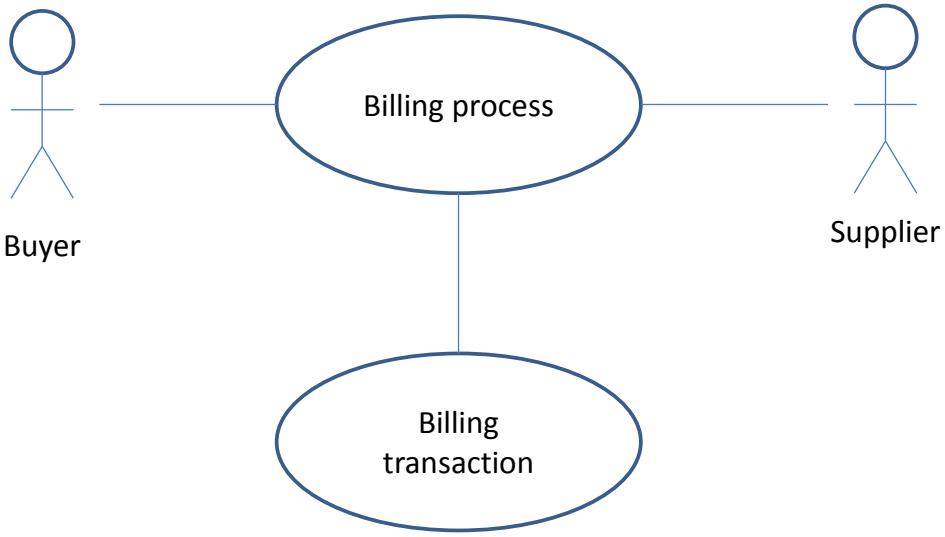
Requirement No.	Business requirement	Trade process	Transaction
—	Preliminary process (not included in the Business Coordination Definition)	Inspection notice	
A.1	When the supplier received an inspection notice from the buyer, the accounts receivable are determined. Based on the information of determined accounts receivable, the supplier issues the invoice information to the buyer at the invoice	Billing	Billing transaction

Requirement No.	Business requirement	Trade process	Transaction
	date agreed between the buyer and the supplier in advance.		
—	Follow-up process (not included in the Business Coordination Definition)	Payment	

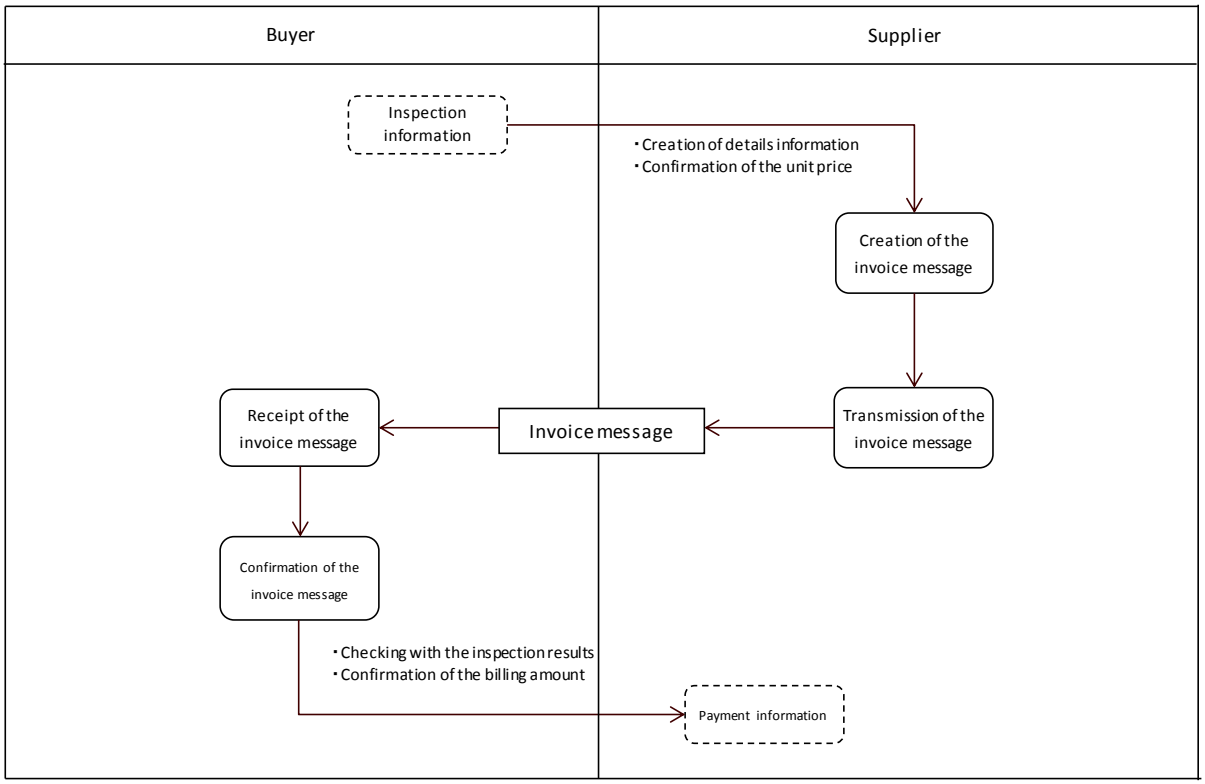
5.4 Process definition

Business process description	
Outline	
Name	Billing
Explanation	The supplier transmits the billing information to the buyer based on the information of determined accounts receivable to make the billing payment processing smooth.
Details	
Business area	Manufacturing SCM
Process area	Billing payment process: Billing
Persons concerned with business process	Buyer/Supplier
Persons in charge of business processing	Purchasing department (buyer), sales department (supplier)
Initiation and termination	
Conditions when starting the business process	Determination of the information of accounts receivable and the arrival of billing date (the billing date agreed between the buyer and the supplier in advance)
Conditions when ending the business process	Completion of confirming the billing contents by the buyer
Business process start period	Billing information transmission
Business process end period	Completion of confirming the billing contents by the buyer
Activities within the business process	Operation rules concerning the billing information 1) The billing information (Invoice) is transmitted based on the information of determined accounts receivable. 2) The buyer and the supplier agree the billing date and the period subject to billing, etc. in advance.
Explanation of exception handling	The buyer and the supplier agree in advance the processing method when there is a difference between the contents of billing information and inspection information.
Relations with other business	
Business process to be included	
Business process and business information to be affected	The "billing payment process" (payment process) coordinated with order No. or shipment No. are affected.

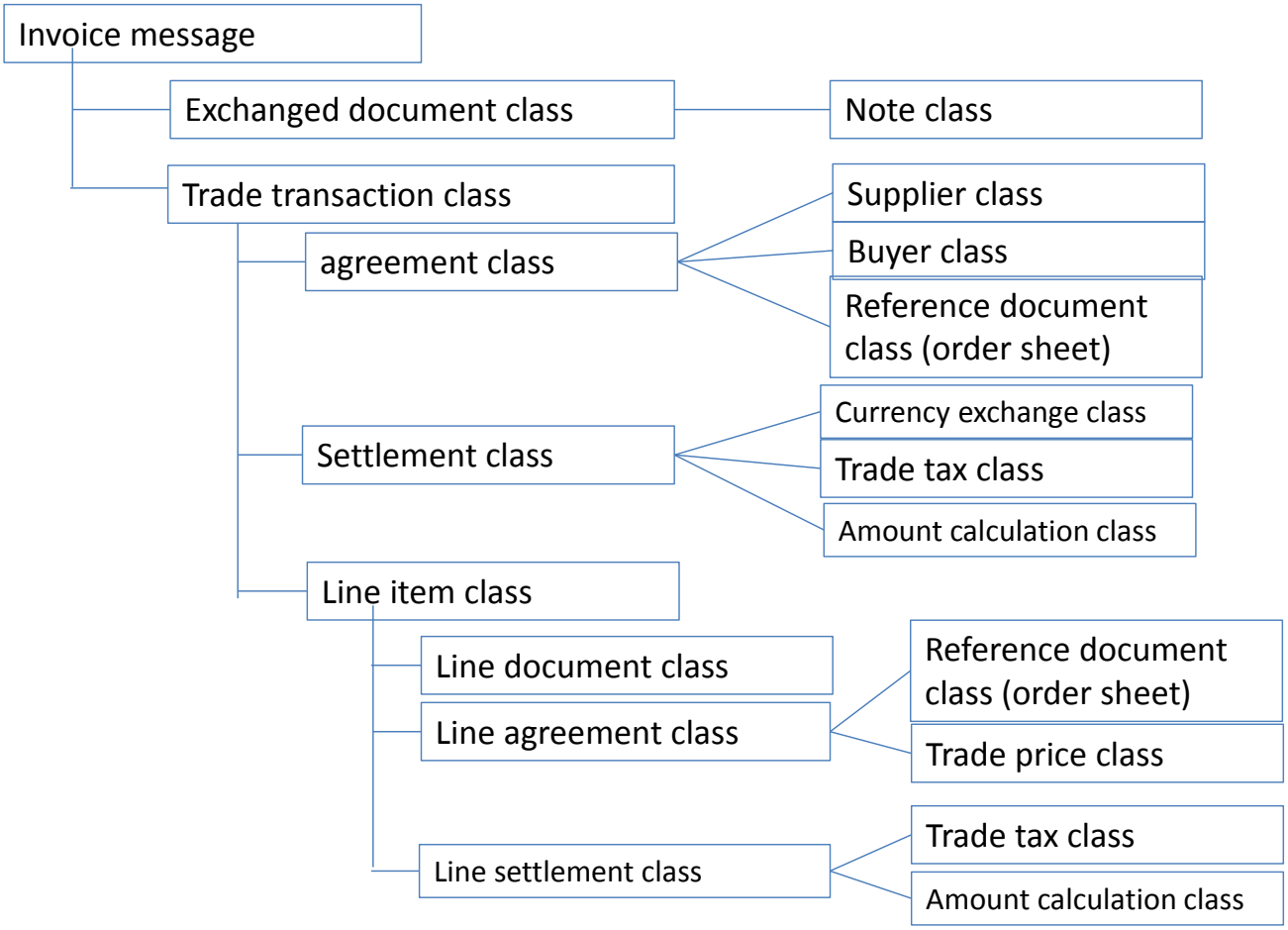
5.5 Use case figure



5.6 Activity figure



5.7 Conceptional data model



Chapter III: Cross-Industry Data Library V2.0

This chapter explains Business Information Entities (BIEs) and data types used in the Cross-Industry EDI Specifications V2.0.

1. Purpose of the Cross-Industry Data Library

The Cross-Industry Data Library V2.0 collects Business Information Entities (BIEs) and data types used in the messages of the Cross-Industry EDI Specifications V2.0 from the Japanese edition of the UN/CEFACT CCL (2012 B edition). The Cross-Industry Data Library V2.0 is a subset of UN/CEFACT CCL (2012 B edition) and designed to enable the business area message designers and EDI business process designers to use the data by correctly understanding their semantic information.

It is recommended that IT engineers who implement EDI system by specific syntaxes such as XML directly refer to CCL and XML Schema of UN/CEFACT without relying on the Cross-Industry Data Library.

2. Organization of the Cross-Industry Data Library

2.1 Business Information Entities

The Business Information Entities (BIEs) contained in the Cross-Industry Data Library V2.0 are described in **Attachment 1**.

2.2 Data Types

A list of data types contained in the Cross-Industry Data Library V2.0 is shown below.

A list of data types contained in the Cross-Industry Data Library V2.0

Data Type List

Classification	UN ID	Data type	Complementary information	How to use
Core data type	UDT000001	Amount. Type	Currency code	Currency code table: ISO 4217 3A
	UDT000008	Data Time. Type	Format	See ISO 8601
	UDT000007	Code. Type	Code table ID Issuing organization ID Issuing organization name Code table name	Standard organizations, industries, and corporations become issuing organizations.
	UDT000016	Rate. Type	Format	Point number or %
	UDT000018	Quantity. Type	Unit code	Unit code table: UN/ECE recommendation 20
	UDT000019	Text. Type	Language code	Language code table: ISO 639-1 2A
	UDT000011	Identifier. Type	Identification scheme ID Identification scheme name Issuing organization ID Issuing organization name Identification scheme URI	Standard organizations, industries, and corporations become issuing organizations.
Business data type	UN02000124	Line Status_ Code		EDIFACT Code List 1229
	UN02000125	Message Function_ Code		EDIFACT Code List 1225
	UN02000043	Package Type_ Code		EDIFACT Code List 7065
	UN02000013	Price Type_ Code		EDIFACT Code List 5375
	UN02000131	Response Type_ Code		EDIFACT Code List 4343
	UN02000015	Tax Type_ Code		EDIFACT Code List 5153
	UN02000003	Country_ Identifier		Country code table: ISO 3166-1 2A

The reference code tables can be downloaded from the following URLs of related organizations (ISO, UNECE recommendation, UN/EDIFCT dictionary)

(i) ISO

http://www.iso.org

4217 3A	Currency code table	Text format
639-1 2A	Language code table	Text format
3166-1 2A	Country code table	Text format

(ii) UN/ECE recommendation

http://www.unece.org/cefact/recommendations/rec_index.html
http://www.unece.org/tradewelcome/areas-of-work/un-centre-for-trade-facilitation-and-e-business-uncefact/outputs/cefactrecommendationsrec-index/list-of-trade-facilitation-recommendations-n-16-to-20.html

UN/ECE recommendation 20	Unit code table	Excel format

(iii) UN/EDIFACT dictionary

http://www.unece.org/tradewelcome/areas-of-work/un-centre-for-trade-facilitation-and-e-business-uncefact/outputs/standards/unedifact/directories/download.html

EDIFACT Code List 1229	Line condition code table
EDIFACT Code List 1225	Message function code table
EDIFACT Code List 7065	Package type code table
EDIFACT Code List 5375	Price type code table
EDIFACT Code List 4343	Reply type code table
EDIFACT Code List 5153	Tax type code table

The code tables are stored in the file UNCL.Dxxa (xxa is a version number) in text format with other codes. The details of storage format are described in the following reference.
UN/CEFACT RULES FOR PRESENTATION OF STANDARDIZED MESSAGE AND DIRECTORIES DOCUMENTATION, CEFACT/EWG/R.1023/Rev.5 24, September 1999

(iv) XML Schema

The reference code tables are distributed from related organizations mainly in text and Excel format. However, for IT engineers who implement EDI system, code tables that can be processed in XML Schema format in computers may be convenient because they can be directly used in the system although they are difficult to read.

The UN/CEFACT also distributes standard messages created based on UN/CEFACT CCL and Naming and Design Rule (NDR) in XML schema format. The data types and XML Schema format code tables used as reference are contained in such standard messages and each version can be downloaded from the following URLs.

http://www.unece.org/cefact/xml_schemas/index

If the downloaded ZIP file is uncompressed, the data types are stored in the directory: uncefact¥data¥standard and stored as the following file (# is a version number) in the D12B edition.
QualifiedDataType_#.xsd

This XML schema contains all data types collected in UN/CEFACT CCL and refer various code tables as import. Therefore, it should be noted that, when using the XML schema for the industry-standard data dictionary, the extraction of required data types and the correction of imported sentences become necessary.

The reference code tables are stored under the directory: uncefact¥codelist¥standard and as the following file (# is a version number) in the D12B edition. (The country code table is stored under the directory: uncefact¥identifierlist¥standard.)

ISO_ISO3AlphaCurrencyCode_#.xsd	4217 3A	Currency code table
ISO_ISO2AlphaLanguageCode_#.xsd	639-1 2A	Language code table
ISO_ISOTwoletterCountryCode_#.xsd	3166-1 2A	Country code table
UNECE_LineStatusCode_#.xsd	EDIFACT Code List 1229	Line condition code table
UNECE_MessageFunctionTypeCode_#.xsd	EDIFACT Code List 1225	Message function code table
UNECE_PackageTypeCode_#.xsd	EDIFACT Code List 7065	Package type code table
UNECE_PriceTypeCode_#.xsd	EDIFACT Code List 5375	Price type code table
UNECE_ResponseTypeCode_#.xsd	EDIFACT Code List 4343	Reply type code table
UNECE_DutyTaxFeeTypeCode_#.xsd	EDIFACT Code List 5153	Tax type code table

UN/ECE recommendation 20　　Unit code table

(The unit code tables are divided as follows because the code is large.)

UNECE_MeasurementUnitCommonCode_#.xsd

UNECE_MeasurementUnitCommonCodeAirflow_#.xsd

UNECE_MeasurementUnitCommonCodeDuration_#.xsd

UNECE_MeasurementUnitCommonCodeLinear_#.xsd

UNECE_MeasurementUnitCommonCodeTemperature_#.xsd

UNECE_MeasurementUnitCommonCodeVolume_#.xsd

UNECE_MeasurementUnitCommonCodeWeight_#.xsd

(v) Change of the code table/identifier table

The code tables that are referred to for the data types of the cross-Industry data Library are provided as standard. However, since the specific codes among traders are often required when actually using the code tables, the code tables need to be changed.

In the case of codes or identifiers of the core data type, there are two methods - the method for not particularly designating code tables and identification scheme on message with an agreement in advance and the method for expressly designating the code tables and identification scheme as the additional information to message. To make it clear if there has been change, it is desirable to

expressly designate the code tables and identifier tables on message.

Various additional information can be designated to the data types of codes and identifiers. When designating code tables and identifier tables, it is recommended to designate code table ID, issuing organization ID, and version ID in the case of code tables and designate identification scheme ID, issuing organization ID, and version ID in the case of identifier tables. When using the message as XML instance, the following designation is required using attribute notation.

<TypeCode listID="5375" listAgencyID="6" listVersionID="D10B">CT</TypeCode>
< CountryID schemeID="CountryID" schemeAgencyID="6"
schemeVersionID="second edition 2006 ">JP</ CountryID >

The code table ID and the version ID can be freely numbered as long as there is no duplication of the organization that controls the code tables. The issuing organization ID is a corporation code assigned to the issuing organization. To reduce the constraint of use range, however, it is desirable to use globally unique corporation codes.

An example of such globally unique corporation codes is UN/EDIFACT data element No. 3055 (code list responsible agency code) controlled by UN/CEFACT. Several Japanese administration authorities have been already registered, and No. 309 is assigned to Japan Association for Simplification of International Trade Procedures (JASTPRO). The code table is stored under the following files.

UNCL.Dxxa	EDIFACT Code List 3055	Issuing organization code
UNECE_AgencyIdentificationCode_#.xsd	EDIFACT Code List 3055	Issuing organization code

The business data types designate code tables and identifier tables in preliminary agreement with regard to general-purpose codes or identifiers. The code tables and identifier tables can be changed by expressly designate code tables and identifier tables on message. However, since a change to largely different code tables and identifier tables is equal to the change of the specifications of data types, it is desirable to limit to the change of code tables and identifier tables of different versions.

Chapter IV: Cross-Industry EDI Basic Message Library

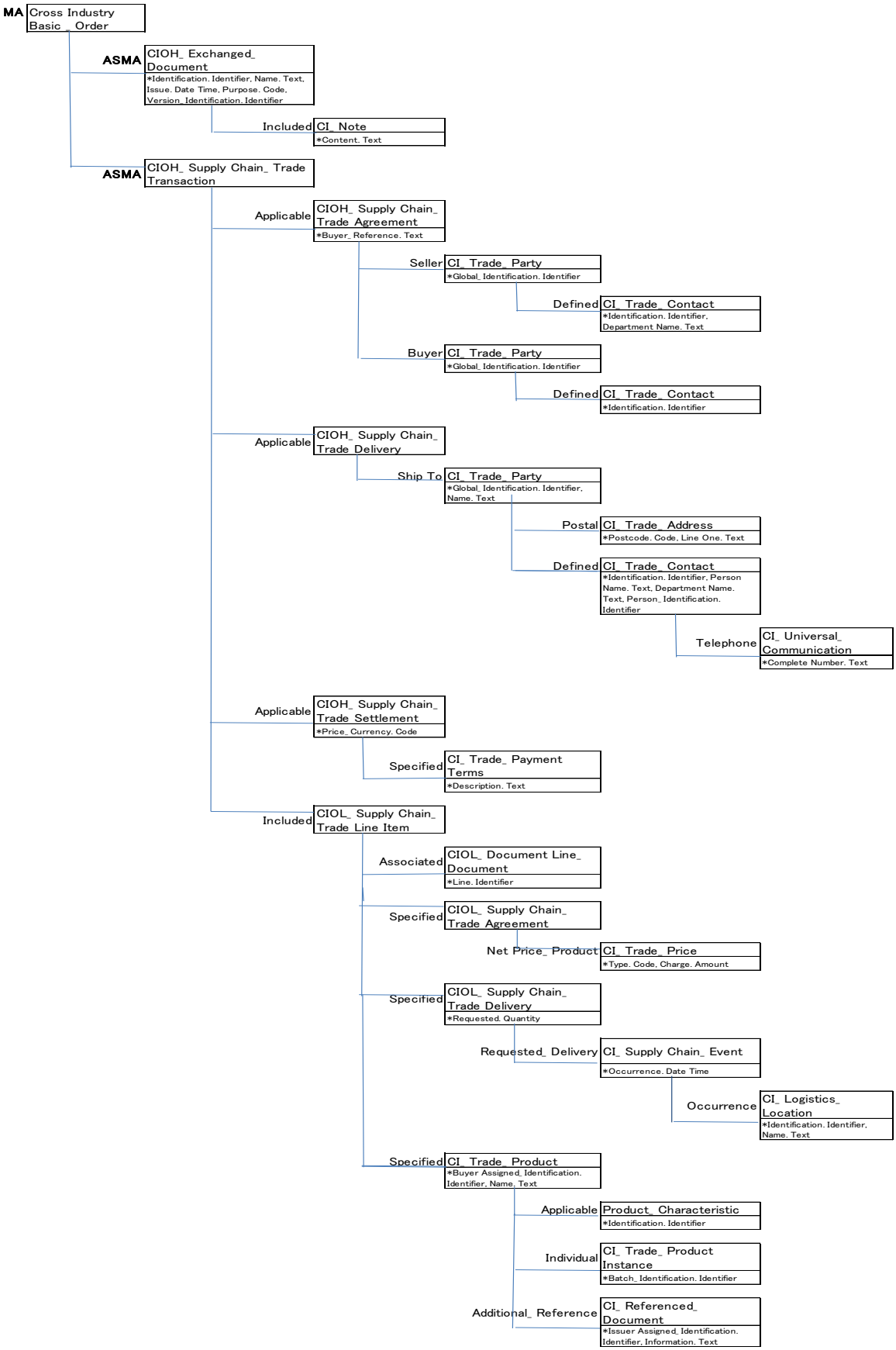
1. Basic Message Library V2.0

1.1 Purpose and scope

The Basic Message Library V2.0 was formulated by adding the shipping advice process (dispatch advice message) and the billing process (invoice message) to the firm order process (order message and order response message) based on the Cross-Industry EDI Specifications V1.1, which was formulated in FY2011.

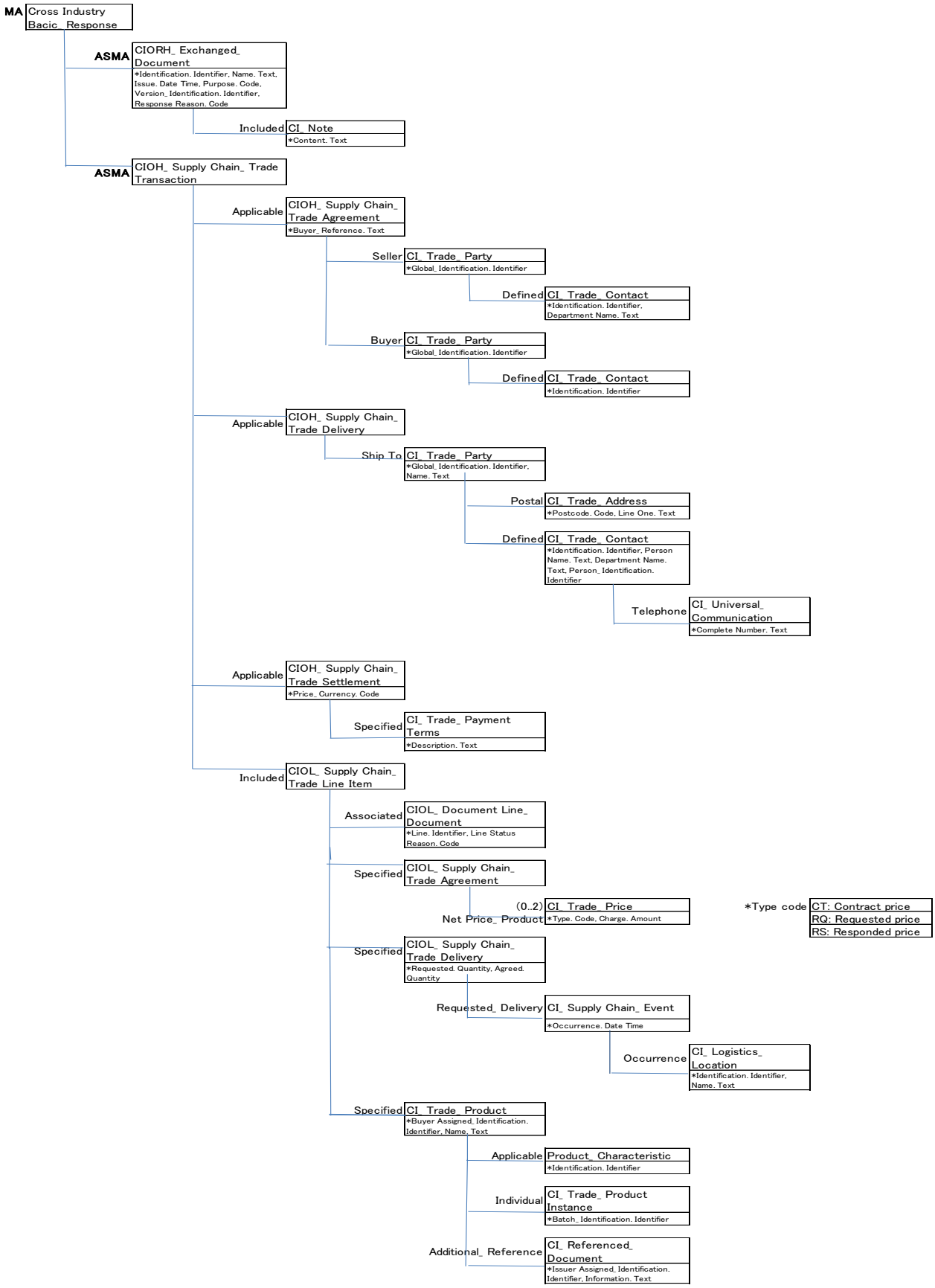
1.2 Order message

(1) Data model



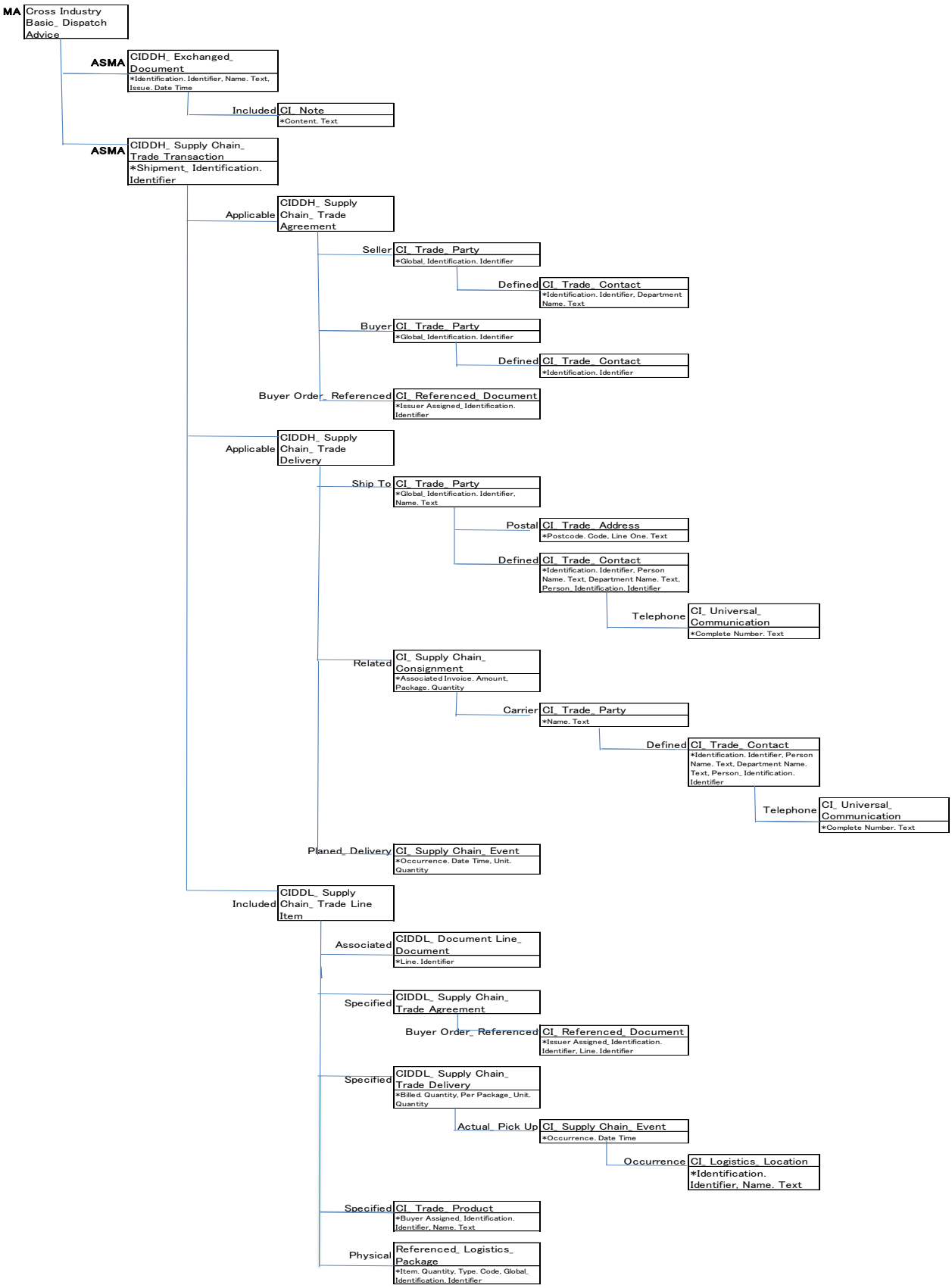
1.3 Order response message

(1) Data model



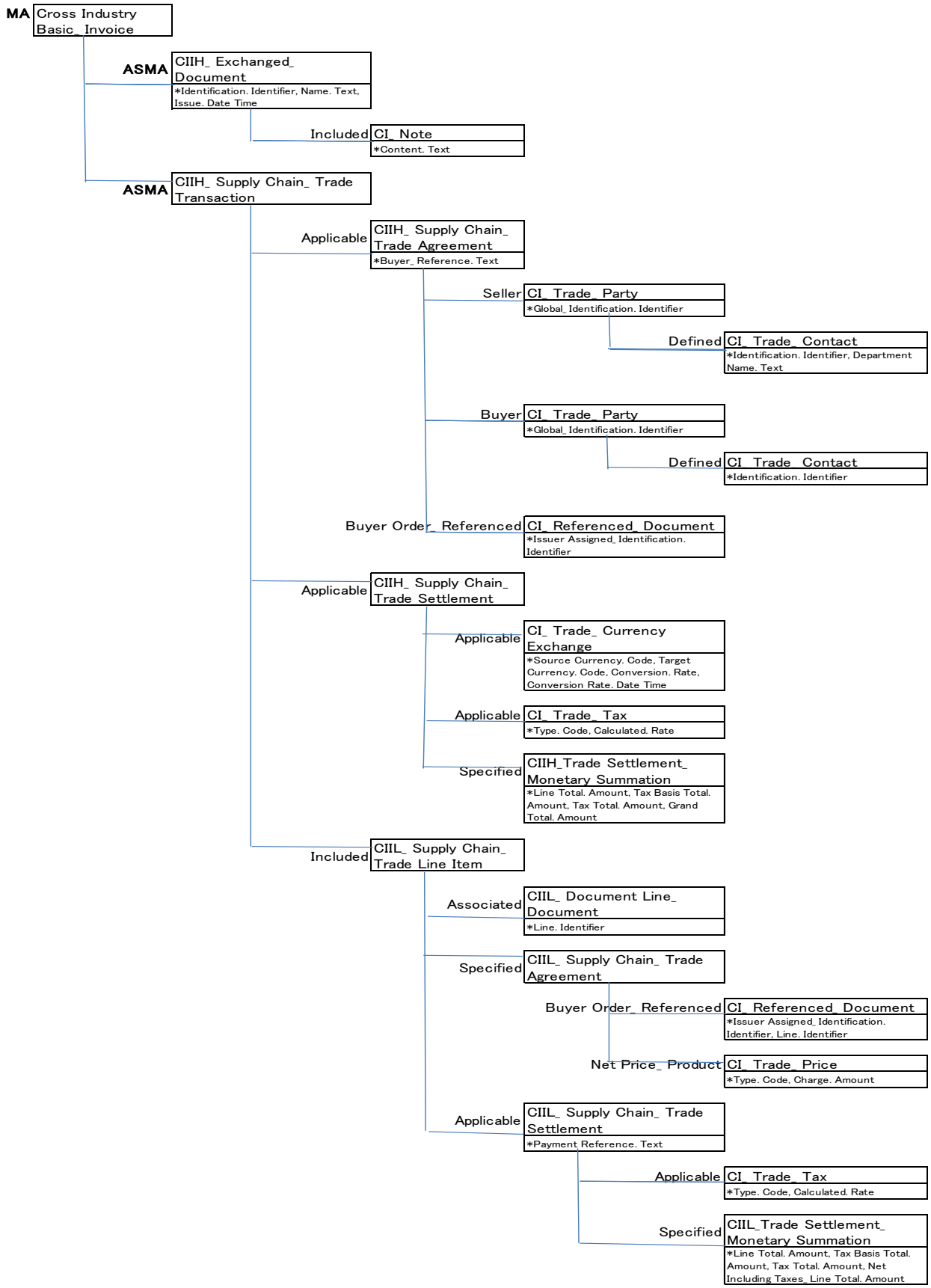
1.4 Dispatch advice message

(1) Data model



1.5 Invoice message

(1) Data model



Chapter V: Small and Medium-sized enterprises common EDI Specifications V1.0

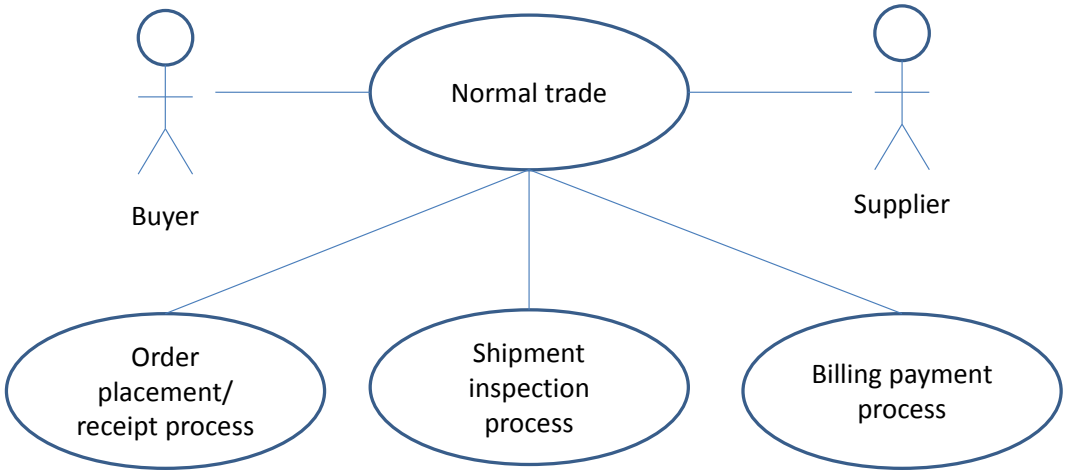
This chapter explains the Small and Medium-sized Enterprises Common EDI Specifications V1.0 formulated based on the Cross-Industry EDI Specifications V2.0, which was open to the public by UN/CEFACT Japan Committee Supply Chain Information Platform Study Group (SIPS) in March 2013.

Japanese small and medium-sized enterprises have conducted commercial trade using analog measures such as paper documents and FAX. Therefore, for the survival of Japanese industries, realizing efficient supply chains by transforming paper trade to digital trade is essential. The Small and Medium-sized Enterprises Common EDI Specifications V1.0 is expected to be used as implementation specifications for the practical application of the small and medium-sized enterprises common EDI, which becomes the measure to realize such efficient supply chains.

Users of the Small and Medium-sized Enterprises Common EDI Specifications V1.0 are expected to be small and medium-sized enterprises, EDI service providers, and software package vendors.

1. Scope of the trade

The Small and Medium-sized Enterprises Common EDI Specifications V1.0 is expected to be used for exchanging trade information between the buyer and the supplier in normal trade among Japanese small and medium-sized enterprises.



However, trade in installment delivery and trade accompanied with supplies are not targeted, and we plan to continue to study the specifications for such trade.

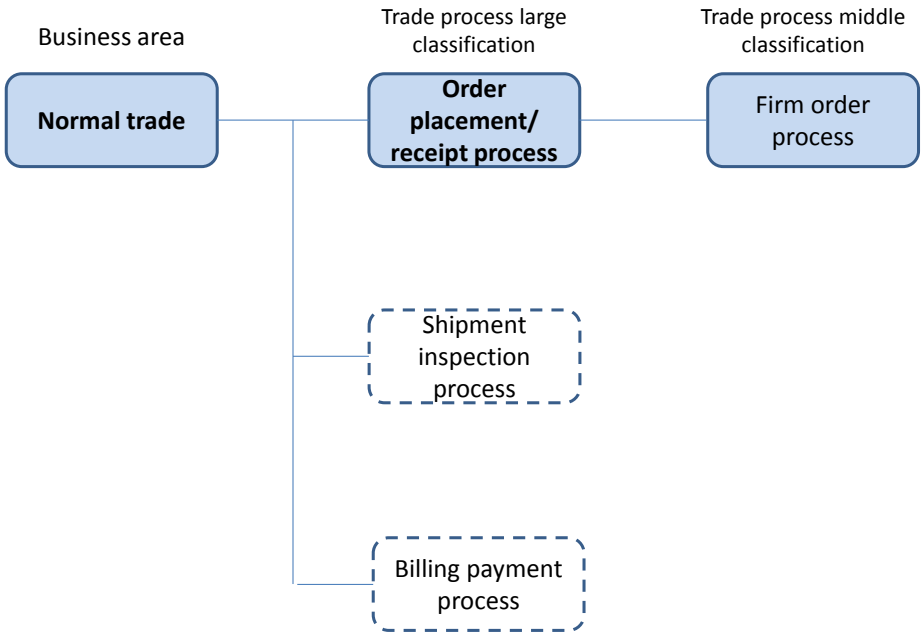
2. Firm order process

2.1 Purpose of the firm order process

The buyer and the supplier confirm the order contents and determine the order under the agreement of both parties to make the application for individual contract including the "securing of products (rendering of service)" clear.

2.2 Business area

Among the order placement/receipt business in the supply chain in Japan, in which small and medium-sized enterprises are involved, the firm order process is targeted.



2.3 List of transactions

Requirement No.	Business requirement	Trade process	Transaction
—	Preliminary process (not included in this explanation)	Estimate or preliminary notification	
A.1	The buyer determines all terms and conditions of the contract, and issues the firm order information when applying for an individual contract.	Firm order	Order transaction

Requirement No.	Business requirement	Trade process	Transaction
A.2	As declaration of intention for the application for individual contract, the supplier creates the firm order reply information. The buyer and the supplier decide in advance if the firm order response information should be returned to all cases or only in the case of conditional acceptance and refusal.	Firm order	Order response transaction
—	Follow-up process	Shipment	

2.4 Process definition

<table>
<tr><td colspan="2">Business process description</td></tr>
<tr><td colspan="2">Outline</td></tr>
<tr><td>Name</td><td>Firm order</td></tr>
<tr><td>Explanation</td><td>The buyer and the supplier confirm the order contents and determine the order under the agreement of both parties to make the application for individual contract including the "securing of products (rendering of service)" clear.</td></tr>
<tr><td colspan="2">Details</td></tr>
<tr><td>Business area</td><td>Normal trade</td></tr>
<tr><td>Process area</td><td>Order placement/receipt process: Firm order</td></tr>
<tr><td>Persons concerned with business processes</td><td>Buyer/Supplier/Corporation as delivery destination (the corporation designated by the buyer)</td></tr>
<tr><td>Persons in charge of business processing</td><td>Purchasing department (buyer), sales department (supplier)</td></tr>
<tr><td colspan="2">Initiation and termination</td></tr>
<tr><td>Conditions when starting the business process</td><td>Preparation for order placement (determination of order requirements and completion of in-house approval)</td></tr>
<tr><td>Conditions when ending the business process</td><td>Order response confirmation (completion of individual contract)</td></tr>
<tr><td>Business processes start period</td><td>Order information transmission</td></tr>
<tr><td>Business processes end period</td><td>Order response information reception</td></tr>
<tr><td>Activities within business process</td><td>Operation rules concerning the order reply information
1) The buyer and the supplier decide in advance if the firm order reply information should be returned to all cases or only in the case of conditional acceptance and refusal.
2) Main items subject to conditional acceptance
<table><tr><td>Item name</td><td>Trade unit price</td><td>Order quantity</td><td>Time of delivery</td></tr></table>
3) If the supplier transmits the order reply information of conditional acceptance, the individual contract is not completed.
4) If the supplier transmits the order reply information of conditional acceptance, the buyer does not process the change of the firm order and retransmit the order information with the results of adjustment of conditions by both parties. If the</td></tr>
</table>

	both parties agree on the first conditions as a result of adjustment of conditions, the buyer retransmits the order information of the same contents.
Explanation of exception handling	If the order response information is not returned, the process is judged according to the basic contract or EDI individual contract. Basically, individual contracts are often completed.
Relations with other business	
Business processes to be included	
Business processes and business information to be affected	The "shipping advice process" and the "billing process" coordinated with order No. are affected.

2.5 Use case figure

Equal to the Cross-Industry EDI Specifications V2.0 Business Coordination (Chapter II).
See Chapter II 3.5.

2.6 Activity figure

Equal to the Cross-Industry EDI Specifications V2.0 Business Coordination (Chapter II).
See Chapter II 3.6.

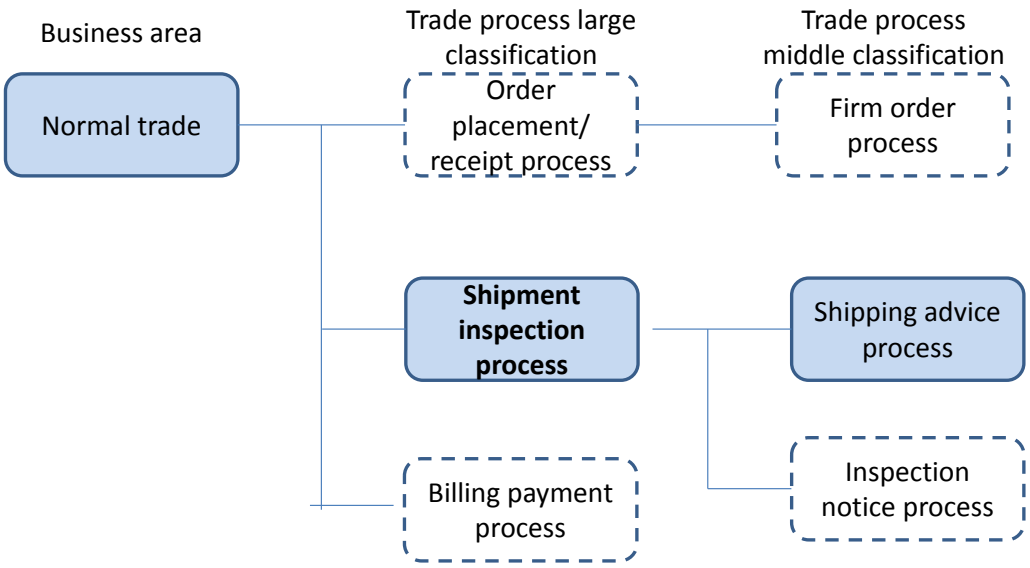
3. Shipping advice process

3.1 Purpose of the shipping advice process

The supplier notifies the buyer of the shipment contents of ordered products in advance to make the receipt and inspection of the buyer smooth.

3.2 Business area

Among the order placement/receipt business in the supply chain in Japan, in which small and medium-sized enterprises are involved, the shipping advice process is targeted.



3.3 List of transactions

Requirement No.	Business requirement	Trade process	Transaction
—	Preliminary process	Firm order	
A.1	If the terms and conditions of delivery and shipment are determined, the supplier issues the dispatch advice information to the buyer.	Shipping advice	Shipping advice transaction
—	Follow-up process (not included in the Business Coordination Definition)	Inspection notice or billing	

3.4 Process definition

Business process description	
Outline	
Name	Shipping advice
Explanation	The supplier notifies the buyer of the shipment contents to make the receipt and inspection of the buyer smooth.
Details	
Business area	SCM
Process area	Shipment inspection process: Shipping advice

Persons concerned with business process	Buyer/Supplier/Corporation as delivery destination (the corporation designated by the buyer) /Public carrier
Persons in charge of business processing	Purchasing department (buyer), sales department (supplier)
Initiation and termination	
Conditions when starting the business process	Preparation for shipment (determination of delivery shipment conditions)
Conditions when ending the business process	Confirmation of shipment contents
Business process start period	Shipping advice information transmission
Business processes end period	Shipping advice information reception
Activities within business process	Operation rules concerning the shipping advice information 1) The dispatch advice information is transmitted after delivery shipment conditions such as delivery quantity, delivery date, delivery destination, public carrier, mode of packing, and packing number are determined. 2) The buyer and the supplier agree in advance the processing method when transmitting the dispatch advice information if a part of the shipment conditions mentioned above is undetermined.
Explanation of exception handling	The buyer and the supplier agree in advance the processing method when actual delivered products differ from the contents of firm order information (such as installment payment). The buyer and the supplier agree in advance the processing method when actual delivered products differ from the contents of dispatch advice information.
Relations with other business	
Business process to be include	
Business process and business information to be affected	The "shipment inspection process (inspection process)" and the "billing payment process" coordinated with shipment No. are affected.

3.5 Use case figure

Equal to the Cross-Industry EDI Specifications V2.0 Business Coordination (Chapter II).
See Chapter II 4.5.

3.6 Activity figure

Equal to the Cross-Industry EDI Specifications V2.0 Business Coordination (Chapter II).
See Chapter II 4.6.

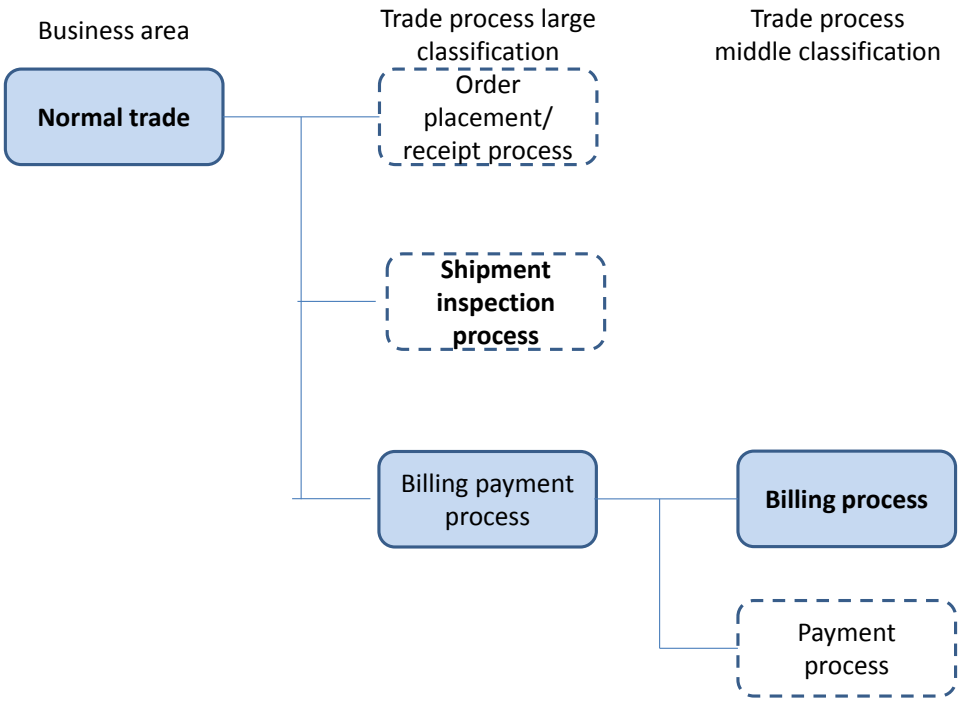
4. Billing process

4.1 Purpose of the billing process

After the contents of shipping advice by the supplier and the contents of inspection by the buyer are confirmed, the supplier can immediately handle the billing.

4.2 Business area

Among the order placement/receipt business in the supply chain in Japan, in which small and medium-sized enterprises are involved, the billing process is targeted.



4.3 List of transactions

Requirement No.	Business requirement	Trade process	Transaction
—	Preliminary process (not included in the Business Coordination Definition)	Inspection notice or shipping advice	
A.1	When the supplier received an inspection notice from the buyer, the accounts receivable are determined. Based on the information of determined accounts receivable, the supplier issues the billing information to the buyer at the billing date agreed between the buyer and the supplier in advance. If the buyer agreed with the supplier that no inspection notice is issued, after shipping the ordered products, the supplier issues the billing information to the buyer at the billing date agreed between the buyer and the supplier in advance.	Billing	Billing transaction
—	Follow-up process (not included in the Business Coordination Definition)	Payment	

4.4 Process definition

Business process description	
Outline	
Name	Billing
Explanation	The supplier transmits the billing information to the buyer at the billing date agreed between the buyer and the supplier in advance to make the billing payment processing smooth.
Details	
Business area	Normal trade
Process area	Billing payment process: Billing
Persons concerned with business process	Buyer/Supplier
Persons in charge of business processing	Purchasing department (buyer), sales department (supplier)
Initiation and termination	
Conditions when starting the business process	The billing date agreed between the buyer and the supplier in advance
Conditions when ending the business process	Completion of confirming the billing contents by the buyer
Business process start period	Billing information transmission
Business process end period	Completion of confirming the billing contents by the buyer
Activities within the business process	Operation rules concerning the billing information 1) The supplier transmits the billing information based on the information of accounts receivable. 2) The buyer and the supplier agree the billing date and the period subject to billing, etc. in advance.
Explanation of exception handling	The buyer and the supplier agree in advance the processing method when there is a difference between the contents of billing information and inspection information.
Relations with other business	
Business process to be included	
Business process and business information to be affected	The "billing payment process" (payment notice process) coordinated with order No. or shipment No. are affected.

4.5 Use case figure

Equal to the Cross-Industry EDI Specifications V2.0 Business Coordination (Chapter II).
See Chapter II 5.5.

4.6 Activity figure

Equal to the Cross-Industry EDI Specifications V2.0 Business Coordination (Chapter II).
See Chapter II 5.6.

5. Small and Medium-sized Enterprises Common EDI Message Library V1.0

The Small and Medium-sized Enterprises Common EDI Message Library V1.0 consists of the following two message dictionaries for trade among small and medium-sized enterprises, which were formulated by extending parts of the Cross-Industry EDI Basic Message Library V2.0.

(i) "Basic specifications" Message Library that small and medium-sized enterprises generally use.

(ii) "Small and medium-sized manufacturing industries specifications" Message Library, which is extended for use by small and medium-sized manufacturing industries.

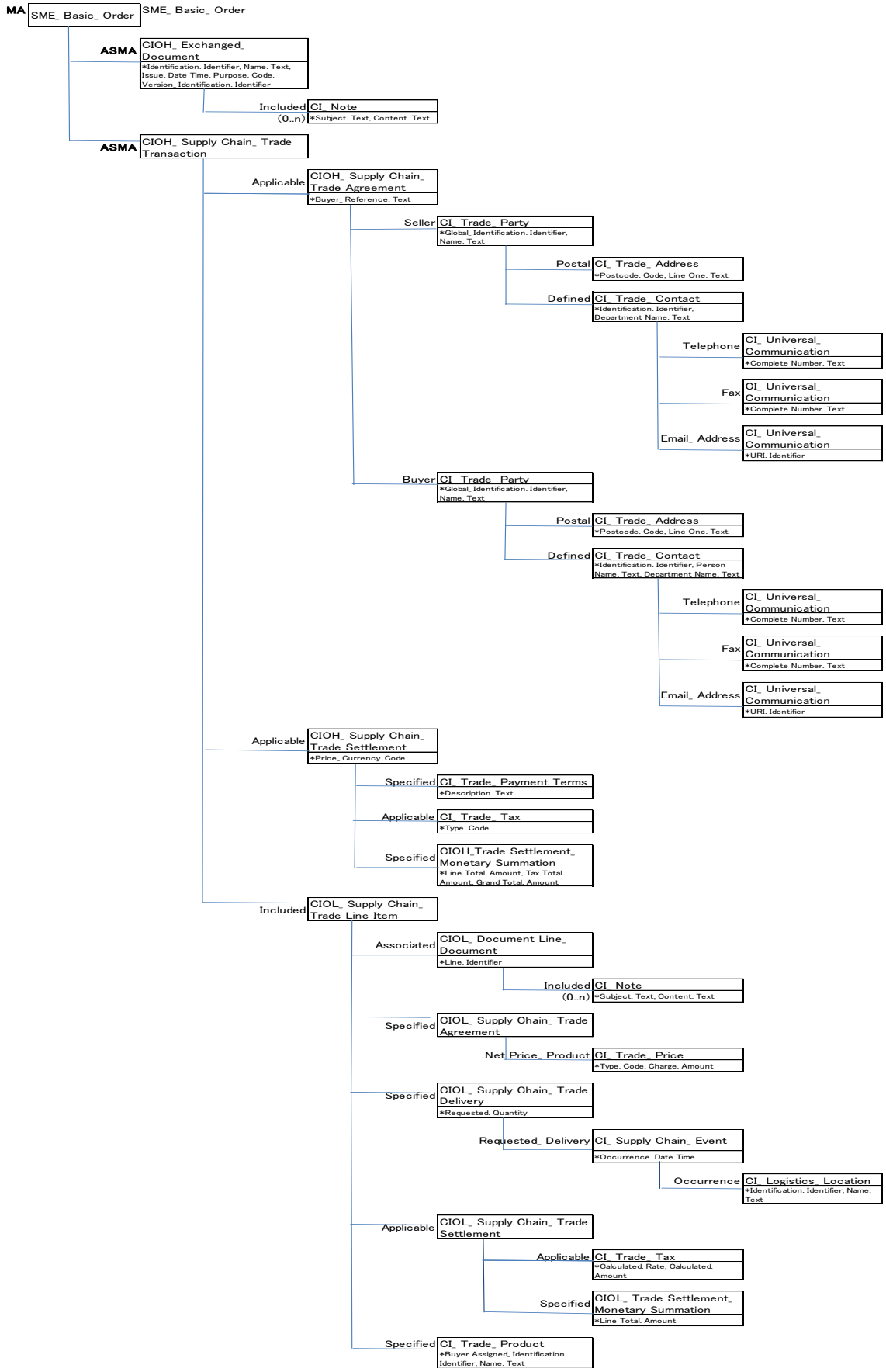
5.1 Small and medium-sized enterprises common EDI "Basic specifications" Message Library

5.1.1 Purpose and scope

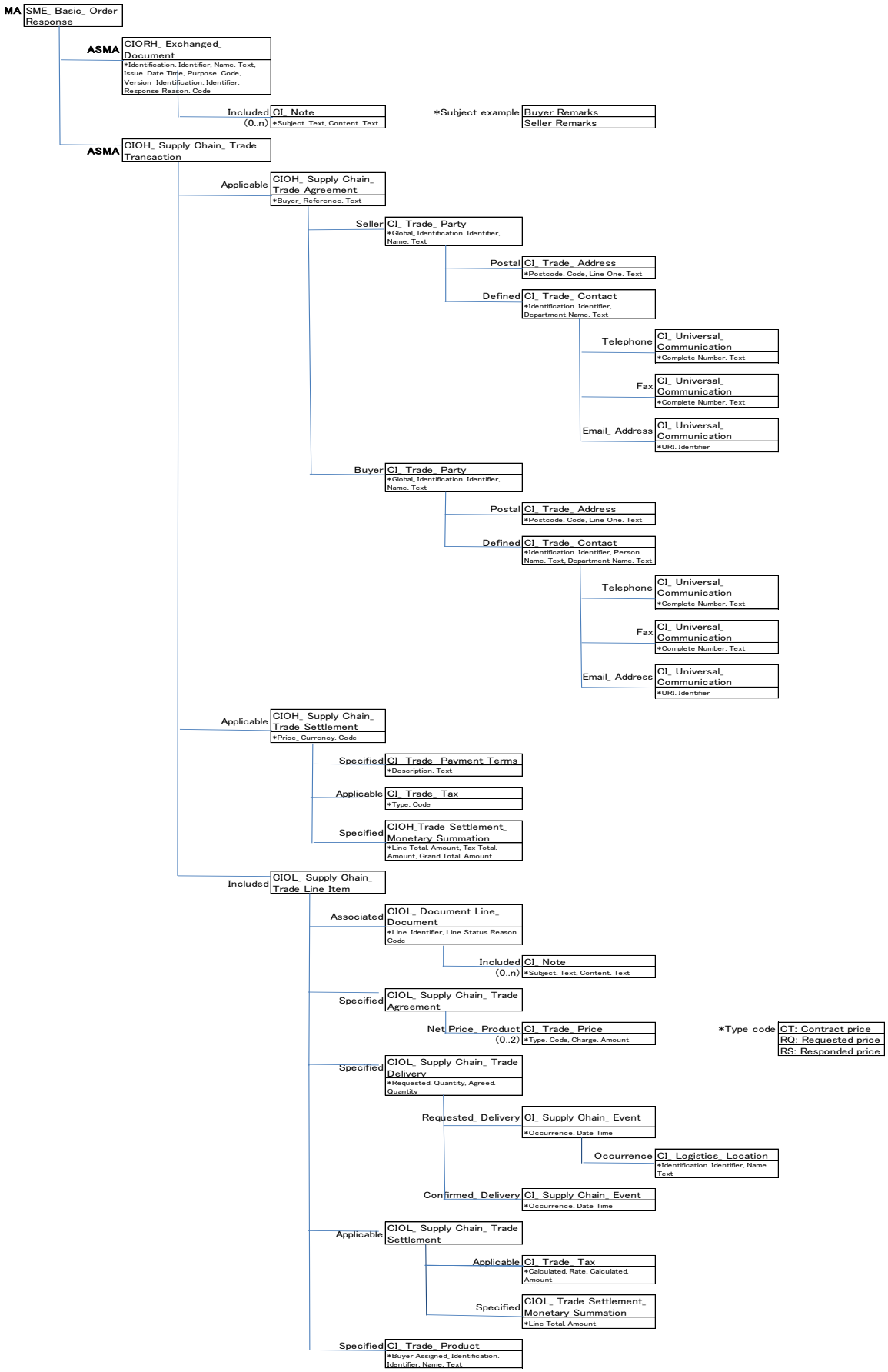
For the purpose of helping small and medium-sized enterprises use them to easily shift from trade using paper sheets to EDI trade, we formulated the firm order process (order message, order reply message), shipping advice process (dispatch advice message), and billing process (invoice message).

5.1.2 Message organizing data model

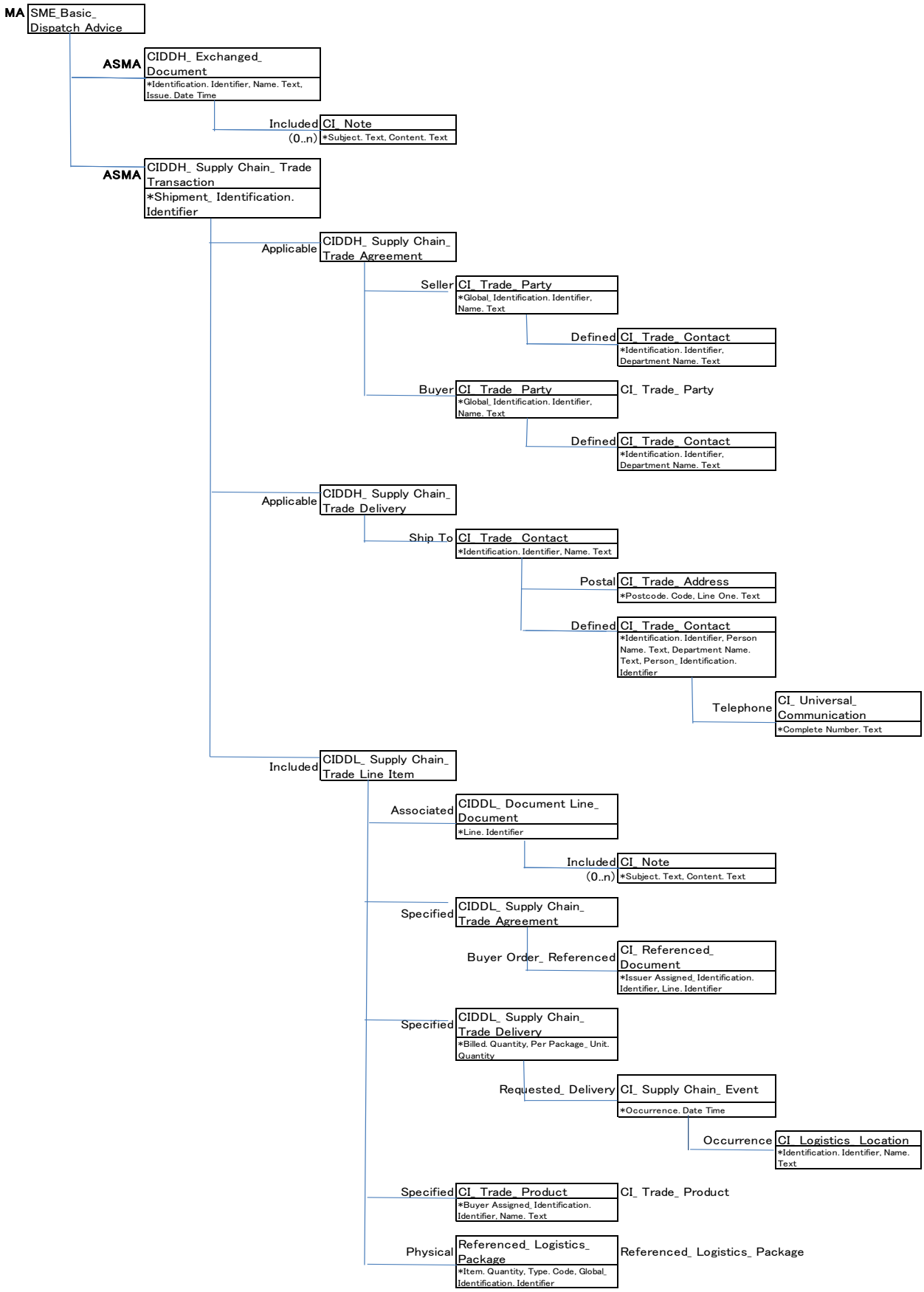
(1) Order message



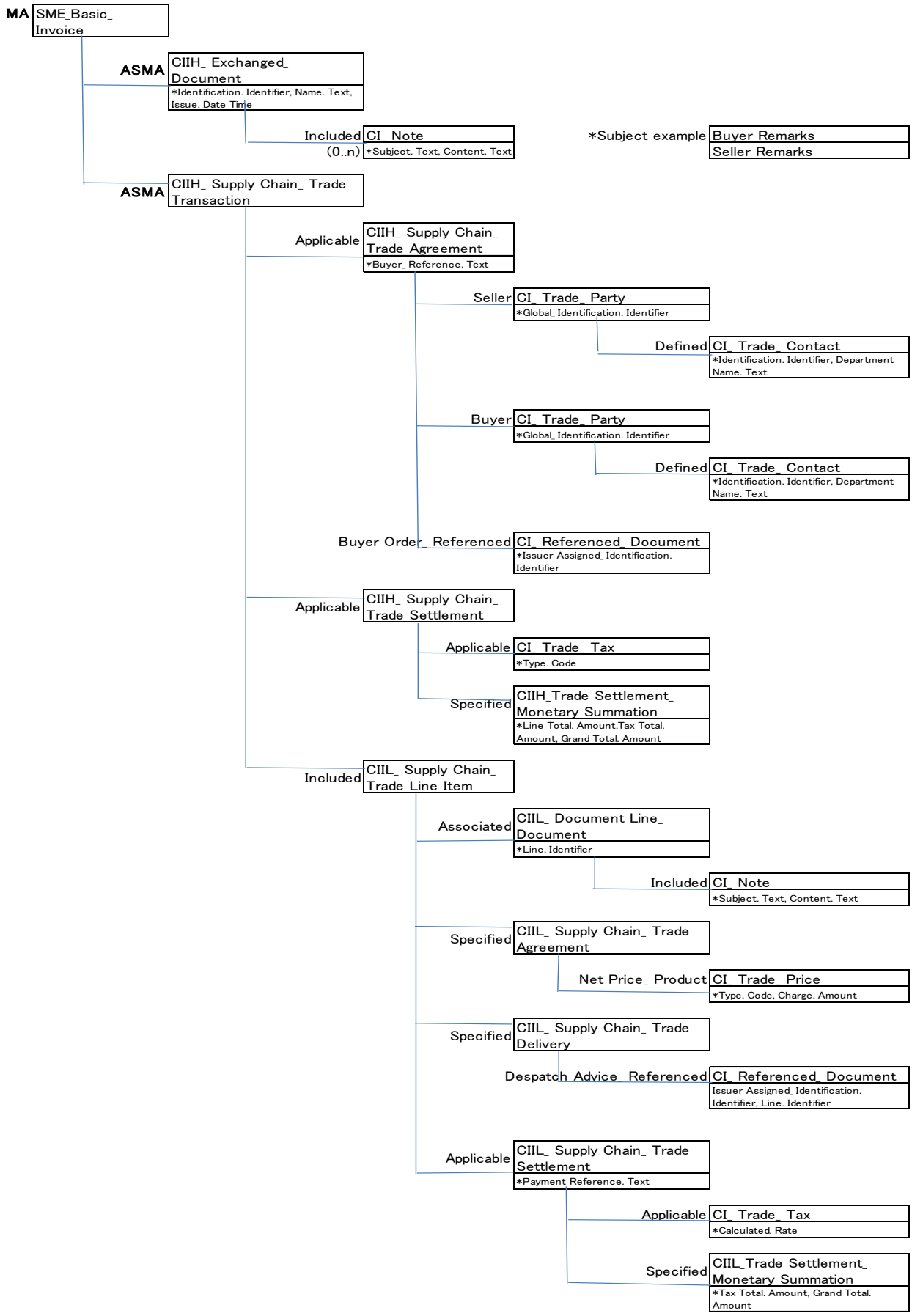
(2) Order response message



(3) Dispatch advice message



(4) Invoice message



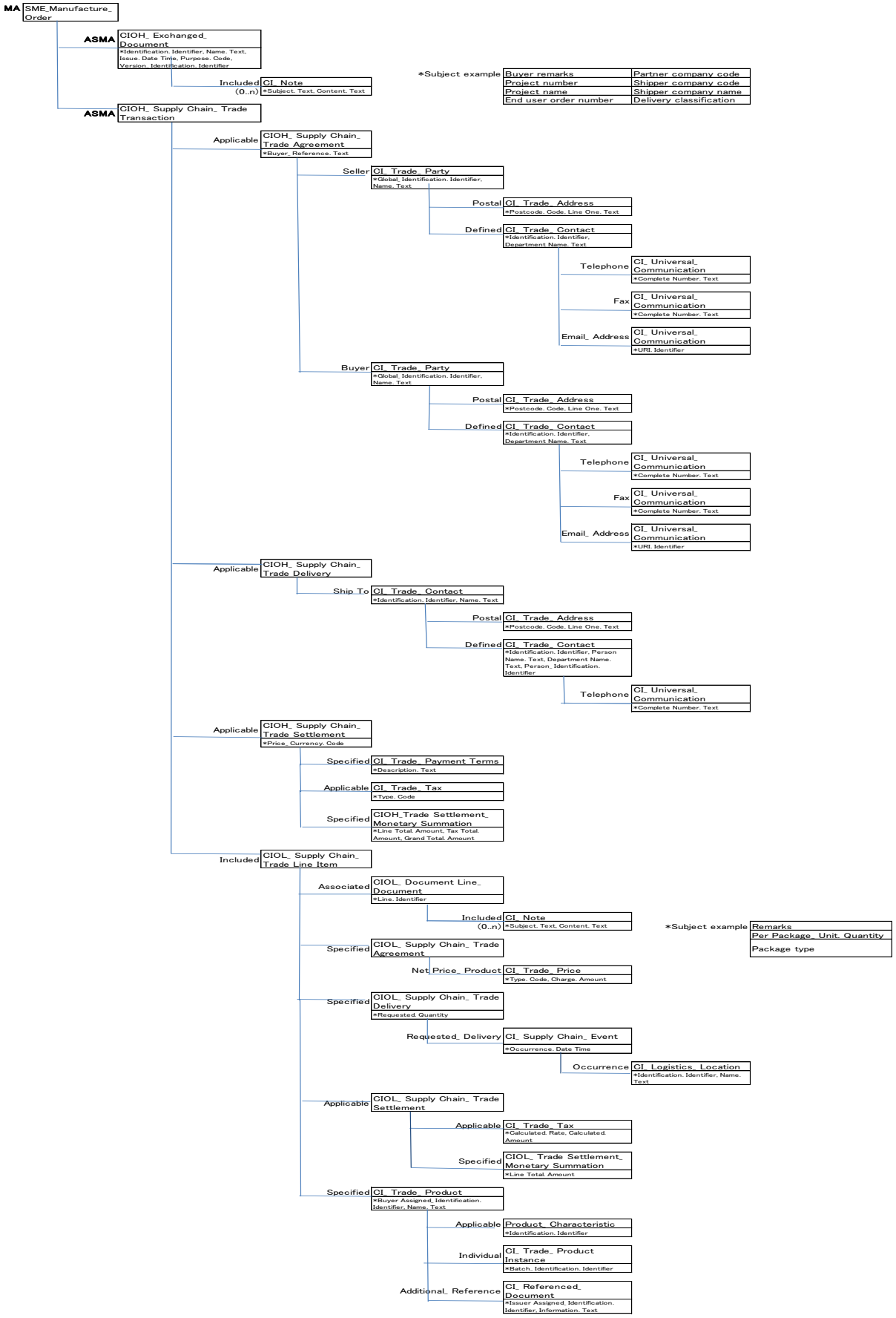
5.2 Small and medium-sized enterprises common EDI "Small and medium-sized manufacturing industries specifications" Message Library

5.2.1 Purpose and scope

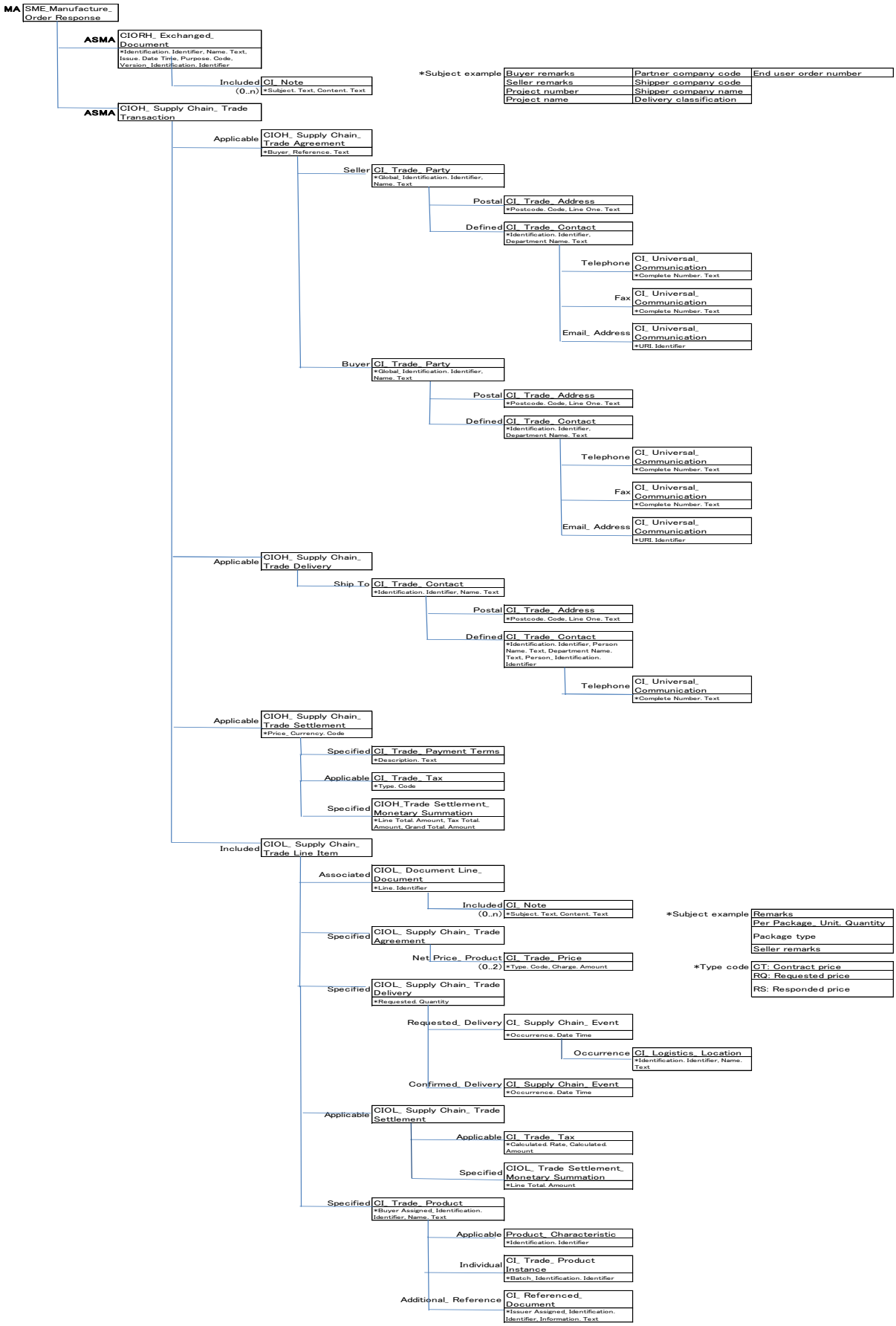
For the purpose of helping small and medium-sized enterprises use them in EDI trade, we formulated the firm order process (order message, order response message), shipping advice process (dispatch advice message), and billing process (invoice message).

5.2.2 Message organizing data model

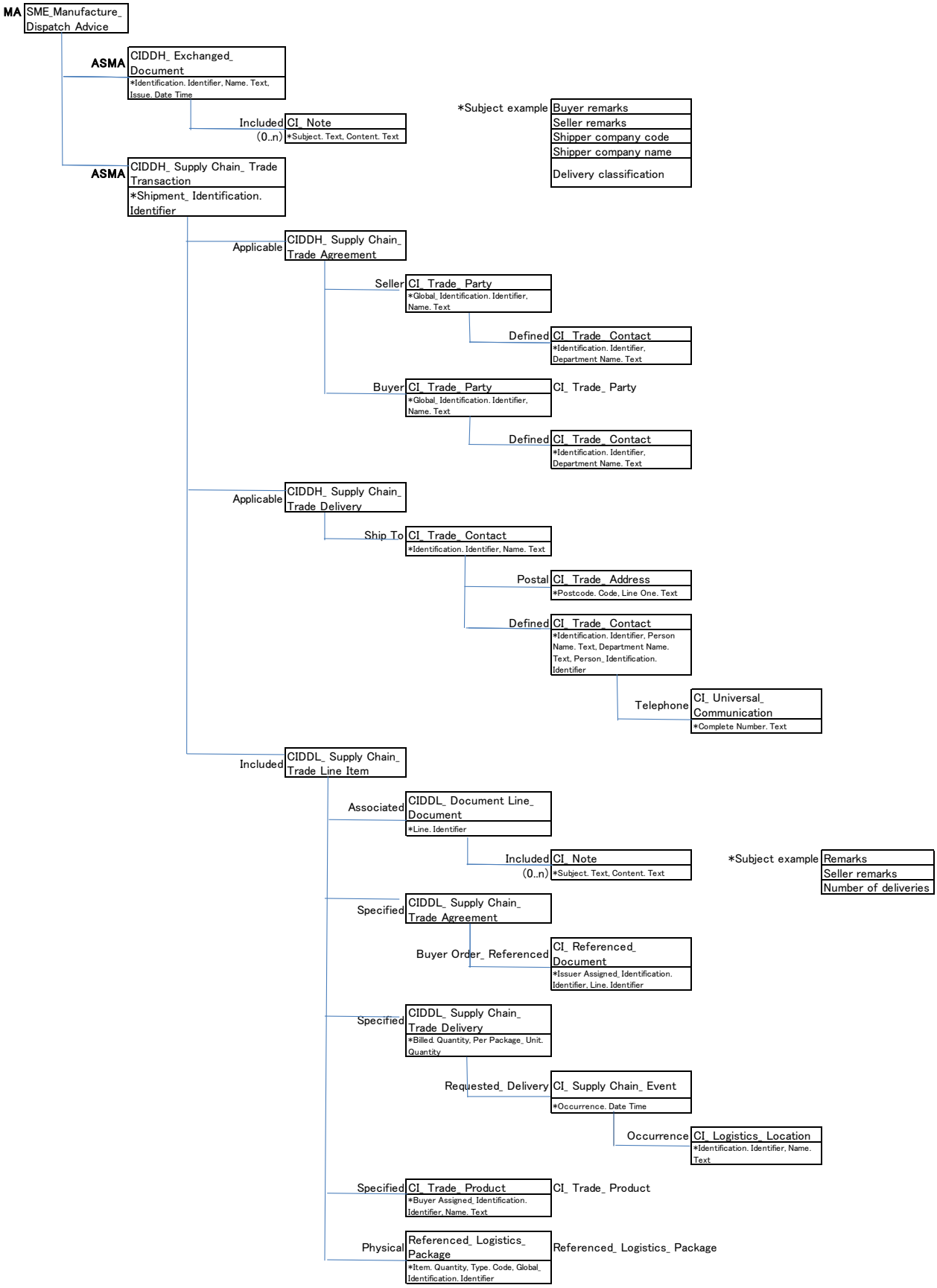
(1) Order message



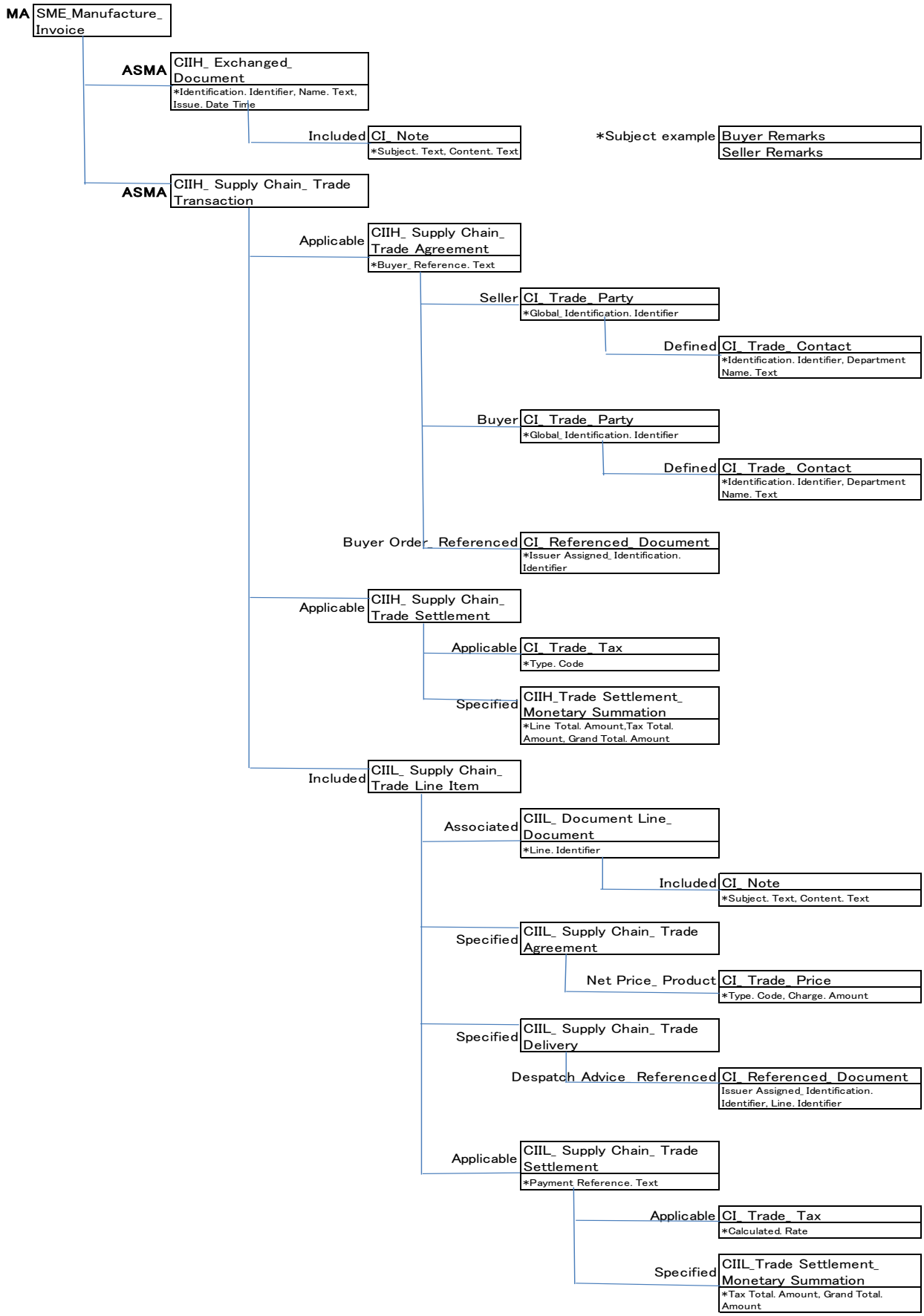
(2) Order response message



(3) Dispatch advice message



(4) Invoice message



Chapter VI: Local Governments Consumables Purchase EDI Specifications V1.0

1. Purpose and scope

At present, handwritten paper slips are used for all delivery and billing processing when local governments purchase consumables. Moreover, different types of paper documents are used even within the same local government, which have various entry contents and formats. Therefore, the use of paper slips generates wasteful procedures such as entries to handwritten slips and burdens of postage. To eliminate such procedures, it is necessary to use EDI. However, the use of different EDI by each local government is meaningless, and the standardization of EDI is necessary. Therefore, we formulated the Local Government Consumables Purchase Message Library V1.0. referring to the Cross-Industry EDI Library V2.0.

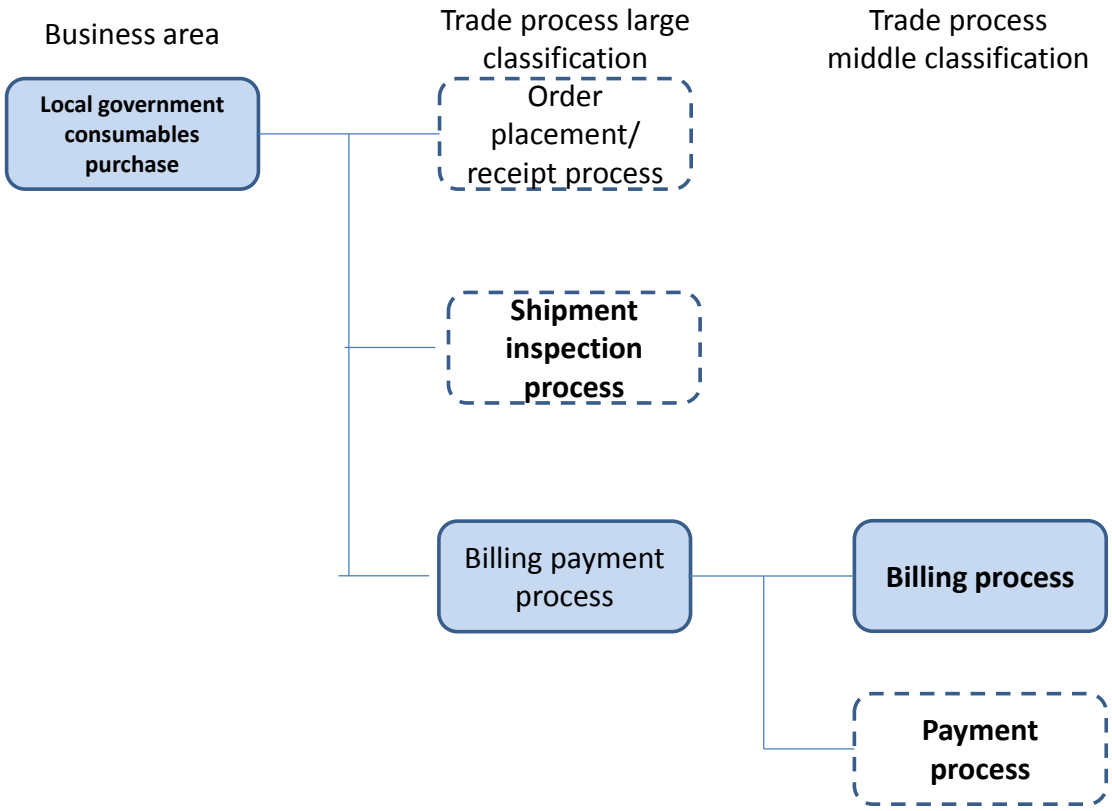
Local governments use not only FAX and e-mail but also telephone as ordering measures. We want to extend the application of this Library to the order placement/receipt process and the shipment inspection process in the future to make the order processing more efficient and reduce wrong order placement/receipt.

We formulated the Local Government Consumables Purchase Message Library V1.0 by paying attention to the following points.

(1) The business area is the billing process for local governments to purchase consumables.
(2) The library should be available to all local governments.
(3) All items in handwritten paper slips are used in the library to make a simultaneous use with handwritten paper slips possible.

1.2 Business area

Among the consumables purchase business of local governments, the billing process is targeted.



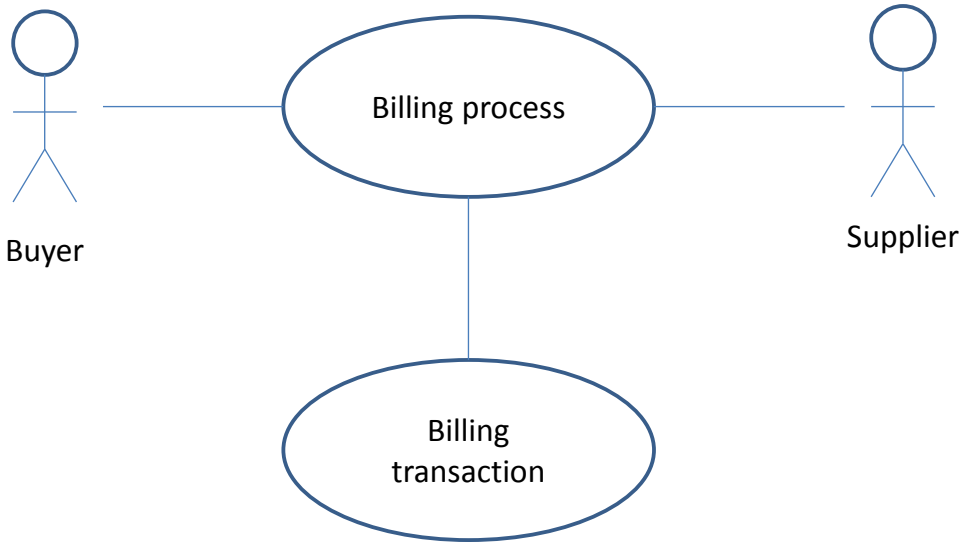
1.3 List of transactions

Requirement No.	Business requirement	Trade process	Transaction
—	Preliminary process (not included in the Business Coordination Definition)	Inspection notice	
A.1	When the terms and conditions of the completion of delivery are determined, the supplier issues the billing information to the buyer.	Billing	Billing transaction
—	Follow-up process (not included in the Business Coordination Definition)	Payment notice	

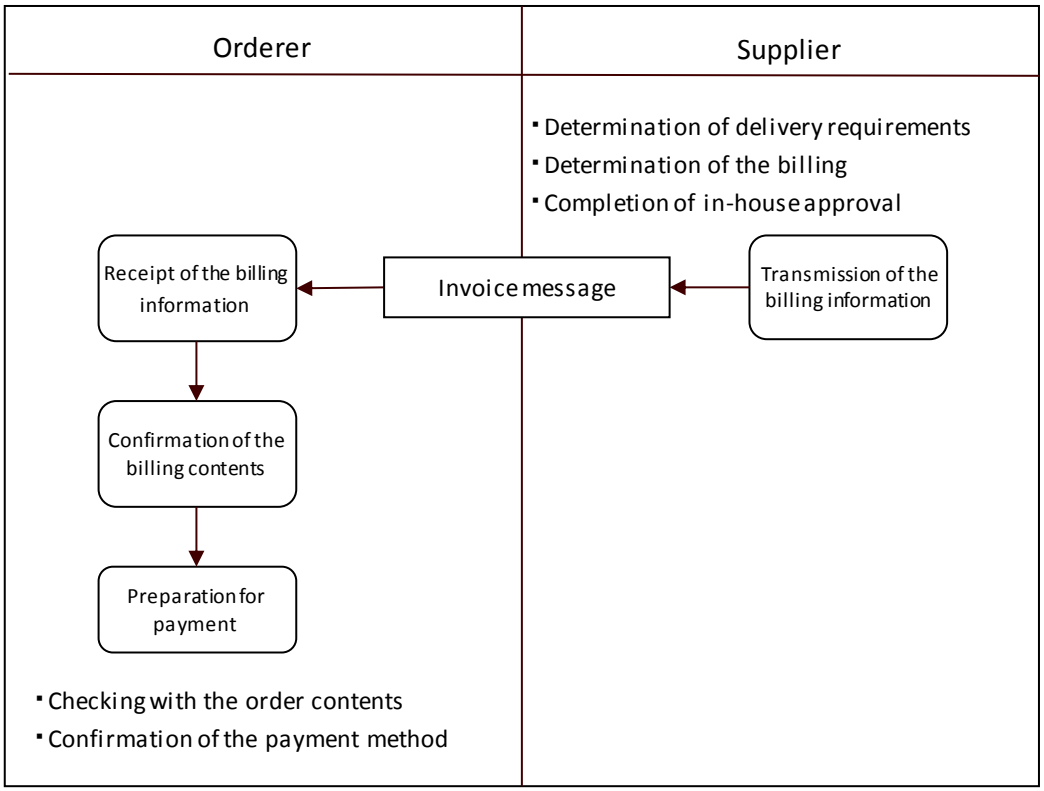
1.4 Process definition

Business process description	
Outline	
Name	Billing
Explanation	The supplier transmits the billing information to the buyer based on the information of determined accounts receivable to make the billing payment processing smooth.
Details	
Business area	Local governments' purchase of consumables
Process area	Billing payment process: Billing
Persons concerned with business process	Buyer/Supplier
Persons in charge of business processing	Purchasing department (buyer), sales department (supplier)
Initiation and termination	
Conditions when starting the business process	Preparation for billing (after the completion of delivery inspection)
Conditions when ending the business process	Completion of confirming the billing contents by the buyer
Business process start period	Billing information transmission
Business process end period	Completion of confirming the billing contents by the buyer
Activities within the business process	Operation rules concerning the billing information (1) The supplier transmits the billing information (invoice) after confirming the inspection notice. (2) The buyer and the supplier agree the billing date and the period subject to billing, etc. in advance.
Explanation of exception handling	The buyer and the supplier agree in advance the processing method when there is a difference between the contents of billing information (invoice) and inspection information.
Relations with other business	
Business process to be included	
Business process and business information to be affected	The "billing payment process" (payment notice process) coordinated with order No. or payment notice No. are affected.

1.5 Use case figure



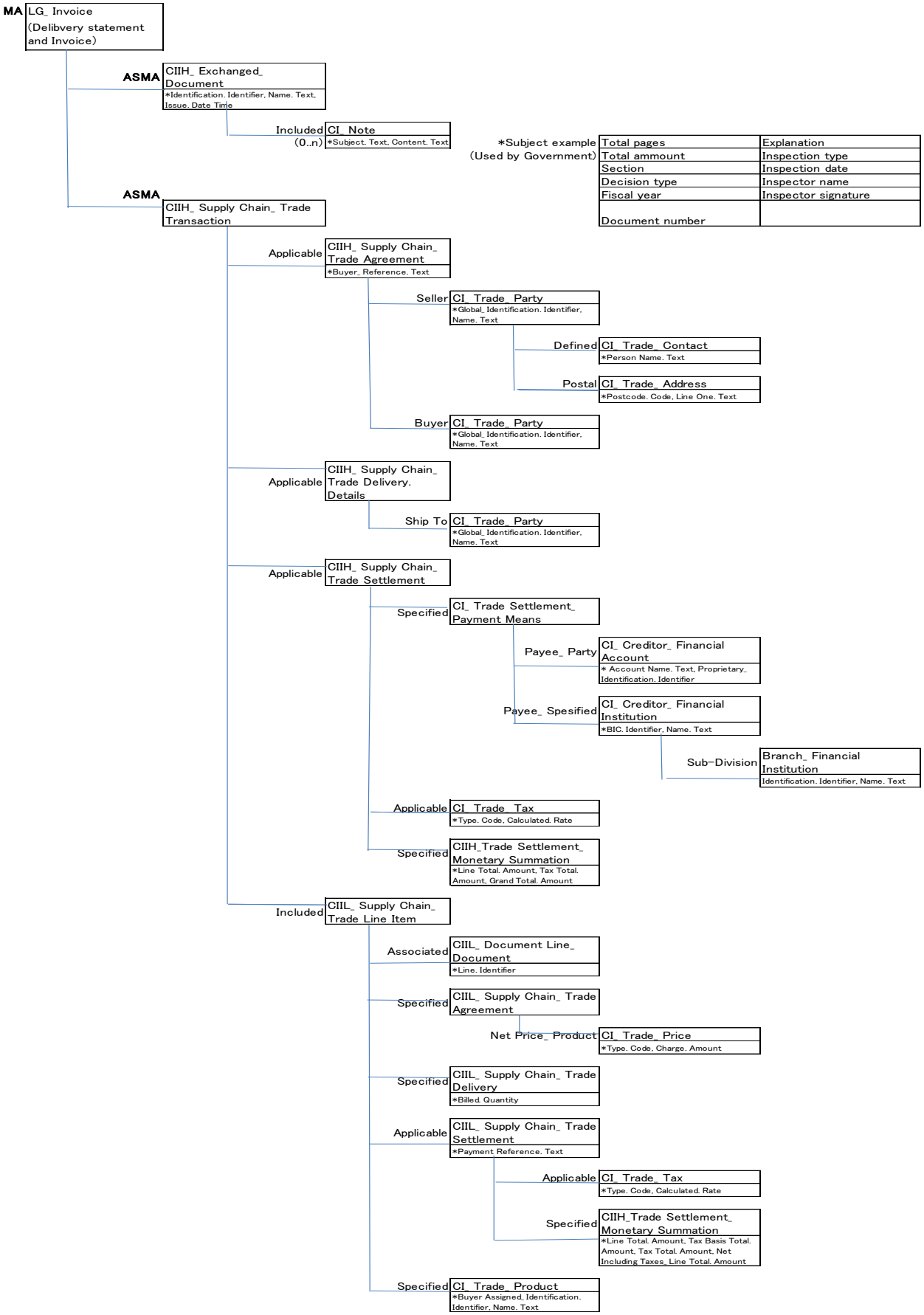
1.6 Activity figure



2. Local government consumables purchase message Library

2.1 Message organizing data model

(1) Invoice message



Attachment 1 : Cross-Industry Data Library V2.0 Business Information Entities

Unique UN Assigned ID	Dictionary Entry Name	Japanese Business Term	Definition	BBIE used	Associated ABIE
UN01003138	Branch_ Financial Institution. Details	金融機関支店	A sub-division of a bank, building society, credit union, stock brokerage, or similar business; established primarily to provide financial services and financial transactions.	Identification. Identifier Name. Text	
UN01005398	CI_ Creditor_ Financial Account. Details	債権者銀行口座	A specific Cross Industry (CI) business arrangement whereby credits arising from transactions are recorded.	IBAN_ Identification. Identifier Account Name. Text	
UN01005402	CI_ Creditor_ Financial Institution. Details	債権者金融機関	A bank, building society, credit union, stock brokerage, or similar business of the Cross Industry (CI) party that receives money.	BIC. Identifier Name. Text	Branch_ Financial Institution
UN01005512	CI_ Logistics_ Location. Details	物流拠点等所在地	A Cross Industry (CI) logistics related physical location or place.	Identification. Identifier Name. Text Type. Code Description. Text	CI_ Trade_ Address
UN01005557	CI_ Note. Details	注釈	A textual or coded Cross Industry (CI) description, such as a remark or additional information.	Subject. Text Content. Text	
UN01005567	CI_ Product_ Characteristic. Details	商品特性、 製品特性	A prominent attribute or aspect of a Cross Industry (CI) product.	Identification. Identifier Type. Code Description. Text Value. Measure	
UN01005579	CI_ Referenced_ Document. Details	参照文書、 引用文書	Written, printed or electronic matter that is referenced for Cross Industry (CI) purposes.	Issuer Assigned_ Identification. Identifier URI_ Identification. Identifier Name. Text Information. Text Line. Identifier	
UN01005621	CI_ Supply Chain_ Consignment. Details	委託貨物	A separately identifiable collection of goods items to be transported or available to be transported from one consignor to one consignee in a Cross Industry (CI) supply chain via one or more modes of transport under a single transport contract.	Associated Invoice. Amount Package. Quantity	CI_ Trade_ Party
UN01005626	CI_ Supply Chain_ Event. Details	作業、 工程	An occurrence or a happening in a Cross Industry (CI) supply chain.	Occurrence. Date Time	CI_ Logistics_ Location
UN01005670	CI_ Trade Settlement_ Payment Means. Details	支払方法、 支払手段、 決済手段	The means by which a payment will be or has been made for Cross Industry (CI) trade settlement purposes.		CI_ Creditor_ Financial Account CI_ Creditor_ Financial Institution
UN01005687	CI_ Trade_ Address. Details	住所、所在地	The place at which a particular Cross Industry (CI) trade related organization or person may be found or reached.	Postcode. Code Line One. Text	

Unique UN Assigned ID	Dictionary Entry Name	Japanese Business Term	Definition	BBIE used	Associated ABIE
UN01005718	CI_ Trade_ Contact. Details	担当窓口・連絡先	A person or a department that acts as a point of contact with another person or department in a Cross Industry (CI) trading relationship.	Identification. Identifier Person Name. Text Department Name. Text Person_ Identification. Identifier	CI_ Universal_ Communication
UN01005738	CI_ Trade_ Currency Exchange. Details	外国為替	The conversion of one currency to another for Cross Industry (CI) trade purposes.	Source Currency. Code Target Currency. Code Conversion. Rate Conversion Rate. Date Time	
UN01005756	CI_ Trade_ Party. Details	取引担当事業者	An individual, a group, or a body having a role in a Cross Industry (CI) trade business function.	Global_ Identification. Identifier Name. Text	CI_ Trade_ Contact CI_ Trade_ Address
UN01005779	CI_ Trade_ Payment Terms. Details	支払条件	Conditions by which payment has been or will be made for Cross Industry (CI) trade purposes.	Description. Text	
UN01005790	CI_ Trade_ Price. Details	売買価格、 卸値、 価格	A sum of money for which something is or may be bought or sold for Cross Industry (CI) trade purposes.	Type. Code Charge. Amount	
UN01005798	CI_ Trade_ Product Instance. Details	個品	An individual Cross Industry (CI) trade product or batch of identical CI trade products produced by human or mechanical effort or by a natural process.	Batch_ Identification. Identifier	
UN01005809	CI_ Trade_ Product. Details	取引製品	Any tangible output or service produced by human or mechanical effort or by a natural process for Cross Industry (CI) trade purposes.	Buyer Assigned_ Identification. Identifier Name. Text Trade_ Name. Text	CI_ Product_ Characteristic CI_ Trade_ Product Instance CI_ Referenced_ Document
UN01005832	CI_ Trade_ Tax. Details	取引税	A Cross Industry (CI) trade related fiscal tax, duty or levy.	Type. Code Calculated. Rate	
UN01005857	CI_ Universal_ Communication. Details	通信	The exchange of messages or information for Cross Industry (CI) purposes.	URI. Identifier Complete Number. Text	
UN01006800	CIDDH_ Exchanged_ Document. Details	出荷案内文書	A collection of data for a Cross Industry Delivery Despatch Advice Header (CIDDH) that is exchanged between two or more parties in written, printed or electronic form.	Identification. Identifier Name. Text Issue. Date Time	CI_ Note
UN01006837	CIDDH_ Supply Chain_ Trade Agreement. Details	出荷契約	Contractual terms of a supply chain trade agreement for a Cross Industry Delivery Despatch Advice Header (CIDDH).	Buyer_ Reference. Text	CI_ Referenced_ Document
UN01006844	CIDDH_ Supply Chain_ Trade Delivery. Details	出荷納入	Cross Industry Delivery Despatch Advice Header (CIDDH) supply chain shipping arrangements and movement of goods and or services including despatch and delivery.		CI_ Trade_ Party CI_ Supply Chain_ Consignment CI_ Supply Chain_ Event

Unique UN Assigned ID	Dictionary Entry Name	Japanese Business Term	Definition	BBIE used	Associated ABIE
UN01006864	CIDDH_ Supply Chain_ Trade Transaction. Details	出荷情報取引内容	Trade line items, trade agreement, trade delivery and trade settlement details included in a Cross Industry Delivery Despatch Advice Header (CIDDH).	Shipment_ Identification. Identifier	CIDDH_ Supply Chain_ Trade Agreement CIDDH_ Supply Chain_ Trade Delivery CIDDL_ Supply Chain_ Trade Line Item
UN01006871	CIDDL_ Document Line_ Document. Details	出荷明細行文書	A document line for a Cross Industry Delivery Despatch Advice Line (CIDDL).	Line. Identifier	CI_ Note
UN01006876	CIDDL_ Supply Chain_ Trade Agreement. Details	出荷明細行契約	Contractual terms of a supply chain trade agreement for a Cross Industry Delivery Despatch Line (CIDDL).		CI_ Referenced_ Document
UN01006882	CIDDL_ Supply Chain_ Trade Delivery. Details	出荷明細行納入	Shipping arrangements for a Cross Industry Delivery Despatch Advice Line (CIDDL) supply chain trade delivery.	Billed. Quantity Package. Quantity Per Package_ Unit. Quantity	CI_ Supply Chain_ Event
UN01006903	CIDDL_ Supply Chain_ Trade Line Item. Details	出荷明細行	A collection of information specific to a trade line item reported on for Cross Industry Delivery Despatch Advice Line (CIDDL)		CIDDL_ Document Line_ Document CIDDL_ Supply Chain_ Trade Agreement CIDDL_ Supply Chain_ Trade Delivery CI_ Trade_ Product Referenced_ Logistics_ Package
UN01005861	CIIH_ Exchanged_ Document. Details	請求情報文書	A collection of data for a Cross Industry Invoice Header (CIIH) that is exchanged between two or more parties in written, printed or electronic form.	Identification. Identifier Name. Text Issue. Date Time	CI_ Note
UN01005878	CIIH_ Supply Chain_ Trade Agreement. Details	請求契約	The contractual terms of the supply chain trade agreement for this Cross Industry Invoice Header (CIIH).	Buyer_ Reference. Text	CI_ Trade_ Party CI_ Referenced_ Document
UN01005896	CIIH_ Supply Chain_ Trade Delivery. Details	出荷納入(請求)	Cross Industry Invoice Header (CIIH) supply chain shipping arrangements and movement of products and or services including despatch and delivery.		CI_ Trade_ Party
UN01005909	CIIH_ Supply Chain_ Trade Settlement. Details	決済(請求)	The information that enables the financial reconciliation of the Cross Industry Invoice Header (CIIH) of a supply chain transaction with the item(s) that the financial transaction is intended to settle.		CI_ Trade_ Currency Exchange CI_ Trade Settlement_ Payment Means CI_ Trade_ Tax CIIH_ Trade Settlement_ Monetary Summation
UN01005936	CIIH_ Supply Chain_ Trade Transaction. Details	請求情報取引内容	The trade line items, trade agreement, trade delivery and trade settlement details included in this Cross Industry Invoice Header (CIIH).		CIIH_ Supply Chain_ Trade Agreement CIIH_ Supply Chain_ Trade Delivery CIIH_ Supply Chain_ Trade Settlement CIIL_ Supply Chain_ Trade Line Item

Unique UN Assigned ID	Dictionary Entry Name	Japanese Business Term	Definition	BBIE used	Associated ABIE
UN01005941	CIIH_ Trade Settlement_ Monetary Summation. Details	請求金額集計	A collection of trade settlement monetary totals specified for this Cross Industry Invoice Header (CIIH).	Charge Total. Amount Tax Basis Total. Amount Tax Total. Amount Grand Total. Amount	
UN01005953	CIIL_ Document Line_ Document. Details	請求明細行文書	A document line for this Cross Industry Invoice Line (CIIL).	Line. Identifier	CI_ Note
UN01005958	CIIL_ Supply Chain_ Trade Agreement. Details	請求明細行契約	The contractual terms applicable to a line item in a Cross Industry Invoice Line (CIIL) supply chain trade agreement.		CI_ Referenced_ Document CI_ Trade_ Price
UN01005968	CIIL_ Supply Chain_ Trade Delivery. Details	請求明細行出荷納入	Supply chain shipping arrangements applicable to a line item for a Cross Industry Invoice Line (CIIL) supply chain trade delivery.	Billed. Quantity	
UN01005988	CIIL_ Supply Chain_ Trade Line Item. Details	請求明細行	A collection of Cross Industry Invoice Line (CIIL) information specific to an item being used or reported on for supply chain trade purposes.		CIIL_ Document Line_ Document CIIL_ Supply Chain_ Trade Agreement CIIL_ Supply Chain_ Trade Delivery CIIL_ Supply Chain_ Trade Settlement CI_ Trade_ Product
UN01005994	CIIL_ Supply Chain_ Trade Settlement. Details	請求明細行決済	The Cross Industry Invoice Line (CIIL) information that enables the financial reconciliation of a supply chain transaction with the item(s) that the financial transaction is intended to settle.	Payment Reference. Text	CI_ Trade_ Tax CIIL_ Trade Settlement_ Monetary Summation
UN01006006	CIIL_ Trade Settlement_ Monetary Summation. Details	請求明細行金額集計	A collection of trade settlement monetary totals specified for this Cross Industry Invoice Line (CIIL).	Charge Total. Amount Tax Basis Total. Amount Tax Total. Amount Net Including Taxes_ Line Total. Amount	
UN01006517	CIOH_ Exchanged_ Document. Details	注文情報文書	Data for a Cross Industry Ordering Header (CIOH) that is exchanged between two or more parties in written, printed or electronic form.	Identification. Identifier Name. Text Issue. Date Time Purpose. Code Version_ Identification. Identifier	CI_ Note
UN01006534	CIOH_ Supply Chain_ Trade Agreement. Details	注文契約	The contractual terms of the supply chain trade agreement. for this Cross Industry Ordering Header (CIOH).	Buyer_ Reference. Text	CI_ Trade_ Party
UN01006559	CIOH_ Supply Chain_ Trade Delivery. Details	注文納入	Cross Industry Ordering Header (CIOH) supply chain shipping arrangements and movement of products and or services including despatch and delivery.		CI_ Trade_ Party

Unique UN Assigned ID	Dictionary Entry Name	Japanese Business Term	Definition	BBIE used	Associated ABIE
UN01006570	CIOH_ Supply Chain_ Trade Settlement. Details	注文決済	The Cross Industry Ordering Header (CIOH) information that enables the financial reconciliation of a supply chain transaction.	Price_ Currency. Code	CI_ Trade_ Payment Terms CI_ Trade_ Payment Means CI_ Trade_ Tax CIOH_ Trade Settlement_ Monetary Summation
UN01006589	CIOH_ Supply Chain_ Trade Transaction. Details	注文情報取引内容	The trade line items, trade agreement, trade delivery and trade settlement details included in this Cross Industry Ordering Header (CIOH).		CIOH_ Supply Chain_ Trade Agreement CIOH_ Supply Chain_ Trade Delivery CIOH_ Supply Chain_ Trade Settlement CIOL_ Supply Chain_ Trade Line Item
UN01006594	CIOH_ Trade Settlement_ Monetary Summation. Details	金額集計	Trade settlement monetary totals specified for this Cross Industry Ordering Header (CIOH).	Line Total. Amount Tax Total. Amount Grand Total. Amount	
UN01006602	CIOL_ Document Line_ Document. Details	注文明細行文書	A document line for this Cross Industry Ordering Line (CIOL).	Line. Identifier	CI_ Note
UN01006608	CIOL_ Supply Chain_ Trade Agreement. Details	注文明細行契約	The contractual terms of a Cross Industry Ordering Line (CIOL) supply chain trade agreement.		CI_ Trade_ Price
UN01006631	CIOL_ Supply Chain_ Trade Delivery. Details	注文明細行納入	Supply chain shipping arrangements pertaining to a Cross Industry Ordering Line (CIOL).	Requested. Quantity Agreed. Quantity	CI_ Supply Chain_ Event
UN01006643	CIOL_ Supply Chain_ Trade Line Item. Details	注文明細行	Information specific to a trade line item reported on for Cross Industry Ordering Line (CIOL) supply chain trade purposes.		CIOL_ Document Line_ Document CIOL_ Supply Chain_ Trade Agreement CIOL_ Supply Chain_ Trade Delivery CIOL_ Supply Chain_ Trade Settlement CI_ Trade_ Product
UN01006650	CIOL_ Supply Chain_ Trade Settlement. Details	決済(注文明細)	The Cross Industry Ordering Line (CIOL) information that enables the financial reconciliation of a supply chain transaction.		CI_ Trade_ Tax CIOL_ Trade Settlement_ Monetary Summation
UN01006656	CIOL_ Trade Settlement_ Monetary Summation. Details	金額集計(注文明細)	Trade settlement monetary totals specified for a Cross Industry Ordering Line (CIOL).	Line Total. Amount	
UN01006660	CIORH_ Exchanged_ Document. Details	注文回答情報文書	Data for a Cross Industry Order Response Header (CIORH) that is exchanged between two or more parties in written, printed or electronic form.	Identification. Identifier Name. Text Issue. Date Time Purpose. Code Version_ Identification. Identifier Response Reason. Code	CI_ Note
UN01006790	Referenced_ Logistics_ Package. Details	物流梱包	A referenced self-contained wrapping or container within which goods can be contained for logistics purposes.	Item. Quantity Type. Code Global_ Identification. Identifier	

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UN/CEFACT Japan Committee
Supply Chain Information Platform Study Group

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